



Handbook on the Economics of Sport

Edited by **Wladimir Andreff** and **Stefan Szymanski**



HANDBOOK ON THE ECONOMICS OF SPORT

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Introduction: sport and economics

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Research into the application of economic concepts to sporting activities has mushroomed in recent decades: whether it be the contribution of sporting activities to economic growth, competition for media rights, labour markets for sports stars or the economic incentives embedded in the structure of league rules. The intent of the present book is to present an overview of research in sports economics at an introductory level – suitable for use, for example, by students on undergraduate courses or researching some background for an essay. It embraces the diversity of modern amateur and professional, individualistic and team sports, American, European and Australian rules and organisation, and macro- and microeconomic dimensions of sports. Its coverage spreads from technical topics (such as sports accounting) to more analytical issues, which have emerged in the economic literature. While research on the economics of sports spans barely more than half a century, there are now a number of major research areas. These encompass the economic significance and impact of sport, demand for sport, costs and benefits of sporting activities and events, the governance model of sport and the role of the state, the economic theory of tournaments and its application to individualistic and team sports, competitive balance and the theory of sports leagues and teams, the labour market implications of professional sports, and some problems raised by ‘drifting off’ sports (those sports that go drifting off from their ethics, due to doping, match fixing, corruption and so on), some crucial determinants of which are economic.

A Brief Historiography of the Economics of Sports

The emergence of the economics of sports is usually traced back to 1956 in the United States. The founding father is Simon Rottenberg, from the University of Chicago, with a seminal article devoted to the baseball players’ labour market (Rottenberg, 1956). From the very beginning, sports economics had a tight link with labour economics. However, Rottenberg also attempted to define the nature of the product of a sports league, and stressed the importance of uncertainty of outcome and the limitation of arrangements that would concentrate player talent in a single profit-maximising team. Therefrom, he expressed what remains famous as the Rottenberg invariance principle about talent distribution across teams in a league, somewhat anticipating the Coase theorem (Coase, 1960). So, from its inception, sports economics in North America was concerned with economic organisation, the microeconomic theory of the firm and market competition.

To be fair, we should mention two other American frontrunners. Jay Topkis (1949) had already tackled the issue of monopoly in professional sports even though the article was published in a law journal and, in the same year as Rottenberg’s article, Paul Gregory (1956) also published a study for the government on the baseball players’ labour market. The next step is a paper by Walter Neale (1964) which is the starting point of the theory of professional sports leagues, since it differentiates sporting competition (and the so-called ‘competitive balance’) and market competition (and economic equilibrium). He

argued that, while teams compete on the field, one team could not dominate its competition if the league is to be successful in terms of sales and profit. Unlike in most industries, the firms (clubs) in a sports league must collude to balance the competition. The micro-economic theory was presented more rigorously by El-Hodiri and Quirk (1971), which presents one of the first formal economic models of a sports league.

Sports economics in the United States has focused primarily on professional sports. Not surprisingly, the first article published by a Canadian economic journal in the field (Jones, 1969) analysed the economics of professional hockey. In the first twenty-five years research progressed quite slowly. For example, one of the first American books devoted to the economics of professional team sports (Demmert, 1973) contains no more than eight references to publications in sports economics, the rest referring to the microeconomics of imperfect competition, American capitalism and qualitative economics. Perhaps the most influential publication of the period was *Government and the Sports Business*, edited by Roger Noll (1974), a book resulting from a conference of experts on the economics of sports held at the Brookings Institution in December 1971. Its bibliography contains about 25 publications in sports economics, although nearly half of them were published in law journals, mainly on antitrust analysis.

Noll's book seems to have acted as a springboard for the development of the American literature in the economics of sports. It opened the door to studies of demand for sport (attendance, price setting), sports broadcasting and sponsorship, and subsidies of stadiums and sports arenas. In addition to these areas, racial (and later gender) discrimination in the labour markets for players became a major topic (and issue) in North American economics of sports. This topic developed largely out of the innovation of Gerald Scully (1974) who showed how the marginal revenue product of a player could be estimated by a two-stage process (estimating first the contribution of player performance statistics to wins, then the contribution of wins to generating revenues). It was quickly recognised that this would also provide an explicit test of racial discrimination if members of a minority were paid less for a given contribution to wins.

Perhaps the main reason why sports economics developed in the United States was the growth of demand for antitrust analysis based around the reserve clause and related issues. Moreover, the clubs and leagues themselves supported these developments by hiring economists to present their arguments and engaging in the public policy debate with Congress. In Europe those who controlled sporting organisations tended to adopt a more secretive approach. Litigation was limited and, even where it arose, economic analysis was not widely used. Public policy debates on sport were almost unheard of.

None the less, the American research agenda started to be noticed in the UK at the end of the 1960s. Peter Sloane, a labour economist, was inspired by Rottenberg's work to apply economic analysis to the labour market for English football players in his first sports publication in 1969. This came six years after the 'retain and transfer' system, English soccer's version of the reserve clause, had been successfully challenged in court and nine years after the maximum wage had been abolished. A further article in 1971 established a view that has been widely held ever since – that European clubs are not so much interested in profits (as is typically assumed in the United States), but rather behave like utility or win maximisers. In the 1970s and 1980s, a small group of researchers developed the analysis of sport based on UK data (typically either English or Scottish football), dealing primarily with issues relating to demand and competitive balance, for example, Hart et al.

(1975), Bird (1982) and Jennett (1984). Many of these authors later left the economics profession and the economics analysis of sport in the UK only started to move forward again with the emergence of a new generation of researchers in the 1990s.

Developments in the UK and America tended to follow what might be thought of as the Anglo-Saxon approach to economic analysis. In Europe outside the UK, sociological currents were much more in evidence. The seminal work is Volpicelli (1966) who examined the economic relationships between modern sports and the manufacturing industry. He argues that modern sport has fed off advances in technology associated with modern industrial capitalism, leading to the 'commodification' of sport. Volpicelli's book influenced the emergence of a French 'school' of sports economics along with the writings of some sociologists. Following Pierre Bourdieu's theses (1979) on social differentiation, the French sociologist Christian Pociello (1981) differentiated sports according to a number of social and economic factors. In the French context, these factors include the distribution of the state budget across sports, the role of technology and the influence of industrial patrons which determine the different rates of growth rates of different sports practices (Andreff, 1981).

Volpicelli contended that sports competition, with its rituals, its rules, its training techniques and its shows, duplicates industrial organisation and the division of labour in factories. This analysis was taken up by the Marxian sociologist, Jean-Marie Brohm (1976), who argued that since modern sport is embedded in capitalist economic development, it evolves according to the same driving forces, namely competition and the need to obtain an economic return. The production of sporting performance (value) is ranked alongside the production of market commodities. The creation of sporting value, like economic value, requires the input of working time under an increasing returns technology, so that the stadium becomes a sort of industrial manufacture equipped with running machines, jumping machines, football-playing machines. Thus the early French economics of sports contained a provocative mixture of sociology and economics.

After 1977 the field developed rapidly in France through a series of dissertations: a Master's dissertation at the University Paris 1 investigated the economics of professional cycling (Reydet, 1977); a PhD dissertation which launched the creation of a nationwide sport accounting system was published (Malenfant-Dauriac, 1977); another by Gerbier and Di Ruzza (1977) developed an economic analysis of the ski industry (which was both French and globalised); and the same year, a working group started its meetings at Grenoble University, developing a similar approach to other sports. This generated another PhD dissertation analysing the convergence and conflict of interests in the cycling business, and the peculiar role of the Tour de France (Calvet, 1981). In 1978, a PhD dissertation applied Gary Becker's notion of human capital to a demand and supply analysis on the sports labour markets (Fouques, 1978). Yet another dissertation was submitted on the determinants of the demand for sporting goods (Sobry, 1982). Last but not least, a research centre on the law and economics of sports was created at Limoges University, where the first course in the economics of sports was started.

After planting such seeds, a big crop was harvested. Although published later (1983), Jean-François Nys's PhD dissertation (1979) provided an economic analysis and modelling of public subsidies to French amateur and professional football clubs that took into account socioeconomic explaining factors. The Master's dissertation by Jean-François Bourg (1981, published in 1983) was coming closer to the American literature on the

football (soccer) players' labour market but with a specific French flavour, since it focused on the socioeconomic differentiation among players and the financial segmentation among clubs, in line with Doeringer and Piore (1971).

Several French contributors to this volume were trained in Limoges, which soon started providing economic analysis for government and sporting bodies. This included a study for the French Olympic committee and sports federations on management training and accounting systems for non-profit-making sports associations (Andreff, 1980), and the role of voluntary work in sport (Andreff and Nys, 1984). Andreff (1985) analysed the impact of industrial firms on sport. In a paper on the state of art in the French economics of sports, nearly 100 articles, books and PhD dissertations were listed 10 years ago (Andreff, 1995). The major areas covered were industrial economics, public policy, labour markets, sport facilities and regional economic development, and sports consumption linked to practice. In other words, the French approach to the economics of sports was less focused on professional sports than the North American one, simply due to their lower relative importance in French sport and economy until the early 1990s. Research in other European countries tended to follow this French model.

The German approach requires a special mention. Two approaches have been adopted. One is similar to the Anglo-American analysis (Melzer and Stäglin, 1965), following up on the discussion launched by Rottenberg (1956) and Neale (1964) but within the context of the football Bundesliga. However, just like in France, some roots of sports economics are embedded in socioeconomics, with the first works written and gathered by a sociologist, Klaus Heinemann (1984). He was one of the pioneers in the field. Gärtner and Pommerehne (1978) asked the epistemological question 'is the football spectator an *homo oeconomicus*?' (see also Rittner, 1988). Egon Franck (1995) theorised about management strategies in the team sport industry using the theory of property rights, the principal-agent model, transaction costs and institutional economics. However, the real rocket pad for sports economics was a study led by Wolfgang Weber (Weber et al., 1995) on the economic significance of sport in a reunified Germany, which must be regarded as the first step towards the current macroeconomic modelling of the sports economy and the impact of major sporting events such as the football 2006 World Cup hosted in Germany. Since then, the German literature in the economics of sports has grown very fast and is represented by several authors in this volume.

Finally, in the brief introduction to the roots of sports economics writing it is important to mention Australia. Australian writers were from the beginning familiar with developments in North America and the UK, and brought the early insights of this literature to bear on the unique Australian sports landscape. Dabscheck (1975a and b) was one of the first Australian writers and focused on the economic analysis of the wage determination on the labour market for sportspeople. The early work of Borland focused on the demand for sport applied to Australian rules football (Borland, 1987). Another important Australian study which has had a wider impact was that of Burns et al. (1986) on the Adelaide Grand Prix.

The Recent Scientific and Institutional Recognition of Sports Economics

Since the mid-1990s there has been an explosion of publishing in the sports economics field. Several hundred articles have been published and at least a dozen major books. Over one hundred economists are involved in these publications and their number is growing

every year; 65 of them are contributors to this volume. In recent years the economics of sports has started a process of 'institutionalisation' reflecting its increasing scientific recognition:

- There is now an International Association of Sport Economists, launched in 1999, which holds an annual conference.
- There is a field journal, the *Journal of Sports Economics*, started in 2000.
- There is an increasing number of papers on sports economics that are published in generalist economic journals including the *American Economic Review*, the *Journal of Political Economy*, the *Journal of Economic Perspectives*, the *Review of Economics and Statistics*, the *European Economic Review*, *Applied Economics*, the *Economic Journal*, *Economic Policy*, *Economic Inquiry*, and *Contemporary Economic Policy* (see Zimbalist, 2001 for a useful collection).
- There have now been two survey articles published in the *Journal of Economic Literature* (Fort and Quirk, 1995 and Szymanski, 2003).
- Since 2000 a number of textbooks have been published.

In Europe there has been increasing public sector support for research on sporting issues. Since the 1980s there have been studies sponsored by the Council of Europe, the British Sport Council (now Sport England), the Bundesinstitut für Sportwissenschaften (the central state institute for sports sciences) in Germany, the French Ministry for Sports and the French Olympic committee, its Italian counterpart (CONI), the Idreatforsk in Denmark and so on and so forth.

Sports economics may now be considered a discipline in its own right, rather than merely an adjunct of law (as in the early US literature) or sociology (as in France). Although a number of articles in sports economics are still published in journals such as *European Sport Management Quarterly*, the French *Revue Juridique et Économique du Sport* or journals covering other social sciences applied to sport, the very fact that articles on sports are widely admitted in mainstream economic journals demonstrates its growing recognition as a specialised discipline of economics.

Economic Significance and Demand for Sport

The principal driving force behind the expansion of sports economics has been the rapid growth in the economic significance of sport during the past three decades. Demand for participation in sport, demand for sporting goods, demand for live sports events, and demand for sports broadcast have all skyrocketed since the 1970s in North America, the 1980s in Western Europe and in much of the rest of the world in the 1990s. We can provide some current indicators of the magnitudes of this demand.

Looking first at sporting goods, today, the global market for winter sport goods is over €1.6 billion and the global market for sport footwear is over €20 billion while the global market for all sporting goods is in the range of €150 billion. As far as the service sector is concerned, global spending on sport sponsorship reached almost US\$18 billion in 2003. The global market for TV rights is estimated at over €50 billion per year. The value of worldwide sports TV rights increased by 993 per cent between 1991 and 2001. European sports TV rights sold for about €20 billion in 2002. In 2001, 106 million European households were connected in one form or another to subscription TV (terrestrial, cable or

satellite). In other words, the sports economy takes its share in the contemporary economic globalisation.

The pace of growth is illustrated by the value of Olympic broadcast rights. The summer Olympics in Rome 1960 attracted \$1.2 million TV rights; 40 years later in Sydney, the broadcasting rights sold for \$1332 million (this is equivalent to an annualised growth rate of 19 per cent). CBS had paid \$0.5 million to obtain the exclusive rights to the Rome Olympics for the American market, while NBC bought for \$2392 million the package of the 2000–08 Summer Olympics. The cumulative TV viewing time for the Athens Olympics was estimated at 39 billion hours. Overall revenues of the International Olympic Committee increased from \$14 million in 1973–76 to \$346 million in 1997–2000. The turnover of the football World Cup is \$4 billion. This last event produced a TV rights inflow of €15 million in 1978, and €991 million in 2006. The world audience of the football 1998 World Cup was 50 billion viewers, and 41 billion in 2002. The 2004 National Football League Superbowl was broadcast in 21 languages to 229 countries. The annual share of TV receipts distributed to every American football club has risen from \$45 000 in 1960 to \$73 million in 2004. The overall amount of fees received by the National Basketball Association increased from \$188 million in 1990 to \$660 million in 2002. Broadcasting rights for the Roland Garros tennis tournament cost €39 million and 3 billion viewers watch it in 170 countries. A free event such as the Tour de France draws 12 to 15 million spectators on to the roads every year, and is broadcast by 75 channels in over 170 countries.

At the level of each domestic economy, the sports industry is increasingly important. In Europe, in the early 1970s, the ratio of overall sport expenditures (for goods and services) to GDP was around 0.5 per cent. In 1990, the ratio ranged between 1 and 1.5 per cent of GDP in most European countries. Today it is closer to 2 per cent, on average. In 1997, spectator sports alone contributed \$14 billion to the US economy (0.14 per cent of GDP) and total attendance at sports events represented 41 per cent of the US adult population. The total bill for 29 professional sport facilities that opened in the United States over the 1999–2003 period is close to \$9 billion. The top 20 advertising companies involved in sport have provided about \$2 billion to American sports in 2000. Overall, sport-related expenditures raised over £29 billion in 2000 in England and over €25 billion in France (1.7 per cent of GDP). About 2 million people are employed in the sports economy in the 15 member countries of the European Union – that is, 1.3 per cent of overall EU employment. About 222 000 employees were working in sport in the UK and 95 000 in France in 1998. The broadcasting rights fees accruing to all sports, in 1998, reached \$451 million in France, \$841 million in Germany, \$500 million in Italy, \$261 million in Spain and \$791 million in the UK.

An Overview of the Book

This book is the result of an enterprise initiated by the first editor in the summer of 2002. From the beginning the idea was to put together a collection of monographs on different aspects of sports economics in order to provide the general reader with an introduction and a reference point for the most important aspects of the field. We felt it important to capture the diversity of views present in the literature and to avoid imposing a harsh editorial line. What you will find in this book is not merely the erudition, but also many of the opinions and controversies, of the leading practitioners in the field. The 65 authors

represented in this book can truly claim to represent the field almost in its entirety.² In order to organise the contributions the editors drew up their own categories at the beginning of the project, and these have largely been retained in the final version. The book is divided into seven main parts. Part I deals with sport and the macro economy, Part II with demand for sport in general. Part III looks at issues surrounding cost–benefit analysis of sporting activities and events and Part IV looks at the role of sporting governance and the state. Part V examines individualistic sports, while Part VI looks at team sports. This is by far the largest section of the book, reflecting the preoccupations of the field. We have divided it into two sections, the first of which deals with individual sports and leagues, and the second with the principal economic issues. Finally, Part VII looks at dysfunctions in sports, such as discrimination, doping and corruption.

We cannot claim that there are no gaps in this work, but we believe that a general reader will be able to find a starting point in the book for almost any topic in sport. We do not claim that there is no repetition, but in each case the author has given his or her own distinctive views. In short, we believe that this book is an ideal introduction to an important and growing field. Bon appetit.

Notes

1. Jeff Borland helped both editors in collecting papers by Australian sports economists.
2. Almost no one whom we approached refused to participate in this project. We should, however, apologise to the small number of active sports economists who were not invited to contribute – no slur is intended.

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PART I

SPORT IN THE ECONOMY

1 Sports accounting

Wladimir Andreff

In 1977, a young professor began teaching the first course on the economics of sports in a French Faculty of Economics. The main obstacle to carrying out his duties was the absence of systematically published economic data about sporting activities on which he could have founded his nascent economic analysis of sports. Since then, his efforts have been devoted to supporting and participating in as many attempts at setting up economic accounts of sports as possible. By chance, the same year, the first PhD dissertation on the economic accounting of sports was published (Malenfant-Dauriac, 1977). In the background of what is my personal story, two huge constraints have hindered the development of a nationwide economic accounting of sports. The first one is its cost – and which institution is likely to provide finance – and will not be discussed here. The second one is methodological and provides the core topic of this chapter. To date, there has been no ‘routinised’ publication of national (domestic) accounts covering the whole sports economy in any country at all. The availability of such accounts is a prerequisite to providing an explicit response to queries such as: what is the economic importance of sport in a country’s GDP, what part of overall consumption is devoted to sport expenditures or what is the contribution of the sports goods industry to the foreign trade balance? The next issue is how to classify sporting activities using relevant economic criteria.

Historical Background

In some European countries, a few academic researchers and private consultants have begun to collect data about the sports economy, following the initiative of the Committee for the Development of Sport (CDS) of the Council of Europe, launched in 1984 (and unfortunately phased out in 1995 due to financial cuts). Among the front runners, the United Kingdom published the first report, sponsored by the Council of Europe (Jones, 1989), followed by France with the second CDS report (Andreff et al., 1994). Germany should have produced the third report, but did not, due to cuts in the CDS budget. However, German economists have independently published a first economic account of sporting activities (Andreff and Weber, 1995; Weber et al., 1995). In cooperation with the CDS, Finland, Hungary, Italy and Portugal can be grouped with the other three countries as having been able to provide the most comprehensive data about their sports economy.

The CDS initiative was the springboard for local follow-ups in collecting economic data about sports in the UK (Henley Centre, 1986, 1992), the Netherlands (van Puffelen et al., 1988), Finland (Rissanen et al., 1989), Iceland (Magnusson et al., 1989), France (SEJS, 1991), Switzerland (Jan, 1999) and Germany. In Germany, the follow-up was protracted in view of the country’s application to host the 2006 football World Cup (Ahlert, 2000; Meyer et al., 2000). The initiative has also triggered state or academic efforts to set up sports accounts in countries which were not covered in the CDS survey, such as Slovenia (Bednarik and Simoneti, 1997) and the Czech Republic (Novotny, 1998). Outside Europe,

the most significant attempt relates to economic accounting of the sports goods industry, with an original clustering methodology, and comes from Canada (Saint-Germain and Harvey, 1998).

An Evolving Methodology

Using the normalised system of national accounting

The Jones report (1989) basically aimed at collecting the scarce existing data with regard to the sports economy in nine sampled European countries.¹ However, Jones had chosen to present, as much as possible, all the collected data in a similar framework, that is, the normalised UN system of national accounting. The production of goods and services, the revenue distribution and financial transactions are described in this system through a breakdown of the whole economy into so-called 'institutional sectors': private non-financial enterprises, public enterprises, households, public administration, private administrations, financial institutions and the overseas sector. The accounts exhibit an *ex post* macroeconomic equilibrium (Andreff, 2001), such as the following one for the production of goods and services:

$$Y = C + G + I + \Delta S + X - M$$

where Y stands for gross domestic product (GDP), C for private consumption, G for public consumption, I for gross fixed capital formation, ΔS for stock variation, X for exports and M for imports. $Y - M = TDE$ (total domestic final expenditure), is the most often calculated aggregate in economic accounts of sports. Moreover: GDP at market prices + Net property income from abroad = GNP at market prices. And: GNP at market prices - Consumption of fixed capital - Adjustment to factor cost = Net national product (or national income). The revenue distribution account shows how national income is distributed across profits, wages, taxes, subsidies, pensions, allowances and rents. Financial transactions describe how the different sectors with excess finance transfer financial flows to the sectors in need of finance.

In fact, this overall accounting framework of a domestic economy has to be restricted to the sports economy alone. The accounting delineation of the sports economy requires both a definition of sports and an aggregation into institutional sectors of all those people and activities participating in the sports economy. The Jones report retained the Rodgers (1977) definition, which considered the following as sporting activities: game sports, displacement or fitness sports, survival sports and national (traditional) sports. This definition is not without its limitations since it excludes some popular sports such as darts in England (Gratton and Taylor, 1985) or the so-called 'intellectual' sports (chess, bridge and so on). As to the aggregation of economic agents participating in sporting activities, the Jones report followed the Henley Centre's (1986) proposal and divided the sports economy into seven sectors: (i) central government; (ii) local government; (iii) commercial sport; (iv) commercial non-sport; (v) the consumer sector; (vi) voluntary clubs and governing bodies (national federations); and (vii) the overseas sector. Only the English contribution to the Jones report, backed by the Henley Centre study, was really able to fill most of the headings with data for each sector and to feature intersectoral economic relationships in a matrix of monetary flows, each sector's expenditure being the income of another sector (for instance, the purchase of an admission ticket is an expenditure for the

Table 1.1 Sport-related income and expenditure in England in 2000 (£ million)

	Income	Current expenditure	Capital expenditure
Households	5 836	11 495	
Commercial sport	10 580	12 535	499
of which:			
Spectator sports	1 824	1 773	125
Participation sports	691	691	67
Media and distribution	3 470	1 151	62
Sport-related suppliers	2 858	282	137
Commercial non-sport	4 957	–	–
Voluntary sector	3 286	1 586	161
Local government	1 428	1 553	208
Overseas	2 214	1 953	7
Total	28 301	29 122	875

Source: Cambridge Econometrics (2003).

consumer sector and an income for commercial sport). The intersector matrix is a test of absent double counting. However, the borderline between commercial sport and commercial non-sport appeared to be blurred in the English contribution,² and even more so in other countries' studies. The same methodology is at work in the recent assessment of the value of the sports economy in England by Cambridge Econometrics (2003) and still exhibits an income–expenditure imbalance (Table 1.1).

The Jones report provided for the first time a harmonised estimation of the economic importance of sport in some European countries (between 0.9 per cent of GDP in Finland and 1.8 per cent in the Netherlands), and the share of sport expenditures in overall consumption (from 1.1 per cent in Denmark to 3.6 per cent in the French community of Belgium), in 1985. The focus on consumption is a result of the decision made by Jones to focus on expenditure (and not, for instance, on financing and income). Thus, one of the problematic results is that, for all sampled countries, the aggregate expenditure is different from the aggregate income of the sports economy. Moreover, several data were expert 'guesstimates' or very crude estimates, and some double counting could not be avoided. Even on the expenditure side, the data were not comprehensive since gambling, sports newspapers and publishing, transport costs linked to sport participation, and school and university sports were not taken into account. Nevertheless, it is one of the merits of the Jones report that all these methodological limitations were revealed in the data gathered at each country level.

After a backseat participation in the Jones report, the French State Secretary for Youth and Sports decided to improve the measurement of the sports socioeconomic dimensions in France by launching a survey and conference on sports financing (SEJS, 1991), and applying to prepare the second CDS report. Broadly speaking, the methodology was the same as in the Jones report, but the focus was more on financing than on expenditure. The major query was: where does all the money flowing into the sports economy come from? In practice, this broad view of sports financing was connected with the total domestic

Table 1.2 The distribution of sports financing in France, 1990–2001 (%)

Year	State	Municipalities local authorities	Enterprises media included	Households
1990	11.5	37.6	8.5	42.4
1997	10.3	32.2	8.1	49.4
1999*	11.2	31.3	6.0	51.5
2000	11.1	31.5	7.0	50.4
2001	11.0	30.7	7.9	50.4

Note: * Since 1999, the distribution has not been directly comparable to previous years due to a slight change in methodology.

Sources: SEJS (1991) and MJS (2003).

expenditure concept, once it was assumed that any monetary unit flowing into sports would be spent for some sporting purpose (practice, events, federations and so on). All the economic agents providing some finance to sports were aggregated into four 'sectors': the state (all ministries spending money for sports), municipalities and other local and regional authorities, enterprises (including media) and households. Table 1.2 shows the distribution between these four sources of sports financing in France in 1990, and some further updates confirm the 'privatisation' of sports finance (enterprises + households) in the long run.³

Not surprisingly, the same aggregation into four sectors was adopted in the second CDS report (Andreff et al., 1994), instead of the seven sectors of the Jones report, since the CDS had switched meanwhile from an expenditure to a financing approach. Another difference between the two CDS reports is that the second one was based on a questionnaire (16 questions about sports financing, production and trade) sent to 12 sampled countries.⁴ The basic idea was not only to collect all the existing data, as in the Jones report, but also to ask each country (their sports councils, ministries, experts and so on) to 'produce' missing data and integrate them into the normalised accounting framework. This methodology soon reached its own limits since most sampled countries were not able to provide data for all 16 questions. The first six sets of questions were about the sources of financing (where does the money come from?): (i) the state; (ii) local authorities (municipalities, districts, regions); (iii) sponsorship; (iv) sport at the workplace; (v) TV broadcasting rights (3 + 4 + 5 = Enterprises); (vi) households (expenditures on sports goods and services, betting and gambling). Some questions sought to find where the finance was flowing to in the sports economy: (vii) high-level sport participants; (viii) sports federations; (ix) clubs and associations; (x) sports facilities; and (xi) sporting events. The expectation was that, in each country, financing (i–vi) should be equal to expenditures (vii–xi) and, thus, would avoid the imbalances and double counting witnessed in most countries surveyed in the Jones report. However, for the reference year 1990, in all countries, expenditures were found to be smaller than the available financing, in the French study. The experts have attempted to explain this discrepancy as follows: (a) data transparency and quality are usually lower, in any country, as regards expenditures compared to financing; (b) some of the sports goods purchased by households are

not actually used for sports (and therefore leave the sports economy); and (c) the concept adopted for sports financing (including the financing of all assumed households' expenditures on sporting activities) is probably too wide. Some indirect financing of sports (for example, free household access to some sports facilities or sporting events, such as the Tour de France) will not appear in the sports economy on the household expenditure side; on the other hand, some household expenditures expected to finance the sports economy result in money flowing out to various industries and services (transportation, trade, communication and so on).⁵ The last part of the questionnaire concerned: (xii) domestic production of sports goods; (xiii) communication business involved in sports; (xiv) the sports labour market (employment in the sports economy); (xv) the voluntary sector (voluntary workers in sport); and (xvi) the participation rate (the ratio between the overall number of sport participants and population).

Despite some methodological differences, the second CDS report confirmed the Jones figures as regards the economic significance of sport in European countries. Across the seven countries common to the two CDS reports, the economic importance of sport ranged from 0.6 per cent of GDP in Denmark to 1.8 per cent in Portugal, in 1990. All other sampled countries were in the same range, except Switzerland (3.5 per cent due to the popularity of skiing and provision of skiing facilities). In fact, with questions xiv–xvi, the second CDS survey was completing the normalised accounting framework with information usually required when a satellite account (or system) for the sports economy was being set up.

A satellite account for the sports economy

The first satellite account for the sports economy was set up in France for the year 1971 (Malenfant-Dauriac, 1977). Another was published more recently in Germany (Weber et al., 1995). A satellite account utilises the techniques of national accounting to cover a specific area (health, education) in the economy with some adapted concepts and classifications that cannot be found in the normalised central UN system of national accounts. Thus, a satellite account of sports can gather – when other data are missing – all available information about costs, expenditures, financing, the factors of production, and about who exactly uses sports goods and services. All gathered data are classified within the national account framework, although some magnitudes are registered in non-monetary units. This is the case where the market price for an item is unknown and when there is simply no price that can be put on a non-tradable good or factor of production (for example, voluntary work in sport). Socio-demographic data are often included in a satellite account.

In the pioneering work by Malenfant-Dauriac, the sports economy was divided into six sectors: (i) the commercial sector (non-financial enterprises of the normalised accounting system); (ii) households; (iii) public administrations (central and local); (iv) sports associations (private administrations); (v) financial institutions; and (vi) the overseas sector. In 1971, the economic importance of sports in France was found to be 0.5 per cent of GDP, the consumption of goods and services was about 0.8 per cent of overall household consumption, and investment in sporting activities reached 0.9 per cent of gross fixed capital formation. The non-monetary section of the satellite account was very simplified. For instance, it estimated that the number of voluntary workers involved in sports was nearly 600 000 people. If one were to translate such information into monetary units,

some awkward assumptions must be made about the value of voluntary work (minimum wage, the average revenue of sports teaching and so on).⁶ However, the major shortcomings of a satellite account of sports is that setting it up is either time consuming (five years of individual research in the aforementioned case) and/or a financially expensive undertaking. This is why there have been so few attempts to develop satellite accounts for the sports economy.

In the German satellite account for the sports economy in 1990, the definition of sport is very wide, because it encompasses activities such as walking, bathing, keep fit and bowling, and because it considers active and passive (from time to time) as well as self-organised sporting practice (result: over 70 per cent as a participation rate). Based on a questionnaire sent to a sample of households, the demand for sports goods and services emanating from sport participants was estimated to be DM36 billion. The supply by the state, municipalities, sports federations, commercial sport, the sports goods industry, and sports self-consumption represented 1.4 per cent of GDP in the reunified Germany and provided 700 000 jobs (2 per cent of total employment). From a methodological point of view, the German satellite account is not more advanced than the Malenfant-Dauriac exercise. It has been criticised (Kurscheidt, 2000) for not conducting a consistency test between different estimated data, and for neglecting a number of intermediary consumption expenditures involving inter-industry relationships with the sports economy, and thus for underestimating the real economic importance of sports.

The input–output matrix: the relationships between the sports economy and different industries

The input–output matrix (IOM) gives a picture of the domestic economy as linking different industries into an overall interdependent system. A vertical row of the IOM, say for industry j , describes:

$$X_j = \sum_i X_{ij} + A_j + W_j + T_j + P_j \quad (1.1)$$

where X_j is the output of industry j , $\sum X_{ij}$ is the total intermediary consumption of products i by industry j , A_j is the consumption of fixed capital (depreciation) in industry j , W_j the total wage paid in industry j , T_j taxes paid by industry j , and P_j the producers' profit in industry j , while the value added of industry j is $V_j = W_j + T_j + P_j$.

A horizontal row of the IOM describes how the value of an industry i is distributed across the intermediary consumption X_{ji} of all the industries in the economy and the final demand:

$$X_i = \sum_j X_{ji} + C_i + G_i + GCFC_i + \Delta S_i + E_i \quad (1.2)$$

where C_i stands for the private final consumption of the product i , G_i for its public consumption, $GCFC_i$ for gross fixed capital formation in product i , ΔS_i its stock variation, and E_i exports of i , while the final demand of the product i is $Y_i = C_i + G_i + GCFC_i + \Delta S_i + E_i$. The IOM not only builds up the overall *ex post* macroeconomic equilibrium – including the equality between the total value added and the total final demand for

all industries (compare (1.1) and (1.2)) – but also a consistent interdependence across all industries.

A simulation based on the Canadian IOM (Saint-Germain and Harvey, 1998) was used to depict the ‘industrial cluster’ of sports (that is, the subset of all industries having some significant relationship with sporting activities and their inter-relationships). Two core industries in this cluster are the sports goods industry (industry 147 in the IOM classification adopted by Statistique Canada) and the sports services industry. The latter is identified with industry 203: ‘Theatres, sports and other leisure services’, whose production comprises two-thirds of sports services. An exogenous increase in the final demand addressed to these industries was simulated with a computer to see which industries (limited to the first 15) were the most interlinked. Calculations were done for the year 1990. The 15 most interlinked industries represented 80.4 per cent of total purchases of the sports goods industry: the sports goods industry itself (58.5%), wholesale trade (5.7%), the steel industry (2.2%), electrical energy (2.0%), financial and estate agencies (1.9%), banks (1.3%), the plastic industry (1.2%), telecommunications (1.1%), professional services supplied to enterprises (1.0%), the paper and cardboard industry (1.0%), lorry transportation (0.9%), other plastic products (0.8%) and oil and gas (0.8%). The 15 most interlinked industries comprised 87.5 per cent of total purchases of the sports services industry: the sports services industry itself (67.6%), financial and estate agencies (3.9%), electrical energy (3.0%), professional services supplied to enterprises (2.6%), wholesale trade (2.0%), retail trade (1.7%), telecommunications (1.6%), miscellaneous services to enterprises (1.4%), engine rental (1.2%), banks (1.2%), repairs (0.8%), accommodation services (0.8%), cattle breeding (0.7%), the computer industry and services (0.6%), and trade (0.6%).

Such a use of national accounting shows not only the economic importance of sports but also the overall impact of sporting activities on the rest of the domestic economy. One limitation of the simulation is that a number of sports goods and services are produced outside the two industries 147 and 203. For instance, parts of the clothing industry, footwear industry, shipbuilding, automobile industry and so on also produce sports goods, and their production is not taken into account when only these two industries are selected. However, the methodology is stimulating for further accounting exercises.

Finally, a simulation model, SPORT, integrates the sports economy into the IOM of Germany, starting from the 1993 IOM (Ahlert, 2000; Meyer et al., 2000). A sub-IOM, specific to the sports economy, is integrated into the overall IOM set up by the Statistisches Bundesamt for the whole German economy. This specific submatrix encompasses seven rows, in addition to the 58 rows of the overall German IOM: (i) bicycles; (ii) sports equipment, (iii) sports footwear; (iv) sportswear; (v) commercial sports services; (vi) sports services supplied by clubs and associations; and (vii) sports services supplied by public and local authorities (the federal government, *Länder*, municipalities). The aggregated value added of these seven specific sports industries was calculated for 1998 at about 1.4 per cent of GDP (a higher economic importance than the German textile industry, for instance). The SPORT econometric simulation model relies on the relationships between the seven specific sports industries and the 58 other industries in the overall IOM (in its most detailed version the model contains 150 variables and 36 000 equations, covering the 65 industries). It was used to calculate that in 1998, 2.4 per cent of all those employed in

Germany worked in the seven sports industries. An accounting exercise simulated the prospective economic impact of the 2006 football World Cup on the German economy. Another simulation (Ahlert, 2000) showed that a reorientation of the total household demand for sporting activities from the clubs to commercial sport would trigger, as of 2010, a slight increase in GDP due to the substitution of high value added and profitable commercial organisations to lower value added and less efficient clubs relying on voluntary work. On the other hand, efficient commercial organisations would reduce intermediary consumption, compared to the clubs, thus the demand for inputs would fall and 15 600 jobs would be lost between 2000 and 2010 in the whole German economy. The main problem with the SPORT model is to accurately revise the relationships (the so-called 'Leontief coefficients') between the 65 industries, in so far as inter-industrial interdependencies have been changing since 1993.

The Issue of an Economic Classification of Sporting Activities

Since 2000, the only country that has produced an annual publication of a simplified domestic macroeconomic account of its sports economy is France. The data collection was 'routinised' after an agreement between the Ministry for Sports and INSEE, the national institute for statistics: every year the same data relating to the sports economy are extracted from all the data collected by INSEE, transferred to the ministry's statistical service, computed and published by the latter. The methodology used is the first one that we have presented above, with a focus on both expenditure and financing (MJS, 2000, 2001, 2002, 2003). The published accounts show a breakdown of households' consumption of sports goods and services, state expenditures for sports, and foreign trade in sporting goods. Such a detailed breakdown is not yet available for the sport accounts of municipalities and local authorities, enterprises involved in sports, and clubs. Here the experts have to bridge the gap between microeconomic information gathered in decentralised accounts (of municipalities, clubs and enterprises) and the macroeconomic framework of the national accounting system. This is earmarked as the next step in setting up the French accounting for the sports economy.

Another relevant issue is to break down the published macroeconomic data by sporting activity according to the so-called Classification of Physical and Sporting Activities (CPSA). The French 2000 survey on sports practices, covering all physical and sporting activities, reported by people aged from 15 to 75, resulted in a grouping of the responses into 34 activity families. These 34 families were defined so as to be consistent with the areas covered by single-sport federations, and to provide a parallel view of both sporting activities in general and specifically 'institutionalised' sports practices (through an affiliation to a sports federation). However, 34 families are still too many to give the sports overview required in order to break down economic accounts. Therefore, a nine-group system has been developed by an interdisciplinary task force at the Ministry for Sports based on demographic and economic criteria using a data analysis technique – an ascending hierarchical classification. Although the use of such a method does have the advantage of objectivity, the classification is not completely unbiased and depends in particular on the criteria selected: not only do they need to be relevant for analysis purposes, but they must also correspond to existing information for each activity family. The selection of criteria for drawing up the classification is therefore dependent on the quality and reliability of statistical sources.

Table 1.3 A nine-class CPSA

Classes	Families	Main common criteria
Independent leisure activities requiring equipment (LEA)	Fishing, body building, rock climbing, roller skating, ten pin bowling	Few high-level participants Limited media coverage
Social and leisure activities (SOL)	Walking, bowls, table tennis, badminton, dancing	Many participants Limited media coverage
Highly organised activities (HDO)	Judo, other martial arts, fencing, shooting, aeronautical sports	Disciplines requiring proper training Limited number of participants
Individual sports requiring special equipment (INI)	Ice skating, water skiing, rowing, canoeing, golf	Activities requiring special equipment Practised individually
Equipment-intensive, open-air sports (DEQ)	Horse riding, sailing	Activities requiring highly specialised equipment Well-financed federations
Individual mass-participation activities (IDM)	Swimming, cycling, track and field sports, gymnastics, winter sports	Very popular activities Well-financed federations
Motor sports (MEC)	Motor sports	Activities requiring specialised equipment Special identity
Semi-professional sports (SPR)	Tennis, basketball, volleyball, other team sports, combat sports	Extensive media coverage Not practised individually Significant professional budget
Professional sports (PRO)	Football, rugby	Extensive media coverage Significant professional budget

Eventually, 12 criteria were selected: type of practice (individual, duel, team); equipment required; number of participants aged between 15 and 75; proportion of women; number of registered participants; average age of participants; proportion of young people among registered participants; number of people involved in this sport practice at a high level; federation budgets; the federation budget for professional practice; hours of television broadcasting on terrestrial networks; and press coverage in *L'Équipe* (the French sports newspaper).

Crossing the 12 criteria with the 34 activity families, the result is a CPSA in nine classes (Belloc et al., 2002) (see Table 1.3).⁷

Since 2002, some partial accounts have been published according to this classification (see Table 1.4 for an example).

Table 1.4 Sports participants and sports footwear purchases by classes of the CPSA

Classes	No. of 15 to 75 participants, 2000 ¹	No. of registered participants, 2000	Sports footwear purchase ²	
			2000	2001
IDM: individual mass participation	45 800	1 204	192	211
SOL: social and leisure	12 300	1 088	129	138
SPR: semi-professional	7 300	1 985	69	91
PRO: professional	5 100	2 440	42	43
LEA: independent leisure with equipment	9 500	200	35	40
INI: individual with special equipment	1 900	531	11	5
DEQ: equipment intensive, open air	1 800	691	0 ³	0 ³
HDO: highly organised	1 200	1 325	0 ³	0 ³
MEC: motor sport	400	107	0 ³	0 ³
Total	85 300⁴	9 571	477	528

Notes

1. In thousands.
2. In million euro.
3. Negligible.
4. Including participants in more than one sport.

Sources: MJS (2002, 2003).

Conclusion

The establishment of a comprehensive national accounting system for the sports economy is still in its infancy. Many improvements can be made to the present system, including the development of a regional economic accounting of sports (for France, see Gouguet, 1999) that must fit with the national accounts. For instance, the macroeconomic evaluation of sports in England (Cambridge Econometrics, 2003) is broken down by regions.

Notes

1. Belgium (French and Flemish communities), Denmark, Finland, France, Federal Republic of Germany, Iceland, the Netherlands, Portugal and the United Kingdom.
2. It has been revised from one Henley Centre study (1986) to the other (1992).
3. See Chapter 24.
4. Five countries were added to the sample (Hungary, Italy, Spain, Sweden, Switzerland) and two countries (Iceland, the Netherlands) omitted, compared to the Jones report.
5. Such a conclusion calls for an inter-industry approach of the economy of sports (see below).
6. Andreff and Nys (1984) estimated roughly that voluntary work was bringing to the French sports economy from 20 to 30 times the economic value of the state budget for sports (calculations were based on evaluating voluntary work as if it were paid at the regulated minimum wage).
7. A detailed volume of methods (prepared by W. Andreff, B. Belloc, C. Blum, J. Camy, G. Johannet, E. Livernaux and O. Sautory) is available on request at the French Ministry for Sports.

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2 The production of professional team sports

Jeff Borland

The basic building block of professional team sport is a contest between two teams. Almost universally this contest will be part of an organised competition – as Scully (1995, p. 22) notes ‘Sports fans appear most interested in organised championships’. Noll (2003, p. 532) provides a summary of the benefits of an organised competition:

Leagues create the opportunity to market a game as both the contest itself and one of a series that leads to a championship. Because the quest for a championship generates fan interest, league matches leading to a championship are covered more exclusively by the media, which thereby provide free promotion. Leagues also reduce transactions costs by enabling teams to coordinate scheduling, rather than relying on a series of bilateral contests.

Production of a sporting contest, and more generally a sporting competition, will require four main components. A first component is the set of players able to be chosen to participate in the sporting contest. A second component is the clubs that will organise players into teams to participate in the sporting contest or competition. A third component is a sporting league that will have responsibility for the design and management of the sporting competition. A fourth component is the stadium or set of stadiums where contests between competing teams will occur, together with any equipment required for the contest. A sporting contest consisting of these components, is available to be ‘consumed’ by spectators who attend the stadium as an audience.

There are a range of other parties that – while not directly involved in the sporting contest – may nevertheless have associations with the contest. First are the suppliers of labour (players) to the competition. These suppliers may be minor league professional clubs, junior amateur clubs, or college clubs. Often the suppliers may be owned by or be formally linked with a club in the primary professional competition. An example would be the ‘farm’ system in baseball. Second are consumers of the sporting contests – fans who attend matches, and viewers who watch broadcasts of matches through media such as free-to-air TV, pay-TV or the internet. Third, the sporting contest or competition may be an input to more broadly defined commodities – for example, jointly with media broadcast infrastructure it allows production of TV or radio broadcasts of the sporting contest, and expert analysis of contests and the competition that is broadcast or published in the media; jointly with producers of other goods or services it may constitute the basis of advertisement for those goods or services; or jointly with a stadium it may comprise part of a package of entertainment events. In this way other parties – such as media, sponsors and stadium owners – may have an association with the sporting contest. A fourth party is government. The regulatory framework for competition in the economy that a national government establishes is likely to have a significant effect on the nature of a sporting competition – for example, through restrictions on how a sporting competition is allowed to regulate mobility of players between teams, and negotiation of player salaries. Local or state governments in some cases seek sporting clubs to provide part of

the ‘amenity’ of living in a particular city or state, and will provide government support for this to occur.

The structure of a sporting competition describes the process by which players and clubs ultimately come together in a contest between two teams. A summary of the main dimensions of the structure of a sporting competition can distinguish between the product market, the labour market and the capital market.

The structure of the product market in a sporting competition incorporates:

1. Structure of competition

- playing rules for the contest – for example, size of playing field, length of contest, and how the winning team is determined;
- the organisation of the competition – for example, home-and-away competition or elimination/tournament format; whether to have a finals or play-off series to determine the league champion; and timing of matches.

2. League structure

- composition of the league – for example, number and geographic location of teams, and specification of conditions for participation in a league such as a playing stadium with a minimum seating capacity;
- organisation of the league structure – for example, single division or multiple divisions; and whether to have promotion/relegation between leagues.

3. Revenue

- attendance price – for example, pricing structure for single game and season tickets, or for different types of seating;
- sales of radio/television/internet rights – for example, whether to have centralised (league-level) or decentralised (team-specific) negotiation of broadcast rights;
- sponsorship/merchandise sales – for example, whether to have centralised and/or decentralised sponsorship and sale of merchandise, types of sponsors allowed, and types of rights able to be sold;
- allocation of league revenue from attendance and payments for media broadcast rights and sponsorship to clubs – for example, revenue sharing arrangements whereby a home team must pay a fraction of the attendance revenue to the away team; or a league may engage in revenue equalisation through the share of revenue from the collective sale of media broadcast rights.

The structure of a labour market in a sporting competition incorporates:

- player assignment to teams: this involves the method of allocating new players between teams, and regulation of inter-team mobility by existing players. Examples of the former are use of a draft system to assign new players between clubs, or geographic zones from which clubs are allowed to recruit new players. Examples of the latter are reserve clause type restrictions on or a free agency system for player mobility between teams, or regulation of the types of player trades that are allowed such as time restrictions on when trade can occur or what payment mechanisms can be used;
- player payment and wage determination process – for example, salary cap arrangements; periodicity of wage-setting; and role of player agents and unions; and
- size of player list – for example, whether a maximum size of player list is specified.

The main aspect of the capital market structure of a sporting competition is the types of ownership arrangements that are allowed – such as whether teams are privately or league owned.

One issue not addressed in this taxonomy of structure is governance: the way in which league rules and policies are decided. The critical dimension of governance is the degree to which there is vertical integration between the organisation of a sporting competition and the operation of clubs within that competition. Ross and Szymanski (2003) provide a thorough review of determinants of an optimal governance structure. Their study emphasises the concern that vertical integration will be a major source of inefficiency in sporting competitions by allowing relaxation of ‘downstream’ competition between teams. For example (p. 11):

It is clear that vertical integration into the upstream services by the clubs – scheduling, marketing, and organizing the competition itself – is a plausible way to relax economic competition between teams, resulting in agreements on matters like exclusive territories for live gate and television rights sales, labour market restraints, and revenue sharing.

What determines the structure for production of a sporting competition that exists at any time? Obviously there is no simple answer to such a question. For most professional sporting competitions the multiplicity of forces that have affected its evolution could only properly be drawn out in a book-length study (see for example, on baseball – Seymour, 1960; and on Australian Rules football – Sandercock and Turner, 1981). Nevertheless, it does seem possible to identify some key factors.

Specifically, it seems that there are two fundamental drivers of the evolution of production of most professional sporting competitions. First, there are the objectives of players, and sporting clubs and leagues. These objectives determine the way that clubs interact among themselves and with players, and how different sporting leagues will compete for fan interest. For example, clubs that have profit maximisation as an objective will seek to influence the evolution of their league in a way that creates the highest level of profits – such as seeking a league regulatory structure to minimise player bargaining power and wages. Second, there is the nature of the ‘audience’ or fan interest for a sport. Either implicitly or explicitly it seems that much about the evolution of production of sporting competitions can be understood as attempts to maintain or increase fan interest. For example, ultimately the basis for league strategies to increase competitive balance or to maximise the quality of play in contests is that these factors are thought to determine fan interest.

Large adjustments in the production of a sporting contest or competition appear to have occurred most often where the nature of the existing competition was clearly not meeting objectives of players and/or clubs (such as the evolution of the National League of Professional Baseball Clubs from the free-for-all that had previously existed – see Seymour, 1960); or where the existing competition was not satisfactorily meeting the demands of the potential audience, often leading to the threat or occurrence of new entry by another league (such as developments in international cricket following the World Series Cricket revolution – see Haigh, 1993).

In recent years arguably the main stylised fact regarding the production of professional team sports has been the Atlantic institutional divide (see Hoehn and Szymanski, 1999; Barros et al., 2002). In simple terms the ‘divide’ is that North American competitions tend to be ‘closed’ with the same teams contesting the championship in a league in each season,

whereas in Europe an 'open' system of promotion/relegation between divisions is the norm. Furthermore, labour markets in North America are highly regulated with restrictions such as player drafts and salary caps, and product market restrictions such as revenue sharing, whereas in Europe these types of restrictions have been either entirely absent or much less prevalent.

The Atlantic divide in institutions raises a puzzle for economists: 'We are used to thinking that one type of institutional arrangement is likely to dominate another in any given context, rather than co-existing' (Barros et al., 2002, p. 15). The motivation for the 'high regulation' environment that exists in North America is generally summarised as being that: (i) demand depends on competitive balance; (ii) competitive balance is promoted by an even distribution of resources between teams; and (iii) regulations such as player drafts achieve an even distribution of resources between teams. Hence, it might be predicted that the 'high regulation' sporting competitions in North America should be more successful than 'low regulation' competitions in Europe. Yet it is certainly not immediately obvious that this is the case. In levels of fan interest, the dynamic adaptation of competition structure to fan preferences, and revenue from media broadcast rights, there is an arguable case for the dominance of some European competitions (for example, Ross and Szymanski, 2003).

What might explain the apparent absence of any effect of organisational structure on the performance of sporting competitions? One possible explanation is that the regulatory structure in North America does not affect the competitive balance. However, empirical evidence does suggest that on a variety of dimensions competitive balance is greater in North America than Europe (see Szymanski and Smith, 2002). A second explanation may be that competitive balance does not matter for performance of a sporting competition. For example, it may be that competitive balance affects the distribution of fans between teams, but not the total number of fans. Empirical evidence on this issue is mixed. Certainly there is no strong evidence of a relation between uncertainty of outcome in a match and attendance; however, there is much more support for a relation between uncertainty within a season (for example, about who will make the play-offs) and attendance. Borland and Macdonald (2003, p. 487) summarise the empirical evidence as follows:

First, there is indeed a reason to question the idea of a relation between match-level competitive balance and attendance. There is overwhelming evidence that attendance is positively related to home-team performance, and there is little evidence to support the idea that attendance is higher when a 'close' contest is expected. Second, ruling out a relation between match-level uncertainty and attendance is not to rule out altogether an effect of uncertainty of outcome on attendance. This is because the evidence also suggests that there is quite strong support in existing studies for the existence of a relation between attendance and season-level competitive balance . . .

This appears to leave the explanation that the success of European sporting competitions derives from other sources. That is, that there are aspects of those competitions that compensate for the effect of relatively lower levels of competitive balance on fan interest. For example, if demand for a sporting competition is thought of as depending on the average quality of contests as well as competitive balance, then perhaps there has been a higher average quality of contest in European sport. How might this occur? One possibility would be that the 'promotion-relegation' league structure in Europe has been associated with a higher quality of contests; or alternatively, the 'low regulation' labour and

product markets might have provided an incentive for greater investment in player skills in Europe than in North America.

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3 The sports goods industry

Wladimir Andreff

The sports goods industry faces a segmented market and a high volatility of demand. The most significant determinant variables of the demand for sports goods, its growth and size, are: fashion, the use value of a sports good, its market price, households' professions and revenues, the population's use of equipment (the 'equipment rate'), and the sports good's life cycle. On the supply side, the sports goods industry is an oligopoly dominated by a handful of transnational corporations (TNCs) competing together in a global market and competing with a 'fringe' of small local firms in each domestic market. It is known from oligopoly theory that price is not the principal variable handled by oligopolistic competitors. This is evidenced in the sports goods industry where major competitive tools are marketing strategies, product differentiation, various sorts of production diversification and, basically, innovation. In recent years, a slower pace of economic growth has triggered a trend of industrial concentration on the supply side of the global market for sports goods. For some firms, crises and recessions have led to low profitability or losses and, sometimes, bankruptcy. With their survival threatened, most other competitors have reacted to the slowdown with appropriate strategies and now are both fast growing and profitable.

Segmented Market Demand

Since sporting practices are much diversified in developed countries (for instance, in 2000 nearly 350 different basic sport disciplines were practised in France), the demand for sports goods is very much segmented. If you are addicted to skiing and other mountain sports, your winter sports goods (skis, ski boots, bindings, snow-boots and so on) are useless for, say, climbing activities in the summer. If, moreover, you play tennis, you also require tennis shoes and rackets. Thus, any sports goods producer has to adjust to a segmented market demand with segments of different sizes that do not grow at the same pace. The size of a market segment is first determined by the number of participants: the demand for football goods is likely to be bigger, with over 2.2 million registered participants per year in France now, than the demand for canoeing and kayaking equipment, with approximately 30 000 registered participants.

The size of each segment also depends on how each sports good can be used, once purchased. Some goods can be used by one participant in the practice of more than one sports discipline. Sports clothing and some footwear often offer such a multiple use value or can be worn during general leisure-time activities that do not involve sports. These goods are called 'trite' sports goods¹ and the size of their market segments is somewhat larger than the one for more specialised sports goods. The latter are specifically required for just one sports discipline and cannot be used in other sporting activities (you can use a surfboard only for surfing). Such goods generally characterise those sports that require specific equipment (winter sports, surfing, golf, motor sports, sailing, horse-riding and so on) and are called 'equipment-intensive' sports goods. Their market segments are obviously

narrower than those for 'trite' sports goods so, even at a global level, they are characterised as 'micro markets' (Minquet, 1998).

On the other hand, the growth in the number of participants is different from one sport to another. For instance, in France from 1988 to 1999, the number of registered participants had increased by 260 per cent in fencing, 147 per cent in horse-riding, 105 per cent in golf, 62 per cent in rowing and 53 per cent in gymnastics, while it had *decreased* by 88 per cent in skiing, 65 per cent in canoeing and kayaking, 49 per cent in sailing and surfing and 26 per cent in tennis. The growing sporting activities offer more promising opportunities to sports goods producers than those that are declining. But, in the 1970s and 1980s, skiing, tennis and canoeing and kayaking were among the fastest-growing sports in France, whereas golf, horse-riding and fencing had only a slow rate of growth. Thus, the market demand addressed to the sports goods industry is not only segmented, but also rather volatile in the medium and long runs. One major source of volatility in sports is fashion. In recent years, in France, football, judo, fencing, horse-riding and golf have been the latest fashion; wrestling, weight-lifting, motorcycling and boxing have been considered old-fashioned; while skiing and tennis are less in fashion than they were 15 years ago (Andreff and Nys, 2002).

With the exception of fashion, various socioeconomic factors determine the size and growth of the demand for sports goods. On average, access to sports requiring equipment-intensive sports goods has a higher cost than access to sports in which one can participate with less specific or trite sports goods (Michon and Ohl, 1989; Taks et al., 1994). This is due to a higher unit value, and thus a higher market price, of the former compared to the latter. Age and profession also influence sports participation and, therefore, the demand for sports goods (Table 3.1). Household revenues, usually correlated with the two previous variables, also affect sports participation. In France, the participation rate (number of sports participants divided by population) is over 70 per cent for households belonging to the two highest deciles of the revenue distribution; it is only 31 per cent in the four lowest deciles, and 48 per cent in the four middle-ranked deciles. In addition, profession and revenues are strong determinants of 'who practises which sports': for example, executives and senior managers concentrate on skiing, tennis, swimming and gymnastics; the working class is more involved in cycling, boxing, running and football.

Table 3.1 Sports participation of the French population, by age and profession, 1999

Profession	Participation rate* (%)	Age	Participation rate* (%)
Students, pupils	60	15–24	51
Executives, top managers	41	25–39	34
Middle management	40	40–49	30
Office workers, clerks	30	50–64	29
Craftsmen, shopkeepers	27	65 and over	19
Working class	23	Overall	32
Farmers	17		
Pensioners	24		
Non-working population	22		

Note: *Number of participants divided by population.

Source: Andreff and Nys (2002).

An intermediary variable between sports participation and the demand for sports goods is the equipment rate – that is, the percentage of the population that owns one type of sports goods. Over 70 per cent of French people own at least one pair of sports shoes and one tracksuit (8 per cent own three or more tracksuits; 8.5 per cent own three or more pairs of sports shoes) – that is, the equipment rate is high for trite sports goods. On the other hand, only 1.9 per cent of the population own at least one sailing boat, 6 per cent at least one windsurfing board, 18 per cent at least one ping-pong table, 19 per cent at least one pair of skis and ski boots, 30 per cent at least one sports bike – that is, the equipment rate is lower for more specific sports goods. The equipment rate itself evolves with the expansion of the rental market for consumer-durable sports goods. Most intensive-equipment sports goods have a product life cycle (Andreff, 1989), on both domestic and global markets. The demand for a new sports good grows rapidly in a tiny market (for example, the snowboard in the early 1990s). Then, as the sports good becomes more common, demand falls, but in a sizeable market (for example, short skis and snowboards today). Finally, a standardised sports good is faced with a large global market which is nearly stagnant or even in decline (for example, traditional alpine and cross-country skis since the late 1980s).

All the market segments can be grouped into sportswear, sports footwear (both trite goods) and other sports goods (mostly specific and equipment intensive). Table 3.2 provides

Table 3.2 The global market for sports goods

<i>A All sports goods</i>								
Country	1997	1998	2001	1999	Europe	USA	Golf greens	2001
	sales in €bn			sales	€m			
USA	41.9	50.3	46.1	Sports footwear	7 620	14 180	USA	17 108
Germany	7.6	12.2	3.1	Running	29%	14%	UK	2 593
Japan	9.1	8.1	14.2	Outdoor	23%	36%	Japan	2 422
France	6.1	8.0		Leisure	15%	19%	Canada	2 100
UK	4.5	6.1	8.8	Cross-training***	13%	10%	Australia	1 514
Italy	4.6		4.2	Football	6%	2%	Germany	604
Spain	1.5		3.5	Tennis	6%	2%	France	513
Canada	1.1		1.2	Basketball	3%	9%	Sweden	418
Belgium	0.8			Other	5%	3%	Spain	271
Taiwan			0.9				Italy	224
Brazil			17.4	Bikes (bn)	1992	1999	Denmark	132
Norway			0.9				Netherlands	122
Sweden			1.3	USA	14.9		Austria	114
Austria			1.5	Japan	8.3		Belgium	76
				Germany	6.2		Switzerland	76
				France	2.9	2.1	Portugal	59
				UK	2.2			
				Spain	2.2			
				Europe		14		
				World		100		
Total	128.6	In 1997						
of which		USA	30%					
Shoes	24.3	EU	33%					
Sportswear	55.7	Japan &						
Equipment	48.6	South-						
Shoes	18.9%	East Asia	22%					
Sportswear	43.3%	Other	15%					
Equipment	37.8%							

Table 3.2 (continued)

<i>B Winter sports goods</i>							
Sales	1999	2000	2001	2001	2002	2003	2003
	€m			no. of pairs	€m		no. of pairs
Alpine skis	407	463	490	4 300 000	485	473	4 150 000
Ski boots	332	348	344	3 700 000	349	346	3 860 000
Bindings	198	207	220	4 300 000	219	213	4 160 000
Poles	46	49	50	4 100 000	49	66	4 160 000
Snowboards	381	212	220	1 530 000	202	380	
and b&b*	**	187	208	1 650 000	203		
Cross-country skis	63	60	62	1 100 000	66	142	
and b&b*	n.a.	69	74	n.a.	74		
Total	1 427	1 595	1 168		1 647	1 620	
Sales distribution	1999		Alpine skis	2002	No. of pairs		
Alpine Europe	42%		Japan	700 000	850 000	Rossignol	
North America	26%		USA	600 000	850 000	Atomic	
Asia	23%		Germany	550 000	750 000	Salomon	
Other Europe	8%		Austria	550 000	570 000	Fischer	
Other	1%		France	400 000	530 000	Head	
			Switzerland	340 000	440 000	Völkl	
			Italy	330 000	400 000	Dynastar	
			Canada	2 500 000	400 000	Elan	
			Spain	85 000	50 000	Dynamic	
			South Korea	80 000			
			Sweden	75 000			
			Netherlands	58 000			
			Norway	35 000			
			Finland	27 000			
			UK	20 000			
			Other	740 000			
			Total	4 840 000			

Notes: * bindings and boots; ** included in snowboards; *** shoes used for cross-country runs and training, i.e. not competition.

a non-comprehensive overview of different segments of the global market. Note that the US market for sports goods is nearly as big as the European one, while the US market for sports footwear is bigger than that in Europe. The largest share of the global market is for sportswear, then for equipment (specific and equipment-intensive sports goods), and sports footwear retains the smallest share. In winter sports goods, Alpine Europe is the major market, well ahead of North America and Asia. Alpine skis, ski boots, bindings and poles comprise the lion's share of the market. The snowboard market has developed rapidly, and is already three times bigger than the cross-country ski market. Japanese consumers buy the greatest number of pairs of alpine skis per year in the world, since there is virtually no second-hand ski market in Japan, in contrast to the situation in Europe and America.

Supply Side: A 'Fringed' Global Oligopoly

In most segments of the global sports goods market, industrial producers face a supply-side structure which is typically a 'fringed' global oligopoly: global because a handful of big TNCs² covers a major share of the world market for each sports good; and 'fringed' because, in each developed country, a number of competing small and medium-sized enterprises take over the remaining 'fringe' (or margin) of the local domestic market left by the big TNCs. For example, the global sports footwear market is representative of this market structure with the first five TNCs covering over two-thirds of the overall global market, and the first 13 together holding over 80 per cent of it (Table 3.3). In the production of football shoes, Adidas, Nike, Umbro and Puma together hold an 80 per cent market share, while the remaining share is dominated by Lotto, Diadora and Asics. Seven TNCs hold 70 per cent of the global market for winter sports goods. Local producers look and harshly compete for only the 'fringe' of the domestic market in each developed country. Evolving fashion compels big TNCs to adjust in order to meet the new demand whereas smaller local producers, more specialised in a market segment, have no alternative but to differentiate their products, diversify their production or innovate, otherwise they would be threatened with bankruptcy at any demand shift.

Even if all the segments of the global sports goods market are aggregated, one is left with an oligopoly. Adidas-Salomon, Nike and Reebok are also the three most important suppliers on the overall European market for all sports goods (Table 3.4). The sales of the 20th supplier in this market represent only 4.4 per cent of the first leading oligopolist's (Adidas-Salomon) sales. The oligopolistic structure of the supply side explains why

Table 3.3 *The global sports footwear market: firms with more than 1 per cent market share*

Firms	1998 sales*	% of sales in		World market share	Firms	1999 sales*	% of sales in:		World market share
		USA	rest**				USA	rest**	
Nike	4 870	61	39	32.9	Nike	5 690	61	39	33.3
Adidas	2 510	34	66	17.0	Adidas	2 690	32	68	15.7
Reebok	1 730	56	44	11.7	Reebok	1 680	57	43	9.9
Fila	610	34	66	4.2	New Balance	930	62	38	5.5
New Balance	580	55	45	3.9	Asics	580	25	75	3.4
First 5	10 300	48	52	69.6	First 5	11 570	47	53	67.8
Asics	420	29	71	2.8	Fila	550	22	78	3.2
Converse	390	40	60	2.7	Converse	400	35	65	2.3
Puma	330	9	91	2.2	Puma	320	14	86	1.9
Keds	250	73	27	1.7	K-Swiss	300	93	7	1.8
Vans	170	76	24	1.2	Keds	290	73	27	1.7
Brooks	160	31	69	1.1	Vans	240	68	32	1.4
K-Swiss	150	90	10	1.0	Brooks	200	31	69	1.2
Diadora	140	8	92	1.0	Hi-Tec	160	32	68	0.9
First 13	12 310	50	50	83.2	First 13	14 030	50	50	82.2
World sales	14 790	46	54	100%	World sales	17 070	47	53	100%

Notes: * Converted into € thousand; ** rest of the world.

Table 3.4 The top 20 European sports goods suppliers in 2000

Company	Country	Sales (€m)
Adidas/Salomon	Germany	2860
Nike	USA	2636
Reebok	USA	1150
Pentland	United Kingdom	672
Fila	Italy	433
Amer Group	Finland	320
Asics	Japan	294
Puma	Germany	289
HTM	Austria	276
Diadora/Invicta	Italy	267
Tecnica Group	Italy	250
Champion	USA	235
Rossignol	France	213
Sunbeam	USA	205
L-Fashion Group	Finland	181
Benetton Fairplay	Italy	179
Dunlop	United Kingdom	165
Quicksilver	France	163
Arena	Germany	129
Acushnet	USA	125
Total		11042

market price is not the only – nor even the major – strategic variable used by firms to keep or increase their market share in the sports goods industry. In an oligopoly, a price war might have a disastrous outcome, such as a number of bankruptcies (possibly leading to a duopoly or monopoly). Oligopolistic competition is fought more on product quality, cost reduction and innovation than on pricing. The resulting profit margin (net profit/turnover) enables each oligopolist to invest a substantial share of its revenues in research and development (R&D), in product design and in cost-saving processes. Price variations are supplemented with marketing strategies based on product differentiation and the firm's reputation. These strategies consist in associating the firm's product with the image and wins of a champion through sponsorship, and in suggesting the high quality of the product through its ratification as the official delivery for a world sporting event (Olympics, World Cup) or a famous club or national team. The slogan 'just do it' or Nike's comma have become world symbols of a way of life (valuing winners, energy, health and wealth) even more than the label of a range of products. As in any oligopoly, barriers to entry (restricting distribution, order cancellation, unexploited technological patents, economies of scale and scope, huge investment required by the break-even point of mass production) are usual practices of TNCs in the sports goods industry. For instance, in sports shoe distribution, Adidas, Nike, Reebok, Puma and Patrick have been sued, found guilty and fined for unduly restricting competition, by the French council for fair competition. On the other hand, well-known trademarks are threatened by small producers' counterfeiting strategies.

Product Diversification

Product diversification is another usual strategy of sports goods producers. For example, Salomon initially was producing only ski bindings; in 1974, it diversified into the production of ski boots and then, in 1990, it entered ski production. This is a first diversification strategy *within the same segment* of the sports goods industry (here winter sports goods) in order to increase the firm's market share. It can be achieved by means of mergers and acquisitions as exemplified by the ski producer Rossignol, which acquired various firms manufacturing ski boots (Trappeur, Lange, Caber, Koflach), ski poles (Kerma), skis (Atomic), ski bindings (Ess) and winter sportswear (Anoralp, Védéla-Killy). A second strategy consists in diversifying within the sports goods industry (*intra-industry diversification*), but in a different sports market segment, for example, from skiing to tennis, in order to react to an evolving fashion in sports practices. As early as 1977, Rossignol diversified into manufacturing tennis rackets, which was soon imitated by its major Austrian competitors of the time such as Head, Fischer, Kneissl and Völkl, while Salomon favoured a diversification into cycling, through merging Mavic (bicycle wheel rims), and golf through the acquisition of Taylor Made in 1985 – followed by the acquisition by Rossignol of the golf goods producer Cleveland in 1991. Other examples of intra-industry diversification are those of Look from ski bindings to bicycles, Mizuno and Asics from sports footwear to winter sportswear, Nordica from ski boots to roller skates, Atomic from skis to roller skates, Dynamic and Fischer from skis to mountain bikes, and Adidas from sports footwear to sportswear (through the acquisition of Pony, Arena and Le Coq Sportif) and tennis rackets. The most famous diversification of this kind is the acquisition of Salomon by Adidas in 1997, which has enabled the latter to corner the second biggest share on the global market for sports goods, after Nike.

A third less widespread strategy is *inter-industry diversification* when a sports goods producer diversifies towards another industry because it would benefit from the higher pace of growth in a non-sports goods industry when its own sports market segment is less successful than it had been. For example, Tecnica (ski boots) acquired Think Pink in the clothing industry, Nike acquired Cole Haan and Reebok acquired Rockport, both producers of non-sports shoes. From time to time, this inter-industry diversification has also brought outside investors into the sports goods industry, such as Benetton (through taking over Nordica ski boots, Prince rackets and Rollerblade rollers), Bernard Tapie Finance (ski bindings, bicycle pedals, tennis rackets, sports footwear and sportswear), Agnelli (sports bikes), Yamaha (skis), Pentland (which successively had been the core shareholder of Reebok, then Adidas, and which also acquired Speedo, Pony and Ellesse in the sportswear industry).

Until the 1960s, the great bulk of the sports goods industry was not using modern production techniques. Saw mills produced skis, sports shoes and ski boots shared the production techniques of the leather industry, and sportswear production was based on a traditional technology of the textile industry before its computerisation and the introduction of new synthetic materials. For a number of sports goods, production was organised as an outwork system: footballs were stitched by home workers and then collected for assembly in Adidas or Puma factories; home handicraft workers also produced the highest-quality specific sports goods; bicycle tyres were stitched and repaired by home producers; and so on. Since the 1970s, different innovation clusters have transformed the production process of sports goods into modern computerised assembly-lines using the

most up-to-date technologies transferred from modern industries such as aircraft, metallurgy, chemical, mechanical engineering, machine-tool, electronic and so on (Andreff, 1986). The most labour-intensive and standardised industrial sports goods have been out processed and subcontracted abroad, namely in developing countries,³ reducing the production located in developed countries (for instance, due to relocation to the third world, the production of sports footwear in France declined by 30 per cent in 1987). In recent years, the sports goods industry has increasingly developed its own complex technology and its innovation rationale, in particular concerning the use of new materials (Desbordes, 2001) such as kevlar, zycral, twaron, zitel and so on, and new synthetic fibres (for example, goretex, dacron).

An Innovative Industry

In a modern oligopolistic industry, a firm must innovate, otherwise it will die. Innovation has replaced pricing as the major competitive weapon for a firm to preserve or increase its share in the global market. Thus, innovation has become crucial in the sports goods industry. Sometimes, sportsmen and -women have simply to adapt to the outcome of a new technology like the progress in stitching boxing gloves in the nineteenth century or the manufacturing of derailleur gears in the 1930s; both were first rejected by the boxers and bikers in competition, and finally adopted because of the improvement in their sports performances. Sometimes, sportsmen and -women are real innovators (think of the 'Fosbury flop' in high jumping or the ski-skating practice in cross-country skiing) triggering the emergence of a product innovation; and a Formula One driver or a rally racer has to be something of an engineer (Andreff, 1985). From an economic point of view, most innovations have been introduced into sports for the following purposes:

1. to help athletes to win a competition or improve their sports performance (thus yielding more prizes and revenues to those winning athletes);
2. to make one sport more spectacular, thereby attracting an increased attendance and more TV viewers (in 2000, the tennis ball was enlarged by 2 mm in order to be seen better on television screens);
3. to test new products and technologies for an industrial manufacturer; and
4. to facilitate mass access to a sport by 'euphemising' it, that is, making it technically easier, or making it safer (for example, short skis, warm ski boots, large-mesh tennis rackets, bikers' helmets).

In the 'fringe' of the global oligopoly, most small producers survive only as long as they succeed in developing new products or services. However, the major TNCs of the sports goods industry can allocate a substantial percentage (6 per cent on average) of their turnover to financing R&D expenditures. The number of registered patents in the winter sports goods industry is over 20 000. In the sports goods industry, 70 per cent of overall turnover is a result of selling products that were introduced into the market less than 10 years ago.

For example, in 2001, Salomon spent 7 per cent of its turnover on R&D while it was employing 120 researchers out of an overall number of 2500 employees (Desbordes, 2001) while Rossignol had a 3.2 per cent R&D/turnover ratio the same year. The design of a new ski can take several years, such as the single-shell ski launched by Salomon in 1990, after

six years of R&D activity and an expenditure of \$40 million. From 1990 to 2000, Salomon sold about 5.5 million pairs of single-shell skis that comprise approximately 10 per cent of the world ski market. This innovation increased Salomon's productivity (measured as turnover per employee) to \$246 500 per employee in 2000, as compared with Rossignol's productivity of \$187 428 per employee. Because of the new product, Salomon achieved a productivity rate nearly 50 per cent higher than its major competitor. In order to protect all the technological elements linked to this new product, Salomon registered 423 patents. This protection is effective in erecting an entry barrier since no other firm has yet been able to match the production of a single-shell ski, apart from superficial imitations. The entry barrier is reinforced by the decline of the global ski market (6.8 million pairs sold in 1987, 4 million in 1997, 4.2 million in 2001) given that the production of the single-shell ski must reach at least 400 000 pairs per year to be profitable. In 1997, Salomon launched another new product, Snowblade, which is a compromise between the parabolic ski and the snowboard but it is manufactured on the model of the single-shell ski.

Smaller firms also have to innovate in order to maintain their market share or simply to survive. A few examples from the 1990s of firms that introduced a new material or a new process are: Wauquiez innovated with a new catamaran hull using Airex foam rubber (1992–93); Elvström Sails developed an 'intelligent' sail, Sail Nucat, that can adapt to wind variations (1990–92); Look created a single-shell frame in carbon fibre for a bicycle (1990–93); and Mavic introduced the lightest high-performance wheel for mountain bikes (1993–96).

Slower Growth, Industrial Concentration and Firms' Performances

During the 1970s and the 1980s, the global demand for sports goods had skyrocketed with a growth often over 10 per cent per year in real terms. The sports goods industry was expanding and flourishing, and it attracted a number of outside investors (Benetton, Pentland, Tapie and so on). After 20 years of spectacular growth, however, since the mid-1990s the sports goods industry has been in a consolidation phase (Lulof, 1998). The spectacular growth rates are a thing of the past, and the market is growing much more slowly. Now the rate is 6 per cent in nominal terms, which means a real growth of about 3 to 4 per cent per year on average (4.4 per cent in 2001, 3.4 per cent in 2002 and 4.2 per cent in 2003 in France), while some segments are declining.

One usual consequence of slower growth in oligopolistic markets is industrial concentration through bankruptcies, mergers and acquisitions. Among the most spectacular bankruptcies in the industry in the past 20 years are those of Donnay (tennis rackets, Belgium) and Anoralp and Millet (winter sports and outdoor equipment, France). The 1980s high flyer, LA Gear, fell short of bankruptcy but was de-listed from the New York Stock Exchange. Rossignol and Adidas have closed down several factories in France and other parts of Europe. We have already noted a number of mergers and acquisitions when describing the external growth strategies of TNCs based on production diversification. Some other significant transactions have been the mergers or acquisitions of the following: the American ski producer K2 by US Nyse (fibreglass); the Swiss ski producer Authier by Ebel (watch-making); Tiga (windsurfing boards) by the Austrian firm F2 and the Hong Kong trust Shiro (sailing boats); Perfect Sport Fashion (sportswear) by Reebok; the Austrian ski producer Hagan by Yamaha; Gitane (bicycles) by the Taiwanese Giant; San Giorgio (ski boots) by Salomon; Vitus (frames) by Look; Look by Rossignol; Le Coq

Sportif by Brown Shoe Company; Aigle (sportswear and sports footwear) by Maus Frères; Emery (bindings) and Grand Chavin (snowboards) by Rossignol; Maxfli (golf) by Adidas-Salomon; Champion (sportswear) by Sara Lee; Element (skateboards) by Billabong (snowboards); and Up Manufacturing Co (winter sports goods) by Quicksilver.

Some of these transactions are obviously trans-border mergers or acquisitions. What is new in recent years is the emergence of mega-mergers within the sports goods industry, among the top 10 TNCs of the same market segment such as the takeovers of Jeanneau by Bénéteau (sailing boats) in 1996, of Salomon by Adidas in 1997, and the acquisition of Converse by Nike in 2003, which now holds over one-third of the global market for sports footwear. In 2005, two of the biggest TNCs in the industry were acquired by competitors: Rossignol was taken over by Quicksilver and Reebok was bought by Adidas. The result in most segments of the sports goods industry today is a concentration of two-thirds to four-fifths of the supply in a handful of big TNCs, as we have seen in the sports footwear segment. In the late 1970s, the world ski industry still comprised nearly 300 manufacturers (Di Ruzza and Gerbier, 1977); today it is concentrated in 12 ski producers, 10 binding producers and 10 ski boot producers.

Finally, the slower pace of growth has had a differentiated impact on the biggest TNCs' economic performances, depending on the success of their diversification, innovation and acquisition strategies (Table 3.5). In 2000–03, some firms enjoyed both a rapid turnover growth and a high profitability compared to the average: Columbia, Oakley (optical equipment, footwear), Skechers (footwear, rollers), Timberland (outdoor footwear) and Wolverine (casual sports footwear). Puma and Nike eventually joined this group of high-performing TNCs, but only after a dire recession, respectively, in 1998 and 1999, and despite Nike's scission with its privileged retailer Foot Locker. Puma closed down its plants in Germany and relocated them in Asia. Quicksilver (snowboards) and Reebok showed a rapid growth with almost average profitability, after a deep recession in 1998 in the case of Reebok (650 out of 6600 employees were made redundant that year). A rather high profitability and a slower growth have characterised Amer Sport (conglomerate), K-Swiss (sports footwear), and Luxottica (optical equipment) until its slump in 2003, while Callaway and Lafuma (outdoor) have exhibited an average position with regard to growth and profitability. A final group of TNCs was in bad shape after repeated years of slow growth and low profitability: Rossignol which barely recovered from its 1999 crisis, Head (skis), K2 (skis), Russell and Saucony. Adidas-Salomon never really 'digested' the acquisition of Salomon (and the resulting €1 billion debt) with two recessions in 1999 and 2003 and a below-average rate of return. Fila declined and posted losses in recent years, and almost declared bankruptcy before being acquired by the investment fund SBI.

Conclusion

The sports goods industry was one of the fastest-growing activities for more than two decades when it was worth investing in, right after the onset of the e.economy (telecommunications, internet and so on), but the slowdown of its market growth, the resulting concentration wave, and the strengthening of entry barriers have made it slightly less attractive more recently. However, since fashion is such a strong determinant of the demand for sports goods, it would be premature to contend that the golden goose is actually dead. Today, new sports practices emerge more often than three decades ago, and the sports goods industry is still innovative. A guesstimate about this industry's future would not be easy.

Table 3.5 Firms' performances in the sports goods industry

Company Year	Turnover			Net profit			Net profit/turnover					
	2000	2001	2002	2003	2000	2001	2002	2003	2000	2001	2002	2003
<i>Million €</i>												
Adidas/Salomon	5830	6110	6520	6270	227	177	228	260	3.89	2.9	3.5	4.15
Amer Sport	1077	1090	1100	1100	65.8	68.5	68.4	64.7	6.11	6.28	6.21	5.88
Fila	480.9	466.9	464.6		(-66.1)	(-55.9)	(-67.1)		(-13.7)	(-11.1)	(-14.4)	
Lafuma			155	176.7			6.4	7.6			4.13	4.3
Puma AG	462.4	598.1	909.8	1274	17.6	39.7	84.9	179	3.81	6.64	9.33	14.05
Rossignol	380.5	468.2	473.1	484.9	4.2	8.7	7.6	8.2	1.1	1.86	1.61	1.69
<i>Million \$</i>												
Callaway Golf			793	814			69	46			8.7	5.65
Columbia Sportswear			816.3	951.8			102.5	120.1			12.56	12.62
Head Tyrolia Mares	399	392	387.5	431.2	14.2	9.4	0.03	(-14.7)	3.56	2.4	0	(-3.4)
K2 Inc	662.2	595.5	582.3	718.5	5.2	(-7.7)	12.1	11.4	0.79	(-1.29)	2.07	1.58
K-Swiss	221.7	236.1			21.1	23.3			9.52	9.87		
Luxottica			3140	2820			342.4	267.3			10.9	9.48
Nike	9000	9480	9890	10700	579	589.7	663.3	474	6.43	6.21	6.71	4.43
Oakley	363.5	429.3	489.7	521.5	51.1	50.4	40.5	38.2	14.06	11.74	8.27	7.32
Quicksilver	519	621	705	975			37.5	58.5			5.32	6.0
Reebok International Ltd			2500	3130			132	157			4.68	5.02
Russell Corporation	1221	1160	1164	1186	11.5	(-55.5)	36	43	0.94	(-4.78)	3.09	3.62
Saucony	160.3	132.3			1.8	(-0.9)			1.12	(-0.68)		
Skechers	675.1	960.6			43.8	47.3			6.49	4.92		
Timberland	1089	1180	1191	1342	120	106.7	90.2	117.9	11.02	9.04	7.57	8.72
Wolverine Worldwide	701.2	720.1	826.9	888.9	40.5	45.2	47.9	51.7	5.78	6.28	5.80	5.81
									4.06	3.35	4.78	5.70
											Average profitability:	

Table 3.5 (continued)

Company Year	Turnover				Net profit			Net profit/turnover			
	1997	1998	1999	2002	2003	1997	1998	1999	1997	1998	1999
<i>Million €</i>											
Adidas/Salomon	3440*	5060					(-164)			(-3.24)	
Bénéteau	178	270				6.3	15.4		3.54	5.7	
Puma AG		302	372.7					9.5			2.55
Rosignol			321.3					(-14.9)			(-4.64)
<i>Million \$</i>											
Asics				970							
Head Tyrolia Mares			411								
New Balance				1300							
Nike	9190	9550	8780			795.8	399.6	451.4	8.66	4.18	5.14
Quicksilver			446								
Reebok International Ltd	3570	3220				135	23.9		3.78	0.74	
VF Outdoor				510	581						

Note: * Adidas alone.

Notes

1. Some other characteristics of 'trite' and 'equipment-intensive' sports goods are given in Chapter 6.
2. Foreign direct investment and other internationalisation strategies of major TNCs are described in Chapter 6.
3. See Chapter 6.

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4 Sport and gambling

David Forrest

The economics of sport and the economics of gambling are distinct subdisciplines; but they overlap because the activities they analyse are so often bound up with each other. Indeed it may fairly be said that some professional sports would not be viable at all but for the betting markets that underpin them. Horse racing in many jurisdictions, and jai alai in certain states of America, are examples of sports where the bulk of revenue has always been extracted from the wagering markets that run alongside them. Thus, in early twentieth-century America, horse racing had to shut down altogether in states that enacted a prohibition on bookmaking at the track (Munting, 1996) while jai alai today is played only in a few states and only where betting is legal and the principal reason for attendance at the event (Skiena, 2001).

Of course, most sports are not as dependent on betting as these examples. Nevertheless, the existence of high-volume betting markets on sports such as American football, soccer and cricket matters, or should matter, to sports economists. In this review, three broad reasons for sports economists to think seriously about betting on sport are considered.

First, sports leagues and promoters generate a positive externality for bookmakers by providing extra and popular vehicles for betting. Given ownership of copyright over fixtures, sports may be able to charge for the provision of this externality, much as they extract payment from broadcasters when they provide them with opportunities for extra and popular television programmes. Many of the same issues arise as in the case of broadcasting, for example, the betting sector may be willing to pay more to a sports league if changes in game design are made to accommodate its interests.

Second, while benefiting sports by stimulating interest and providing an additional source of revenue, gambling may pose a threat by introducing incentives for corruption. Match fixing associated with betting is a threat from a commercial, as well as a moral, perspective because stadium and television demand will fall if events on the field lose credibility and sponsorship income will be threatened if firms fear being tainted by association with cheating. Economic analysis can offer insights on how incentives to cheat for betting gain can be minimised and it can be used to illuminate public policy issues such as whether corruption will be more severe if sports betting takes place as a legal or illegal activity.

A third reason for thinking about gambling is that the existence of wagering markets can potentially serve the interests not only of sports but also the work of sports economists. If odds can be assumed 'efficient' in the sense of providing unbiased probabilistic forecasts of sporting outcomes, they can be exploited, for example, for constructing *ex ante* measures of match-level outcome uncertainty. Studies of movements in odds could be similarly informative, for example by generating market-based assessments of the importance to a team of particular star players who become unavailable for particular games.

Potential Benefits to Sport from Gambling

Gambling on sports events has, of course, a history going back centuries, indeed millennia. For example, Sauer (1998) quotes a contemporary description of crowds en route to the Circus Maximus in Ancient Rome as ‘already in a fury of anxiety about their bets’; and historians such as Munting (1996) document a close association between gambling and sports such as cricket and baseball in eighteenth- and nineteenth-century Britain and America. But for much of the twentieth century, demand for betting, and gambling generally, was suppressed in many countries by prohibition. Until recently, for instance, betting on team sports was not possible legally in Hong Kong or in any American state other than Nevada, though horse racing flourished in many areas thanks to the tolerance of on-track betting.

The world, however, now appears to be in a phase of secularly increasing legal toleration of all manner of gaming activities. In America, the first state lottery game did not appear until 1964 and only Nevada permitted casinos prior to 1976. But the ‘lotto mania’ of the 1980s and 1990s, and the growth of Indian and riverboat casinos in the 1990s, gave a large majority of Americans access to these gambling media by the turn of the century. This liberalisation was bad news for those sports – horse and dog racing and jai alai – that had enjoyed protection because their product was bundled with the only legal betting opportunities available to the public. Thoroughbred racing declined in most states. Jai alai folded altogether in Connecticut after the opening of the world’s biggest casino. Recovery was achieved only where racetracks were permitted to turn themselves into ‘racinos’, with casino-style gaming machines to complement the sports offer. The same policy saved jai alai in Rhode Island. The spread of lotteries and casinos to many jurisdictions around the world had similar consequences for horse racing, and sometimes the same policy response, as in the United States.

Sports betting (a term commonly defined to exclude horse and dog wagering) has, on the other hand, flourished in most of the world in the new liberal environment for gambling, further boosted by new opportunities to place internet bets with offshore bookmakers. Several jurisdictions (such as Singapore and Hong Kong) have introduced soccer wagering to curb the flow of bettors’ funds to offshore centres (or to the illegal sector). In the United States, however, internet betting remains illegal and active attempts are made to enforce the prohibition by barring credit card companies from settling payments to betting operators in countries, such as Costa Rica, that serve the American market. That the offshore sector remains intact – indeed Costa Rica had the highest sports betting turnover of any jurisdiction in the world in 2003 (Global Betting and Gaming Consultants, 2005) – is testimony both to the difficulty of controlling use of the internet and to the fact that Americans share the worldwide growth in enthusiasm for betting on sports events despite its illegality in nearly all states.

In 1998 the total staked (in legal markets, but excluding lottery-type games based on sports results) on sports worldwide is estimated to have been approximately US\$36 billion. By 2003 this had grown by over half again, to just in excess of US\$56 billion (Global Betting and Gaming Consultants, 2005). In sports betting, between 5 and 10 per cent of stakes is typically retained by the bookmaker, so that net turnover will have been at least US\$6 billion.

This large industry is, of course, dependent on major leagues in America and Europe providing the high-profile sports product on which clients wish to bet. These sports

leagues, and particularly the English Premier Football League whose games are televised throughout Asia, are therefore conferring substantial benefit on another industry, betting, that produces a complementary good. Their ability to capture any profits generated depends on whether they have legal and de facto control of relevant property rights, in this case fixture lists used by the gambling industry. Potential revenue from control of such rights is large. Football industry sources suggest that Far Eastern betting turnover (legal and illegal) amounts to US\$1 billion per weekend in season, with half of this staked on English Premier League games. Even a small levy on these bets would generate very significant revenue for the League.

The extension of World Trade Organization agreements to the area of intellectual property rights has strengthened the legal position of sports leagues; and indeed fees for the use of fixture lists have been negotiated successfully with, for example, the football-based lottery in China. But immediate prospects for significant copyright revenue are poor because betting is usually channelled through either an indigenous illegal sector or international operators whose clients are footloose and very sensitive to charges.

In the longer term it appears plausible that bookmaking will be regularised in the important Asian markets. Singapore Pools made the first legal sports book in the region when it introduced betting on local soccer in 1998. The Hong Kong Jockey Club was permitted to offer football betting on English games from 2003. Both moves were in response to a substantial leakage of expenditure to the illegal sector and to overseas bookmakers (including, in the case of Hong Kong, to casino-based operations in Macau). Both met with some success. Increasing internet penetration is likely to raise pressure on other countries in the region to provide for legal betting that keeps some of the turnover at home. The English Premier League has invested heavily in promoting fan interest in the region, with the payoff to date mainly in the form of broadcasting and merchandise income, but it would be well placed, in the event of the gradual establishment of legal betting, and providing that countries adhere to commitments on intellectual property rights, to exploit gambling as a further source of revenue. Competition would be likely to come from the Premier leagues of Germany and Italy which are also popular betting vehicles (European football's other major league, that of Spain, is less popular because matches start at an unfriendly time for viewers and bettors in Asia).

In the home markets of European leagues, it is already feasible to collect copyright fees. In England, football claims a percentage of expenditure on the lottery-style football pools and a turnover-related fee for the use of fixture lists by licensed betting offices. But, notwithstanding that 'football betting is the fastest-growing form of gambling in the UK' (Mintel, 2001), fees are constrained by the increasing inability of bookmakers to pass on increased costs in the face of international competition. Indeed, international competition forced a substantial reform of, and reduction in, betting taxation in 2001. In other words, rents in bookmaking have been dissipated and there is less for the football industry (as well as less for the government) to capture.

In this context, a feasible route for football to take is to create new betting products over which football or its franchisees would have monopoly power. Interactive television offers such opportunities. In Britain it is now possible and legal (subject to licence) for viewers of a football game to be offered betting opportunities as the game progresses, for example on whether a penalty just awarded will be converted. Selling such instant bets to a large audience is possible only for the betting firm which is in partnership with the broadcaster

with rights to the game. Any monopoly profits that such bets offer will be factored into bids for broadcast rights and therefore captured by the League. Similarly, bets could be offered on large screens in the stadium during the game, with supporters responding by text messaging. Again, the value of franchise rights to such an operation would reflect monopoly power. The popularity of such new styles of bet remains to be demonstrated but may depend on the extent to which the League is willing to be flexible in game design. For example, could the game be paused to facilitate betting on the penalty kick or could one even alter rules to create more penalties in a match? Similar issues have of course arisen as sport has become increasingly dependent on television revenue. It is relevant to note that the American sports that have been most ready to adapt game design to the needs of broadcasters have achieved the highest rates of growth in broadcasting rights income (Szymanski, 2003).

Possible Costs to Sport from Gambling

The principal source of concern here is that the prospect of betting gain, or bribery of players or officials by bettors or bookmakers, will corrupt a sport and cause match fixing. As with any illegal activity, it is hard to assess just how common the phenomenon is. A number of authors, such as Crafts (1985) for British horse racing and Gandar et al. (1998) for American basketball have demonstrated that movements in odds during the betting period are good predictors of event outcomes. This is consistent with corruption since the weight of money of those involved in any fix would drive the odds inwards from opening values compiled by bookmakers on the basis of fundamentals such as team form and quality. However, such movements could also result from the existence of any type of insider information (such as knowledge of player injuries) or indeed are consistent with a rational expectations perspective whereby the collective view of large numbers of bettors is liable to be superior to that of any individual, no matter how skilled an odds-setter he or she might be. This body of work cannot therefore be interpreted as evidence of widespread corruption though movements of odds might be admissible as a further indicator of the need for inquiry where unusual events are observed on the field.

More convincing evidence of widespread corruption in the particular case of US college sports is provided by Wolfers (2002). For college basketball, the betting market was not odds based. Rather, bets on all teams were at the same odds and related to whether or not a team would beat 'the spread' announced for its game by the bookmaker. The starting point for the analysis is that a team's performance relative to the spread is a forecast error and the distribution of such errors should be approximately normal. In fact, across a sample of close to 30 000 matches, there was a statistically significant deviation from normality such that, in games whose outcome was relatively close to the spread, heavy favourites were much more likely to fail to beat, than to beat, the spread. This could arise because teams winning comfortably relaxed their effort; but it could also be explained by some teams actively choosing to win by less than they could. Athletes on such teams were on the winning side on the court and at the same time profited if they had bet against their own team in the spread market. This practice is termed 'point shaving' and has been alleged in several betting scandals at US colleges. Wolfers's data raise the suspicion that about 10 per cent of teams engaged in point shaving. Concern over such corruption has now led to Las Vegas sports books withdrawing from most betting on amateur sport, though wagers remain possible in the illegal market.

Professional sport has also generated fixing scandals throughout its history. Apart from perennial accusations concerning the integrity of horse racing, the most notorious affairs include the attempt to fix baseball's World Series in 1919 and the arrangement of match results by players (paid by bookmakers from the illegal sector) in the top level of international cricket in the 1990s.

The contemporary cricket scandal (in a sport also notorious for corruption nearly 200 years ago) was used by Preston and Szymanski (2003) to illustrate a model designed to show the circumstances in which players will accept bribes from illegal bookmakers. Corruption was demonstrated to be more likely where there was (a) a large underground betting market, (b) a low detection rate for cheating, (c) low player wages and (d) low prize money or prestige for winning individual contests. All these conditions were present in international one-day cricket, according to Preston and Szymanski.

Forrest and Simmons (2003) employed a different model of corruption that nevertheless yielded broadly similar conclusions. Adapting the general economic theory of criminal behaviour proposed by Ehrlich (1996), they represented the risk-neutral athlete as comparing the gain in wealth from a successful and undetected fix with the expected cost of cheating. The latter comprised the expected value of financial loss (equal to the probability of detection multiplied by the financial penalty for fixing, which is likely to include loss of income while suspended) and the disutility of cheating itself (moral discomfort and loss of sporting glory through underachievement). Conclusions included that athletes are more likely to agree to a fix, (a) the lower the chance of detection, (b) the lower the player wage level and (c) the less the loss of sporting glory when they deliberately underperform. These propositions, very similar to those of Preston and Szymanski, are in one sense obvious; but, as often in economic theory, a model yields a taxonomy of policy approaches around which debate may be organised.

First, consider the probability of detection. This will differ across sports for technical reasons and because sports governing bodies will invest in screening to an extent commensurate with how important (financially) the result of the contest is: contests where the marginal gain from winning is high are likely to be screened more rigorously, so chances of detection will be higher in rich, high-profile sports. However, the probability of detection will vary also according to how well policed the betting market is and this is the basis for the argument that it is in the public interest for betting to take place in a legal rather than an illegal setting.

The generally prohibitive stance of American law has spawned an illegal betting industry with turnover a hundred times larger than that of the legal sports books in Las Vegas (Strumpf, 2003). Advocates of liberalisation argue that if this betting took place within a legal industry, available nationwide, betting irregularities would be more readily drawn to the attention of the authorities, thus deterring fixes. There is some force to this argument. Point shaving cases on occasion came to light because they aroused the suspicion of Las Vegas sports books. If an investigation is called for, legal bookmakers maintain records that are likely to reveal whether insiders have been betting: Nevada state law requires all bets over \$3000 to be recorded and identification obtained for any bettor staking more than \$10 000 in 24 hours. On the other hand, well-organised betting rings are likely to be able to distance the placing of a bet from the identity of the athletes arranging the fix. This is not so in illegal markets. Strumpf examined the activities of a range of illegal operators in New Jersey. Each bookmaker focused on a small geographical area and served

clients with whom he had a long-term relationship. This is the most viable form of organisation in an industry where either buyer or seller may build up substantial liability for payment to the other but where these debts cannot be enforced in the courts. As a result, illegal bookmaking firms know their clients well, know who their contacts are and can recognise atypical betting behaviour at the micro level. Consequently, illegal bookmaking is not likely to be an easy environment in which to place substantial bets associated with a fix. Offshore internet betting firms are a greater danger to the extent that betting is more impersonal there, which makes it unlikely that suspicion will be raised because of the source of the wager. In the absence of a legal and only lightly taxed domestic betting industry, internet substitutes are likely to develop and will be unpoliced outlets for bets associated with match fixing.

The second determinant of the proportion of players who would agree to a fix at a given level of financial gain is the level of player wages. In most sports, the penalty for a player proven to have fixed a match is a lengthy, or lifetime, suspension. Plainly the resulting loss of earnings will differ markedly over time and across sports and casual evidence suggests that this is a principal driver of how much betting-related corruption occurs in different periods and different settings. It is striking that major league US sports and top European soccer leagues have been almost devoid of betting scandal in the era of free agency and high player wages, in contrast to their earlier history; that contemporary professional cricket, where players have not won the same share of revenue as in other major team sports (Preston and Szymanski, 2000), remains notorious for its corruption; and that US college sports, where athletes are paid nothing at all, has generated the widest concern of all.

Cricket merits further discussion since it is unique among the big international team sports in that there is firm evidence of recent and very widespread corruption at the very top of the game. While not played in as many countries as soccer, cricket nevertheless commands a large international following (one day's play in an India–Pakistan match in 2004 had a worldwide television audience estimated at 600 million). Why then are its players so poorly paid relative to comparable sports? One factor is that, unlike soccer and US sports, the bulk of the game's revenue is generated by matches and series between national teams rather than by domestic competitions (which attract only weak public interest). As a result, national teams now play nearly constantly around the world, with established players seldom appearing in domestic league matches. Players entering this elite circuit are hired into a monopsonistic labour market because, with few exceptions, an individual player is qualified to represent only one country. This arrangement works to prevent players capturing the same proportion of broadcasting and other revenue as in sports with more competitive labour markets. Cricket governing bodies are thereby able to maintain control of economic rents which are then typically channelled into subsidising otherwise unviable domestic leagues. Major reform of this structure is likely to be necessary before rewards to players become commensurate with the audiences that top-level international cricket can command. The risk of losing wages of that order of magnitude would be likely to deter most players from association with bookmakers.

Even in the highest-paid sports, however, some support from criminal law enforcement is likely to be needed to eliminate corruption. Players near the end of their career and referees, who do not command the same rewards as players, may risk little financially by

trying to manipulate match outcomes to secure betting gain. High probability of detection is an effective deterrent to criminal malpractice in all fields and would be more likely in this case if dedicated police units were charged with enforcement (DCMS, 2001). Again, enforcement will be difficult if there is a large and liquid offshore sector through which bets can be channelled.

The final proposition in the Forrest–Simmons model is that the amount of corruption will be greater where underperformance on the field does not carry much loss of utility for the player. This appears to have been true in the cricket case: Preston and Szymanski (2003) made the point that the number of one-day internationals became so large that the result of any one became unimportant to players, thus fostering a willingness to match fix. Again the idea is consistent with the apparently high incidence of point shaving in US college sports. Because handicap betting was offered, groups of players on a strong team could conspire to score fewer points than they could have, win bets as a result, and still enjoy being on the winning side. Handicap betting appears therefore to carry more risk of corruption than odds-based betting systems.

Some other styles of betting have also been criticised as encouraging corruption. ‘Proposition bets’ relate not to the result of a game but to some aspect, for example the identity of the first player to score a touchdown, or whether a particular batsman will reach 50, or how many players are sent off in a soccer game. The controversy over this style of bet arises because some propositions are much easier to manipulate than the match result. Index betting firms in the UK had to withdraw a popular proposition bet relating to the time at which the (soccer) ball was first put out of play because it was alleged that players regularly kicked the ball into touch just after the game started simply to win a bet. This was not only easy to fix but was acceptable to players since it was virtually irrelevant to which team would win the match. The withdrawal of this particular proposition bet perhaps indicates that the betting industry will be self-regulating in what is permitted. Las Vegas sports books have low ceilings on the size of wager in the case of proposition bets.

A fast-growing subsector of the gambling industry is that of the betting exchange. Gaming companies gain their profit by (internet) matching of traders who indicate the odds at which they would be willing to bet either that an event will happen or that it will not. This enables anyone to play the role of a bookmaker by bidding as a seller (agreeing to pay another party if the named event occurs and to collect from that party if the event fails to occur). The rapid growth of betting exchanges has been of much concern to the horse-racing industry because corrupt jockeys can now effectively wager that the horse they control will lose. It was always possible to lose a race in the hope of betting gain but the gain would follow only if a bet was placed on the correct rival horse. Corruption therefore now carries higher expected gain.

Established bookmakers argue for the banning of betting exchanges (to which they have lost significant market share) because they corrupt the sport. The betting exchanges counter that a ban would drive the exchange concept offshore and deprive the authorities access to betting records that may be (indeed already have been) used to uncover corruption. The debate is familiar and symmetric with issues discussed in respect of other financial products than betting. If the regulator prohibits, or imposes heavy taxes, on a particular product, the money may move offshore where the authorities will find it hard to protect the public interest and the interests of investors.

Betting Odds as Information

Last in this review, we consider whether the abundant data yielded by betting markets is likely to be of general use in the work of sports economists. If the array of odds available on sports events were interpretable as a set of unbiased probabilistic forecasts of outcomes, the information could in principle be applied in many contexts. But, in practice, to date, it has been used only to illuminate the issue of the importance of match-level outcome uncertainty to attendance demand. Peel and Thomas (1988, 1992) for English soccer, Peel and Thomas (1997) and Carmichael et al. (1999) for English rugby league, Knowles et al. (1992) and Rascher (1999) for Major League Baseball and Welki and Zlatoper (1999) for American football, have all sought to measure the influence of outcome uncertainty by the use of betting odds or spreads.

The appeal of the procedure is obvious in that the cost of collecting data is now low, given the availability of electronic odds archives, whereas the construction of statistical models capable of generating efficient *ex ante* probabilistic forecasts is a formidable exercise. Further, odds data appear to be at least as powerful as statistical models in forecasting sporting outcomes (Boulier and Stekler, 2003 ; Forrest et al., 2005).

There are issues such as whether the uncertainty of outcome is best measured by the probability of a home win or the difference in odds quoted on the teams or the deviation in the ratio of the odds from one. But these are details relative to the fundamental issue of whether the betting market is sufficiently efficient that the use of odds does not yield misleading results from the attendance model.

Sauer (1998) surveys the voluminous literature on efficiency in wagering markets. Findings appear similar to those in other financial markets. Prices are broadly efficient. Some anomalies have been uncovered. Many of these disappear soon after being documented. A few (such as longshot bias in horse racing) are enduring. Among the biases alleged to exist in the sports where odds have been used in attendance demand work are home-away bias in rugby league (Simmons et al., 2003), longshot bias in baseball (Woodland and Woodland, 1994, 2003) and 'sentiment' bias (whereby bookmakers distort odds to take account of how many fans a team has) in soccer and American football (Forrest and Simmons, 2002; Avery and Chevalier, 1999). It is, of course, understandable if biases in odds occur because odds are set not to serve as forecasts but to maximise profit.

The crucial question is whether any bias is so pronounced as to undermine the results of the attendance studies cited above. Forrest and Simmons (2002) estimated two versions of an attendance demand model for soccer. One measured outcome uncertainty by reference to the ratio of the odds offered on the two teams. The other employed the same measure, but for corrected odds. The correction was based on a first stage in which they tested for, found and quantified biases in the odds.

Unfortunately, results from the two models were quite different. An audience preference for outcome uncertainty emerged only when bias-corrected odds were used. Of course, if statistically significant bias in the odds is found, more reliable results on the relationship between attendance and outcome uncertainty should be obtained by adjusting the odds accordingly; but any error in the specification of the betting market model will then be exported to the attendance demand model.

More research is needed. Sensitivity of the results to any violation of the assumption of betting market efficiency clearly undermines the existing sports economics literature employing betting odds. However, it would be surprising if these controversies were not

resolved, given the wealth of betting market data that still awaits exploitation by sports economists.

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5 Sponsorship

Claude Jeanrenaud

The Concept

As the organisers of the Athens Olympics reminded us, sports sponsorship far predates the modern industrial age, and has its roots in ancient times. It is, in fact,

[A practice that] goes back to Ancient Greece, where wealthy Athenians would contribute financially to expenses related to culture, defence, the state and sports, in order to make them more accessible to all citizens. In return, the state honoured them by engraving their name on marble tablets. This tribute was a mark of respect, value and high appreciation. (Official website of Athens, 2004).

In its modern guise, sports sponsorship is a marketing tool used to increase brand awareness, strengthen the corporate image, modify consumer attitudes and communicate with existing and potential customers. The term ‘event marketing’, which is sometimes used as a synonym of sports sponsorship, in fact refers to an activity which is much narrower in scope.

The simplest and most general way of defining sports sponsorship is as, ‘a cash or in kind deal under which a sponsor pays a sponsorship fee to a sports entity (athlete, league, team, event) to support overall organizational objectives and promotional strategies’ (Shank, 1999). Another definition highlights the fact that the sponsored entity agrees to associate themselves with the sponsor to allow the latter to benefit from the image or the emotion generated by the sporting event or the athlete him- or herself. However, this definition obscures the fact that the sponsor expects more than passive behaviour from the sponsored entity. The sponsorship partner must play a role in the sponsor’s communications strategy, which will bring value from its investment, and must, moreover, avoid any forms of behaviour which could damage their own image and that of the sponsor.

Sports sponsorship is not a philanthropic activity. Any definition must therefore emphasise its commercial nature, and must clearly distinguish between ‘corporate giving’ and ‘corporate sponsorship’. The sponsor expects a return on its investment, while the corporate donor is motivated by a sense of moral duty and a desire to give something to society. In fact, the border between sponsorship and corporate giving is often blurred; some sponsorship deals are more akin to acts of donation, as the investment cannot be entirely justified on the basis of rational calculations. Conversely, the corporate donor may be guided by the hope of receiving certain benefits in return (Damborn, 1993). Biojout (1985) proposes a way of distinguishing, indirectly, between sponsorship and giving. Where the club or event is dependent on the donor, that is, without its financial support they would cease to exist, then this can be defined as an act of corporate giving and not sponsorship.

One characteristic of sponsorship, which differentiates it from other marketing tools, is the fact that individuals decide voluntarily whether or not to attend a sporting event. The sponsor’s message therefore has the advantage of not being perceived as an unwelcome intrusion, meaning that the target audience will be more receptive to it. Unlike other forms

of public relations (PR), sponsorship may give the appearance of being driven by selfless motives.

The Objectives of Sponsorship

A significant proportion of the literature devoted to sports sponsorship examines the reasons why businesses choose to use this particular vehicle for public relations. And while there is overall consensus as to the objectives, and their relative importance, approaches to classification vary from one author to another.

One proposed mode of classification differentiates between direct and indirect objectives. In the first instance, the sponsor expects a rapid change in the behaviour of its existing and potential customers. In the second instance, it is looking primarily for increased visibility of its brand or products, contact with a particular segment of its client base and an enhancement of its image; growth in sales are only a long-term goal.

A second type of classification that is frequently adopted distinguishes between corporate and marketing objectives (Table 5.1). Sometimes, it is the personal preferences of the CEO that are behind a decision to lend support to a particular sport or a particular sporting institution.

For the purposes of any economic analysis of sports sponsorship, it is useful to make the distinction between commercial and institutional objectives. When the decision to sponsor is not based, or at least not entirely based, on commercial rationale, but takes into account notions such as the public interest and social responsibility, then sponsorship becomes a substitute for public funding (Gratton and Taylor, 1985). This is more likely to be the case when the company chooses to sponsor grassroots rather than elite sport. Commercial interests do not necessarily exclude the public interest. At the end of the 1990s, Coca-Cola decided to shift its sponsorship strategy in France towards grassroots sports. Their belief was that the level of brand awareness was such that Coca-Cola was associated with all kinds of different sports, whether or not a sponsorship agreement was in place. The second reason for the shift in strategy in favour of institutional sponsorship was the desire to create the image of a company that was aware of its social responsibilities (Economic and Social Council, 2002).

Commercial objectives

Commercial objectives relate to a company's desire to ensure a good return on its investment. Sponsorship forms part of a strategy designed to maximise profit. Wide-scale media

Table 5.1 Corporate and marketing objectives

Corporate objectives	Marketing objectives
Increase awareness of the company	Increase sales
Enhance company image	Increase brand or product awareness
Community involvement	Target specific customer base
Improve public perception of the company	Brand positioning
Enhance employee motivation	
Assist staff recruitment	

Sources: Adapted from Arthur et al. (1998) and Hultman and Lindgren (2001).

coverage of top-level sport makes it a good vehicle for increasing brand awareness. Association with the positive image projected by an athlete, a club or a sporting event can also feed into a company's commercial strategy. In order to achieve the desired effect, the sponsor must ensure that there is a congruence between the image of the sport or the entity in question and the one it is seeking to achieve for its brand or its products. By associating itself with a sport which enjoys an image of youth, healthiness and high performance, a company will expect that this positive image will be projected on to its brand or products. It can also deliver an emotive message to the consumer, with its products benefiting from the positive attitude of the public towards a club or an athlete. Moreover, the wide diversity of the sporting world enables the sponsor to target its message at a specific audience. Sponsorship offers a platform for PR operations; the sponsor can invite its best clients to sporting events that it is supporting, enabling it to strengthen business relationships in a more convivial environment. The sponsor can ultimately expect to see increased sales and benefit from the opportunity to make its products stand out from those of its competitors.

Institutional objectives

Institutional sponsorship is designed to help create the image of a company that is integrated into the social and cultural life of the country or region where it operates. Some of the biggest British companies are currently supporting London's bid to host the 2012 Olympic Games. In doing so they are participating in an event which is expected to have a positive impact on the economy of the city and the region. By lending their financial support, these companies are demonstrating that they feel a sense of responsibility towards the population and that they share its concerns. A recent Australian study confirms the importance of the non-commercial goals of sponsorship. The study concludes, 'communication with customers may not be the chief objective of sponsoring. The general goal of "image enhancement" stands out . . . as the main reason that companies sponsor sport. This is clearly not directly linked to sales, being more in the vein of being a good corporate citizen' (Madden, 2000). The importance of non-commercial motivations in the decision to support sporting entities is further confirmed by a survey conducted among Swedish companies (Hultman and Lindgren, 2001). One of the companies interviewed – SKF Sverige – states that its main objective is to ensure that its employees feel pride in the company, and that they sense that their employer is contributing to the social development of their region. The company also expects the teams that it sponsors to produce good results. Among the criteria listed in the survey, most important appeared to be the effect on the sponsoring company's image, the public perception of the company, community participation and employee relations. Clearly, then, institutional objectives play a dominant role.

Ultimately, it is perhaps presumptuous to try to set up a universal hierarchy of motivations without reference to the cultural context. There is also probably a strong cultural element in the way that these firms think about sponsorship. In Europe, institutional objectives appear to play a more important role than they do in North America, where companies regard sports sponsorship primarily as a tool for marketing and for commercial objectives.

The Nature of the Relationship/Types of Sponsorship

The sponsorship agreement defines the reciprocal obligations of the sponsor and the sponsored party. There are a large variety of arrangements which reflect the diversity in

the reasons for which two parties might wish to enter into a sponsorship agreement. Obligations can be separated into those relating to the project and those relating to communication or participation in promotional activities. The sponsor agrees to provide payment in cash or in kind. Both the sponsor and the sponsored party tend to be discreet about the content of the agreement, particularly the financial aspects. Today, companies tend to agree shorter-term sponsorship contracts in order to reduce the risks, particularly because of the speed with which the image of clubs and sportspeople can change, but also because of potential problems relating to injury or doping. Sponsorship agreements focused on short-term activities are well suited to institutional sponsorship programmes which seek to convey to the general public the image of a good 'corporate citizen', while longer-term agreements are more likely to be used to strengthen brand or product awareness (Biojout, 1985).

Curiously, very few studies have focused on the fact that the relationship between sponsor and beneficiary can be viewed within the context of the agency model. Two recent exceptions are Farrelly and Quester (2003) and Binenbaum and Bayer (2004). The latter study – one of very few economic articles on the subject of sponsorship – focuses not, in fact, on sport, but on academic research. But the approach can easily be applied to sports sponsorship. The authors distinguish between simple sponsorship and incentive sponsorship. In the first case, the sum involved is defined *ex ante*. This means that the sponsor does not have at its disposal any lever with which to influence the behaviour of the sponsored party; it cannot encourage it to achieve good results, engage in PR activities, or avoid any activity which might have a negative impact on its own image and that of the sponsor's. Incentive sponsorship – which makes use of positive incentives (carrots) and negative incentives (sticks), ties the sponsorship fee to the efforts made by the sponsored athlete or organisation to meet the expectations of the sponsor. Certain sponsorship agreements signed by Adidas include results-based bonuses and royalties on sales (Economic and Social Council, 2002).

The agency model is concerned with the relationship between a principal and an agent employed to execute a particular task on behalf of the former, in the context of imperfect and asymmetrical information. The implementation of such an agreement implies a delegation of decision making power to the agent. The ensuing relationship creates a problem because of the information imbalance between the two parties and gives rise to a possible divergence of interests. In the case of a sponsorship agreement, the sponsor is the principal and the sporting entity is its agent. The principal does not have at its disposal all the information that will enable it to understand whether the agent is fully committed to achieving the objectives of the agreement, whether it will be primarily governed by its own interests, or if it will risk damaging the image of the sponsor, for example by using drugs. In order to minimise agency costs, the sponsor includes incentive mechanisms in the contract. Hence, sponsorship deals agreed with athletes often include a clause allowing the sponsor to significantly reduce the sponsorship fee if the athlete has to stop competing as a result of injury or suspension. The relationship between the athlete and the sponsor throws up real scope for a conflict of interests. One can easily imagine that, while the athlete wants to devote most of his/her time to training, competing and recovery, the sponsor would expect him/her to spend more time engaged in PR activities. A further source of possible conflict stems from the fact that, while the athlete may seek to maximise sporting performance by all means available (performance-enhancing drugs

included), the sponsor will wish to promote different values such as fair-play, team spirit and good health.

A high trust level between the parties is one way of reducing the agency costs. 'Trust reassures sponsors that the association has been or will be worthwhile and that the property has endeavoured to ensure success of both parties', note Farrelly and Quester (2003). This observation shows that mutual trust is a key factor in the renewal of sponsorship agreements, as it gives the sponsor a certain level of assurance that the risks are under control. When Credit Suisse – an international financial group – decided not to extend its sponsorship deal with the organisers of the national cycling trials it was because it had changed its perception of the risks to its image. A press release released by the bank in September 1999 explained its reasons for choosing to channel its sports sponsorship resources elsewhere: 'Internal studies have shown that cycle racing is losing support among some sectors of the population and among Credit Suisse target customer groups in particular, not least because of the doping debate. Credit Suisse therefore takes the view that there is no longer a sufficient basis for continuing the sponsoring commitment'.

Significance of Sports Sponsorship

In 2003, global spending on sponsorship, across all spheres, reached US\$26.2 billion, of which approximately two-thirds (67 per cent) was devoted to sporting activities (International Events Group). The recent increase in the volume of sports sponsorship deals is, first and foremost, due to the growth in television coverage. Without TV, it would be difficult to imagine that companies would be willing to spend up to US\$50 million for the privilege of being associated with a major sporting event such as the Olympic Games. According to a survey that looked at over 1300 deals worth over US\$75 000, 90 per cent of funds invested in sponsorship were targeted at sport (Sports Marketing Surveys). All these estimates are provided by marketing companies and little information is available as to the methodologies employed or the response rates achieved in the surveys. The figures shown undoubtedly underestimate the actual significance of sports sponsorship, as they include only visible forms of support, that is to say the financial assistance declared by the sponsor, and they ignore the majority of agreements signed by smaller companies at regional or local level. The latter may represent as much as one-quarter of the total amount invested in sports sponsorship. The survey conducted by Sports Marketing Surveys does provide a certain amount of information on the breakdown of sponsorship agreements. Major deals worth over US\$5 million account for a little under 20 per cent of the total number of sports sponsorship agreements. Contracts for between US\$500 000 and US\$5 million make-up 43.1 per cent of the total, while the remaining 38.3 per cent is made up by contracts worth between US\$75 000 and US\$500 000.

According to International Events Group, spending on event sponsorship – across all sectors – increased to US\$6.8 billion in 1998. The organisers of sporting events received two-thirds of this amount. At the Athens Olympics, the Organisation Committee received €576 million in sponsorship money.

One particular type of sponsorship which is extremely widespread in North America but which is still rarely found in Europe is the stadium naming rights deal. In the United States and Canada, where the first contracts of this sort were signed at the end of the 1980s, there are now some 70 examples of companies paying to associate their name with that of a sporting venue, and such deals generate, on average, annual revenues of

US\$169 million (2003). Phillips bought the rights to have its name on the stadium of the Atlanta Hawks for an average annual fee of US\$9.3 million (until 2019), while Reliant Energy paid US\$10 million to have the stadium of the Houston Texans renamed as the Reliant Stadium (until 2032). These are two of the biggest deals of this kind. In Europe, the practice is gradually being introduced in the UK, but elsewhere it is much rarer. A new stadium – called the Allianz Arena after the German insurance and financial services company – is being built for the 2006 World Cup in Munich. The decision to give the new venue the name of a private company has provoked opposition from both fans and the local population. In continental Europe, there is no doubt that local opposition represents an obstacle to this type of arrangement.

In terms of which sectors contribute most to sports sponsorship at world level, the soft drinks industry leads the way, followed by the automotive industry, telecommunications and the financial services sector. And in terms of favoured sponsorship vehicles, football is the number one target, followed by stadium naming rights. These rankings vary from year to year since they are based on the total value of new contracts and not on annual revenues received.

The Free-rider Problem or the Risks of Ambush Marketing

The economic nature of the service – private or public – is rarely discussed in the context of sports sponsorship, as most of the relevant literature is more concerned with marketing. However, the technical characteristics of the service provided by an individual athlete, a team or an event organiser constitute an important dimension of any analysis of sports sponsorship.

A sporting spectacle is a good example of a joint production. The organiser of a sporting event is, in fact, generating two products simultaneously: the event itself, and the emotions and values that it produces among the fans and the wider public. The owner of the sports property wants to be able to leverage commercial value from both products. In the case of the first, it can do so via gate receipts and the sale of broadcasting rights; in the case of the second, with the help of sponsorship agreements. Both rely on the capacity of introducing an exclusion mechanism, in other words, access to the product has to be reserved to those who are ready to pay the going price, while everyone else is excluded.

The spectacle itself – the enjoyment gained from attending a sporting event or watching it on television – lends itself easily to exclusion. The second product, however, is an intangible value (based on factors such as image, emotion, a sense of pride and so on), which has to be commercialised separately. The ability to make those who benefit from this product pay for the privilege depends on an ability to establish property rights and on the efforts that the parties are willing to go to in order to ensure that they are respected. In the absence of property rights, companies interested in leveraging the image of an athlete or a sport will happily make use of them free of charge.

The service provided by the sponsored entity possesses a second feature characteristic of a private good. The value of the service diminishes as the number of sponsors increases, due to rivalry in consumption. When several companies lend their name to one event, the benefit is diluted. The advantage received by each co-sponsor is less than if they had been the sole sponsors of that event. The sponsored entity may therefore differentiate between sponsors according to the willingness to pay, for example by making the name or brand of the lead sponsor more visible than that/those of the secondary sponsor(s).

As many examples of ambush or parasite marketing demonstrate, the rights of an official sponsor cannot be certain. Ambush marketing refers to a situation where an official sponsor claims that one of its rivals is trying to associate its name with the event in question without the consent of the organiser and without paying for the right to do so. As several well-known examples show, this practice is not only commonplace, but it is also quite possible for the ambusher to act without breaking the law. By far the most famous example is that of Michael Jordan at the Barcelona Olympics in 1992. By wrapping himself in an American flag to conceal the logo of the official sponsor on his clothing when he was stepping up to receive his gold medal with the victorious US basketball team, Jordan was able to reserve the benefit gained from this image for his own personal sponsor. The companies which practice this form of sponsorship most effectively are large multinationals, which are able to associate themselves with an event without the consent of the organiser and without paying for sponsorship rights. These companies can call on the best lawyers and can take all of the necessary precautions to avoid being open to attack in the courts. The whole art of those who practise parasite marketing is that they ensure that they are perceived by the public as an official and legitimate sponsor of the event in question. In order to do so, those concerned display a huge amount of creativity and utilise increasingly sophisticated methods. Without doubt the most striking example was the appearance of British sprinter Linford Christie at a press conference before the 100 metres final at the Atlanta Olympics wearing blue contact lenses with a white Puma logo emblazoned in the middle. Reebok, who had paid US\$30 million to be the official sponsor of the Games, were, understandably, not best pleased.

Major sporting events, which have a truly global impact, such as the Olympic Games or the World Cup, provide the prime turf for parasite marketing initiatives. This is hardly surprising given the level of audiences that they attract – the cumulative viewing time for the Athens Olympics was estimated at 39 billion hours – and the actual cost of the sponsorship packages. In the short term, parasite marketing is first of all a problem for the official sponsor, but in the longer term, there is also a high risk that it will become a problem for the organisers, given that it causes potential future sponsors to adopt a more prudent approach.

The intangible values associated with a major sporting event – the emotions, the pride, the personal charisma of the athletes – all strongly bear the characteristics of a public good, and it is difficult, if not impossible, to exclude companies or brands wishing to associate themselves with the event without paying for the privilege. It is therefore preferable for a company to associate its name or its brand with an individual athlete or a club rather than an event. Nike has grasped this fact well. During the 2002 World Cup, the official sponsor, Adidas, was unable to prevent Nike, which sponsored several of the participating teams, including Brazil, from benefiting from a strong association with the event. And at the Athens Olympics, athletes under contract with Nike won 50 gold medals. Although a master of parasite marketing, the sports goods manufacturer does, however, appear to be showing signs of wanting to pull rank and is toning down its anti-establishment approach, as it has agreed to become an official sponsor of the next Summer Olympics in Peking (Holmes, 2004).

Evaluating the Benefits of Sponsorship

The results of a sponsorship campaign are often measured in non-material gains, which makes evaluation a difficult task. It is possible, by employing survey techniques, to gauge

the effect of a sponsorship campaign on brand awareness or to measure exposure via the media. By contrast, calculating its impact on sales is a much trickier task.

One procedure which is often used to evaluate the effectiveness of sponsorship is a calculation of the column inches devoted to an event in the print media, multiplied by the number of readers of each publication. Similarly, broadcast time on TV and radio is calculated, weighted according to the time of broadcast. Based on these data, the cost of an advertising campaign which would have generated the same level of exposure (time or column inches) is estimated. The sponsorship campaign is judged to have been a success if its cost is less than that of the equivalent advertising campaign.

Often, the central objective of a sponsorship initiative is to enable the brand to benefit from the positive image of sport. In order to find out whether this goal has been achieved, the image of both the event and the sponsor are evaluated, before and after the event. Communications theorists have developed tools for evaluating the image of an event, as well as measuring the success achieved in transferring this image to the sponsor (Tribou, 2002).

All these measures provide information on the intermediate objectives (such as visibility, awareness and image), but offer no clues as to the ultimate commercial goal. In order to measure impact on sales, there are various techniques available, including econometric analysis and experimental economics. It is, however, important to recognise that results in terms of sales growth cannot be estimated with any great degree of precision. According to Meenaghan (1983, quoted by Hultman and Lindgren, 2001), 'it could be dangerous and misleading to evaluate a sponsorship on extra sales achieved. Sponsorship can create a climate conducive to the development of extra sales; only very rarely is it the direct means of achieving them'.

In order to provide a more tangible indicator for measuring return on investment, various authors have sought to apply an alternative method called 'event study methodology' (ESM) to the realm of sponsorship. ESM relies on the judgement of the financial markets. 'Event' in this case is used, as it would be in the financial community, to mean 'new information, rather than in the sporting sense, and the scope for application extends well beyond sports marketing. The method can be applied only to publicly listed companies with large-scale operations. It postulates the efficiency of financial markets and the ability of investors to value *ex ante* the future benefits likely to be generated by a sponsorship deal.

The value of a company's shares reflects the future gains it will realise, as predicted by the market – supposed to be efficient – using all the information available. Any new information will either increase or reduce the demand for stock, and hence its value, if the shareholders or potential investors judge that it will have a positive or negative effect on the company's future earnings. This approach has been used to evaluate the effects of marketing policies, advertising campaigns and new product launches (Kinney and Bell, 2003). The announcement of sponsorship agreements with major stars tends to reflect positively on the perceived value of the deal, as is shown by Agrawal and Kamakura (1995). One point worth noting, which confirms the theoretical hypotheses, is the importance of a congruence between the event and the brand. In a study focusing on brand sponsorship during the Atlanta Olympics, Miyazaki and Morgan (2001) conclude that there is no consistent link between the announcement of a sponsorship deal and the company's share price – the effect being sometimes positive and sometimes negative. There is nothing surprising in this conclusion. A systematically positive link would mean that the benefits of

sponsorship for the brand are always underestimated by the organisers. Kinney and Bell (2003), whose study covers all types of sports sponsorship, demonstrate, however, the existence of a significant link between the announcement of a sponsorship contract and the share price as long as adequate information – notably the value of the sponsorship package – is made available to the financial community.

The Impact of Sponsorship on Sport

Almost all of the studies conducted analyse sponsorship solely from the perspective of the sponsors, in terms of their motives, strategy, selection process and evaluation of results. The point of view of the sponsored party, or of society as a whole, are generally ignored. There are virtually no studies that look at the consequences of sponsorship for sport or sporting organisations. Such a unilateral approach is easier to understand once one takes into account the fact that most of the authors who have an interest in sponsorship are marketing specialists rather than economists. It is certainly the case that the impact of television rights on sport is comparable to that of sponsoring revenues, since the size of sponsorship packages depends on the media audience, and is better known. The sale of broadcast rights is a factor of revenue imbalance – namely an imbalance in the resources between those sports which enjoy broad media coverage and those which do not, between those sports which enjoy large participation levels and the so-called ‘minor’ sports, between sport at the top level and at the grassroots, between large and small clubs and finally between those athletes who enjoy broad media coverage and those who do not. The whole issue of the impact of retransmission rights and sponsoring revenues on sport still suffers from a significant deficit of knowledge.

However, the additional resources injected by the sponsor are not the only benefit for sporting entities. As part of its leveraging strategy, the sponsor encourages the visibility of the event to be increased, and as a consequence, public interest in the event will grow. Moreover, the additional resources that the sponsor makes available to the organisers enable them to invite the best athletes, which again leads to increased interest on the part of both the public and the media. Just by being associated with a well-known company or brand is beneficial to the organisers since it increases the visibility and the credibility of their event. Hence the result is a virtuous circle that leads to a growth in demand both for the sponsor’s products and for the sport (Gratton and Taylor, 1985).

However, while sports sponsorship has clear benefits for sporting entities, it also entails certain risks. Individual athletes, teams, and indeed whole sports have become dependent on sponsorship. However, the volatility of these revenues is making the management of sporting activities more difficult and represents a threat to their viability. When a sponsor decides not to renew an agreement, the beneficiary may find itself in difficulty.

Sometimes the sponsor demands the right to exercise control over the activities of the sponsored entity, which can create the risk of conflict between the commercial interests of the sponsor and the sporting interests of an individual athlete, a sporting organisation, or even a particular sport as a whole. The sponsor may wish to achieve greater visibility for the athletes with whom it has secured sponsorship deals; this could mean participation in a larger number of events, with increased risks to the health of the athletes and also the risk of reduced public interest as a result of overexposure. Should the rules and traditions of sport be changed to accommodate the interests of the sponsor and make competitions more attractive to the media? By submitting sport to commercial imperatives, are we not

jeopardising its integrity, its traditions, and ultimately, the interest of the public? These are real risks and legitimate concerns.

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6 International trade in sports goods

Wladimir Andreff

Academic economists have as yet barely investigated the area of international trade in sports goods. Although data is available at a macroeconomic level in developed countries, neither the old economic theory of international division of labour (David Ricardo) and international specialisation (Eli Heckscher, Bertil Ohlin and Paul Samuelson – HOS), nor the new international economics (Paul Krugman and Elharan Helpman), focusing on intra-industry trade, have been seriously tested with regard to international trade in the sports goods industry. They have hardly been used or referred to in this context (two exceptions are Andreff, 1989 and Harvey and Saint-Germain, 2001). One problem is that international trade in sports goods can be depicted only by using the most detailed SITC classification for which data are not available or are unpublished in many countries, namely in developing countries. Another complication is that a country often appears to be both importer and exporter of the same sporting good, since comprehensive data are given for a number of SITC categories, indicating that there is intra-product trade within an overall intra-industry trade. Moreover, due to widespread subcontracting with outward-processing trade and foreign direct investment in the sports goods industry, a share of international trade is simply an intra-firm transfer of products. The scarcity of microeconomic studies about such transfers operating within transnational corporations (TNCs), such as Nike, Adidas, Reebok and so on, does not provide an overall view of intra-firm trade in this industry. Since there are as yet no macro- and microeconomic databases covering the global trade in sports goods, researchers have to largely rely on domestic statistics that do not allow extensive comparison between different countries. Thus, the whole topic has been ignored, although it is one of the most promising avenues for further research in the economics of sports. This chapter examines such non-systematic knowledge as exists in the literature.

Global Trade in Sports Goods

An overview of the world trade in sports goods results from research carried out by Harvey and Saint-Germain (2001) based on the data coverage of 28 countries whose detailed SITC figures are available in the UN world trade statistics, from 1974 to 1994. These countries represent 75 per cent of global trade in sports goods and encompass the three North American Free Trade Agreement (NAFTA) countries (Canada, Mexico and the United States), the 15 European Union (EU) countries (as of 1995, after the fourth enlargement) and 10 southeast Asian countries (China, Hong Kong, Indonesia, Japan, Malaysia, the Philippines, Singapore, South Korea, Taiwan and Thailand). The 25 per cent missing share of global trade is concentrated in Switzerland, Eastern Europe, some Asian countries (Pakistan, India, Vietnam), Maghreb (Morocco, Tunisia) and Latin American countries (Argentina, Brazil). Among the sampled countries, in 1994, the 10 major exporters of sports goods were the United States, China, Hong Kong, France, Austria, South Korea, Japan, Italy, Germany and Canada; the 10 major importers were

Table 6.1 *Global trade in sports goods by trading bloc**

Trading bloc	Year	Trading bloc				Total
		NAFTA	EU	Asia 10	Other countries	
NAFTA	1974	40.6	21.9	26.1	11.5	100
	1984	56.4	13.4	21.2	9.1	100
	1994	57.2	9.5	27.9	5.4	100
EU	1974	20.0	49.5	10.7	19.8	100
	1984	16.0	52.4	16.9	14.8	100
	1994	11.8	50.2	20.7	17.2	100
Asia 10	1974	51.9	19.3	18.5	10.2	100
	1984	28.9	14.5	50.4	6.2	100
	1994	31.0	12.1	50.0	6.8	100

Note: * $(X + M)/2$ %; X = exports; M = imports.

Source: Harvey and Saint-Germain (2001).

the United States, Japan, Germany, Hong Kong, Canada, France, the UK, Italy, the Netherlands and Spain.

The concentration of global trade in sports goods by trading areas (Table 6.1) exhibits a tendency of developed (NAFTA and EU) countries to primarily develop mutual trade together. About two-thirds of the NAFTA sports goods trade is with other NAFTA and EU countries; nearly two-thirds of the EU sports goods trade is with other EU and NAFTA countries. Thus, the trade displays a geographical concentration on developed countries just like most manufactured products whose global trade concentrates (approximately 66 per cent), on North–North trade. The new international economics could explain such a trade. The same argument can be extended to the 10 sampled Asian countries since some of them are developed (Japan) or newly industrialised countries. However, NAFTA's and the EU's overall share in the sports goods trade decreased from 1974 to 1994, because intra-area trade across Asian countries increased dramatically. In 1994, the intra-area trade was 50 per cent of overall trade in sports goods in Asia (50.2 per cent in the EU and 57.4 per cent in NAFTA). The share of the intra-area trade in sports goods has not changed significantly in the EU, but it has increased in NAFTA. In 1994, 69.1 per cent of the Canadian and 82.8 per cent of the Mexican sports goods trade were with NAFTA (only 19.6 per cent in the US case); on the other hand, 52.8 per cent of the Italian, 41.8 per cent of the UK, 40.8 per cent of the German and 35.2 per cent of the French sports goods trade were with EU countries. Therefore, the second tendency is one of 'regionalisation' of the sports goods trade into continental blocs.

Foreign Trade of Major Countries in the Sports Goods Industry

Calculating an export to import ratio $r = [X/M].100$ shows whether a country is a net exporter ($r > 100$) or a net importer ($r < 100$) of sporting goods. In 1990, among the 10 European countries sampled in a study for the Council of Europe (Andreff et al., 1994), only Italy was a significant net exporter while Belgium, Finland, France, Germany,

Table 6.2 Ratio of sports goods export to import, major trading partners

Country	1974	1989	1994	Average 1974–94
Canada	44.7	49.9	61.7	51.3
Mexico	13.1	54.7	91.9	95.8
USA	57.9	42.8	43.3	48.4
NAFTA	38.6	49.1	65.6	65.2
Austria	384.0	390.3	301.1	381.1
Belgium–Luxembourg	130.1	56.1	47.0	74.7
Denmark	36.9	72.0	86.7	58.6
Finland	195.1	113.4	174.0	196.4
France	340.0	109.4	130.2	182.6
Germany	71.3	67.7	50.8	66.5
Greece	17.4	2.5	5.7	6.8
Ireland	118.6	151.9	194.7	157.4
Italy	95.2	67.7	141.2	109.1
Netherlands	25.4	45.9	39.6	41.3
Portugal	13.8	55.2	23.6	50.7
Spain	76.1	34.7	40.2	71.0
Sweden	137.7	63.5	59.3	83.5
United Kingdom	158.6	54.1	52.8	91.6
EU	128.6	91.7	96.2	112.2
China	n.a.	696.5	799.0	747.8
Hong Kong	99.2	109.1	124.8	101.9
Indonesia	7.5*	72.2	2082.1	540.9
Japan	94.5	28.7	23.2	63.0
Malaysia	5.4	78.4	104.8	47.8
Philippines	67.9*	132.3	248.2	213.3
Singapore	18.9	57.5	67.4	45.5
South Korea	831.4	1100.2	326.4	844.6
Taiwan	n.a.	n.a.	n.a.	n.a.
Thailand	21.3	156.9	570.0	153.5
Asia 10	178.5	270.2	482.9	260.0

Note: * In 1979.

Source: Harvey and Saint-Germain (2001).

Hungary, Portugal, Sweden and the UK were net importers of sports goods. Table 6.2 confirms that developed countries were net importers rather than net exporters of sports goods, and this is partly due to the relocation of the sports goods industry in some developing countries (see below). All NAFTA countries were net importers in 1974–94 whereas only five out of 15 EU countries were net exporters, the most successful being Austria – one of the strongest exporters of winter sports goods – together with Switzerland. On the other hand, Belgium, Sweden and the UK were net exporters in 1974 but not later on. Finland, France, Ireland and Italy were still net exporters in 1994. Within NAFTA, the United States consolidated its net importer position while Canada's and Mexico's position as net importers was weakened.

All Asian countries were net exporters, except Japan, Malaysia and Singapore, including those non-sampled countries such as Pakistan, India, Sri Lanka, Vietnam (according to scattered information). The very high value of the export/import ratio in South Korea, Indonesia, China, Thailand and the Philippines was the other side of the coin with regard to the relocation of the sports goods industry from developed countries. Maghreb countries were net exporters as well, since they were a privileged location for outward-processing trade in the textile and clothing and footwear and leather industries, especially regarding the production of sportswear and sports footwear.

‘Equipment-intensive’ versus ‘Trite’ Sports Goods Trade

When it comes to international specialisation in the sports goods trade, there is a notable absence of inter-country comparative studies. Since the crux of the matter is to analyse how countries specialise in the intra-industry trade – all the listed 28 countries are both importers and exporters of sports goods – the issue involves a closer examination of the most detailed SITC product classification. This makes it crystal clear that, for a country, the advantage of exporting (importing) winter sports goods on the one hand, and balls or sportswear on the other, does not have the same economic value and the impact on its trade balance. Looking at their unit value in foreign trade, skis, ski boots, sailing boats, windsurfing boards or golf equipment cannot be categorised as the same sort of sports goods as, say, sportswear, tracksuits, balls, swimsuits and sports footwear. The former group contains goods with a high unit value, due to a significant value added in the production process, a rather sophisticated and evolving technology and know-how, whereas the latter group consists in cheaper goods (per unit) with a lower value added, which are produced with a mature technology and an easily transferable know-how. Moreover, high unit value sports goods are usually required for specialised equipment-intensive sports such as, for instance, sailing, winter sports, surfing, motor sports or golf. These sports goods are ‘equipment intensive’. Low unit value sports goods are less specialised and can be used in a wider range of sporting activities (gymnastics, walking, body building, keep fit, team sports and track and field) or even during leisure-time activities (for example, sportswear, tracksuits and sports footwear). These are ‘trite’ sports goods (Andreff, 1989). With this categorisation in mind, one can switch to a more detailed qualification of product specialisation within the international intra-industry trade in sports goods. Unfortunately, until now, such detailed research has been done only at country level, examining the foreign trade in sport goods of one country, without international comparison.

International Specialisation in the Sports Goods Trade

The differentiation of sports goods in the intra-industry trade has been studied in detail in the French case. Inter- or intra-product specialisation is assessed using the export to import ratio, product by product, and by calculating an intra-industry trade index for each detailed product. Several indexes are available in the literature, the simplest one being the Balassa index:

$$B_i = [(X_i - M_i)/(X_i + M_i)] \cdot 100,$$

where i usually stands for an industry. Here i will stand for one product or a product group smaller than the entire sports goods industry. When $B_i = 100$, a country is exclusively an

exporter and when $B_i = -100$ it is exclusively an importer of the sports good i . This product is typically a 'pure' Heckscher–Ohlin good and the country exhibits an inter-product specialisation with regard to this good. When $B_i = 0$, a country exports exactly as much as it imports of a sports good i ; this is a 'pure' Balassa good and the country shows a Krugman intra-product specialisation with regard to this good. Economists usually conclude, when $-30 < B_i < +30$, that one observes an intra-industry (here intra-product) trade, corresponding to the international specialisation across developed countries on imperfect markets with increasing returns (a Krugman specialisation). When $B_i < -30$ and $B_i > +30$, trade is considered as inter-industry (here inter-product), in tune with a traditional HOS international specialisation.

Table 6.3 shows that, in the long run, France is specialised as an exporter of equipment-intensive sporting goods such as sailing boats, yachts, windsurfing boards, skis and accessories, and (less and less) ski boots. It improves its net importer position in gymnastics and other sports equipment and in golf equipment. On the other hand, at least since 1981, France is a net importer of trite sports goods such as skates and, increasingly, sports footwear while it has switched from a net-exporting to a net-importing position in swimsuits (as well as in other sportswear, not listed in the table). One conclusion, to the extent that France is representative, is that developed countries tend to be net exporters of high value-added and high-tech equipment-intensive sports goods whereas they are net importers of trite sports goods. The next question is: where from? The second conclusion arising from Table 6.3 is that French trade in various sports goods exhibits an inter-product specialisation, in particular in trite goods such as sports footwear and skates. However, in equipment-intensive goods, an intra-product trade is observed for ski boots and golf equipment, in recent years; whether France is a net exporter or importer of these products, it imports a significant volume of these items from other developed countries (since developing countries produce virtually no ski boots and golf equipment). French

Table 6.3 International specialisation in the sports goods industry: France, 1981–2001

Some major products	1981		1986		1992		1999		2001	
	<i>X/M</i>	B_i	<i>X/M</i>	B_i	<i>X/M</i>	B_i	<i>X/M</i>	B_i	<i>X/M</i>	B_i
Equipment-intensive goods										
Sailing boats, yachts	436	63	717	76	185	30	430	62	456	64
Skis & accessories	496	76	897	80	742	76	598	71	440	63
Ski boots	n.a.	n.a.	409	61	231	40	114	6	104	2
Windsurfing boards & accessories	184	30	114	6	*	*	*	*	*	*
Golf equipment	19	(-68)	10	(-81)			51	(-33)	66	(-20)
Gymn. & sports equipment	7	(-87)	27	(-58)	26	(-59)	102	1	95	2
Trite sports goods										
Swimsuits	268	46	108	4	84	(-9)	57	(-27)	57	(-27)
Sports footwear	79	(-12)	68	(-19)	44	(-39)	29	(-55)	19	(-69)
Skates	44	(-39)	15	(-73)	46	(-37)	58	(-26)	55	(-29)

Note: * Included in sailing boats; *X/M*: ratio of export to import; B_i : Balassa index.

Sources: Andreff (1989), STAT-Info (Ministry for Sports).

trade in equipment-intensive sports goods tends to be representative of North–North intra-industry and intra-product trade in high value-added manufactured goods, which grows in a context of imperfect (oligopolistic) competition. The size and the large world market share of French firms such as Salomon and Rossignol in ski and ski boot production or Bénéteau in the production of sailing boats is in tune with previous observations.

In order to complete the analysis of a country's international specialisation in the sports goods trade, some information is needed about where exports are flowing to and where imports are coming from. In the case of France, the major trading partners are:

- the USA, Japan, Germany, Italy, Switzerland, Belgium, Sweden, Canada, Austria and the UK with regard to major exports of equipment-intensive sports goods;
- Italy, Austria and Switzerland with regard to major imports of equipment-intensive sports goods;
- Eastern and Southern European, South Asian and Maghreb countries with regard to major imports of trite sports goods, namely Morocco, Tunisia, China, Thailand, Pakistan, South Korea, Hong Kong, Taiwan, Indonesia, the Philippines, Malaysia, Hungary, Poland, the Czech Republic, Romania and Croatia, as well as Italy, Spain and Portugal;
- French exports of trite sporting goods are geared towards European developed markets, namely Germany, Italy, Belgium and the UK.

The outflow of market-seeking exports crosses the inflow of market-seeking imports in equipment-intensive sporting goods. On the other hand, most of imported trite sports goods come from countries with a lower unit labour cost, and they are backed by an efficiency-seeking (or cost-reducing) rationale, sometimes linked to production relocation in the third world and Eastern and Southern Europe. However, this specialisation has resulted in an overall French trade deficit in sports goods, since the late 1990s, in so far as the net export of equipment-intensive goods is now lower than the net import of trite goods. For the same reason, in 1990, different European developed countries exhibited a trade deficit in sports goods (Andreff et al., 1994) such as Germany (purchasing power parity (PPP) \$1065 million), the UK (PPP \$536 million), Sweden (PPP \$72 million), Belgium (PPP \$69 million) and Finland (PPP \$29 million) while Italy had a trade surplus (PPP \$468 million), being a net exporter of both equipment-intensive and trite sports goods. Another consequence of this specialisation pattern is that imported products have crowded out a number of sports goods, such as balls, sportswear, sports footwear, bicycles and rackets, which were produced in France in the 1960s and the 1970s. For instance, in sports footwear, the ratio of import to domestic demand has increased from 50 to over 80 per cent in the late 1980s, while the French domestic production has halved. Thus, France was allowed by the European Community to restrict, from 1988 on, the imported sports footwear from South Korea (a quota of 2 773 000 pairs of sports shoe in 1991) and Taiwan (a quota of 778 000 pairs in 1991), after it argued that Korean and Taiwanese sports shoe imports were accountable for 14 000 redundancies in the French industry.

Production Relocation: Outward-processing Trade and Foreign Direct Investment

Facing competition from developing and newly industrialising countries that enjoy lower unit labour costs in the production of trite sports goods, North American and European

firms embarked on relocating their production in the third world and Eastern and Southern Europe. For an American or European firm, it is worth relocating its production when:

$$w_h/q_h - w_f/q_f > c_i + c_j + t_i + t_j + g - e,$$

where w_h stands for the wage cost in the firm's home country, q_h for the labour productivity in the home country (so that w_h/q_h is the unit labour cost in the home country), w_f/q_f for the unit labour cost in a foreign subsidiary (or subcontractor) in a third world country, c_i for the transportation cost of inputs manufactured in country h to the country f , c_j for the transportation cost of the relocated output from country f to country h (or any other developed customer country), t_i and t_j for the tariffs paid on the previous international flows of input and output, g for the governance costs of the subsidiary (or subcontractor) located abroad, and e for the transaction costs saved on the firm's exports substituted by the relocated production.

The first strategy, adopted by Nike and Reebok, was one of subcontracting with local producers and trading inputs and output under the benefit of outward-processing trade regulation (Donagu and Barff, 1990). Sometimes this strategy had gone so far that Nike became a hollow corporation with no production units in the United States at all. The second strategy is foreign direct investment to set up subsidiaries in low unit labour cost countries. As a result, nearly all the global production of footballs concentrated in Pakistan, India and Taiwan, most of the global bicycle tyres production was relocated in Malaysia, 90 per cent of the global sports footwear, 80 per cent of all tennis rackets and over 90 per cent of tennis balls were manufactured in South Korea and Taiwan while the great bulk of sportswear was produced in Italy, Portugal, Eastern Europe and third world countries. All these products were then imported by developed countries, either in the framework of outward-processing trade or in the intra-firm trade of major TNCs of the sports goods industry that had established subsidiaries in developing countries. All the Nike and Reebok sports footwear is now manufactured by Asian subcontractors, as well as 80 per cent of Mizuno sports shoes, whereas Adidas has relocated 70 per cent of its sports footwear production to Asia, Tunisia and Hungary. In a second wave of production relocation, Asian producers have in turn relocated their plants in lower labour-cost Asian countries such as the Taiwanese Kunnan (Kennex) in Thailand, the Korean Tae Hwa in Indonesia, and others in China, the Philippines, Sri Lanka and Vietnam. Therefore, there is an obvious globalisation of the sports goods industry in both trade and production. For instance, in 1998, 41 per cent of Nike's global sales were carried out outside the United States while 45 per cent of Adidas's global sales were outside Europe (Bourg and Gouguet, 2001).

Child Labour in the Relocated Sports Goods Industry

Relocating production in cheap-labour countries is not without its problem to TNCs. The major issue is child labour in the factories where the production of trite sports goods is relocated, either in a TNC's foreign subsidiary or more often in a local subcontractor's plant. A well-known example is Nike. In Indonesia, 160 000 workers were involved in the production of sports footwear for the Nike trademark. In the Bogor plant (Indonesia), the daily wage was half a dollar and a glass of milk in 1998 while the 13 members of

Nike's board of directors were earning an annual income over \$5 million each (not including their stock options), twice the amount of the overall wage bill of 6600 workers employed to produce for the Nike trademark in the Djakarta area. On each pair of shoes sold in developed countries, Nike's subcontractor worker received 10 cents of each dollar (0.2 per cent of the selling price) while each shareholder received 40 cents. Nike's subcontractors in Indonesia are located in special (closed) trade zones where waged armed guards supervise them and trade unions are not allowed. The Sialkot assembly line of soccer balls in Pakistan was sadly infamous and publicised for resorting to mass child labour (Riddle, 1997).

After such negative advertising for its industry, the World Federation of the Sporting Goods Industry (WFSGI) was so concerned with phasing out child labour that it convened a conference to examine the economic and social accountability of the industry in developing countries where final products are manufactured and assembled. A task force on global manufacturing practices devised a means of assessing the extent and scope of child labour in the soccer ball industry. A meeting with the International Labour Organization (ILO) and lengthy negotiations with Pakistani producers (subcontractors) resulted in an industrywide programme to eliminate child labour in soccer ball stitching. The problem is that this programme is voluntary, not compulsory. The ILO intends to continue practical action to phase out child labour in this industry (Tucker, 1997). Finally, by the end of 1997, the WFSGI adopted a Model Code of Conduct for global business practices that addresses working conditions (child labour, forced labour, wages, the length of the working day, the right of unionisation and so on). It is a gentleman's agreement or a moral code rather than a binding economic regulation. However, due to the bad global image created by child labour, most TNCs in the sports goods industry now proclaim their zero tolerance and have instituted initiatives against this practice in developing countries.

The Scarcity of Microeconomic Data: TNCs in the Sports Goods Industry

There is no detailed database on TNCs in the sports goods industry and, until now, researchers have been dependent on case studies. However, in many such industries the global market structure is typically a 'fringed' oligopoly with a handful of big TNCs and, in each developed country, a number of competing small and medium-sized enterprises.¹ The global strategy of a sports goods TNC means (Andreff, 2003) that it has a world outlook on competition, it has a good knowledge of its oligopolistic competitors, it concentrates its activity on the Triad countries (North America, Europe and Japan), it behaves as a global player in the world economy, it looks for innovation on a global scale, it locates its operations where they are the most profitable according to the comparative advantages of different host countries, and it coordinates the network of all its subsidiaries, plants and laboratories with the help of the new information and communication technologies (global networking). In addition, a global TNC in the sports goods industry includes transborder mergers and acquisitions in its strategy. A TNC strategy more specific to this industry is global sponsoring:² Adidas, Nike and Reebok are sponsors of a number of international sporting events, national teams and famous top-level athletes (advertising and communication expenditures account for about 13 per cent of Adidas sales). The global market for sport sponsorship was estimated at €15 billion in 1998.

Conclusion

International trade in sporting goods and the role of transnational corporations in their production remain among the most neglected areas of research in the economics of sports. These topics deserve and require more empirical investigation that could be used as a launch pad for a more detailed economic analysis.

Notes

1. See also Chapter 3.
2. See also Chapter 5.

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PART II

DEMAND FOR SPORT

7 The demand for sport

Jean-Jacques Gouguet

Modern sport emerged in Great Britain at the time of the Industrial Revolution and expanded from the end of the nineteenth century onwards to become increasingly a mass activity in the twentieth century. No country today seems able to escape the strong demand for sport from a population made ever more aware of it by the media. It is difficult, nevertheless, to carry out an analysis of this demand because of the very great diversity of sport concerning its level, its frequency, its location, its supervision by trained staff and so on. This means that people who participate, do so for many different reasons. It is therefore possible to differentiate between several types of sporting activity and to distinguish among high-level, mass and leisure sport.

In order to account for this diversity, this chapter makes a three-stage economic analysis of the demand for sport. First, we describe theoretically and as circumstances dictate, the nature of the goods demanded (private goods, public goods, merit goods and so on), which would make it possible to understand the differences in the influence of the explanatory factors of the final demand (price, income, available time and so on). Second, we retrace the historical development of the demand for sport in order to be able to make international comparisons. Third, we present a socioeconomic analysis of the demand for sport on three levels: that of the player; that of the host territory; and that of society as a whole.

Theoretical Analysis of the Demand for Sport

Nature of the goods demanded

It is not possible simply to characterise sporting activity by reference to a single category of economic goods. Without considering every possible case, however, five examples should be borne in mind (Bourg and Gouguet, 1998):

1. For the most part, sports come under the category of intangible assets when a club or an instructor provides a service. Nevertheless, when no qualified staff or market exists (as in the case of individual informal sports), it is more difficult to classify them in an economic way: the consumption of natural resources (water and air) in the case of sporting activity in a natural environment; the production of personal benefit in the case of sporting activity in a closed environment (keep-fit, undertaken at home).
2. Sports are affected by the category of durable or non-durable goods, but with a certain ambiguity. On the one hand, there is non-durability, since sporting activity is limited to training or competition time and so on. On the other hand, there is durability, since it is possible to imagine a sport on a long-term basis according to the individual's life cycle (youth, maturity and old-age). Therefore, it is necessary to consider both a long- and a short-term analysis of sporting activity. Furthermore, from this last point of view and referring to the concept of

sustainable development, it is possible to see new problems emerging in terms of durable sporting activity (whether the reference is the health of the athletes or respect for the environment).

3. Sport seems naturally to belong to the category of consumer goods, but it could also be acknowledged that sports participation is not the final goal of the individual, but a means to another end – for example, health. Sporting activities would then become intermediate goods. This type of analysis is in keeping with the approaches of the theoreticians of human capital (Becker, 1993). Sport would then be an input which would produce health, from which it could be expected to have future returns through the flow of higher incomes. The opportunity cost of an investment in sport can thus be calculated (Eber, 2002).
4. Sporting activity belongs to the category of either private goods or public goods. In the former, for example, one could consider a bodybuilding session or a game of tennis; in the latter, a mountain hike or a ride on a mountain bike. Whether the distribution of sporting activity between these two categories is the optimal one, according to our idea of social justice, is a problem which will have to be resolved.
5. This leads us to another category of public goods which hold a special place in the theory: goods which have to be used (merit goods). The assumption is made that the state must intervene to alleviate the shortfall in the market, either because individuals do not have a sufficient income or because they are not aware of the importance of participation. For example, many children would not take part in any sport if it were not obligatory at school.

Explanatory factors of the level of demand

Analysing the demand depends on the nature of the economic goods that are associated with sport, which – taking into account the diversity of definitions – generates a wide variety of theoretical approaches adapted to each specific case. It is not possible to examine all these approaches, but it seems that the essential distinction to make is that between private and public goods (Cooke, 1994).

For private goods, the microeconomic analysis of the sport consumer appears in the form of a model of maximisation of use under income constraints. Using this strategy, it is possible to define the demand curve and to recognise the general rules of behaviour, according to the nature of the goods concerned. The influence of income and that of prices can therefore be assessed by calculating their elasticity. Thus a typology of sports could be drawn up, according to their price or income elasticity. Such a typology apparently does not yet exist anywhere in Europe.

For public goods, it is a question of determining what individuals are prepared to pay for using the goods, from which there is a risk of free riding. This type of consumer would understand that it is in his/her interest to announce a weaker demand for public goods than is really the case, in order to contribute the least possible to its funding. One difficulty, then, is to know how to encourage consumers to reveal their true willingness to pay for public goods. When it comes to the management and funding of public goods, the information asymmetry is such that the solution is, perhaps, to look for an improvement in the information of all the interested parties in such a way as to allow the beginnings of a participative democracy.

Development of the Demand for Sport

According to the last survey carried out in France (July 2000), 83 per cent of the population between the ages of 15 and 75 participated in sport at least once a year, which would represent more than 36 million sportsmen and -women. However, this falls to 48 per cent for those who take part regularly and only 14 million of these sportsmen and -women are members of sports federations. These limited results indicate the variety of sporting activity that has developed over time, and which does not make international comparisons easy unless a common standard is established.

Development over time

This chapter looks at France as an example, but the analysis could become widely applicable to all developed countries (Thomas, 1998). According to Louveau (2002), three major trends have characterised the development of sport in France over the last 30 years: overall expansion, diversification and differentiation.

Traditionally, sport took place in a club, so participants had to become members of a sports federation. Consequently, the number of members increased from 2 million in 1950 to 3 million in 1960 to 10 million in 1983 to reach 14 million by 2005. In addition to this development of institutionalised sport, the increase in informal sporting activities has been an innovation of the last few years.

It would seem that after the mid-1980s, informal sporting activity developed in parallel with or in competition to official sport. A survey by INSEP (the National Institute for Sport and Physical Education) thus estimated that 54 per cent of French people undertook some kind of physical or sporting activity without being members of sporting federations – alone, with the family, in the street or in commercial or non-federal organisations. It is difficult to say whether there is real opposition or, on the contrary, complementarity between these two types of sport (CDES, 1998).

This diversification of sport thus takes many forms (Louveau, 2002):

- an increase in the number of variations of the same sport (skiing, cycling, windsurfing and so on) and the creation of new sports;
- a rise in individual sporting activity; and
- the coexistence of several types of sporting product: leisure, health, physical appearance, risks and sensations, enjoying making an effort and so on.

Proposal for a standard

All these ways of participating in sports overlap and it is very difficult to draw up a typology (MJS (Ministère de la Jeunesse et des Sports) 2002). The question of how to measure this mass social event should be readdressed, in order to avoid the inaccuracies that could come from the media portrayal of new sports (advertising and so on). The Ministry for Sports therefore proposes grouping sporting activity into nine categories,¹ based on a method of data analysis (a rising hierarchical classification and a multiple factor analysis) and on 12 socioeconomic and demographic criteria: the type of sport (individual, dual or team); whether equipment is required (from none to a great deal); the number of people participating between the ages of 15 and 75; the average age of those participating between 15 and 75; the proportion of women; the proportion of members of sports federations; the proportion of young people with membership cards; the number of top-level

sportsmen and -women; the budgets of the federations; the budgets of the professional sector; the number of broadcasting hours on television channels; and the media coverage. The nine groups are:

1. *Independent leisure activities requiring equipment*: individual pursuits, often with no precise aim, competitive and not covered by the media, but still needing special equipment (bowling, mountain climbing, bodybuilding, fishing and roller-skating).
2. *Social and leisure activities*: characterised by a spirit of play, relaxation and leisure; generally practised in amenable surroundings, by two or more participants (badminton, squash, boules, dancing, walking and table tennis).
3. *Highly organised activities with a high degree of organisation*: undertaken within organised and often specialised organisations, affecting a limited number of people, and not professional (fencing, judo, martial arts, shooting and aerial sports – flying, parachuting and so on).
4. *Individual sports requiring special equipment*: categorised under individual sport and requiring the use of fairly substantial equipment and specific areas (sports on ice, water sports, rowing and canoeing/kayaking, and golf).
5. *Equipment-intensive open-air sports*: participants require many materials and techniques which are dependent on federations for substantial budgets and which take place in natural surroundings (horse-riding and sailing).
6. *Individual mass-participation activities*: widely accessible to the general public of all ages and at all levels; often not organised and can be done individually (athletics, gymnastics, swimming, snow sports and cycling).
7. *Motor sport*: participation requires a very strong individual identity; emphasis on the use of equipment, which is exclusively mechanical and less attractive to women; relatively high media coverage and is in part professional (motor sports).
8. *Semi-professional sports*: mainly characterised by growing media coverage, the existence of considerable professional budgets, and non-individual participation (basketball, handball and so on, tennis, volley ball and combative sports).
9. *Professional sports*: very good media coverage, with some of the highest professional budgets; these organised team sports are less open to women and largely concern young people (football and rugby).

This first typology created in France is noteworthy because it describes the diversity of sports. If it were extended to the whole of Europe, then valid comparisons could be made that are not possible at the moment due to the lack of a common standard definition of sporting activities.

Socioeconomic Analysis of the Demand

Taking into account the preceding remarks about the lack of international data, the French example will be used to synthesise the main factors which make it possible to understand the development of the demand for sport.

We distinguish between three levels of analysis: microeconomic, with the determination of the profile of the sporting practitioner; mesoeconomic, with the territorial dimension of the sport taken into account; and macroeconomic, with the influence of societal standards on the types of sport.

Profile of the practitioner

Three variables appear as determinants in the demand for sport, whatever the sport: age, sex and occupation.

Age Sport is most diligently followed in the 15–24 year age bracket, with a rate of 90 per cent for boys. However, fluctuations can be observed within this bracket: 15–18 year olds participate most; 19–22 year olds are less involved because of other commitments; higher education, a more active life generally or other interests; 23–24 year olds appear to take up a more steady sporting activity.

In the same way, three-quarters of 55–75 year olds claim to do some sport, but they are less strenuous activities than those undertaken by younger people: walking, in the first instance, but also cycling, swimming, bowls and fishing.

Sex Even though fewer women than men participate in sport, it is above all the type of sporting activity that women do which differentiates them from men – with a preference for dancing, skating and gymnastics, in informal surroundings. On the other hand, men are over-represented with regard to sports such as football and rugby.

Occupation It is well known that sports vary according to social class, as much from a quantitative point of view as from a qualitative one. It is thus possible to draw up a sort of hierarchy of social prestige for sports (football for workers and horse-riding for higher executives) (Thomas, 1998).

In general, one sees the influence of social background, which can be measured in terms of the price and income elasticity of the demand for sport. It is possible to differentiate between the sporting activities of the rich and those of the poor; in combative sports, a third of practitioners claim to have an income of less than €915 per month; for sailing, more than 50 per cent of practitioners earn €2285 or more per month.

Sport and territory

A little explored field in the demand for sport is the influence of the territorial dimension. And yet, this variable plays a very important role in the extent to which people participate in sport, as well as in the type of sporting activity. We are witnessing the emergence of real territorial sporting cultures. All types of area are affected.

On the regional level, it is possible to show a strong differentiation in the types of sport played: for example, rugby in France has experienced a very strong over-representation in southern regions. This type of observation could be made in all countries.

In general, the other factor in the differentiation of the areas used for sport lies in the opposition of rural and urban areas (CDES, 1998). In rural areas, the type of sport depends on what kind of sporting services are available (infrastructure, clubs and so on). The important thing to remember is that sport can constitute one of the rare elements of organised activity in the countryside. Also, beyond the diversity of sport in an urban environment, sport is important as an organised activity in the less fashionable districts, especially with the development of street sports (street basketball, roller-blading and so on) (Vieille-Marchiset, 2003).

Sport and society

There is no longer any doubt that sport constitutes a real phenomenon of society, which reflects the values of modern life – in particular, efficiency (Bourg and Gouguet, 2001). Beyond any purely personal motive, sport is the expression of individuals looking for a kind of social integration. This makes it possible to understand what we noted earlier: despite the fact that sports participation has become widespread, there remain profound social inequalities in sport. We always come back to the same conclusion: the main difficulty in analysing sport comes from its permanent diversification. From a macro-social point of view, the important thing is to identify, over the next few years, the extent of the demand for official sports compared with that for informal sports. Official sports represent the dominant culture, with competition and the search for improved performance being central; informal sports tend to be a protest against this, with enjoyment being a key value. It is perhaps this trend that one should try to integrate into future economic analyses of the demand for sport.

Note

1. See Chapter 1.

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8 The demand for spectator sports

Rob Simmons

The aim of this chapter is to set the scene for the next two chapters by Patrick Feehan (Chapter 9) and Babatunde Buraimo (Chapter 10) on attendance and demand for televised sport, respectively. The chapter will emphasise particular aspects surveyed by Feehan and Buraimo and will also add some further concerns not covered by these two authors. All three chapters are primarily about *team* sports as the literature on attendance and broadcast viewing for individual-based sports is negligible. There is now a rich diversity of research on attendance at team sports matches to draw upon although there are still many unresolved issues.¹

Several major sports have observed substantial increases in attendance over the post-war period. From Figure 8.1, Major League Baseball (MLB) shows moderate increases in average attendance per game over the 1950s and 1960s, with upwards acceleration from 1973 halted somewhat by the damaging strike of 1994. In Figure 8.2, American football (National Football League; NFL) shows steady growth in per-game regular season attendance up to 1969/70, flattening out thereafter until picking up again in 1997/98.

The pattern of football attendance for the English top division is shown in Figure 8.3. Attendance per game, for the top division (and the whole league), reveals a downward trend through the post-war period, with substantial declines in the 1970s and 1980s. The reasons for this decline are commonly taken to include declining standards and excitement of play, dilapidated and unsafe stadiums, the growth of 'hooliganism' in and around stadiums especially in the 1970s and 1980s and an increase in the number and quality of

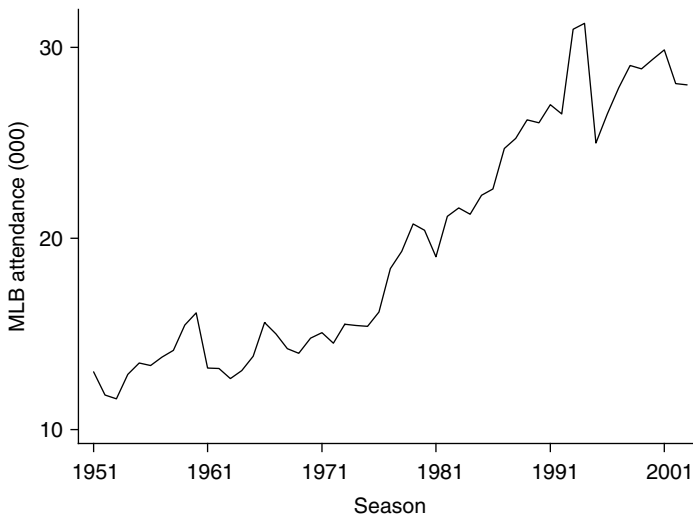


Figure 8.1 Major League Baseball attendance

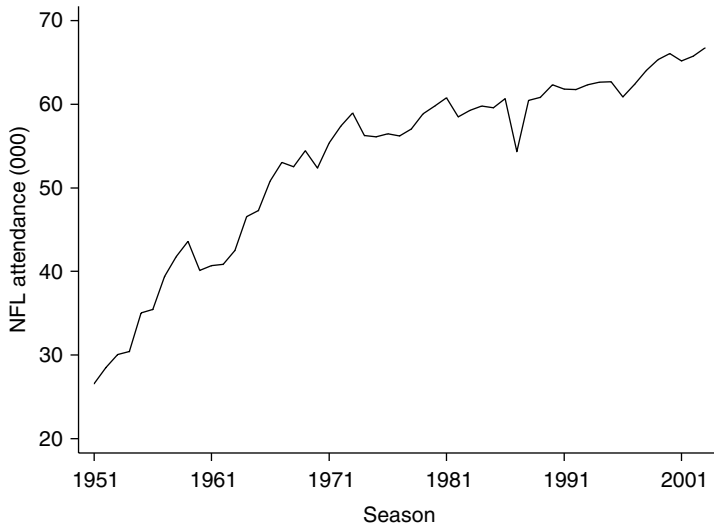


Figure 8.2 *American football attendance*

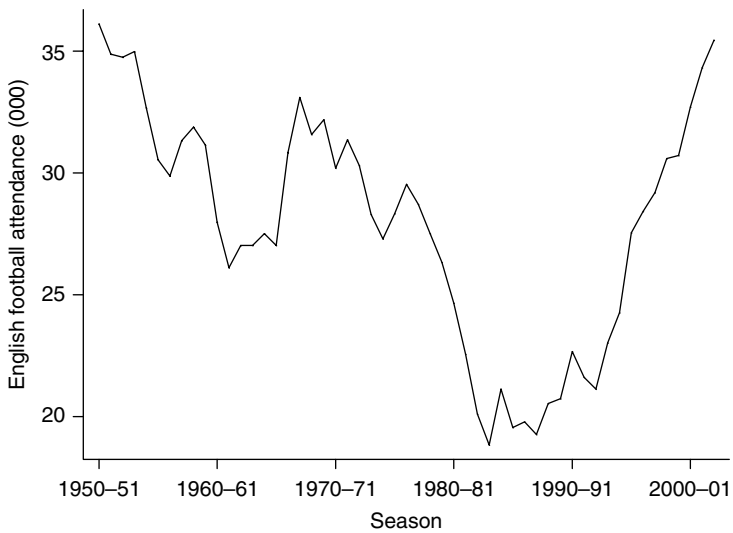


Figure 8.3 *English top division football attendance*

alternative entertainment facilities (Szymanski and Kuypers, 1999). However, the 1990s saw a revival of attendance in the English leagues, most noticeably in the Premiership, formed as a breakaway from the Football League in 1992. Despite the fact that one team, Manchester United, has won the Premier League title in all but two years of its existence, FA Premier League attendances grew from around 21 000 per match in 1992/93 to just over 35 000 per match in 2002/03. This revival can be attributed partly to a change in tastes

towards football, especially from young people, and to the redevelopment of many stadiums following the 1990 Taylor Report, which ushered in more attractive, comfortable facilities, with all-seated accommodation and an increase in complementary leisure facilities such as restaurants, shops, TV screens and bookmakers.²

Simple economic theory suggests that the demand for spectator sports should depend on several standard economic and other determinants:

- price of the event (including travel costs);
- real incomes of spectators;
- prices of substitute goods;
- market size (usually proxied by local population);
- importance of the contest in terms of competition outcomes; and
- closeness of the competition ('uncertainty of outcome').

Application of conventional consumer theory to sports is not straightforward. Although it is hard to conceive that sports fans are any less rational³ than those disinterested in sports, there are several features of sporting events that require attention before demand analysis can proceed.

First, what is being sold is an event which in turn has two components. The event is, to some extent at least, *uncertain*. Even when a lowly placed team or performer is matched against a highly placed or ranked team or performer, there is still an element of uncertainty. Within a contest, the fortunes of the competitors can vary hugely and sport is replete with examples of stirring comebacks. Sporting events are largely about *suspense* and the live experience of suspense, without benefit of video playback, is an important ingredient of spectator sports.

Second, spectator sports are also about *partisanship* or *habit persistence*. In the case of team sports, fans identify with a particular team and do not usually entertain the option of supporting rival teams when their first-choice team is performing badly or if the ticket prices of their chosen team rise faster than those of rivals. The normal form of behaviour when a fan is dissatisfied with his/her team, or finds alternative uses of time more attractive, is simply to desist from attendance. Any switch in allocation of time or leisure spending is then to alternative leisure or home production activities or working time rather than attending sports fixtures. It is the case that some fans adopt a 'second team' but this tends to be one in a different division or even in a different sport. Since fan attendance is largely partisan, it follows that there will be some degree of habit persistence or inertia in fan support.⁴ As some fans drop out of support, others join. Most fan support is local but as geographical migration increases, so average distance travelled to matches increases.

The relative fickleness of fans is something that sports team owners have to weight heavily in their economic calculations. For example, a sudden drop in attendance may induce a club owner to fire the head coach, partly because revenues are falling but also because loss of fan interest is a clear signal that all is not well with the team and urgent improvement is needed.

Third, sporting events comprise within them a variety of *complementary products*, not just the seat that is sold. These include a matchday programme, catering, betting opportunities, pre-match and half-time entertainment and, not least, the intangible products

which bind sports fans all over the world: atmosphere and fan solidarity or identity. These complementary goods are not readily available in one's own home while watching a telecast of a sports event.

The last two paragraphs might give the impression that sports economists could easily find themselves marginalised when discussing attendance demand for spectator sports. Analyses of ground atmosphere, fan solidarity and cultural habits are usually the territory of sociologists. However, sports economists have found the economic fundamentals of allocation-scarce resources subject to a budget constraint useful when investigating patterns of attendance or audience demand in various sports. In Chapters 9 and 10, Feehan and Buraimo use consumer theory to offer, respectively, perspectives on demand for attendance at sporting events and audiences for televised sports events.

Ticket Pricing⁵

Sports teams are typically viewed as local monopolists, even where there are several teams competing in a given region. Although London hosted five Premier League football clubs in the 2003/04 season, these could still be considered as monopolists since, following our observations above on fan commitment, Chelsea fans would be very unlikely to switch to supporting Arsenal or vice versa. In North American sports, the allocation of franchises by major league governing bodies tends to be geographically determined in that a new franchise will normally be some distance away from the nearest competitor.

As local monopolists, sports teams would be predicted from conventional theory to set ticket prices such that price elasticity of demand is at least one in absolute value. As Feehan shows, many empirical studies of sports team attendances – across several sports and countries – tend to generate estimated price elasticities below one.⁶ At first glance, this contradicts economic theory and some may be tempted to conclude that this is just another example of 'irrational' behaviour by sports team owners. Theoretical analysis by Marburger (1997) and Fort (2004) shows some possible rationalisation of the apparent discrepancy between theory and evidence. This turns on the role of complementary goods bought at the stadium. A simple model can be constructed as follows.

Consider a simple model of team-maximising revenues comprising ticket sales (T) and complementary goods (G), priced at p_T and p_G , respectively. Whether a team maximises revenues or profits is immaterial if we assume that costs are entirely fixed. Revenues are maximised with respect to ticket price when:

$$T + p_T \partial T / \partial p_T + p_G \partial G / \partial p_T = 0. \quad (8.1)$$

Writing absolute elasticity of ticket sales with respect to ticket price as η and rearranging gives:

$$\eta = 1 + (p_G/T) \partial G / \partial p_T. \quad (8.2)$$

Hence, to the extent that complementary goods sales fall as ticket price increases ($\partial G / \partial p_T < 0$), the (absolute) ticket price elasticity of attendance demand will fall below one. As an extra complication, suppose that as ticket price rises, attendance demand falls and revenues from TV broadcasting (B) increase as fans stay away from stadiums to watch (say) pay-per-view games on TV. In this case, with broadcast games and live games

as substitutes ($\partial B/\partial T < 0$), the ticket price elasticity which maximises revenue will follow from the first-order condition for revenue maximisation:

$$T + p_T \partial T / \partial p_T + p_G \partial G / \partial p_T + (\partial B / \partial T) (\partial T / \partial p_T) = 0 \quad (8.3)$$

$$\eta = [1 + (p_G / T) \partial G / \partial p_T] / [1 + (\partial B / \partial T) / p_T]. \quad (8.4)$$

With broadcast viewing and live attendance as substitutes, the price elasticity of attendance demand can be above or below one, while if there is a complementary relationship between gate attendance and TV ($\partial B/\partial T > 0$) then the price elasticity *must* be below unity.

Are these extra theoretical twists to the revenue-maximisation argument at all relevant? On complementary goods such as merchandising and catering we should note that the response of concession sales to ticket price is divided by total ticket sales in equations (8.2) and (8.4) and this will reduce the overall size of the term in (8.2) which takes optimal price elasticity below one. It would take a large responsiveness of complementary goods sales to ticket price to drive the optimal price elasticity below one. Evidence on impacts of match ticket prices on complementary goods sales is scarce. Jarrell and Mulligan (2002) examined attendance demand for programmes sold at college (NCAA) Division 1-AA American football games. They found an impact of ticket price on programme sales of -25.6 . Conservatively assuming attendance at 30 000 and taking a reported average programme price of \$1.5, the size of $(p_G/T) \partial G / \partial p_T$ from this particular source is -0.0013 . If other complementary goods generate similar estimates (and Berri and Krautmann, forthcoming, offer a contrary view for Major League Baseball), then the size of departure from unitary elasticity is likely to be rather small and we need to search for other explanations as to why the empirical evidence strongly suggests price elasticity of demand substantially below unity.

Feehan's contribution points to one possible problem with existing evidence and proposes a solution. The problem is that time-series evidence tracking attendance demand and ticket prices over long periods cannot properly control for changes in income and tastes. Feehan's proposal is that cross-section fan survey data can be used to estimate price elasticity by incorporating information on variations in travel costs by distance travelled, even though ticket prices show relatively low variation within a particular season for a typical club. As Feehan shows, once a travel cost method is applied the estimates of price elasticity, albeit for one particular survey in one particular season, move closer to unity than previous evidence suggested (Forrest et al., 2002).

Equations (8.3) and (8.4) assume that there is a traceable link between ticket price, attendance demand and broadcast revenue.⁷ This may be the case for TV broadcasting which covers geographically distinct local markets, as in Major League Baseball perhaps, but is less plausible where national coverage is involved as tends to be the case for European football. It is quite possible that gate attendance and TV audiences are drawn both from quite distinct markets with different factors affecting demand in each sector and also from some variables affecting these forms of demand in different ways.⁸ For example, gate attendance is made up mostly of home fans (by design) while the national TV audience has no entry barriers to away fans. Hence, home team performance (form) matters for gate attendance but is less relevant to TV audiences.

The linkages (or lack of) between broadcasting and live gate attendance have been much explored in the empirical literature and Buraimo surveys some relevant literature. The way

in which this relationship is handled by researchers is very simple. The question is put as to whether the event of TV broadcasting lowers attendance for a match, given the usual effects on attendance demand. As Buraimo shows, the evidence on this is actually quite mixed and the notion that broadcast viewing and gate attendance are substitutes does not command a consensus. Unfortunately, what is actually estimated is not whether broadcasting and gate attendance are substitutes, in the sense of measuring a cross-price elasticity. Price effects are not considered in the empirical literature, largely due to lack of available data on broadcast prices and match viewing figures.⁹ What is really being tested is the presence or absence of ‘cannibalisation’ between TV and gate attendance and it is this that often worries officials of teams and league governing bodies.

Special Features of Attendance Demand

From the perspective of team owners and managers, attendance demand for games raises several interesting and difficult issues.

Excess capacity and ‘scalping’

Many sports teams regularly sell out, leaving demand unsatisfied. This usually leads to the creation of an unofficial market for tickets. The standard economist’s response (see Happel and Jennings, 1995), is first, that the unofficial (and usually illegal) scalpers’ market performs a useful economic function in bringing together buyers and suppliers of tickets and, second, that if there is excess demand for tickets clubs should raise prices. The latter does not seem to occur, although ticket pricing in European football is now more flexible and variable than it was 20 years ago.¹⁰ One possible rationalisation of this state of affairs is that ticket prices are deliberately held at lower than market-clearing levels in order to sustain fan loyalty. There is an intertemporal aspect to pricing here too. If fans encounter very high prices at ‘big’ games and lower prices for less attractive fixtures, then fans may be disinclined to attend either type of match. There is a possible combination here of ‘trust’ (George Akerlof’s gift exchange theory) and ‘implicit contract’ (price smoothing) in the club–fan relationship (Krueger, 2001).

If excess demand persists then teams may wish to expand their existing stadium capacity or move to a new stadium. This poses several problems for a club in its cost–benefit appraisal of a new ground. The present buoyant level of attendance demand may not persist, particularly if the team does poorly while the new stadium is constructed. Excess capacity at a new stadium usually implies a poor atmosphere which may further deter fans and TV viewers.¹¹ Of course, a nice solution to the excess capacity problem adopted by many North American franchises is to persuade state governments to finance the building of new stadiums out of tax revenues, including lottery revenues (for example, stadiums occupied by Baltimore Orioles, Seattle Mariners in MLB and Seattle Seahawks in NFL).

Season tickets

For many leagues, tickets can be bought in advance for the duration of a season. Fans who buy season tickets are usually, almost by definition, committed supporters who have made an emotional, financial and time commitment to follow their club. They do so not knowing the playing strength of their team at the start of the season. They may not know who the head coach will be or even, for European football, which division the team will be playing in. In short, season ticket purchasers are loyal fans who are prepared to take a

risk on their team's prospects (but note that although season ticket resale is officially prohibited this does occur in practice).

Simple economic theory suggests that a monopolist will charge a higher price in two submarkets where the price elasticity of demand is greatest. Hence, a railroad operator will charge higher fares for commuters as opposed to leisure travellers. In sport, it seems that the opposite holds. Simmons (1996) estimated separate price elasticities for a sample of English Division 1 clubs over the 1962–91 period and found higher price elasticity for more casual (non-season ticket holder) fans. Yet season tickets are often purchased at a discount. This is most likely due to the risk involved on the part of the fan. As noted above, the fan does not know the team's prospects until the season begins to unfold. Also, the fan has committed, in principle, to attend the bulk of league games on offer and may find subsequent to purchase that timing of matches and personal circumstances deter attendance. In most sports, the fixture list may not be available at time of purchase. From the club's perspective, the revenues from advance season ticket sales form valuable cash flow which can be used for team building in the close-season when games are not being played to yield regular revenues. Season tickets sold at a discount also encourage fan loyalty, with some guaranteed attendance for the forthcoming season. An additional incentive to purchase season tickets is in the form of preferential treatment in the allocation of tickets for special play-off and cup games.¹²

In addition to differential price responses by season and non-season ticket holders, it is likely, as Dobson and Goddard (2001) observe, that the latter will be more responsive in other dimensions. Non-season ticket holders are inherently more casual and are likely to be more responsive to variations in home team performance and quality of the away team.

Scheduling

Attending sports events is a time-consuming activity. The game itself can be long – American Football games have 60 minutes playing time plus possible overtime and match duration is around three hours. European soccer games last 90 minutes with a half-time break. The team spectator sport with longest duration is Test match cricket, played between selected international teams, which can last up to five days, with play spread over daily periods of around seven hours. Fans must also incur travel time getting to and from the stadium. Hynds and Smith (1994) point to opportunity cost of time as a factor determining attendance at sporting events. Since opportunity cost of time rose in the twentieth century one might expect sporting fixtures with long duration, such as Test match cricket, to be adversely affected. Bhattacharya and Smyth (2003) report a graph (p. 78) showing average attendance per Test match series played in Australia over 1911 to 1984. This graph contains several cycles but if one were to plot a simple time trend this would be downward sloping. However, this is illusory and Bhattacharya and Smyth argue that when a full set of relevant control factors are deployed to statistically 'explain' the pattern of attendances at test matches played in Australia over this long period, post-Second World War attendances are found to be significantly *greater* than pre-1939 attendances, despite rising opportunity cost of time. They deduce that tastes and preferences shifted in favour of attending more Test cricket after 1945.

Nevertheless, sports teams and league administrators are rightly concerned about impacts of scheduling on attendance demand. In England, rugby league was played in winter and the combination of harsh weather conditions in the North of England, where

the game was and is mostly played, together with competition from the dominant British spectator sport, football, led the rugby league administrators to switch the season to the summer.¹³ Although some overlap with football remains, the degree of competition with football has been reduced. Attendances did increase somewhat after the switch of schedule.

Within sports, scheduling impacts on attendance demand can occur in several ways. One impact discussed by Buraimo (Chapter 10) is from displacement of games to accommodate televised broadcasts. The potential difficulty here is that preferences of the television viewers for preferred scheduling may not match preferences of fans for fixture slots. In particular, TV viewers may like to watch live sports on Monday night (American Football or English Premier League football are examples) whereas many fans could be deterred from attending games at this time due to work and domestic commitments.

Sports league administrators usually attempt to schedule fixtures so as to reduce scheduling conflicts and so reduce dilution of audience. Hence, the Union of European Football Associations (UEFA) and national football associations agree that (most) club fixtures will not be played at the same time as international matches. As far as possible, cup games in European football are played in reserved slots and league games are shifted elsewhere. In North America, most college American Football games are played during daylight hours on Saturday while the majority of NFL games are scheduled for Sunday afternoons.¹⁴

Where scheduling conflicts remain, there is potential for attendance reduction. For example, in English cricket, Paton and Cooke (2005) find substantial negative impacts on county championship member attendance and one-day league match (total) attendance from Test matches played concurrently.¹⁵ In English Division 1 football, the lengthy fixture schedule forces several games to be played on midweek evenings. This often leads to competition for attendance between these games and televised games from the European Champions League, typically played on Tuesday and Wednesday evenings. Forrest et al. (2004) find adverse impacts from Champions League televised matches on Division 1 attendances of the order of 15 per cent. This represents an externality not properly considered so far within European football and English Football League clubs could well be entitled to claim some compensation from UEFA for losses in gate revenue induced by these fixture clashes.

Uncertainty of Outcome

Probably more has been written about the role of 'uncertainty of outcome' in sports than any other sports topic or issue. At its simplest, the outcome uncertainty hypothesis states that people are more likely to attend games where the outcome is uncertain. If p_H denotes probability that the home team wins, lying between 0 and 1, then uncertainty of outcome at the match level increases as p_H approaches 0.5. This match-level uncertainty is purely about the uncertainty surrounding the outcome of a particular fixture and other dimensions of uncertainty of outcome are shown below. In debates about appropriate structures for sport leagues and the extent to which large teams should redistribute income towards small teams, it is often assumed that competitive imbalance and outcome certainty are bad outcomes.¹⁶ Support for the notion that outcome uncertainty matters might be drawn from empirical evidence which finds that attendance responds positively to outcome uncertainty. A contrary result (negative or no effect) would suggest that concerns over competitive balance are overstated.

Match outcome uncertainty

A useful starting point for examining match uncertainty of outcome, among a crowded literature, is Knowles et al. (1992), who investigated MLB attendance in the 1988 season. In their empirical model, attendance was a function of demographic factors, economic variables and measures of outcome uncertainty. There are many ways of measuring match uncertainty of outcome but rather than devise complicated procedures to assess competing team form and strength, Knowles et al. opted to use betting odds since these ought in principle to capture all relevant information about team strength prior to the match. From betting odds on chances of a team winning, it is straightforward to derive an associated probability of home win, draw or away win as appropriate; if odds are a/b against one of these events occurring then the probability of that event is $b/(a + b)$. Next, it is assumed (contentiously) that betting markets are efficient which means (a) that match outcome probabilities derived from betting odds are unbiased predictors of actual match outcomes, with any deviation solely due to random noise, and (b) as a corollary, that there is an absence of profitable trading opportunities in the betting market. Both of these claims have been investigated for a variety of sports betting markets with evidence tending to favour efficiency, though not always (see Sauer, 1998, and Osborne, 2001 for North America; Simmons et al. (2003) and Forrest and Simmons (2004) find some departures from efficiency for English football and rugby league handicap betting, respectively). Finally, the sum of match outcome probabilities will exceed one due to bookmaker commission ('overround' in European parlance; 'vigourish' in North America).¹⁷ The match outcome probabilities are divided through by one plus commission.

Using this procedure for MLB, Knowles et al. found an inverted U-shaped relationship between attendance and outcome uncertainty from the betting odds after controlling for income, unemployment rates, timing of games, local population, geographical distance between teams and a team performance measure. From the derived relationship the outcome uncertainty level which maximises attendance is 0.6. Hence, as probability of home win rises beyond 0.6, attendance falls away suggesting that, to some extent, outcome uncertainty does attract attendance.¹⁸

Leaving aside whether betting markets are really efficient, and therefore whether the probability measure taken from betting odds is the best available measure of match outcome uncertainty, the problem with Knowles et al.'s procedure is that it does not really measure the *relative* closeness of the two teams in a match. Only the home team win probability was considered and what is really being measured is home team strength not closeness of contest. Forrest and Simmons (2002) examined English Football League attendances for the 1997/98 season and obtained a measure of predicted home win probability divided by predicted away win probability without assuming betting market efficiency. They find that attendance rises (at a diminishing rate) as outcome uncertainty, proxied by their measure, increases.¹⁹

If we take it that there is at least *some* evidence that attendance responds positively to match outcome uncertainty, does it follow that the concerns about competitive balance in baseball, basketball and European football and so on are then justified? Forrest and Simmons show that this is not necessarily the case. Making a simple connection from match outcome uncertainty to competitive balance is not straightforward since in all sports, home advantage is a factor determining match results. The most balanced contest in English football is not between 3rd and 2nd place teams but, say, between the 11th team

at home and the 2nd placed away team. Ironically, simulation analysis by Forrest and Simmons shows that imposing greater equality of team strength would actually *lower* aggregate league attendance.

Seasonal uncertainty

Uncertainty of outcome within seasons relates to championship, play-off, promotion and relegation issues. The more teams there are in contention for championship or play-off qualification, the more attractive league matches become. Measures of seasonal uncertainty include games behind present leader or pre-season championship betting odds. The relevance of these measures is doubtful since games behind present leader will necessarily depend on team form and separation of home team strength from games behind becomes very difficult, especially as the season unfolds. Pre-season championship odds are usually simply determined by previous season league placings and would strictly need updating through the season. Again, updates depend on the same influences as affect home and away team strength.²⁰

Measures of end-of-season standings have been applied to assess their impacts on subsequent league attendances. Typical measures include standard deviation of win percentage of teams divided by square root of number of teams and Gini coefficients of team points, to capture dispersion of points and inequality of points. The Gini measure has been used by Schmidt and Berri (2001) to analyse long periods of MLB attendance by club. Their findings are mixed and difficult to rationalise. Previous season Gini coefficient has a *positive* impact on attendance in the American League and a *negative* impact, in line with the outcome uncertainty argument, for the National League. When Gini coefficients are taken from average standings of teams over the past three or five years, negative impacts are found in each league, consistent with outcome uncertainty raising attendances.

In any case, both the Gini coefficient and the standard deviation measures of outcome uncertainty merely capture the distribution of wins and treat teams anonymously. When baseball or football commentators pronounce on lack of competitive balance they are really referring to dominance of particular teams, for example, New York Yankees in baseball, Manchester United and Arsenal in the English Premier League or Juventus and the two Milan teams in Italian football and so on. Humphreys (2002) distinguishes team-specific variation in win percentage over the last five baseball seasons from within-season standard deviation of points adjusted for square root of games played. He then constructs a ratio of team-specific standard deviation to within-season standard deviation, termed 'competitive balance ratio'. Increases in this ratio are positively correlated with total baseball attendance, suggesting that total attendance rises as competitive balance increases. That is, if relative standings change considerably for a given dispersion in league points, competitive balance improves and, from Humphreys's estimates, total attendance rises. It would have been useful if the two components of his competitive balance ratio had been correlated with attendance separately to see whether the numerator (relative standings across seasons) was really driving higher attendances. Overall, the work of Schmidt and Berri and Humphreys are welcome attempts to model long-run attendance patterns, rather than focusing on single or small numbers of seasons and further work along these lines will surely follow.

Since broadcasting is now a large and growing influence on team revenues in all major sports, as Buraimo shows in Chapter 10, further research would usefully contrast the

impacts of outcome uncertainty on gate attendance and broadcast viewing. The respective impacts could well be quite different which could pose interesting problems for league and club administrators. In particular, should their league intervention policies, such as revenue sharing, aim to please match-going fans or the couch potato audience or some weighted combination of each?

Conclusion

Although attendance demand for team sports events has been extensively researched there are still some unresolved and unanswered questions. As Feehan shows in Chapter 9, much time-series evidence on price elasticity of ticket demand reports inelastic demand. Feehan questions whether this finding is at all convincing since price effects and taste effects tend to be conflated in time-series data. He advocates the use of a cross-sectional travel cost method. However, even in the single published study using this method, price elasticity was below unity at several clubs. Theoretical work aimed at resolving this problem has relied on the role of complementary goods, but the empirical relevance of this additional demand has yet to be demonstrated. Some research from cross-section consumer surveys does succeed in corroborating the economist's prediction of positive income elasticity of ticket demand, consistent with the notion of leisure as a normal good.

Uncertainty of outcome has been much discussed in research on attendance demand. Some problems with analysis of match and seasonal uncertainty have been discussed here; even if it can be found that greater match uncertainty of outcome raises attendance demand, it does not follow that equalising team strength will similarly raise aggregate league attendance. Further work on impacts of uncertainty of outcome on attendance in various sports over the longer run will surely follow. Finally, Buraimo demonstrates the growing importance of sports broadcasting. Literature on viewer demand is much scarcer than for attendance demand. From such data as are available, it will be important, in order to inform league design, to assess whether 'couch potato' fans differ in their responses to demand determinants compared to fans at the stadium.

Notes

1. The wide-ranging survey by Borland and Macdonald (2003) cites 95 research contributions on demand for team sports drawn from sports worldwide.
2. An example of a league exhibiting trend decline in attendance is English country cricket in the 1990s. See Paton and Cooke (2005).
3. In the broad sense of maximising utility subject to a budget constraint.
4. Habit persistence may apply at the level of a league as whole. In North America, the major American football, baseball and hockey leagues have suffered periodically from labour strikes and lock-outs. For the duration of these events league attendances fall but support returns *in full* after the disputes are resolved (Schmidt and Berri, 2004).
5. Several of the issues discussed in this section are explored in more detail in Sandy et al. (2004).
6. Cross-section or panel studies based on a set of teams across a single or a few seasons have difficulty in obtaining significant responsiveness of attendance demand to price since price variation tends to be too small (Dobson and Goddard, 2001, p. 326).
7. Note that there is no particular reason why the relationship between match ticket price and TV audiences on the one hand, and TV broadcast price and gate attendance on the other should be symmetrical in magnitude.
8. Typically, the TV audience for a match will be much greater than the gate attendance. However, during the ill-fated coverage of English lower division football by ITV Digital in the 2001/02 season, there were some matches where TV audiences barely exceeded the official crowd total.
9. Even if subscription prices are available, sports programmes usually form part of a bundle of channels available in a package, and separating the sports content is very difficult.

10. English football had administratively fixed ticket prices in the early post-war period and so ticket prices up to the 1970s showed little variation (Bird, 1982; Dobson and Goddard, 2001).
11. Morrow (2003) tells the neat story of FC Copenhagen who placed their most colourful and noisy supporters in the main stand so as to be in full view of TV cameras at broadcast matches.
12. Season ticket holders may also receive discounts on club merchandising or at sponsors' retail outlets (Sandy et al., 2004, pp. 56–7).
13. Evidence on the impact of weather conditions on attendance at rugby league matches suggests little effect from cold or wet conditions (Carmichael et al., 1999; Jones et al., 2000). The probability of postponement and threat to fixture continuity may well have worried league administrators. In the 1990s, though, attendances at Premier League and Football League matches rose steadily and one suspects this was the main reason for English rugby league's radical change in schedule.
14. Price and Sen (2003) find that the presence of a nearby pro-NFL team deters attendance at college football games despite the deliberate attempt by the NCAA Division I to schedule games so as to avoid clashes with NFL.
15. In English county cricket, members are similar to season ticket holders in football. Note that Test matches played in England are televised and this is another possible factor. Also, Paton and Cooke find *no* adverse impact of Test matches on non-member attendance at county championship matches.
16. Examples where such notions are forcefully expressed are Major League Baseball's Blue Ribbon report (Eckard, 2001) and, on English football, the UK's All Party Football Group of Members of Parliament Report (2004), www.allpartyfootballgroup.org.uk.
17. In English football, this commission is about 11.7 per cent.
18. A similar analysis was performed by Peel and Thomas (1988) for English football. Their results imply that attendance *increases* as home win probability rises towards 0.6.
19. Surveys of empirical evidence on the impact of match uncertainty of outcome in attendance at various sports can be found in Borland and Macdonald (2003) and Szymanski (2003). These surveys concur that there is no consensus in the literature on positive effect of outcome uncertainty on attendance.
20. Carmichael et al. (1999) include match handicap betting odds and pre-season divisional championship betting odds in their model of English rugby league attendance in the 1994/95 season. They find that both measures of uncertainty of outcome affect attendance in the predicted manner. Longer odds of winning a division are associated with lower match attendance. Their use of handicap betting odds to measure match uncertainty of outcome may be criticised since Simmons et al. (2003) find evidence of inefficiency in the rugby league handicap betting market.

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9 Attendance at sports events

Patrick Feehan

A number of studies have sought to explain variations in attendance at sports events. The first research into this topic was published in the early 1970s. Demmert (1973) presented an econometric model of attendances at US baseball games and Noll (1974) investigated the determinants of attendance at four US Major League sports. The first statistical investigation of attendances at English Football League games was by Hart et al. (1975).

Since then there have been many articles written in this area. The most frequently examined sports tend to be Association Football and US Major League Baseball, presumably because of the general interest in these sports and the availability of data. However, attendance at other team sports, such as professional basketball, ice hockey, American Football, Australian Rules football, rugby league and rugby union, has also been modelled. As far as the author is aware no studies have sought to model attendance demand for individualistic sports events such as golf tournaments, boxing contests, or tennis matches. Instead the research agenda on individualistic sports has concentrated on the link between tournament prizes and player performance. Team sports can be thought as those for which the outcome of the sporting contest depends upon the interaction of players in the same team. In contrast, individualistic sports have zero interaction effects.¹ The literature review here focuses inevitably on the demand for professional team sports events, although later we shall speculate on how the demand for individualistic sports events may differ from that for team sports.

Theoretical Model

The starting point for our discussion is conventional neoclassical demand theory. All published attendance demand studies take the standard theory of demand as their starting point. This is true irrespective of the sport. The standard theory of demand states that the quantity demanded of a good depends upon the price of the good in question, the prices of other goods (complements or substitutes), consumer income and consumer tastes.

Consequently, attendance at a (team) sports event is typically assumed to be a function of the ticket price that teams charge fans for admission into a stadium. Where income is entered in the attendance demand function, it is of interest whether attendance at sports events is a normal good or an inferior good. A normal good is one for which an increase in income results in a rise in demand (that is, there is a positive relationship), whereas an inferior good exhibits a negative relationship between consumer income and demand.

It is widely recognised that attendance demand is also likely to depend upon the prices of other goods (complements or substitutes) and 'tastes' for a sport or team. A fully specified attendance demand function should define the total price of attendance to include not only the admission price but also travel costs to and from a stadium (direct costs, such as petrol costs, and time costs) and the price of participation-related goods (for example, merchandise and refreshments). The prices of substitute goods are also of interest, but it is often unclear what constitutes a 'substitute good' for live attendance at a

sports event. The substitute goods may include other sporting events (or teams) in the locality or indeed a visit to the cinema or a shopping complex. On the other hand, committed fans may follow their team religiously and attend matches regardless of other attractions, in which case there are no substitute goods.

In addition to the standard variables, the attendance demand function (for team sports) is often augmented by sports-specific factors such as the quality of the home and away teams and the population in both teams' catchment areas. Other possible influences on spectator demand include lagged attendance to capture habit persistence, a measure of a team's success in the previous season, the weather conditions, whether a match is televised and the degree of outcome uncertainty.

The literature identifies three types of outcome uncertainty. The first type is long-run uncertainty. This is concerned with the domination of the league by a group of teams over a sustained period. It is thought that domination by one team over several seasons will diminish attendance at the unsuccessful clubs and eventually at the successful club through a satiation effect. The second type of uncertainty is about the outcome of an individual match. The match uncertainty hypothesis proposes that spectators prefer a close and unpredictable contest. When spectators anticipate a low probability of a home win (that is, a one-sided match) there is low match uncertainty and attendance suffers. However as the *ex ante* probability of a home win increases, attendance also increases until a maximum is reached. Further increases in the probability of a home win reduce match uncertainty and attendance. Thus there is likely to be a quadratic relationship between attendance and the probability of a home win (Peel and Thomas, 1988; Forrest and Simmons, 2002). The final type of uncertainty is about the identity of a season's champion and, in the case of open leagues, uncertainty about the identity of the relegation teams. Attendance is likely to be higher if a match is significant in terms of the championship and relegation battle (Jennett, 1984).

The above description relates to team sports. It is likely that the spectator demand for individualistic sports events (such as golf tournaments) closely follows this formulation. For example, the admission price to a golf tournament is likely to affect attendance at the event, as should consumer income, the prices of other goods and tastes. Nevertheless there are likely to be a few differences compared with the demand for team sports events. The nature of fan affinity may differ. Fans of individualistic sports events tend to follow particular players (who move from tournament to tournament) whereas fans of team sports tend to have an affinity for a particular team that is tied to a certain geographical location. There may also be differences in terms of outcome uncertainty. Casual observation suggests that spectators at a golf tournament respond positively to long-run domination by one player (for example, Tiger Woods). Thus long-run outcome uncertainty may be less significant than in the case of team sports. Furthermore, rather than being concerned with the quality of a 'team', spectators at an individualistic sports event may be concerned with the quality of the contestants participating. Other than these differences, the attendance demand function for individualistic sports events is likely to include the same explanatory variables as the demand function for team sports, although this proposition has not been tested empirically.

Empirical Analysis

Having specified the attendance demand function for team sports, the next stage of the analysis involves collecting data on each of the variables in the demand function and then estimating the attendance model. The literature tends to measure the ticket price variable

either as an average price, equal to total gate receipts divided by attendance, or as the minimum price available at a ground. For example, the studies by Demmert (1973) on US baseball attendance and by Kahn and Sherer (1988) on US basketball attendance use an average price and minimum price, respectively, when estimating an attendance model. The two ways of measuring the ticket price should yield comparable results, since the two series are highly correlated.²

Where possible, studies tend to measure income by current real regional earnings. However, in the absence of data on earnings, studies often use a proxy for income, such as an occupation-based measure of social class or a regional unemployment rate. Market size tends to be measured by the Census population for the city or urban area in which a team is located (Schmidt and Berri, 2001). Team quality has been measured in a variety of ways (for example, by team standings prior to a match) and likewise outcome uncertainty has been measured in a myriad of ways.

For example, Peel and Thomas (1988) investigate the importance of match uncertainty in the English Football League using bookmaker betting odds fixed prior to a match. The odds are assumed to provide unbiased estimators of the probability of a home win. Forrest and Simmons (2002) also investigate the significance of match uncertainty in the English Football League using fixed betting odds but the odds are first corrected for possible deviations from market efficiency. Alternatively, Forrest et al. (2005) prefer to replace bias-corrected bookmaker odds with win-probabilities from a forecasting model, as the basis for measuring match uncertainty.

Difficulties are usually encountered when attempting to quantify travel costs, substitution effects and affinity effects. For example, Borland (1987) notes the importance of travel costs, when investigating attendance at Australian Rules football matches, but a lack of data means that travel costs are omitted from the final specification. Forrest et al. (2002) provide (for the case of clubs in the English (soccer) Premier League) the first attendance demand study to make use of a numerical estimate of travel costs (direct costs and time costs). The study assumes that attendance per capita from zones within a club's catchment area depends on a composite price of attendance consisting of an average ticket price plus travel costs. The direct and time costs of a return journey are computed using data from a National Survey of fans (that pinpoints fan residential location) and national transport agencies. The study also includes a proxy for income derived from an occupation-based measure of social class and a proxy for fan affinity based on fan interest in attending away games. Substitution effects are not explicitly included in the model of attendance but the study identifies the direction of any bias from omitting substitution effects, assuming that the substitutes consist of other Premier League clubs. Most studies exclude travel costs, substitution effects and affinity effects from the final specification due to the difficulties in obtaining suitable data. As will become apparent later, this omission has the potential to bias the estimates for the coefficients on the other variables.

The most common econometric technique for estimating the attendance demand function is ordinary least squares (OLS) applied to a linearised model. Under certain assumptions and notwithstanding omitted variable bias, the OLS estimator provides the best possible numerical estimates of the true (unknown) population parameters. Occasionally other estimators have been used to address difficulties that arise in the data set.

Attendance demand studies make the general assumption that the observed attendance corresponds to the true effective demand for sports events. However, this is unlikely to be

the case for games that face a binding capacity constraint. At such games the effective demand is likely to exceed the observed demand. Under this scenario, OLS is known to yield biased estimates (Greene, 1997). Faced with a sample of capacity constrained matches, Kuypers (1996) and Welki and Zlatoper (1994) each employed a Tobit model for a censored distribution rather than OLS to estimate spectator demand for the Premier League and American Football, respectively. The Tobit model assumes that we observe the effective demand at minor games and then uses these to infer the effective demand at games with a capacity constraint.

In practice, the difficulty that is posed by capacity-constrained matches is not of widespread concern in the literature. Stadium capacity tends to be reached in only a minority of matches and the difficulty tends to be confined to higher divisions. For example, in the sample of matches that was used by Kuypers (1996), for which a Tobit model was deemed necessary, a mere 10 per cent of the matches were sell-out fixtures. It should also be noted that the Tobit model is not the only approach that is suggested in the attendance demand literature for dealing with the difficulty that is posed by binding capacity constraints.

Forrest and Simmons (2002) argue that the Tobit model is inappropriate in a sporting context since the possibility that a few games will be sold out alters a fan's behaviour. Fans keen to ensure attendance at big matches either purchase season tickets (and attend all games since marginal ticket price is zero) or participate in schemes to give priority in ticket allocation to those with sufficient ticket stubs from previous games. Thus the assumption that underlies the Tobit approach, namely that we observe the true effective demand at minor games, may not in fact hold in the presence of capacity-constrained matches. Consequently, Forrest and Simmons decline to study a league with a high percentage of sell-out matches. Noll (1974) and Dobson and Goddard (1992) address the issue of capacity-constrained matches, within US Major League sports and Divisions 1 and 2 of the English Football League, respectively, by including stadium capacity as a variable on the right-hand side of the regression equation. However, Demmert (1973) notes that this procedure is suspect since including a supply parameter in a demand equation introduces a simultaneous equation bias.

Common Findings

If we examine the empirical findings in the literature we find a number of results that are common to a range of sports. Market size is invariably found to be a major determinant of attendance demand, with a larger market size or team catchment area being associated with higher levels of attendance, holding other factors constant. For example, a study by Wilson and Sim (1995) on attendance at Malaysian Semi-Pro League soccer found that the home team's market size has a significant and positive effect on attendance, while the away team's market size has a smaller effect. Schmidt and Berri (2001) present evidence on the importance of market size in the case of Major League Baseball. The study finds that a team's market size is a significant determinant of individual team attendance for both the American League and the National League.

The majority of studies also point to the fact that a good performance in the previous season (high league standing) and a good run of results in the last few matches boosts current attendance. For example, Simmons (1996) finds that league standing has a significant and positive impact on season by season attendance at five clubs in the English Football League from 1962/63 to 1991/92. The study also observes significant promotion

and relegation effects between Divisions 1 and 2; promotion to Division 1 leads to a rise in attendance in the next season whereas relegation to Division 2 leads to a loss in support.³

There is also a general consensus that spectators at all team sports are highly unresponsive to changes in the admission price, that is, demand is price inelastic. For instance, Fort and Quirk (1996) model attendance at Major League Baseball and estimate a ticket price elasticity of -0.43 for the American League and -0.50 for the National League, evaluated at the mean ticket price and attendance in each case. Burdekin and Idson (1991) find attendance to be completely unresponsive to price in the National Basketball Association and Welki and Zlatoper (1994) estimate a ticket price elasticity of -0.275 for American Football. Borland (1987) and Borland and Lye (1992) model attendance at Australian Rules football and report a ticket price elasticity of -0.58 and -0.59 , respectively. In a study of international test match cricket, Hynds and Smith (1994) report a ticket price elasticity of -0.38 . In the case of English soccer, Dobson and Goddard (1995) estimate a ticket price elasticity of -0.078 at Division 1 prices and Bird (1982) estimates a ticket price elasticity of -0.22 for the entire English Football League. To quote, Fort (2000, p. 10), 'Inelastic ticket pricing for team sports has been a recurrent finding for nearly thirty years'.⁴

The finding of inelastic ticket pricing is a surprising result. It is often assumed that a sports team maximises profits (Rottenberg, 1956; Quirk and Fort, 1992) or a composite utility function where playing success is one of the most important arguments in the utility function (Sloane, 1971). In either case we would expect an optimising team to set a ticket price corresponding to unit elasticity (-1), given that most of a team's costs are likely to be fixed costs (for example, wages) and the likely positive correlation between a team's financial performance and sporting performance.

A variety of explanations have been presented for the apparent severe departure from unit elasticity. One view, which is proposed by Forrest et al. (2002), states that unit elasticity is optimal and that the previous estimates are biased by the omission of travel costs. It has already been noted that the majority of the studies exclude travel costs from the analysis. Given that travel costs may well have fallen over time (due to increased car ownership and declining real car-running costs) and admission prices have tended to rise over time, the omission of travel costs may well have biased the previous time-series estimates of the ticket price elasticity downwards. The exclusion of substitution effects and affinity effects may have further compounded the omitted variable bias.

Feehan (2002) also argues that the previous estimates of the ticket price elasticity may be biased downwards if capacity-constrained matches are a frequent occurrence (which may be the case in top-ranking divisions). A binding capacity constraint not only means that the observed demand curve lies within the effective demand curve, drawing the demand curves in the travel costs attendance space, but the observed demand curve is steeper than the effective demand curve. This follows from the fact that for many teams the bulk of the tickets are sold to season-ticket holders. Fans apply for the season tickets by post but the probability of making a successful application does not depend upon a fan's location. The number of successful applications should therefore be larger in the more outlying parts of a team's catchment area where the local population is higher (as segmented by Feehan, 2002). This gives the result that the observed demand curve is nearer to the effective demand curve the higher the travel costs so that the estimated ticket price elasticity is too low at a given price.

An alternative view assumes that the highly inelastic estimates of the ticket price elasticity are in fact unbiased estimates. Profit maximisation (and consequently win maximisation) predict a ticket price elasticity of minus one assuming that gate receipts are the only source of revenue. However, if the revenue function of a team is amended to recognise the increasing importance of complementary sales and television revenue in recent years (linking these revenue sources to attendance) then optimising behaviour may correspond to a ticket price on the inelastic portion of demand (Marburger, 1997; Fort, 2000). A prediction of a price inelastic demand can also arise if we allow for what may be termed 'queue effects' or 'crowding-in effects' as documented by Feehan (2002).

To appreciate the distinction between queue and crowding-in effects, consider a consumer's utility from attending a sports event. Queue effects assume that consumer satisfaction depends upon the number of people waiting outside a stadium (that is, potential demand). Consumers are uncertain about the quality of the sporting experience and as reassurance consumers take the number of people standing outside a stadium as an indicator of quality (very much like patrons of a restaurant in Becker, 1991). However, crowding-in effects assume that consumer utility depends upon how full the stadium is (that is, capacity utilisation) in that a capacity crowd improves the atmosphere at the game and adds to the sense of occasion.

If an optimising club is aware of these effects it may price on the inelastic portion of demand to preserve the benefits associated with a queue and having a full stadium. To increase the ticket price would reduce demand in the first instance as consumers are reluctant to pay a higher price. However, the initial decline in attendance would invoke a further fall in demand since the team would no longer benefit from the advertising that is provided by the queue of people outside the stadium, which has diminished in size, and since the atmosphere at the game would have suffered following the initial fall in attendance.

In support of the first explanation, of the literature's finding, that the estimates are subject to omitted variable bias due to the role of travel costs, Forrest et al. (2002) model attendance at Premier League clubs from different geographical areas taking account of the direct costs and times costs of travel. This yields estimates of the ticket price elasticity that are much nearer to unity than previous estimates. The study argues that the other interpretations cannot account for the highly inelastic estimates in the case of English soccer, since for example the previous estimates correspond to a time when television and merchandising revenue were not important.

Areas of Disagreement

One of the most important tenets in the analysis of attendance demand is that greater outcome uncertainty boosts attendance demand. Great weight is attached to this 'fact' by policy makers; for instance, it has been used to justify restrictive practices that are characterised by a redistribution of income from richer to poorer teams (such as the collective sale of TV rights). It is argued that greater financial equality results in a more even distribution of playing talent within a league and hence greater outcome uncertainty and healthier levels of attendance.

In spite of the weight that is attached to the notion of outcome uncertainty, there is weak empirical support for the hypothesis. Szymanski (2003) reviews 22 cases in the literature where the effect of outcome uncertainty on attendance has been tested. The corresponding studies cover a range of team sports and they mainly consider match

uncertainty and seasonal uncertainty. Only two cases are concerned with long-run championship uncertainty. Out of the 22 cases reviewed, 10 offer evidence in support of outcome uncertainty, seven offer 'weak support' while five cases offer 'no support'. The evidence on outcome uncertainty is ambiguous and conflicting.

It is also unclear from the literature whether attendance is a normal or an inferior good, particularly for baseball and soccer. Based on an examination of 14 studies, Cairns (1990, p. 10) concludes that 'the evidence suggests that basketball and Australian-rules football are normal goods but hockey is an inferior good. In the case of baseball and soccer the results have been mixed. Investigators often cannot find any significant impact of income on attendance'.

The impact of broadcasting on match attendance is also disputed. For example, Kuypers (1996) finds that televising a game has no significant effect on match attendance, but Baimbridge et al. (1996) find that weekday attendances are reduced by as much as 15 per cent if a game is shown on television. Each of these studies uses data from the 1993/94 English Premier League. However, Forrest et al. (2004) find that broadcasting has a negligible effect on attendance using data on the Premier League and the first division of the Football League from 1992/93 to 1997/98.

In the United States, matters are more complicated than in Britain. American teams sell almost all of their broadcast rights whereas British teams sell only a small fraction. The blanket TV coverage of sports in the United States makes it difficult to determine the impact of broadcasting on attendance. A popular solution to this difficulty involves considering 'blackouts'. On occasions, National Football League (NFL) matches are not shown on local TV because there are still unsold tickets. Such a blackout is announced 72 hours in advance. If live broadcasts reduce attendance, then we would expect blacked-out games to have higher levels of attendance and fewer 'no shows' by advanced ticket holders, after controlling for team popularity. By examining blackouts, Siegfried and Hinshaw (1979) show that there is no significant relationship between NFL attendance and broadcasting but a more complex econometric analysis of blackouts by Putsis and Sen (2000) shows that live broadcasts reduce NFL attendance after allowing for match popularity. Thus, as with the European literature, there are conflicting findings about how broadcast television affects live attendance in American sports.

Final Thoughts

Although progress has been made since the pioneering work of economists in the early 1970s, many theoretical and empirical issues have still to be resolved in the attendance demand literature. One glaring omission is the lack of empirical studies on attendance demand for individualistic sports. This omission needs to be addressed. Further tests are also needed to shed light on the importance of outcome uncertainty. The empirical ambiguity over outcome uncertainty may reflect the disagreement over the most appropriate way to measure outcome uncertainty. There are a myriad of ways of measuring outcome uncertainty in the literature and these may confuse match, seasonal and long-run uncertainty. There may be few studies in each category. Further studies are needed to establish the significance of the outcome uncertainty hypothesis.

There are a number of avenues open to researchers to help clarify the value of the ticket price elasticity and the income attendance relationship for team sports. The study by Forrest et al. (2002) should be widely replicated for other sports besides Premier League

soccer to test whether including travel costs in the analysis generally yields estimates of the ticket price elasticity that are near to unity. A recent study by Hakes and Hutmaker (2004) has taken the first step in this direction by applying the travel cost methodology to Major League Baseball. Crucially, the estimate of the ticket price elasticity in this study indicates that Major League Baseball teams are pricing efficiently.

The income attendance relationship may be clarified with the help of cross-sectional studies. In a review of the literature, Downward and Dawson (2000) attribute the confusion over income elasticity to the short-run nature of the majority of the studies. They advocate using time-series data to capture sufficient variation in the income data. However, Feehan et al. (2003) argue that time-series studies face the difficulty that it is hard to control for wide swings in tastes such as those that have characterised the history of a number of sports. Instead their study seeks to avoid the generic problem with time-series studies by using cross-sectional data following Siegfried and Peterson (2000). The work by Feehan et al. (2003) finds strong support for the claim that English Premiership soccer is a normal good. The study by Siegfried and Peterson (2000) suggests that Major League sport in the United States is a normal or perhaps a superior good. It is curious that these two cross-sectional studies each find that attendance at live sports events is a normal good. The benefits of using cross-sectional data should also be explored for other countries and other instances in time.

In recent years, the profile and economic influence of major sports events has grown dramatically. For example, Szymanski (2003) notes that in 1997 spectator sports contributed \$14 billion dollars to the US economy (0.14 per cent of GDP) and that total attendance at sports events in the same year represented 41 per cent of the US adult population. The increasing influence of sports events is likely to stimulate research into attendance demand.

Notes

1. The distinction between the two types of sport is usually obvious but not always. For example, some may regard horse racing as an individualistic sport but, on the other hand, it is possible to identify an interaction between horse, jockey and trainer. Similarly, in motor racing, most of the attention is focused on the drivers but the work of the mechanics and engineers is crucial to the outcome of a race. See Szymanski (2003) for a more thorough discussion on the distinction between team and individualistic sports.
2. In the case of the English Football League, Feehan (2002, p. 9) finds a coefficient of correlation between the League's real average admission price and the minimum admission price of +0.92 using data from 1925/26 to 1975/76.
3. As far as the impact of success on attendance is concerned, there may be a simultaneous bias: attendance may drive team success (relative league position) rather than vice versa. Higher attendance and the coincidental rise in gate receipts can lead to greater spending on playing talent and hence greater success on the field of play. The potential for simultaneous bias is highlighted by Davies et al. (1995) and Dobson and Goddard (1998) which apply Granger causality tests to data on league performance and attendance/gate revenue for clubs in the rugby league and English Football League, respectively.
4. Economists classify demand as elastic, inelastic or unit elastic according to the value of the ticket price elasticity. If the ticket price elasticity is between zero and minus one then demand is inelastic. However demand is termed unit elastic if the ticket price elasticity equals minus one and it is elastic if the ticket price elasticity is more negative than minus one. Given the rarity with which the 'law of demand' has been challenged we would expect a negative ticket price elasticity.

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10 The demand for sports broadcasting

Babatunde Buraimo

The UK market for broadcasting has evolved considerably since the 1980s. The terrestrial broadcasters, who originally dominated the market and audiences' choice, were limited to a small number of channels. The advancements in technology during the 1980s, however, contributed to the expansion of the market and saw the emergence of new broadcasters who produced and broadcast programmes using the new direct-to-home (DTH) satellite platform. Although consumers had to pay for satellite broadcasting, its presence created more competition, which was limited under the previous regime. Further technological progress has since occurred and the emergence of digital technology has further changed the broadcasting landscape. Consumers are now able to watch programmes on terrestrial, digital satellite, cable, pay-per-view and digital terrestrial television (DTT). In both Europe and North America, technology has broadened the market with an increased number of broadcasters as well as distributors of programme channels.

Many of the developments and changes in the sports market have themselves been driven by changes in the broadcasting market. The increased programme capacity meant that even minority sports, such as darts and snooker, have become part of the sports broadcasting calendar. In many cases, the broadcasters have fiercely competed against one another in an attempt to secure the rights for these sports. The effect of such competition has been an increase in revenue to the owners of sporting rights. For some sports, governing bodies and leagues, this has resulted in changes to policies and practices that have traditionally governed them for decades. For some, the increase in revenue has caused breakaways and the establishment of new sports competitions and leagues.

The changing relationship between the broadcasting and sports markets has had a considerable effect on consumer demand. This chapter examines the market demand for televised sports. It examines the expansion of televised sport, the structure of the broadcasting market in supporting the expansion and the growth of television audiences for sport. Further, it examines the impact of broadcasting on sport, in particular the effects of sports broadcasting on stadium attendances.

Broadcasters and Sports Rights

The broadcasting markets in both the US and the UK have at one stage been highly concentrated. In the US, three network broadcasters, ABC, CBS and NBC, dominated the market. Much of the dominance can be attributed to the regulatory framework of the Federal Communications Commission. The broadcasting market expanded when the regulations were relaxed and this resulted in a sharp rise in the number of households subscribing to cable during the 1980s and 1990s. While cable distribution ended the broadcasting oligopoly of the 1970s, DTH broadcasting emerged only in the 1990s. DirecTV and EchoStar were established in 1993 and 1996, respectively, and introduced much-needed competition to the broadcasting market. In addition to the emergence of cable dis-

tribution and DTH, another network broadcaster, Fox, also emerged in 1994 (Cave and Crandall, 2001; Karikari et al., 2003).

While a number of network broadcasters, cable distributors and DTH broadcasters compete in the broadcasting market, the competition for sports rights is now more intensive. Although the three network broadcasters dominated the sports rights market in the 1970s and the earlier half of the 1980s, more broadcasters have acquired these rights since. For instance, the national television rights for National Football League (NFL) football have, since 1986, been acquired by all four network broadcasters and a number of cable distributors. The current broadcasting rights from 1998 to 2005 is jointly shared by ABC, CBS, Fox and ESPN and has generated over \$17 billion. This pattern has been replicated across Major League Baseball (MLB) and the National Basketball Association (NBA). In MLB, two broadcasters, CBS and ESPN, bought the television rights from 1990 to 1993. The rights from 1994 to 1999 were acquired exclusively by ESPN but were shared by four broadcasters, ESPN, Fox, NBC and Fox Cable, a subsidiary of Fox, for the 1996–2000 period. While competition within the broadcasting market has improved, the market for national television sports rights continues to exhibit oligopoly characteristics. Table 10.1 shows the acquisition of rights by broadcasters in the US for NBA, NFL and MLB.

Similarly, the UK sports broadcasting market has gone through a series of developments. While the US market is an oligopoly, the UK market for sports rights is arguably a complex monopoly, particularly when the rights of certain sports are considered, and were it not for regulatory restrictions, the extent of the monopoly is likely to be greater. The developments in the UK and the effects on the sports rights market for English soccer provide the focus of the next section.

Sports Broadcasting: An English Soccer Case Study

The public service (non-advertising) broadcaster, the British Broadcasting Corporation (BBC), and a group of regionally based commercial broadcasters within the Independent Television Network led the dominance of the free-to-air terrestrial broadcasting in the 1980s. The limited number of broadcasters and channels meant that sports rights' owners had to compete for limited broadcasting space. As a result, the volume of sports broadcasts available on UK television was limited and sport had to compete with other programme types. Given the scarcity of space and lack of competition, UK broadcasters who were interested in sport were able to collude to push down the rights values. In fact during this period, BBC and ITV were the only broadcasters and although Channel Four became interested in sports broadcasting in the early 1990s, budgetary constraints and platform space meant that it could not compete for major sports like English soccer and cricket. Much of Channel Four's attention was on foreign sports like American football and NBA basketball, which had a significant but minor following.

English soccer had an erratic and irregular presence on British television up until the 1980s. Its presence was somewhat limited to international matches involving the English national team, matches from the FA Cup and highlights of the English soccer league. The absence of live league soccer matches was partly due to the league's resistance as it was thought that exposure on television may harm stadium attendances. Quite recently, the FA Premier League (FAPL) in the Restrictive Practices Court in 1999 testified, 'it is desirable to limit the number of matches which are televised live because excessive live

Table 10.1 Rights value acquisitions by US broadcasters for NBA, NFL and MLB from 1982

Period	NBA			NFL			MLB		
	Broadcasters	Rights value	Period	Broadcasters	Rights value	Period	Broadcasters	Rights value	
1982-83 to 1985-86	CBS and 'Cable'	\$0.1 bn	1982 to 1985	ABC, CBS and NBC	\$1.4 bn	1990 to 1993	CBS and ESPN	\$1.5 bn	
1986-87 to 1988-89	CBS and TNT	\$0.2 bn	1986 to 1989	ABC, CBS and Fox Cable and NBC	\$1.5 bn	1994 to 1999	ESPN	\$0.3 bn	
1989-90 to 2001-02	NBC and TNT	\$4.8 bn	1990 to 1993	ABC, CBS, ESPN, NBC and TBS	\$3.6 bn	1996 to 2000	ESPN, Fox, Fox Cable and NBC	\$1.6 bn	
2002-03 to 2007-08	ABC, AOL/Time Warner and ESPN	\$4.6 bn	1994 to 1997 1998 to 2005	ABC, ESPN, Fox, NBC and TBS ABC, CBS, ESPN and Fox	\$4.4 bn \$17.6 bn	2000 to 2006	ESPN and Fox	\$3.4 bn	

broadcasting of football (soccer) would be likely to reduce attendances' (Forrest et al., 2005). A similar viewpoint was widely held previously in the NFL. The NFL restricted the broadcasting of matches to those that were sold out. Matches that had not sold out 72 hours before the start were subject to a blackout. Studies have since shown the effects of live televised sport on stadium demand and these are examined later in this chapter.

In 1960 the English Football League reached a draft agreement with ITV to broadcast 26 live matches; however, the lack of cooperation between the teams and the broadcaster meant that no live matches were broadcast (Forrest et al., 2004). Live transmission of soccer eventually started in 1983 when an agreement was reached between the league and both BBC and ITV. The two broadcasters, operating a duopoly, agreed to broadcast 10 live matches per season for two seasons at a cost of £5.2 million. The broadcasters and the league were not able to reach an agreement for the start of the 1985 season because of the league's demand for a higher rights fee and no matches were broadcast during the first half of the 1985–86 season.

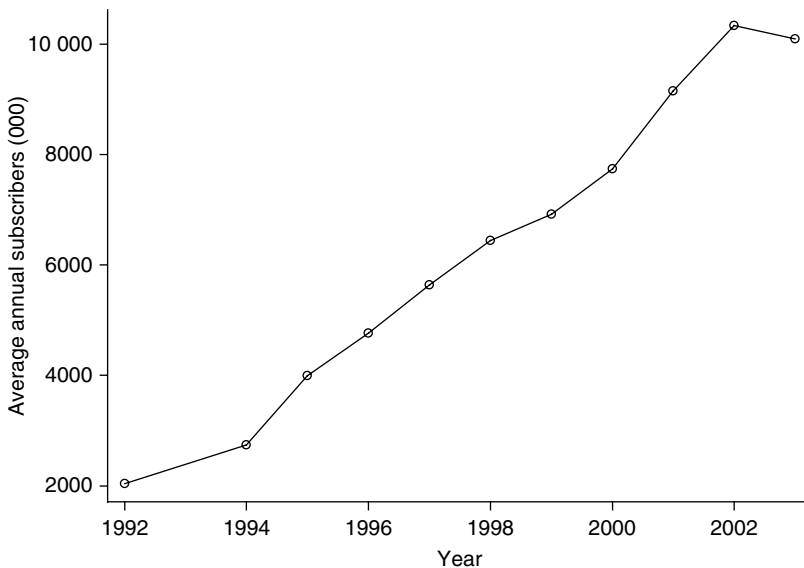
The emergence of DTH broadcasting in the late 1980s increased competition within the market, even though consumers had to pay directly through monthly subscriptions. British Satellite Broadcasting and Sky Television were the new entrants and although they merged in 1990 to form British Sky Broadcasting (BSkyB), the expansion of the broadcasting spectrum meant that broadcasters would vigorously compete for sports rights. This indeed led to the breakdown of the BBC/ITV cartel in the soccer market and ITV acquired exclusive rights to broadcast live league soccer matches from 1988. Its strategy was a pre-emptive one which was meant to keep BSkyB at bay, especially since the league had been threatening to negotiate a deal with the new entrant. Technological advancement continued in the 1990s with the arrival of digital transmission. This meant further expansion and effectively increased the relative price of sports rights. As competition further intensified, broadcasters competed to fill their channel space and economic power shifted from broadcasters to rights owners (Cowie and Williams, 1997). Digital transmission provided a new platform for the terrestrial broadcasters, for example, BBC and ITV, now transmit programmes on their free-to-air terrestrial platform as well as the DTT platform. Although the marginal cost to consumers is nil, penetration of DTT into UK households is, at present, small as access is currently dependent on a digital receiver at a one-off fixed cost or a television with an integrated receiver. BSkyB's DTH analogue transmission was fully replaced in September 2001 with its new digital DTH platform. The expansion of the 1980s and 1990s also provided a role for other agents, namely channel distributors. Distributors primarily provide consumers with channel packages and are reliant on the broadcasters, who own the channels and make the programmes. Although some distributors may also engage in programme making and provide their own channels, the complexity of the market and their reliance on the major broadcasters means that their cost will increase if they bid up the price of sports rights during the auction process. Harbord and Szymanski (2004) provide an appraisal of the market structure of the pay-television market.

Pay Television and English Soccer

BSkyB's emergence signalled increased competition and teams in the English soccer league were keen to take advantage. Prior to 1992, the English soccer league consisted of 92 teams organised into four hierarchical divisions. At the end of the season, teams were

promoted or relegated depending on their season's performances. A small number of large teams in the top division were not satisfied with the revenue sharing arrangements, added to which there was an incentive to maximise potential revenue from the now buoyant broadcasting market. In August 1992, an FA Premier League was formed, comprising 22 teams from the top division of the soccer league. Not only was the FAPL able to attract greater broadcasting revenue than the original deals of the soccer league, but the revenue was also shared among the 22 teams, unlike the previous deals which were shared among all 92 teams. At the same time, subscription to BSkyB was limited and in order to compete with the incumbent terrestrial broadcasters, it needed to provide unique programming that would not only attract audiences, but also enable it to justify its subscription charges. BSkyB secured the live rights to FAPL soccer from 1992 for five seasons while the BBC was able to acquire the rights to highlights. The acquisition of sports rights and particularly that of FAPL soccer was instrumental in BSkyB's penetration into British households. Williams (1994) provides a view of BSkyB's rise within the broadcasting market and the role that sports have played. Since 1992, subscribers to BSkyB have consistently risen. Figure 10.1 shows this growth. The growth in subscribers also coincided with a period of consistent growth in consumer income, as the UK economy enjoyed sustained economic growth after 1992 and this also contributed to the penetration of pay-television into UK households.

One of the major difficulties in analysing the demand for sports broadcasting is establishing the price. BSkyB bundles together a variety of channels – children's channel, sports, music, movies – and consumers have very little choice in their selection. Consumers will normally have to purchase a basic package and pay a premium for additional channels which screen sports or movies. Furthermore, some sports programmes also attract an



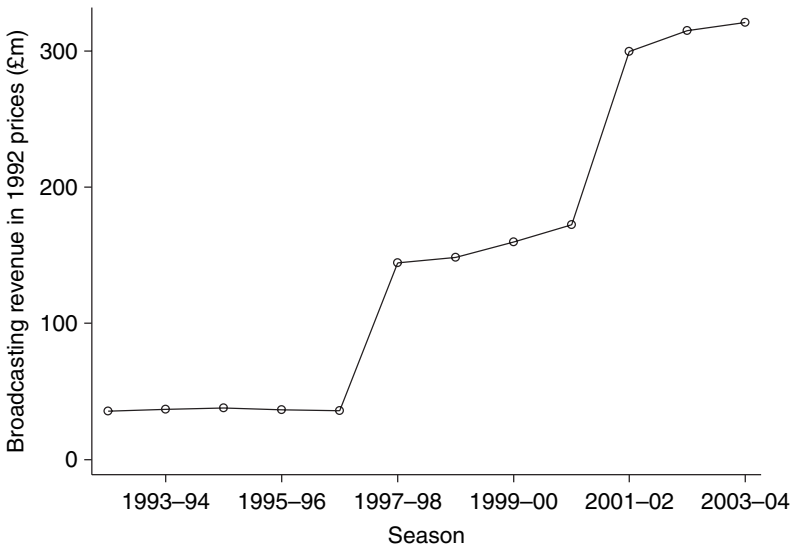
Source: BSkyB Limited.

Figure 10.1 The growth in household subscription to BSkyB from 1992 to 2002

extra fee on a pay-per-view basis. As a result the price of sport on television is often very difficult, and sometimes impossible, to estimate.

As with live attendance at stadiums, demand for televised sports can be examined using the same principles. Economic theory suggests that stadium demand is a function of price, consumer income, leisure time, demographic factors and a series of sport-specific variables, such as the significance and closeness of the contest. Sports economists have examined attendance demand in a number of sports for a variety of reasons. Dobson and Goddard (2001) provide a comprehensive survey of studies on stadium attendance. Although attendances have attracted a great deal of attention, demand analysis for television audiences is limited by comparison. The attention on stadium attendance is merited as a significant proportion of the revenue generated by most sports is from fans in the stadium. However, given the growing significance of the sports broadcasting market, the demand by television audiences is now worthy of similar attention. Such is the importance of sports broadcasting that broadcasters continue to pay substantial rights fees each season. For example, the FAPL's single biggest source of income is broadcasting and this signifies the importance of sports viewers who prefer to watch sport from the comfort of their home. Figure 10.2 shows the rising cost of acquiring FAPL soccer rights by BSkyB from 1992–93 to 2001–02.

Given that pay-television broadcasters are profit-maximising firms, this growth in rights fees could be taken as an indirect measure of the level of demand there is for sports or the broadcasters' evaluation of that demand. Broadcasters' evaluation of demand is at times overstated. When this occurs, the revenue is below cost and firms are quick to exit the market. ITV Digital, a subsidiary of ITV and a DTT broadcaster who also operated pay-television and pay-per-view channels, overestimated the level of consumer demand



Source: FAPL Limited.

Figure 10.2 FAPL rights value for pay-television from 1992–93 to 2003–04 in 1992 prices

for the rest of the English soccer league and paid £315 million to broadcast matches for three seasons. ITV Digital, after one season, fell into administration when revenue from consumer demand was substantially lower than its cost. The cost of sports rights is determined by a complex interaction of anticipated consumer demand and the strategic interactions of broadcasters in the sports rights market. Hoehn and Lancefield (2003) examine the interaction between the broadcasters and the competition within the market.

BSkyB's dominance of the televised sports market in the UK has not been limited to English soccer rights. Its dominance has also extended to rugby league, rugby union, US, French and Australian Open tennis, and a growing share of European club soccer. Were it not for regulatory restrictions, its dominance would also be evident in sports like cricket and major sporting events like the summer Olympic Games and the FIFA soccer world championships.¹

The Demand for Televised Sport

Economic theory suggests that audiences for televised sports are rational and that their demand is based on a number of factors similar to those of live attendance. However, a significant part of the demand for gate attendance is dependent on the size of the local population and given this, attendance is normally positively correlated with population. Hence it is normal for the supporters of the home team to outnumber those of the visiting team. Consequently, demand analysis strongly reflects the strength of the support afforded to the home team. In some instances the level of home support is constrained by the stadium's capacity and therefore the true level of demand is unobserved, a key issue noted earlier by Simmons (Chapter 8) and Feehan (Chapter 9). Although stadium attendance is important, many leagues and clubs have been able to maximise revenues from other sources and much of their attention has shifted towards broadcasting. To a certain extent, this has also been reflected in the literature. Kuypers (1995), Hausman and Leonard (1997) and Kanazawa and Funk (2001) have all modelled television audiences for sport.

The commencement of televised live FAPL soccer most certainly fulfilled a latent demand in the sports market but while stadium attendances have been increasing, notwithstanding the capacity constraint problem, audience ratings for soccer matches have been somewhat variable, with a steady rise to an average of 1.5 million during the 1996–97 season. Since this peak, however, average television audiences for the 2001–02 season have fallen by 20 per cent. This is shown in Figure 10.3.

Given that TV audiences contain more than the fans of the competing teams, what are the variables that could explain audience patterns? Evidence on audience ratings, although scarce, provides some understanding of the factors that are likely to influence television audiences. One such factor is the subscription price or the price of a particular pay-per-view match. As noted earlier, extracting the price for sports broadcasting is not always possible. However, evidence from an inquiry² by the UK's competition authority in 1999 noted that one of the primary reasons for subscribing to BSkyB was sport. While it is therefore difficult to estimate the exact impact of price on televised sport, it could be safely assumed that price will have an effect on audience demand.

Another major factor that is likely to influence the television audience demand is the quality of the talent on show. Hausman and Leonard (1997) in their study of NBA basketball were able to examine the effects of superstars on the league. Using Nielsen ratings for national over-the-air, national cable, local over-the-air and local cable, they estimate

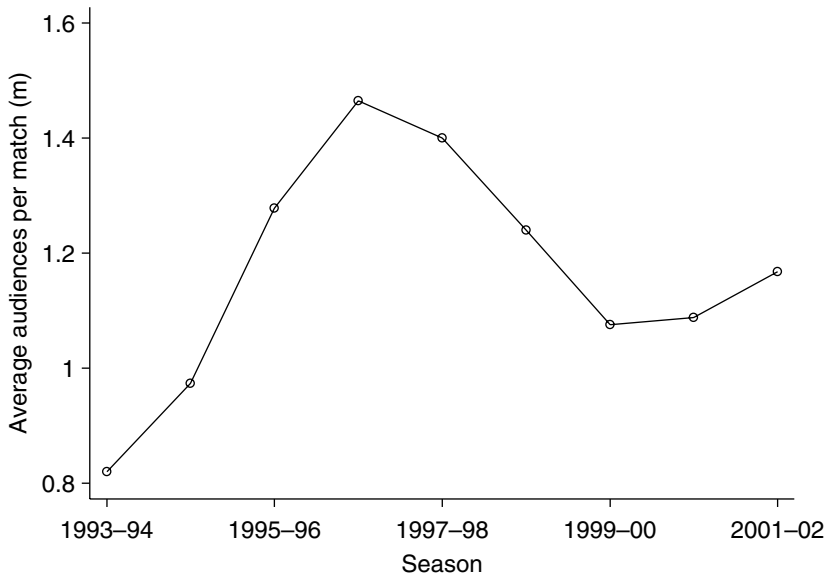


Figure 10.3 Average annual television audiences per match from 1993-94 to 2001-2002

not only the impact of All Star players on audience demand, but of individual superstars like Michael Jordan, Larry Bird, Magic Johnson and others. Over the period of the data set, which ranged from the 1989-90 to the 1991-92 season, they note that the presence of All Star players had the effect of increasing television audiences by 7 to 10 per cent depending on the viewing platform. They also note that superstars like Jordan, Bird and Magic increased audiences by an additional 10 to 36 per cent.

The impact of star players has similarly been noted in English soccer. Baimbridge et al. (1996) in their examination of attendance demand during the 1993-94 season of the FAPL, note that international players of both the home and visiting teams have a positive impact on demand.³ Their results suggest that the marginal effects of international players in the home and visiting teams on attendance were increases of 6.1 and 4.7 per cent, respectively. Kuypers (1995) also examines the effect of international players in the FAPL but reports that only the international players in the visiting team, and not the home team, have an effect on attendance. He explains that the number of international players in the home team is relatively stable and is less likely to alter demand by the dominant home supporters who are used to seeing the same players.

Demand by television audiences is also influenced by the racial composition of the teams. Kanazawa and Funk (2001) in modelling the television audience demand for NBA basketball found that audience ratings for locally televised matches responded positively to the number of white players in the local and visiting teams. While controlling for other factors such as All Star players, market size, programme time and teams' performances, they found that an additional white player in the local and visiting teams had the effect of improving Nielsen ratings⁴ for television audiences by 0.54 and 0.21 points, respectively. For white players in the local team, this translated into additional households ranging

from 3500 to 36 200 depending on the size of the local population. The results suggest, *ceteris paribus*, that a 'whiter' team drives television audience demand upwards and may explain the wage differential between white and non-white players given that white players have a greater marginal revenue product. The implications of the Kanazawa and Funk findings are not just limited to maximising television audiences for sports. Advertisers buy local commercial slots around sports programmes with respect to the number of household viewers and given the level of demand, which among other things is sensitive to the number of white players in the teams, therefore the value of these commercial slots increase accordingly.

One of the central themes in the literature is competitive balance and outcome uncertainty. Dobson and Goddard (2001) provide a survey of the literature on competitive balance and outcome uncertainty. Consumers value competitive balance and less predictable outcomes in sports. While there are numerous studies on the importance of competitive balance and outcome uncertainty on stadium attendance, relatively few studies have been published on the impact of these concepts on demand by television audiences. In Kanazawa and Funk's (2001) study of NBA basketball, the results show some evidence of audiences' preference for competitive balanced contests. As the winning percentages of both the local and visiting teams increase, so too does the audience and the results can be used to infer that audiences prefer balanced contests. Pacey and Wickham (1985) in their analysis of National Collegiate Athletic Association (NCAA) football found that the combined winning percentage of teams in the league positively influenced television audiences, providing evidence of the positive attributes of competitive balance. In this respect, television audiences are similar to stadium audiences in their preferences for competitive balance. More recently, Forrest et al. (2005) found that television audiences for FA Premier League football respond positively to matches that show greater levels of uncertainty of outcome, although the extent to which audiences respond to outcome uncertainty was described as modest.

Impact of Live Televised Sport on Stadium Attendance

While the above discussion has centred on the demand for televised sport, it should be noted that sports authorities have at times implied that televised sport is harmful to stadium attendances. Televised sports may have one of two major effects. The first is a substitution effect, with fans preferring to watch the televised version. An alternative view is that televising sport is complementary to stadium attendance and the exposure on television is similar to that of advertising. The evidence to date is mixed, but is weighted on the side of televised sport being a complement to stadium attendance.

From the US, Kaempfer and Pacey (1986) in their model of college football find that broadcasting sports was indeed a complement and not a substitute. In their examination of NCAA divisions I-A and I-AA, they find that televising college football increases stadium attendance by 7.8 per cent. In a follow-up study by Fizel and Bennett (1989) on the impact of television on college football, they report results that are contrary to those of Kaempfer and Pacey. While Kaempfer and Pacey suggest that televising college football had a complementary effect, Fizel and Bennett find no evidence of this. However, given the differences in the results of both studies, televising football games was reported as having no adverse effect on attendance. Therefore, at the very least, there was no significant effect on attendance.

The impact of televised games has not just concerned the league authorities, it has also been of interest to competition authorities. In the 1970s, the blackouts in NFL were the subject of legislation by Congress. The key question under consideration was whether televised NFL games increased the number of no-shows therefore reducing revenue from ancillary provisions such as parking and catering, and consequently justifying the blackout rule. The NFL's position was that without the blackout rule, fans who had tickets to a game might not show if they had the option of viewing the match on television. Siegfried and Hinshaw (1979) found that blackouts had no effect on the number of no-shows reported at games and that Congress was correct in its ruling against blackout. Furthermore they suggested that rather than harm team revenue, the revenue generated from broadcasting is likely to compensate for any loss in game revenue, if indeed there were any.

Turning to English soccer, Baimbridge et al. (1996) examine the impact of televised FAFL matches on stadium attendance. Their data set focuses on matches played during the 1993–94 season, a period when BSkyB televised live matches on Sundays and Mondays. Their results suggest that matches televised on Sundays had no effect on attendance while matches televised on Mondays reduced attendances by 15 per cent. Their results must be interpreted carefully. In the absence of matches broadcast on any other day of the week besides Monday, it is inconclusive to suggest that broadcasting had a negative effect. In fact the likely interpretation is that matches scheduled outside the weekend were likely to record lower attendances compared to those scheduled at the weekend. The reason is that the opportunity cost of attending matches during the week is higher compared to the weekend when the availability of leisure time is greater. The effect noted by Baimbridge et al. is likely to be a scheduling one. Allan (2004) models gate attendances at Aston Villa FC, an English Premier League team, over seven seasons and finds an adverse impact of televised coverage on attendance of 7.75 per cent. However, they do not control for broadcast influence from scheduling. Similarly, Carmichael et al. (1999) examine the impact of broadcasting English rugby league matches on attendance. They find no evidence that broadcasting matches adversely affected attendance but note that for matches scheduled and televised on Friday, attendance declined by 21 per cent. The following is a likely interpretation. Due to the higher opportunity cost of attending matches on Friday, as it is a working day, fans are more likely to opt for the televised version. During the weekend, however, the opportunity cost of attending matches is lower compared with during the week, and fans are therefore more likely to attend in person. Again the results suggest that televised sport does not have an adverse effect and lower attendances are a result of match scheduling, as suggested in a multi-season study by Forrest et al. (2005).

Conclusion

The developments within the broadcasting markets have had a profound effect on the demand for televised sports. The advancements in technology and the increased competition among broadcasters have seen a dramatic rise in the broadcasters' demand for sports rights. This in turn has shifted the economic power from broadcasters to sports rights owners and has seen the rights fees bid upwards. For many sports, this has seen an increase in revenue. At the same time as broadcasters' demand is being met, albeit at a very high price, consumer demand for televised sports is now being satisfied. As with stadium attendances, the demand for televised sports is influenced by a range of similar factors including prices, income and a range of sports-specific factors. Among these

factors are the competitive balance and the quality of talent on show. However, analysis of television audience demand is less straightforward. While price is generally observable in attendance demand, broadcasters have tended to use channel and price bundling as the price of televised sports is hidden. However, evidence suggests that price, as well as income, are determinants of demand for televised sports. A major issue in the literature on sports demand is competitive balance. While the literature on televised sport has not directly dealt with this, the importance of competitively balanced contests can be inferred from the results and as with stadium attendance, television audiences are positively influenced by competitive balance.

Attempts to satisfy latent demand in the sports broadcasting market have not been straightforward. In the US, restrictions by the sports leagues, based on the notion that stadium attendance and televised sports are substitutes, have constrained the sports broadcasting market. This has been the case in the UK, too. The evidence, however, suggests that attendance in person and television viewing are not always substitutes and in some instances have been reported as being complementary.

Notes

1. The rights to events like the Olympic Games, the FIFA soccer world championships and others are protected in the UK under the 1996 Broadcasting Act as they are deemed to be of national significance and cannot be exclusively acquired by a pay television or a pay-per-view broadcaster.
2. In 1999, the then Monopolies and Mergers Commission investigated the proposed merger between BSkyB and Manchester United and deemed it against the public interest.
3. International players were those players who had represented their countries in major international soccer tournaments like the FIFA World Cup and are regarded as the stars of European soccer.
4. Nielsen ratings are measures of American TV viewing figures for programmes compiled using census information recorded by a set-top box.

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11 The demand for media coverage

Frédéric Bolotny and Jean-François Bourg

History has shown that sport and the media have maintained a self-interested relationship for a long time (Bourg and Gouguet, 1998, 2005). It was over a century ago that sport and the specialised written press were born and associated together. The first radio broadcasts of sporting events date from the 1930s (boxing, baseball and cycling). However, neither of these two forms of media plays a major direct role in financing professional sport, even if radio stations are increasingly often liable to pay for the worldwide rights to cover certain competitions.¹

Taking into account the central position which television now has in the functioning of professional sport, it will be the heart of this study. Indeed, sport and television have been developing side by side for half a century, profiting from both the convergence and the complementarity of their interests: sport is a pool of programmes and audience for television, which is itself a financial pool and a vehicle for the promotion of sport.

Television has become a private good, being at the same time subject to administrative deregulation (in Europe especially, with the public broadcasting monopoly being abandoned) and to technological revolution (with the appearance of cable, satellite and digital TV); the production and consumption of these programmes take place within the framework of a market economy. Because of the amount of the fees that have been paid for by networks in order to win them over, viewers have indirectly supplanted spectators as the leading financiers of major world sporting events. Thus, the world market for TV rights in 2000 was estimated at €48.4 billion (Eurostat, 2001),² with the Carat Sport Agency adding that, in addition, sport represented an average of 5 per cent of airtime on European non-specialist terrestrial channels, but 15 per cent of programme costs.

Thus, understanding the financial relationships between sport and television requires that the sports programme market and the sports broadcasting rights market match (Andreff et al., 1987), with the independent variables of the development of the rights relating to one or other of the two markets (Figure 11.1).

Downstream, the primary market for sports programmes is a place of exchange between broadcasters (the supply side) and viewers (consumers/the demand side). Upstream, the secondary market for sports broadcasting rights brings into play the same broadcasters, here the demand side, and the sports organisers (clubs, leagues and federations) or sports marketing companies, which are the supply side for the rights they hold. The ability of sport to create large audiences in the broadcasting market represents a major source of revenue – either directly by the sale of programmes (subscription channels), or indirectly by the commercialisation of advertising slots (free or subscription channels).

This situation generated intense pressure on the broadcasting market during the 1990s, which was moreover characterised by an explosion in numbers on the demand side, because of the increase in subscription channels. In view of a supply of generally

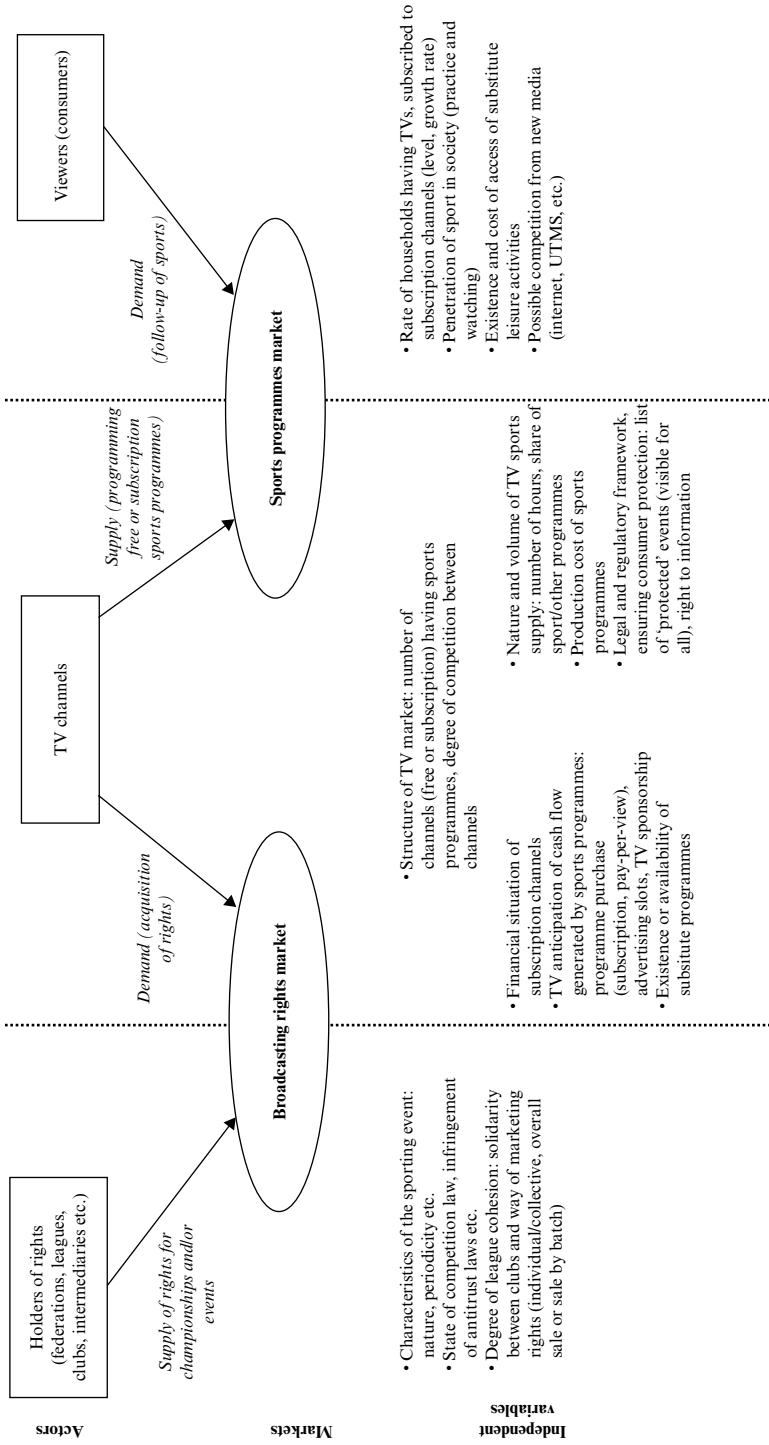


Figure 11.1 The two markets of sport and television (independent variables of the amount for broadcasting rights)

monopolistic (or cartel) rights for a given competition or event, the adjustment was generally made by price – that is, by an increase, as a result of the cost of acquiring sports programmes.

Bringing together a theoretical analysis and an empirical approach, we here call on the concepts of the standard view of markets in competition and that of managed markets, in order to describe the relationships which are established between the different actors in these two markets. More especially, we try to explain the pricing on the secondary market, that is, determining the amount for sports broadcasting rights.

The Market for Sports Programmes

A relationship has been established in this first market, between television networks and viewers, which is characterised by different indicators: airtime devoted to sport, audience level and the cost of accessing sports programmes. The exchange terms in this market, generally on a national level, have been modified significantly over the last 20 years.

Over the years, the supply of television programmes has known a continuous process of privatisation, which has been chiefly characterised by the development of subscription television (Bourg and Gouguet, 1998). In view of this increased supply, consumer behaviour has also changed significantly, mainly as a result of technical progress in the audiovisual sector (zapping, linked to the general use of remote controls and the increase in broadcasting networks and channels, and so on). In this global context, sports programmes are often a major stake, because of their attractiveness – taking part directly in the financing of leading sporting events, as well as through their public exposure throughout the world,³ and as a significant source of indirect commercial receipts (sponsorship and derivative products, and so on).

The characteristics of the product and the supply

A doubly peculiar supply The supply of sports programmes from television networks has an unusual character for two main reasons. In the first place, the nature of the televised programmes as an economic good (or, more precisely, as a service, because of their intangible form) has changed profoundly: although generally originally monopolistic and public, the programmes should be analysed from now on as a private good, despite the persistence in many countries of a public audiovisual service, partly financed by the taxpayer.⁴ Although it was once regulated, the sector has become competitive – which has contributed, more particularly as far as sport is concerned, to the progressive eradication of the discrepancy between televisual supply and viewer demand (Bourg and Gouguet, 1998). Alongside traditional, unscrambled programmes – which can be seen by everyone – offered by public or private networks,⁵ the amateur viewer now has a sports subscription supply at his/her disposal. This could be globalised in a wider supply (scrambled networks like Canal + in France and/or cable and satellite packages which systematically offer thematic sports channels); or targeted on a specific programme, thanks to pay-per-view. Commonly used in sport or cinema and first introduced in the United States in 1975, this menu for buying programmes contributes very directly to a ‘real-time’ adjustment between supply and demand.

For subscription channels, sport constitutes in a general way an excellent loss leader, which is likely to attract new subscribers. However, this development has caused the emergence of new legal problems linked to the confrontation between exclusive rights – which

could be granted to the subscription channels – and the public exposure of events of major importance by all of the population. Thus in 2001, 106 million European households were connected in one form or another to subscription television (terrestrial, cable or satellite); that is, 67 per cent of households in Germany, 54 per cent in France, 50 per cent in Spain and in the United Kingdom, but only 15 per cent in Italy.⁶ This situation first of all gave rise to an explosion in the number of channels: in 1951, there were four general viewing channels in the whole of Europe; in 1991, there were 143 of which 71 were private; and in 1995, there were 383. During the last few years, however, the subscription television market has realised its full potential, but it has been characterised by bankruptcies and mergers which have had a significant influence on the structure of the broadcasting market and therefore on the likely development of fees.

Second, professional sport presents a very specific economic process: a living spectacle in the same way as a play or a concert is, which could be considered, to a certain extent, as substitute goods for sport, since a sporting event constitutes a unique and ephemeral good in that the same performance is played only once. But its main specificity lies in the unpredictable character of its scenario, which is unknown in advance, even by the actors. This ‘glorious uncertainty of sport’ constitutes the main source of interest for fans and therefore – in a spectacle-based economy where the receipts are directly correlated to the audience of the event – the main source of creating its economic value. The beautiful game, the national flag and the stars equally contribute to the success of sport throughout the world, but it is above all the suspense linked to the uncertainty of the result which inflames the crowds, especially so when the sporting stakes are at a maximum. Even if the comparison seems a little daring, we have to say that programmes such as reality TV and ‘Miss’ beauty competitions have since tried to call upon – often, it has to be said, with success – comparable stimuli to those in sporting events. This assessment would tend to show that professional sport was, by nature, destined to become a televisual spectacle of the first order, and likely to bring together the greatest number on many occasions.

An increase in overall volume but reduced public exposure and strong disparities between disciplines: France as an example The supply of sports programmes can be analysed as a whole or by discipline (Bourg and Gouguet, 1998). From an overall point of view, it prefers flow programmes (broadcasting competitions live), the economic value of which is destroyed when shown for the first time (leaving aside recordings) to stock programmes (specialist magazines, reviews and so on).⁷

The increasing penetration of ‘sporting’ events in different areas of the world, on the one hand, and the increase in the number of channels, on the other, makes it possible to understand the exponential growth in the number of hours devoted to sport on television. The French example of a development which can also be seen in most other countries is, therefore, striking and telling. In the 30 years from 1968 to 1999, the amount of sport on French television multiplied by more than 140: in 1968, the year of the Mexico Olympics, French television devoted only 232 hours to sports programmes as opposed to 32 640 hours in 1999 (Table 11.1).

However, this growth is really deceptive with regard to the most recent period, since it concerns subscription channels and does not benefit the whole population. Until 1984, when the commercial scrambled channel Canal + arrived on the market, the supply of

Table 11.1 The development of sport on French television

Type of channel	1968	1988	1999	2002
Total number of hours of sport	232 h	5 622 h	32 640 h	n.a.
'Free' channels (hours)	232 h	1 886 h	1 168 h	1 447 h
Proportion of free channels in the total supply of sport (%)	100	33.5	3.6	n.a.
Subscription channels (hours)	–	3 736 h	31 472 h	n.a.
Proportion of subscription channels in the total supply of sport (%)	–	66.5	96.4	n.a.

Note: n.a. = not available.

Sources: Bourg and Gouguet (1998) and Conseil Supérieur de l'Audiovisuel.

programmes – both sports and others – was the exclusive domain of public, free networks. Several years later, in 1988, 'unscrambled' channels already represented more than a third, although they then devoted twice as many hours to sport as they had in 1984. The proportion of the supply of free sport fell significantly, representing only 3.6 per cent of the overall sporting supply in 1999.⁸ The contradiction of this supply is even real in absolute value, since unscrambled French channels offered only 1168 hours of sports programmes that year, that is, nearly 720 hours fewer and 40 per cent less than in 1988. By reasoning that 'all things are equal' over the years when the Olympics take place, the reduction in absolute value remains real, even if less marked. Thus, free channels offered 1447 hours of sport in 2000, the year when the public networks had the exclusive rights for France of the Sydney Olympics. The unscrambled supply remained nearly at the same level in 2002 (1447 hours), the year of the Salt Lake City Olympics and the football World Cup, after having seen a dip in 2001 comparable to 1999 (1167 hours) – these two years being less rich in top-ranking sporting events.

In addition, important disparities can be seen between 'leader' sports, based on a popular foundation likely to attract a significant audience, and all the others. Statistics compiled by the Conseil Supérieur de l'Audiovisuel (the Higher Council for the Audiovisual Sector), the regulatory authority for the sector in France, thus show a real gap between football, representing more than a quarter of the overall volume offered every year by terrestrial channels (including Canal +⁹) and other sports (Table 11.2).

Thus, the 10 most broadcast disciplines by French terrestrial channels in 2003 represented 80 per cent of the overall sporting supply, of which 63 per cent for the top 5 and, above all, 28 per cent for football alone. Quite logically, the top 10 constituted the main part of the supply from Canal + (94 per cent, of which 40 per cent was for football). However, this ratio remains lower than 70 per cent for its 'unscrambled' counterparts, with the 'elitist' programming of TF1 (mainly football and Formula One) being partly compensated by a more diversified supply by the public channels.

However, the development of cable and satellite (the programmes of which are not taken into account by Document 3) makes it possible for many disciplines that are sometimes called 'niche sports' because of their ability to attract specific targets, to benefit from varying airtime. The potential audience, though, is necessarily more limited and this

Table 11.2 *Supply by sport on terrestrial channels in 2003 in France: the top 10 (totals rounded up to the nearest hour)*

	Free terrestrial channels	Canal +	Total terrestrial channels	Share of discipline in sporting supply (%)
Football	203	374	577	28
Rugby	171	139	310	15
Cycling	166	0	166	8
Tennis	150	2	152	7
Basket	0	101	101	5
American football	0	88	88	4
Hockey	0	78	78	4
Athletics	69	0	69	3
Golf	1	54	55	3
Boxing	–	37	37	2
Total 'top 10'	760	873	1633	
Total 'all sports'	1117	925	2042	
Share top 10/total all sports (%)	68	94	80	

segmentation is strongly reflected in the economic model of different sports. Those sports which are treated best by television have benefited from an influx of both direct (via the growth of rights described below) and indirect (sponsorship, merchandising and so on) receipts, thanks to the public exposure brought about by the televised media, while the economic development of other disciplines has often lagged behind.

Demand and market balance

Sport – an important source of audiences for television Over the years, the fact of watching television has become the dominant leisure activity in developed countries. Households have not stopped either buying televisions or connecting to different forms of subscription television. Thus, according to the Médiamétrie Institute, the average individual daily viewing was 3 hours and 20 minutes for French people aged 4 and over, and more than 5 hours and 31 minutes for households.

In addition to this average period spent watching TV, two main indicators are likely to give us information about the demand for TV programmes, whether sports or not:

- the audience which, even if it is often expressed as a percentage of people having a television, indicates as an absolute value the number of people watching such and such a programme at a given time; and
- the market shares (or audience shares), the object of which is to measure the respective share of each channel among people watching television at a given time.

Because of its specific driving forces, sport represents a strategic audience vehicle for television. Besides, it is often found in a good position in the annual hit parade in many countries: thus, 53.4 per cent of Australians having a television followed the opening ceremony of the Sydney Olympics in 2000, with a market share of 96.3 per cent. For the same year, 2000, Eurodata TV observed that out of 64 countries throughout the world, the

annual record audience was – in 19 cases, of which 13 for football alone – due to a sports programme.

In television as elsewhere, football is indeed the ‘No. 1’ sport in many countries throughout the world, since – still in 2000 – it monopolised 61 of the 100 best sports audiences in Germany, 64 in France and even 84 in the United Kingdom. It should be noted, however, that Asia seems to be an exception to the supremacy of the round ball; thus, in South Korea, the Olympic Games headed the list with 59 of the 100 best audiences, as against 29 for football. The United States is the other part of the globe where ‘soccer’ has difficulty in establishing itself, both in playing it and in watching it. But sport is no less of a unifier there than elsewhere; quite the contrary. According to the Nielsen Institute, 143.6 million different American viewers followed either partially or totally the 2004 Superbowl on CBS. Besides, the annual final of American Football has, by itself, nearly half of the 50 best audiences in the history of American television.¹⁰

By way of comparison, the France–Brazil final of the football World Cup in 1998 attracted ‘only’ 10.5 million American viewers; the scores achieved by that final elsewhere in the world nevertheless testify to the incredible televisual attractiveness of the leading world sport (Table 11.3).

Taking all programmes together, French television beat its historical record audience for this same France–Brazil final, with more than 20.5 million viewers; the French team then provided a new record of 21.4 million viewers for the final of the European football championship in 2000, which was won against Italy after extra time.¹¹

Despite the methodological reservations to be considered in this type of calculation, it is possible to state that the combined world audience for the 1998 edition as a whole was 37 billion viewers (41 billion in 2002).

A necessary respect for the basic driving force of sporting events The French example is very telling about the direct correlation between the quality of the driving forces for the events mentioned above – in this case, the ‘national flag’, that is, the fact of getting together behind the national team of the leading sport – and the audience for the event. Similarly, more than 27 million Germans supported their national team in the 2002 final which took place in Asia, despite the time-zone differential involving its European broadcast taking place in the middle of the day. Such a score, achieved at a time which was a

Table 11.3 Audience and audience share of the football World Cup final by country

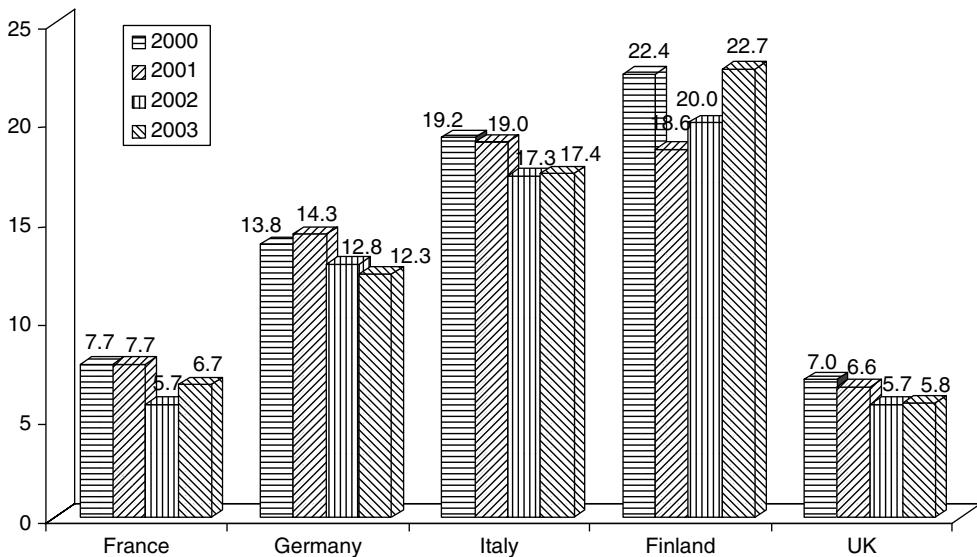
Country	Channel	Audience (%)	Audience in thousands	Audience share (%)
France	TF1	39.3	20 577	75.6
Poland	TVP1	34.4	12 525	77.7
Netherlands	NE2	31.6	4 431	67.4
Brazil (São Paulo)	GLOBO	22.8	3 537	70.5
Spain	TV1	20.6	7 563	67.6
USA	ABC	3.4	8 640	16.0
Japan	NHK1	3.1	1 154	66.0
South Korea	MBC	2.7	258	32.0

Sources: Médiamétrie/EURODATA TV / Relevant partners (total individual targets).

priori less favourable, therefore showed that certain major sporting events are attractive enough to lead a large part of the population to change its habits, by turning the television on at times when it would not normally do so.¹²

On the other hand, the fact of sometimes forgetting the basic hypotheses of the very specific economic process of this market could lead to an audience reduction and, therefore, in the end, to the value created by the competitions concerned. The Formula One world championship is another top world sporting event which has seen its audience plunge dramatically over the last few seasons, owing to the recurrent uncertainty deficit linked to the overwhelming domination of a manufacturer (Ferrari) and a driver (Michael Schumacher), which has affected the sporting interest of the competition (Figure 11.2). This drop in audience, which almost automatically leads to a reduction in the fees that television agrees to pay to the organisers,¹³ led to the International Federation requiring a reform of the competition at the beginning of the 2003 season – which was initially rejected by the major stables. The sporting objective was achieved, which was to restore real interest in the competition, by reinjecting uncertainty with a series of technical measures favouring a greater sporting rivalry. Thus, it was necessary to wait till the last day for Schumacher to take his sixth World Champion title. The economic objective also seems to be on the way to being satisfactorily achieved, although less spectacularly, as this new sporting rivalry has stopped the drop in audience in 2003 in many countries, with the notable exception of Germany.

The progressive decline in audiences over the last few years for the European football Champions League has presented another spectacular demonstration of the persistent



Sources: EURODATA TV / Médiamat – Médiamétrie (France) / AGF-GFK Italia-Auditel (Italy) / Finnpanel Oy (Finland) / Barb (UK) / Video Research Ltd (Japan) / CSM – TBS Sport (China).

Figure 11.2 Average audience ratings for Formula One Grand Prix live broadcasts 2000–2003

necessity of respecting the fundamental driving forces of sport, so that there is no risk of hindering an economic development which necessarily involves television and, therefore, the audience. Under pressure from the major European clubs, which threatened to get involved in a dissident Superleague, the Union of European Football Associations (UEFA) did indeed reform the format of its prize competition. Originally reserved only for national champions, it first opened the competition in 1997 to more than one representative per country. By insisting on two consecutive pool rounds, it then adopted, in 1999, a format which maximised the number of matches definitely played by each of the 32 clubs qualified for the final phase. This development led to a sharp increase in the total number of matches: from 149 in 1998–99 to 235 in 1999–2000. Combined with the ‘free movement’ of professional sportsmen introduced in 1995 by the *Bosman* case, it favoured above all the concentration of the market in some countries and leading clubs – to the detriment of suspense, on the one hand, and certain nations being represented in the most interesting phases of the competition, on the other.¹⁴

The result of the negation of these two fundamental driving forces of sporting events was not long in coming. Between the 1997–98 and the 2001–02 seasons, the average match audience for live matches on European free networks therefore plummeted from 16.2 to 11.5 per cent in France, from 14.1 to 8.7 per cent in Germany, from 16.3 to 9.2 per cent in Italy and from 14.2 to 12.4 per cent in England.¹⁵ Only Spain, thanks particularly to Real Madrid winning three times in five seasons, saw its audience grow during the period, with 14.6 per cent in 2001–02 against 13.5 per cent in 1997–98. Here again, the drop in audience figures led inevitably to a drop in fees (see Table 11.6 below) on which UEFA, fully aware of the risk, relied to impose a new change of format, by returning in 2003–04 to only one group phase and then to a final table with ‘direct elimination’, which maximises the uncertainty from the second round onwards.

The Broadcasting Rights Market for Sport

In this market, one is confronted with a demand for the acquisition of broadcasting rights for events by networks and a supply of these same rights by sporting organisations (clubs, leagues, national and international federations and the International Olympic Committee: IOC). It is in this space that broadcasting prices are developed, even if many interactions which result from the twists and turns of other markets affect the contents of the negotiations (Andreff et al., 1987; see Figure 11.1, above).

Over time, the development of the legal framework has modified the way of determining the supply and demand and reorganised the broadcasting rights market by strengthening the power of sports organisers with regard to the networks. At the time of the first sports broadcasts in the United States during the 1930s, and in Europe in the 1950s, sport received either no royalties or very few. From the 1960s onwards in the United States, and the 1980s in Europe, television had to pay fees which were thereafter increasingly high. It is true that these transactions were chronologically included in different configurations which reflect the divergent organisations of supply and demand. Among the main structures of the market, four forms will be analysed: monopoly, supply-side monopoly, bilateral monopoly and monopsony (buyer’s monopoly). The first three convey a monopoly supply situation, whereas the fourth shows a monopoly demand position. The dual movement of cartelisation of the supply (that is, the sports organisers) and of the demand (that is, television companies) will determine the structure of studies put forward.

A cartel is usually defined as a horizontal agreement between companies having the same activity, concerning minimum sale (supply cartel) or maximum purchase (demand cartel) prices and the quantities exchanged. It is a question of organising a monopoly through a specific market in order to control and charge prices without competition. In this instance, there is a cartel of the supply side when a sporting group (leagues and federations) is the only holder of the negotiating rights for selling broadcasting to television channels. In principle, this agreement tends to reduce the quantity offered in order to raise prices and make large profits. There is a cartel of the demand side when TV channels group together within the same organisation – a public company on the national level, the European Broadcasting Union on the international level – which is responsible for negotiating with sports organisers for the purchase of broadcasting rights. This aim of this agreement is to influence purchase prices and to limit the volume of the demand.

Thus, broadcasting rights markets are going to become imperfect, since the agents on both sides try to group together to modify the free play of competition. Several scenarios concerning perfect competition are not respected.¹⁶ For example, a major concentration of the market is opposed, in reality, to the atomicity of economic theory: the monopoly of the leagues in the broadcasting rights market generally meets with the oligopoly of television channels, or even the monopoly of subscription channels on the broadcasting market (Gabszewicz, 2003).¹⁷

The cartelisation of the demand for TV rights

The first forms of cartel appeared on the TV networks side, either because of a public broadcasting monopoly or because of a voluntary grouping of channels. Two market structures result from this: monopsony and bilateral monopoly.

Monopsony: a rare and favourable form of market for the buyer Monopsony is a rare form of market in which there is only one purchaser of a very specific product facing a large number of sellers. Just as a monopolist has power in his/her product market, a monopsonist has power in the market where there are one or more factors of production. In this scenario, the prices paid, as well as the volume bought, will be weaker than in a competitive regime.

Between the 1950s and the 1970s, relationships between sport and television in Europe were in line with this configuration. From the beginnings of television to the disappearance of the public broadcasting monopoly, a single buyer was faced by clubs which negotiated in an isolated and individual way. Sports were not structured in leagues, or when leagues did exist, they left freedom of negotiation to their members. For example, in football, fees paid by public television hardly existed, if at all (€80 000 in 1973/74 in France) and the number of hours broadcast was also very limited: about 30 hours per year in the case of France.

Few examples in the world have since exemplified this situation, even if the pressure exerted by some major clubs in line with an individualised marketing of rights could, in a general context of a decrease in the number of customer channels, make this particular form of market reappear.

Bilateral monopoly: the example of the European Broadcasting Union (EBU) faced with international events Strictly speaking, there is a bilateral monopoly where a single seller of a very specific product has only one customer. As against the monopolist trying to

maximise profit by reducing production and raising prices, the monopsonist tries to maximise profit by reducing his/her demand in order to lower prices. This practice of compensatory power, an anti-cartel cartel, operated on a European level for about 30 years from the 1950s onwards.

Indeed, the EBU was created in 1950 by national, monopolistic, public networks in order to be a place of exchange for programmes. It has become a real cartel and currently brings together 71 active members in 50 European countries. This collective bargaining strengthens its power in the market. Only members of the EBU are allowed to have exclusive broadcasting rights.

To fight against higher bids, the action of this group responds to the cartelisation of sporting supply (for example, the IOC, FIFA, UEFA and the International Association of Athletics Federations: IAAF) by making its aim to control demand by strict rules (the free-rider strategy is forbidden) in order to push down prices. In this encounter of two monopolies (for example, UEFA–EBU), the many possible price–quantity combinations depend on many variables (balance of power, coalition stability, menaces and bluffing), which are difficult to formalise. Determining the amount of TV fees takes place inside a zone delimited by the price, which would eliminate any profit for the television coalition, and the price, which would eliminate any profit for the sports organiser. The modest nature of the fees paid by the EBU for the 1984 European football championship brings this setting closer to the second limit (Table 11.4).

Table 11.4 Forms of market for sports broadcasting rights and cost of images

Markets	Events (area of exclusive rights)	Supply	Demand	Total fees (broadcaster)
Monopoly	2010 winter and 2012 summer Olympics (USA)	IOC	ABC, CBS, FOX, NBC, ESPN, TBS, CNN Sport, HBO, Direct TV, Newsport, Showtime	\$2.004 billion (NBC)
	2006 Football World Cup (world)	FIFA	ABC, Cable TV, UER, Team AG, Kirch-ISL, IMG-UFA, CWL	\$991 million (Kirch-ISL)
Supply -side monopoly	2004 European Football Championship (Europe)	UEFA	UER, Kirch, Team AG, Octagon	€514 million (UER)
	2004/05 French Football Championship (France)	League	France Télévisions, TF1, Canal +, TPS, M6	€416 million (Canal +, TPS)
Bilateral monopoly	1984 European Football Championship (Europe)	UEFA	UER	€2 million
Oligopsony	1960 Baseball Championship (MLB, USA)	Professional clubs	ABC, CBS, NBC	\$16 million
Monopsony	1973/74 French Football Championship (France)	Professional clubs	ORTF	€80 000

Sources: IOC, FIFA, Ligue de Football Professionnel.

However, a double threat is weakening the EBU in its encounter with the sports movement and is channelling the broadcasting price towards the first limit. First, the increase in the number of private networks and agencies which are not members of the EUB is reducing its power – for example, the German group Kirch, Team AG and Octagon during the negotiations over rights for the 2004 European football championship. Under this pressure, the EBU had to pay €514 million to UEFA, while it paid only €84 million in 2000; that is, a fee increase of 512 per cent. Despite everything, the EBU has retained its advantage: a complete cover of the territory of its European members, free programmes and a complete broadcasting of the event. This exposure, in terms of audience (nearly 700 million potential viewers) and number of hours, greatly encourages the public and the advertisers. This is why the EBU, despite lower offers than its private competitors, still gets the contracts: so it was that the IOC preferred to sign with the EBU for the 2000, 2004 and 2008 Olympics, despite an offer \$200 million lower than that of the Murdoch Group.

The result of negotiations is not always favourable. Although possessing the rights to the 1990, 1994 and 1998 football World Cup, the EBU could not match the higher bids of its private competitors for the 2002 and 2006 events. A second uncertainty is affecting the very existence of the EBU as a purchasing group and is weakening the market power of the demand side for rights. A complaint lodged with the Court of Justice of the European Communities by the non-member private networks led to a decision being given in 1996, which considered the membership conditions of the EBU system networks to be discriminatory. From 1989 onwards, European authorities have considered that the joint purchase of TV rights, as well as the rules relating to the negotiations and sharing of these rights, infringed community rules on free competition. Similarly, the term and the impact of the exclusive rights of the EBU negatively affect competition. Thus it was that the higher-level court of the European Communities cancelled the exemption from competition rules in favour of the EBU for a term lasting from 1993 to 2005. In fact, this bilateral monopoly already no longer exists. It will have been temporary, as is the case for this form of market.

The cartelisation of the supply of rights by sports organisations

In the United States, at the beginning of the 1960s, an excess of competition on the broadcasting supply side caused a strong drop in revenues (minus 50 per cent for baseball in 1959). In order to remedy this situation, some authors developed a theory on the beneficial effects of a cartelisation of supply in a league, so that club profits and turnover could be maximised – and this would take the economic particularities of sport into account (Neale, 1964). This was a paradoxically contradictory proposal, with their model of reference (perfect competition) supposedly achieving the best allocation of resources, with the production of optimum volumes and the market-clearing prices satisfying both the supply and the demand sides.

However, American antitrust legislation (1890 Sherman Act) was infringed by the setting up of an authority responsible for selling TV rights – for example, the American Football League in 1959. The law of 30 September 1961 (87-331), based on the idea that a centralised sale of rights made it possible to keep the balance and interest of competitions and therefore, in the end, the consumer utility of sporting events, resolved this incompatibility. Indeed, it created a special regime of common law that allows clubs to negotiate as a cartel with TV networks which, themselves, are still subject to antitrust law, making the oligopsony situation from which TV networks benefited actually disappear.

In this case, the confrontation of many on the supply side (clubs and leagues) with some broadcasters marginalised the volume of fees and their weight in the club budgets: 9 per cent in American football and 17 per cent in baseball (1956) – which is why a supply monopoly was put in place.

Monopoly or the power of leagues and sports organisers This is the situation of a market which comprises a single seller faced with a large number of potential purchasers. Depending on the geographical area of activity, it here has two forms: the league, on the national level, and the IOC or international federation, on the international level.

The league cartel With the increased power of the leagues, more or less pure forms of monopoly appeared in the United States in the 1970s.¹⁸ By creating a cartel, the supply side (National Football League: NFL; Major League Baseball: MLB; and the National Basketball Association: NBA) eliminated all competition on their side. This collective bargaining brings higher bid mechanisms into play, which are all the more effective since the demand expands and splits. To the three ‘free’ access networks (ABC, CBS and NBC), were added the thematic cable (ESPN) and subscriber channels (HBO and Showtime), along with local stations, all wanting to capture or secure the loyalty of an audience. In such a configuration, the monopolist (the league) – having all the demand – will choose the price (TV fees) and the quantity (the volume of broadcasting) and therefore maximise its profit.

However, the monopolist will fear the loss of its privilege in a scenario where high profits attract one or several rival leagues (a common situation in the United States). If one is in the presence of a temporary monopoly, two strategies are possible:

- a policy of penetration with reasonable broadcasting fees, a large volume of broadcasting and small profits. This strategy is intended to become established in the market, while discouraging possible imitators (leagues and federations); and
- a policy of prestige with high broadcasting fees, a low volume of broadcasting and high unitary profits. This strategy is intended to collect large profits as quickly as possible with the minimum of financial risks.

Owing to this cartelisation of supply, the fees cashed by sports organisers have increased strongly. Thus, the annual share of receipts from television received by every American football club has risen from \$45 000 in 1960 to \$39 million in 1994 to \$73 million in 2004. The overall amount of fees cashed by the NBA developed thus: from \$188 million in 1990 to \$660 million in 2002. In relative value also, the average share of TV fees in club revenues for the four major American leagues (NFL, NBA, MLB and the National Hockey League: NHL) developed appreciably: less than 15 per cent in the 1950s, 39 per cent in 1997. The cohesion of the league even caused a rise of 100 per cent of the annual amount of fees at the time of the NFL contract renewal for the 1998–2005 period.

Like every cartel, the league generally shares out its receipts from television on an equal basis between clubs (Andreff and Bourg, 2006). In addition to the beneficial effects of an interdependent distribution on competitive balance (Bourg, 2004), negotiating as a cartel makes it possible to impose longer-term contracts on channels, compared to what would have been possible selling rights individually. Therefore, clubs have a guaranteed income independent of how their sporting results progress. Moreover, the league

aims to maintain broadcasting fees received by clubs at the highest level (Horowitz, 1974; Andreff and Bourg, 2006).¹⁹

The monopoly of the IOC and FIFA The International Olympic Committee is more stable than a league (a cartel of clubs which can possibly be weakened or competed with) and holds the property rights for the Summer and Winter Olympics, as well as for their derived products.²⁰ This absolute monopoly reinforces its bargaining power and is a source of very high increases in fees. For \$0.5 million, CBS had obtained the exclusive rights to the Rome Olympics in 1960. ABC had to pay \$225 million in 1984. NBC bought the 2000–08 Olympics for a sum of \$2392 billion – that is, an average of \$800 million per event. It is interesting to compare the fees paid by the American networks and those paid by the EBU. The amount paid by the former for the 2000–08 Olympics is twice as high as that paid by the latter (\$1187 million). This gap was 1–3 times for the Summer Olympics from 1988 to 1996. And yet, the potential audience, the effective audience and the public interest are comparable. The explanation lies in the form of the American market, which is a monopoly that brings together a supplier (the IOC) with a large number of channels; this is the opposite of the European market which was a bilateral monopoly for a long period, opposing two cartels: the IOC and the EBU. The way of determining the prices actually differs significantly.

The Fédération Internationale de Football Association (FIFA) has the same power as the IOC. As with the Olympic Games, the World Cup is a unique event, which is likely to attract exceptional audiences (see above). It is a *de facto* monopoly of supply, since there is no rival or substitute competition. Therefore, why should one be surprised by the higher bids for the broadcasting rights for this event: €15 million in 1978, €84 million in 1998, €853 million in 2002 and €991 million in 2006? It is true that the balance of power is particularly favourable to FIFA, which alone is facing the seven accepted candidates to negotiate for the 2002 and 2006 events: ABC (USA), Cable TV (Hong Kong), CWL (Switzerland), Team (Switzerland), IMG (USA) – UFA (Germany), Kirch (Germany) – Sporis (Switzerland) and UER (Europe).

Supply-side monopoly: the dominant model in the European markets There is a supply-side monopoly when there is always one seller facing several purchasers. This has been the dominant situation of the last 20 years, which has endured, in one way or another, in every national arena of most main sports in Europe. Thus, in football for example, every national league invites three or four media groups to tender. Unlike the former monopoly (clubs – public network) or bilateral monopoly (league – public network) context, which are not very remunerative for sporting organisations, the current system brings together a greater number of TV channels, as well as, more importantly, a greater number of broadcasting slots via a system of selling by batch. Indeed, there is no longer just one broadcasting demand, but several. Until the mid-1980s, negotiations were concerned exclusively with broadcasting a live match on terrestrial, unscrambled channels, that is, on a free channel. Since then, the market has fragmented and the demand for broadcasting covers several forms of exploitation: live, recorded, in its entirety, shortened versions, unscrambled, scrambled, terrestrial, cable, satellite and pay-per-view. The rights which are sold concern the exclusive rights for a type of broadcasting and no longer just geographical exclusive rights. These media rights windows therefore increase competition on the

Table 11.5 Global broadcasting rights (1991/1992, 2001/2002, first division football, €m)

Countries	1991/1992	2001/2002	Growth
England	21	907	×43
Italy	55	486	× 9
France	21	397	×19
Germany	36	384	×11
Spain	30	237	× 8

Source: Andreff and Bourg (2005).

demand side and increase the profitability of the product.²¹ In 10 years, this diversity of rights has triggered sharp rises in revenue for the leagues (Table 11.5). Television has actually been the main source of football club revenue in all European countries since the mid-1990s (35 per cent), becoming the majority source from the beginning of the 2000s (50–55 per cent). Thirty years earlier, this percentage was less than 5 per cent.

Perspectives and Conclusions

A dual conflicting movement of the cartelisation of sports organisers and the de-cartelisation of TV channels has had positive consequences for the financing and development of professional sport, and has done this in a continuously increasing way since the 1960s. Now, at the beginning of the twenty-first century the market structure is tending to be reversed, especially in Europe. First, the leagues' monopoly of the ownership and, above all, sale of TV rights has been questioned. According to the annual UEFA survey of 2003, 43 per cent of European football clubs partly or totally manage their own TV rights. This new order is likely to create favourable competition between clubs for the purchasers of rights. Indeed, economic theory, like experience, shows that united strategies are more effective than individual strategies. A centralised sale brings in more, overall, than club-by-club negotiation (Andreff and Bourg, 2006).

However, the cartelisation of clubs has been called into question in Europe over the last few years, with legal action (Italy, Spain, Germany, England and the Netherlands) or with action before national and European competition authorities (France); all in order to give clubs back the complete use of their rights. Major clubs exert often-effective pressure to take back broadcasting rights individually, by threatening the leagues to bring a claim before competition judges for a restriction of their free development. It is true that sporting sanctions encourages them in this opportunistic behaviour, when what is at stake is taken into account: access to the market (European cups and national championships) based on sporting criteria (Bourg, 2004). Indeed, the major clubs cannot take this sporting risk and its economic consequences. They also consider that the share they receive is lower than that which they would receive if they marketed their rights themselves.

Despite everything, the European Commission is concerned about promoting economic and sporting balance and recognised in 2002 the beneficial effects of a centralised sale for the Champions League – which would normally be prejudicial to the principle of free competition. It did, however, add this recognition of a certain number of conditions, aimed at reinjecting competition in different national markets: three-year maximum

contracts; selling in batches, making it possible for several channels to acquire a share of the rights; and the possibility of clubs themselves selling some rights from the 2003/04 season onwards (live matches, summaries, recordings, internet and mobile telephones), if UEFA's agency does not manage to do it. Without this development, UEFA could have been described as having an anti-competitive agreement and of being an association of companies which have put aside their individual negotiations for the benefit of a single entity. That is why it asked for, and obtained, an exemption from competition rules until 2009 from the European Commission, provided that the terms stated above are respected.²² Similarly, the principle of pooling the sale of TV rights is written down in the sports law.

The reduction in the number of potential buyers, following the mergers of cable and satellite networks (Stream and Telepiù in Italy, Via Digital and Canal Satellite in Spain) or bankruptcies (Kirch in Germany and ITV Digital in England) has tended to make competition disappear by causing reduced demand. And in this new form of market, it will be the demand side (the TV channels) and not the supply side (the leagues or the clubs) that will direct prices, which will certainly be lower. Moreover, the private and public free terrestrial channels do not appear to have either the means to compete with scrambled subscriber channels or the appropriate exploitation method (subscription which pays them directly), which is why the contraction of TV fees can be seen mainly on a national level, because of the concentration of subscriber channels. Faced with a single representative, the Premier League yielded its rights to BSkyB for 2004/07, with a fall of 9 per cent compared to the previous contract; and the Bundesliga suffered a reduction of 23 per cent. On the other hand, the rise in the level of continental or world fees is continuing, because competition is still fierce (Table 11.6).

Faced with the dual threat of a return to a monopoly of demand for rights, and with the pernicious effects of individual negotiation, the creation of a TV package by clubs and leagues directly selling and producing images offers a real alternative for solving the problems of the market reversal (a study concerning this is being carried out in Italy, the United Kingdom and France).²³ This strategy could in future be implemented, since digital technology has reduced broadcasting costs and has also made it possible for the viewer to pay directly. Clubs could therefore amortise their costs. Moreover, these plans by TV channels are a means of pressure when it comes to renegotiating contracts.

We are entering a mature phase of the 'televised sport' product. The first years of the twenty-first century mark a new phase, characterised by: shrinking advertising investment; a merger strategy for subscription television networks; a slow-down in the rate of growth of households taking out subscriptions; a levelling-out or drop in audiences; the financial difficulties of intermediate agencies; and the major clubs calling into question the centralisation of rights. All these trends converge to curb the development of broadcasting rights. They will put an end to the economic model of sport, which has been based for several decades on a continual growth of fees. Even more so, since the large increase in the cost of these rights is weakening the economic profitability of subscription channels. Also, the recent movement of broadcaster mergers and takeovers should be interpreted as the wish to amortise the acquisition of rights and technical costs with a better optimisation of the means of production and profits.

Therefore, will the increase in broadcasting fees reach a limit? An uneven development is probable. The dual nature of the broadcasting rights market will grow, with

Table 11.6 Global development of sports broadcastings rights (from the last two contracts signed)

Sporting event (area of rights)	Broadcasting rights	Development (%)
Football World Cup (world)		
1994 and 1998	€157 million	
2002 and 2006	€1.844 billion	+1075
European Football Championship (Europe)		
2000	€84 million	
2004	€514 million	+512
National Football League (USA)		
1994–1997	\$4.4 billion	
1998–2005	\$17.6 billion	+100
PGA international golf circuit (USA)		
1999–2002	\$586 million	
2003–2006	\$850 million	+45
Olympic Games (USA)		
2006 (winter) and 2008 (summer)	\$1.507 billion	
2010 (winter) and 2012 (summer)	\$2.004 billion	+33
National Basketball Association (USA)		
1998–2001	\$2.456 billion	
2002–2008	\$4.600 billion	+25
English Football Championship (UK)		
2000–2003	€1.600 billion	
2004–2007	€1.457 billion	–9
Champions League Football (France)		
1999–2002	€330 million	
2003–2006	€179 million	–46
Formula One Grand Prix (France)		
1999–2002	€95 million	
2003–2006	€48 million	–50

Sources: IOC, FIFA, UEFA, Premier League, Fort (2002), press.

competitions and clubs segmenting according to the single criterion of value creation (audiences, market shares and advertisers). The higher bids of the channels will apply only to the most lucrative of the major events, that is, those which have an international impact.

BOX 11.1 THE FRENCH SPORTS PRESS MARKET: FORMS AND COMPETITIVE STRATEGY

Certain concepts of the theory of industrial economics could explain the monopolistic forms of this market, which is perfectly illustrated by the strategy used by the dominant French group *Amaury-L'Équipe* to protect its publications and reduce the challenge to its market (Bourg and Gougnet, 1998, pp. 179–208).

Structures and performances

Calculating the market share of the sports press according to the effective demand (the total annual broadcasting paid) helps to reveal the market power of the press groups. Generally, dominance is accepted when a company captures at least 50 per cent of sales. In France, the Amaury group holds more than 70 per cent (average percentage at the end of the 1990s). The result of this power struggle is, in large part, the long-term monopoly (94 years up till 2004) of *L'Équipe* newspaper in the field of the French daily sports press. Only three short competitive periods of 8 years resulted in its position being challenged.

In the neoclassical model of perfect competition, the absence of the effects of domination and the permanence of the competitive game are guaranteed by the assumption of the infinitesimal size of the production units in the considered markets. With more than 70 per cent, the Amaury group represents a compulsory partner for readers, for the sports movement and for advertisers; and this is even more so, since this hegemony is enduring, even growing. Moreover, the existence of high and constant profits for a leading company in a mature market (soft demand growth) also illustrates its dominance. Indeed, the Amaury group has always made a profit since 1946, whether there was a lot of news or not, and whatever the degree of competition.

The competitive strategy

The Amaury press group sets out to close the market by multiplying the barriers at the outset and to widen it by diversifying its products. A perfectly contestable market could be defined as that in which it is possible to enter, or from which it is possible to leave, without bearing any cost. On the basis of this definition of perfect contestability as a criterion for an ideal market, it can be shown, on the other hand, that Amaury tends to make the market non-contestable. Indeed, imposing irrecoverable costs of an immaterial nature (goodwill, communication and advertising expenses, a network of correspondents, as well as the monopolisation and securing the loyalty of the most important advertisers) makes it possible to create entry conditions to the market.

For example, defending its monopoly in 1987 against a new sports daily led *L'Équipe* to agree to make a great editorial effort, even before the release of its rival, *Le Sport*: new headings, change of layout, increased pagination, the advent of colour and the recruiting of new journalists to add to the 135 permanent staff and 450 correspondents throughout the world. At the same time, *L'Équipe* committed significant commercial means to preventing *Le Sport* from finding a durable market share: market studies, publicity campaigns, games and competitions with the readers and so on. By continually investing in intangible assets, *L'Équipe* – in its position as first mover with its quality production–low price combination (continual cutting the daily price, with no increase between 1988 and 2002) – condemned the new daily's attempt to failure (appeared for less than 10 months) and closed the market for the daily specialised press. Since the withdrawal of its rival, *L'Équipe* has seen its sales increase by 42 per cent: 230 000 copies in 1988 and 327 000 in 2003. Nevertheless, although *L'Équipe* is still alone in the particular segment of the daily sports press, it has recently seen its

monopoly position attacked by other types of media. The regional and national daily press is devoting more space to sport, but it was, above all, the advent of the internet which made it possible to benefit from real-time information, which is often 'free' (see Box 11.2). What's more, the Amaury Group has invested in it by creating L'Equipe.fr, which is the market leader with 60 million hits per month. On the other hand, despite a slight increase in 2003, sales of the newspaper suffered a 'historic' erosion in 2002 compared with 2001, partly in connection with this new form of competition.

The Amaury Group has also extended its action outside its original market, through a dual diversification. First of all, an increase in its publications, in order to saturate the economic area in which each of them is developing, as well as to anticipate or prevent the arrival of competitors: *L'Équipe Magazine*, *France Football*, *Tennis de France* and *Vélo*. These press titles, as well as the new products and services created by the Amaury Group (*L'Équipe TV* and the website) benefit from scoops. Next, its position as monopolist encourages *L'Équipe* to liven up its news by creating it. In fact, without exceptional events, monopoly no longer has a *raison d'être*. Furthermore, a very strong elasticity in newspaper sales with regard to the news can be noticed: 250 000 copies during slack periods, but 1.6 million copies the day after the French football team's victory in the World Cup in 1998. With its double know-how as both the creator of sporting events (the Tour de France in 1903, the European football cup in 1955 and basketball cup in 1960, the skiing World Cup in 1966 and so on) and the organiser (21 events, representing 117 days of competition per year), the Amaury Group packs the calendar with its own news, as well as stimulates the sales and advertising turnover of its titles – these advertising spaces are bought by the event sponsors to make themselves known. The fame of these sporting competitions inspired or managed by the Amaury Group constitutes real goodwill, which establishes a complicity with the readers, credibility with the sporting movement and confidence with the advertisers. In this way, the market power of the Amaury Group and its dominance over a long period can be explained.

BOX 11.2 NEW MEDIA: INTERNET FOR THE IMAGE AND MOBILE TELEPHONY

After the exponential growth of TV rights during the 1990s, leading sports thought that they had found, some years ago, an alternative driving force of development in the internet. But until now, despite its accelerated diffusion in most developed countries, the Web has not been the expected centre of direct profit. Although sport is one of the main reasons for connecting – 67 per cent of French net surfers stated in 2001 that they had already looked for sports information – sports sites were no exception to the bursting of the internet bubble while finding the greatest difficulty in finding their economic model.

Internet – waiting for broadband to come into general use

The internet was founded on a culture of free use, but because it was struck by the crisis in the advertising market which represented its main resource, it was therefore unable to become a direct source of financing for sport by paying fees in compensation for exclusive rights, as is the case with television. For different clubs or sports organisers, the internet is nevertheless a particularly dynamic vehicle for images and communications, as well as an additional outlet for ticket distribution and derived products. The general use of broadband (22 million European households should benefit from it in 2005) could, however, change this situation by making it possible to do large-scale live broadcasts of sports events. The internet will gradually merge with television and the broadcasting of programmes via ADSL could, in the near future, supplant the digital terrestrial television which some countries are banking on. Be that as it may, it will be difficult to go back, as far as free use is concerned – which will be a major curb on the significant growth of fees.

UTMS is already profitable for football

On the other hand, consumer behaviour as far as mobile telephony is concerned differs significantly, since users do not show the same reluctance to be billed for certain services, which are made possible by technical progress. As was the case with subscription television at the beginning, sport represents a major stake and a competitive advantage for the different rival operators. Sports information by SMS or vocal services already make it possible for sport to create significant business; but it is above all the technique of UTMS, called 3rd generation, which possesses the greatest potential, owing to the possibility of receiving moving images on mobile telephones. Even before it was brought into service in many countries and despite the delay in its general use, UTMS has represented a considerable source of revenue over several years with operators looking to pre-empt certain territories through sponsorship contracts or specific agreements concerning future rights. It is because football has a content which is particularly adapted to this new medium – through the showing of goals and the best bits of action – that it is therefore considered as a strategic application; according to some analysts, it is likely to monopolise 5–7 per cent of the total turnover of UTMS in France. Therefore, whereas Orange has invested €60–80 million for the 2001–08 period in favour of the French professional clubs of Ligue 1 and Ligue 2, its rival, SFR, has concluded similar agreements with the French Football Federation for the French national team and for amateur football (€22 million over four years). Similarly, the clubs of Juventus de Turin, Milan AC and AS Rome in Italy sold the same rights in 2001 to H3G, each for a sum of €25 million over nine years.

Faced with the rising power of the new media and with their merging with television in the long term, sellers of rights, however, will have to optimise the segmentation of their supply in the direction of different types of media. If they do not do this, they would risk dramatically decreasing the value of their TV rights, which remain for the moment far and away the most lucrative.

Notes

1. The law can, however, ban this type of fee for radio. This is now the case in France for events organised on the national territory – following the polemic started by the Professional Football League wanting to commercialise these rights in an exclusive way. Because the stakes are relatively modest (for example, the RMC Infos station acquired the 2002 Football World Cup exclusive rights for €564 000, to broadcast live matches to France, Andorra, Monaco and Luxembourg), this chapter will not specifically tackle the special case of radio. The sports press, on the one hand and new media, on the other will be the subject of a separate presentation.
2. According to Prisma Sports, worldwide sports television rights increased by 993 per cent between 1991 and 2001. The Media Content agency, for its part, estimated the European TV rights for 2002 at €19.5 billion (of which €7.8 billion was for football).
3. The 2004 Superbowl, the final of the American National Football League (American football) was broadcast in 21 languages to 229 different countries.
4. The licence fee demanded from every French household having a television in order to finance the public audiovisual service thus rose to €116.5 in 2003, of which a little less than 7 per cent (€8) was earmarked for sport.
5. Entirely financed by advertising, free private channels logically show a very strong elasticity with the audiences they get – hence the importance for them to offer unifying programmes which are likely to attract viewers in sufficient numbers.
6. Beyond the two-part uncertainty–sporting stakes, certain events are regularly likely to attract a large audience by calling upon other stimuli for events, other than the stars and the national flag. So it was that in the summer of 2003 in China, a friendly match between the ‘galactic’ stars of Real Madrid – then on a summer tour – and a local team called the Dragons was shown on prime time by the CCTV-5 channel and brought in an audience of 37 million Chinese viewers. In the same way, the final of the Confederations Cup in 2002 – a competition whose sporting legitimacy is disputed – between Turkey and France allowed the French channel TF1 to achieve a score, in market share, of 43 per cent, which is noticeably higher than its usual average (33 per cent). For the Turkish channel, Show TV, directed at a population which is less used to the feats of its national team, the ‘gap’ is even more spectacular, with an average market share of 72 per cent for this match compared to a usual share of a little less than 14 per cent (Source: Médiamétrie/EURO-DATA TV/Relevant Partners).
7. However, a new trend, the ‘gold’, has appeared in the last few years, through channels such as ESPN making use of archive images of the great moments in the history of sport, which are often specifically devoted to this type of programme.
8. It is true that the arrival on the market of sports information networks – such as L’Équipe TV and Infosport, which were both launched in 1998 – offering stock programmes, has significantly increased the overall volume devoted to sport on French television.
9. Although scrambled, Canal + is a terrestrial channel. In France, nearly 4.9 million households subscribed to Canal + in 2001, that is, 23 per cent of French households possessing a television. The scrambled channel has since lost its momentum and is approaching a threshold of 4 million subscribers.
10. Thus, the Superbowl is an unrivalled springboard for brands to become well known to the general public, with a 30-second advertising slot going for a sum of more than \$2 million, despite a crisis in the advertising market!
11. The total number of viewers, however, remains higher for France–Brazil, since 3.07 million more viewers saw the final of the 1998 World Cup on Canal +, that is, more than 23.5 million French viewers for both channels together.
12. This ability to convince viewers to modify their use of time by gathering in numbers at times when the audience is usually weaker is not the prerogative of football alone. The rugby World Cup final between France and New Zealand in 1999 was broadcast in the middle of the afternoon on a Saturday and was the most watched programme of the year on French television with an average audience of 14.2 million viewers.
13. Table 11.6 shows the decrease in fees for Formula One noted in France for the 2003–06, period which was directly linked to the weariness of a large section of the population.
14. During the six ‘pre-Bosman’ seasons (1990–96), 17 different countries had a club, at least once, in the quarterfinals of the Champions League. With 16 out of 48 possible places, the three highest-performing countries had not been allocated more than a third of the group, with seven countries (Spain, Germany, Italy, France, Portugal, Russia and the Netherlands) managing to push one of their representatives five or six times to this stage of the competition. Of these, six different clubs representing five distinct countries (Yugoslavia, Spain, France, Italy and the Netherlands) won the event. Over the six seasons following the *Bosman* case (1996–2002), the quarterfinalists came from only 11 different countries. But three countries especially – Spain, England and Germany – themselves claimed two-thirds (36) of the 48 available places and all the titles of European Champion, with three victories in the final by Real Madrid alone (Bolotny and Siellet, 2002).

15. For the last-mentioned country, the fall was even more spectacular if the benchmark of 19.2 per cent average audience is taken into account for the 1999–2000 season, the year Manchester United won the European title.
16. Four scenarios must be simultaneously confirmed in order to consider that a market is in a situation of perfect competition: the atomicity of supply and demand, free entry to the market, homogeneity of the product, as well as perfect information of different economic agents.
17. Thus, when fixed costs are very high in a market – for example, subscription sports programmes – a monopoly situation makes it possible for TV channels to supply products at a low price and to sell large quantities in order to pay off these costs (the current configuration in the UK, Italy, Spain and Germany).
18. Most jurists agree in recognising the league as the owner of the rights relating to a competition, in so far as it is the creator of it; participating clubs are only the material organisers. In some countries, the law maintains that broadcasting rights belong to the leagues. Elsewhere, property results from the material right of the sports organiser (the league) over the scene of the event, which makes it possible to grant a right of entry or a broadcasting right, and so on.
19. These cartel practices benefit the clubs to the detriment of the channels and sponsors, who are subject to high fees, and of viewers, who have to pay increasing access costs (Bourg and Gouguet, 1998).
20. Common law explains the origin of this property. Indeed, the IOC, and not the athletes, has always received the broadcasting rights from the Olympic Games, by virtue of its own statutes.
21. It should be noted, all the same, that since some batches sometimes only interest a single buyer, one finds oneself indeed in a bilateral monopoly situation.
22. In addition, the social welfare of viewers is supposed to be protected by other legal frameworks, both national and international, aimed particularly at avoiding images being monopolised by subscription television – which is not available to everyone. The European directive ‘Television without frontiers’ thus envisages the impossibility of depriving a significant proportion of the population of a given country of events of major importance. This directive should include a list of protected events in each of the Member States, but many countries still have not published it. Similarly, different measures of protection of the right to information, faced with the exclusive rights acquired by different networks, make it possible for their competitors in certain countries to broadcast brief extracts of the events concerned.
23. The creation of a TV channel by the league could also avoid the monopoly situation forbidden by national (no single operator in Italy can hold more than 60 per cent of scrambled rights) and European rules.

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PART III

COST–BENEFIT ANALYSIS OF SPORT

12 Economic impact analysis

Victor Matheson

The 1990s and early 2000s have witnessed an unprecedented transformation of the sports infrastructure in the United States. By 2003, 86 of the 120 teams of the 'big four' professional sports leagues in the US and Canada were playing in facilities constructed or significantly refurbished since 1990. The total expenditure on these facilities exceeded \$16 billion with a large portion of the expenses falling on the local taxpayer. North America is not alone in this subsidisation of sports facilities. More than \$1.6 billion was spent by federal, state and local governments in cooperation with banks and local partners on stadium construction projects for the 2006 World Cup in Germany. This follows on the heels of \$6 billion in expenditures by Japan and South Korea, the co-hosts of the 2002 event. The ongoing saga of the new Wembley Stadium in London seems never-ending as potential construction costs near \$1 billion.

The competition among municipalities to attract professional sports franchises is as fierce as the competition on the field. In the decision as to whether to provide public financing to sports facilities and franchises, no rationale seems more compelling than the potential for an economic return to the host community. To this end, sports boosters frequently resort to economic impact analysis to justify taxpayer subsidies for professional sports. The question remains, however, whether studies undertaken by organisations with a vested interest in the outcome can ever be considered objective measures of the true economic benefits. While economic impact analysis is a valid tool for estimating the value of an athletics event or sports franchise to a community, the technique can be subject to significant manipulation and misuse. The basic methodology of economic impact analysis and the sources of misapplication are explored in the rest of this chapter.

Basic Methods of Analysis

Economic impact analysis is generally done by estimating attendance at sporting events, surveying a sample of spectators as to their spending associated with the game, and then applying a multiplier to account for money circulating through the economy after the initial round of spending. For example, an economic impact analysis for Super Bowl XXVIII in Atlanta in 1994 estimated 306 680 visitor days with a typical visitor spending \$252 per day for a direct impact of \$77.3 million. An economic multiplier of 2.148 is then applied for an indirect impact of \$88.7 million and a total economic benefit of \$166 million (Humphries, 1994). Alternatively, one can total up payments to workers and suppliers in sports-related industries and again apply an appropriate multiplier to estimate the impact. Errors at any point in the calculations of either method, however, can result in a significant bias in the final estimation.

Double Counting

While either an expenditure or income approach has validity, care must be taken not to confuse the two, and all analyses must include only one side of the transaction to avoid

double counting. An economic feasibility study done in Memphis in order to encourage public financing of a new stadium to attract the Memphis Grizzlies basketball team, for example, included as benefits both \$50 million in annual ticket sales to fans as well as \$50 million in wages paid to players, coaches and administrators, artificially doubling the real impact of the team on the local economy.

Confusing Costs and Benefits

It is a common error in cost–benefit analysis for the costs of infrastructure improvements to be counted as a benefit and not a cost. While construction expenditures for sports infrastructure undoubtedly have stimulative effects on the economy, the opportunity cost of capital must also be considered. Public expenditures on sports infrastructure and event operations necessarily entail reductions in other government services, an expansion of government borrowing, or an increase in taxation, all of which produce a drag on the local economy (Siegfried and Zimbalist, 2000). At best, public expenditures on sports-related construction or operation have zero net impact on the economy as the employment benefits of the project are matched by employment losses associated with higher taxes or spending cuts elsewhere in the system.

At worst, the spending on sports projects represents true costs. If specialised materials, labour, or technology must be obtained from outside the local economy, these expenditures result in an outflow of money away from the city. Furthermore, due to the distortions caused by the tax system, all funds raised by a local government to pay for stadium construction result in some level of dead-weight loss that can easily exceed \$0.25 for every dollar spent. Finally, even if all moneys spent on construction stay in the local economy, there is nothing to suggest that stadium building is the best use of government funds and that the return on sports infrastructure exceeds the return on the next best alternative. Indeed, unless a compelling case can be made that a local community is in dire need of fiscal stimulus and that no other projects exist that would provide a comparable return, infrastructure spending must be considered a cost and not a benefit.

Ignoring Costs

The costs associated with hosting sporting events or professional teams are often ignored in impact analyses. Sporting events and the crowds associated with them require government expenditures on public safety, sanitation and public transportation, and the larger the event the larger the potential costs. Greece spent over \$1 billion on security alone for the 2004 Summer Olympics. In addition, non-economic costs such as ‘traffic congestion, vandalism, environmental degradation, disruption of residents’ lifestyle, and so on are rarely reported’ (Lee, 2001). Following championship matches, for example, informal celebrations all too frequently degenerate into riots resulting in violence and the destruction of property, which negatively affect productive activity in the short run. The failure to account for the public costs associated with athletic contests serves to give an upwards bias to the reported net impact of these events.

Measuring Intangible Benefits

Sports boosters often cite livability and national exposure as a primary benefit of sports teams and events. As Rudy Perpich, the former governor of Minnesota, once quipped, ‘Without professional sports, Minneapolis would just be a cold Omaha’. Obviously

measuring such benefits is fraught with difficulty and academic studies are mixed on the subject. Many researchers find no correlation between economic growth and the presence of new sports facilities or franchises (Baade, 1996; Coates and Humphreys, 1999; Porter, 1999). Other studies have found that housing prices are higher in cities with professional sports teams indicating a higher willingness of buyers to pay for housing in cities with these amenities (Carlino and Coulson, 2004). With regard to the second finding, however, it is also clearly true that cities with professional teams, since they are generally larger metropolitan areas, can also offer many other cultural attractions in comparison to smaller cities.

While such intangible benefits certainly exist, two caveats must be mentioned. First, the presence of a sports franchise may bring with it intangible costs as well as benefits, as news associated with a sports franchise may not always place a city in a positive light. Following the riots that occurred during the National Basketball Association finals in Detroit, the city's national image basked in the glow of car fires and burning buildings rather than the goodwill associated with an NBA championship. In addition, if the lion's share of the benefits of a team or event is intangible, this is a significant cause for concern since this type of benefit is most likely to be based upon assumption and guesswork.

Misappropriation of Revenue Streams

Public expenditures on sports teams are often financed through specialised revenue streams such as taxes on ticket, concession, or parking sales, through fees on hotel rooms, restaurants, or rental cars, or lottery funds. It is frequently argued by sports boosters that the use of these types of revenue eliminates the burden placed upon the general public since the taxes are paid by the users of the facility, or non-residents, or voluntary lottery purchases.

To the extent that users pay for the facility through parking or ticket taxes, this type of funding is consistent with the 'Abenefits principle' of public finance, which holds that public goods should be paid for by those who receive the benefits of such goods. Even if users bear the entire tax burden, several issues must be considered. First, public financing through user fees places risk upon the taxing agency if revenues streams are not sufficient to meet debt service payments. Next, as facility users switch their spending from other entertainment goods to sporting events, tax revenues collected elsewhere may drop. Finally, if user fees are used to finance new stadium construction, these sources of funds are not available for a municipality's general fund.

When non-users of a sports facility pay taxes dedicated to stadium construction, the funding must be considered a cost to taxpayers even if these taxes are paid by non-residents, since these taxes could still be collected in the absence of the stadium. Non-residents are simply being asked to pay for sports facilities instead of for other local services. The case is similar when lottery funds are used for sports infrastructure as these funds can no longer be designated for education, the environment, general funds, or tax relief (Zimmerman, 1997).

Misuse of Economic Multipliers

Suppose due to the presence of a sports team, \$100 million is injected into a local economy. This initial \$100 million of spending is known as the 'direct impact' of the team and may include ticket purchases and spending on merchandise, food and lodging. The

recipients of the \$100 million will now spend their windfall, and at least some portion of this second round of spending will take place in the local economy again with any money being spent outside the local economy being known as a 'leakage'. This second round of spending induces a third round of spending and so on. The sum of all of these subsequent rounds of spending is known as the 'indirect impact' of the team. The amount by which the indirect impact increases the direct impact is known as the 'multiplier'. If a \$100 direct impact induces a \$100 indirect impact for a total \$200 effect, the multiplier is said to be 2 since the indirect impact doubles the total effect.

While the concept of the multiplier is well accepted in the field of economics, it can easily be manipulated to yield inflated results. First, the multiplier will vary from city to city and between industries, but typically, expenditure or sales multipliers range from 1.5 to 2.5. Larger metropolitan areas are likely to experience smaller leakages than less populous and less diversified economies. The total benefits of a sports franchise can be increased simply through the choice of a larger multiplier.

The economic multipliers used in economic impact analysis are calculated using complex input–output tables for specific industries based upon the normal inter-industry relationships within region. During major sporting events, however, the economy within a region may be anything but normal, and therefore, these same inter-industry relationships may not hold. Since there is no reason to believe that the usual economic multipliers may, therefore, be highly inaccurate. Indeed, there is substantial reason to believe that during 'mega-events', these multipliers are highly overstated, and therefore their use overestimates the true impact of these events on the local economy.

In addition, the use of expenditure multipliers is unjustified in economic impact analysis as the important point is not how much business activity is created by a professional franchise but rather how the income of local residents is impacted by the team. Much of the money spent by sports fans goes towards hotel rooms, rental cars and restaurants. To the extent that these firms are national chains, profits earned from sports fans at these businesses do not increase the welfare of citizens in the local economy but rather accrue to stockholders around the country. Similarly, revenue from ticket sales is often paid to the league or the sport's ruling body instead of local organisers. Therefore, the income multiplier, which is the extent to which direct expenditures lead to increases in local income, is always less than the expenditure multiplier. Income multipliers of 0.5 are typical for general spending in a local economy. In terms of the Super Bowl example examined previously, rather than a \$77.3 million direct expenditure leading to a \$166 million total impact, use of a proper multiplier would result in the game leading to roughly a \$40 million income benefit to local residents.

The income multiplier for sporting events is likely to be even lower than for general expenditures due to the specialised nature of the service provided. In the NBA, for example, only 29 per cent of players live in the metropolitan area in which their team plays leading to very high levels of leakage from local expenditures on professional sports (Siegfried and Zimbalist, 2002).

Substitution Effect

To the extent that attendees at a sporting event spend their money on a particular game instead of on other activities in the local economy, the sporting event simply results in a reallocation of expenditures in the economy rather than a real net increase in economic

activity. Often economic impact analyses presume that no economic activity would occur in the absence of a local team's games. In reality, local residents would increase spending on alternative entertainment activities such as restaurants and other cultural attractions. As a result, the revenue and income generated by sports teams may be large in a gross sense but negligible in a net sense. For this reason, many economists advocate that spending by local residents on sporting events be excluded from impact analyses.

In fact, the substitution effect combined with the low-income multiplier associated with sports franchises might result in the presence of a professional team actually lowering metropolitan area income as people switch their spending away from businesses with a high-income multiplier such as locally owned restaurants or night-clubs to sports franchises with low multipliers.

Crowding Out, Casual Visitors and Time Switching

While excluding expenditures by local residents may, at first blush, seem to adequately remove the bias between gross and net expenditures, even counting only spending by non-local spectators may overestimate the net benefits of a sporting event. First, the home towns of many teams and sporting events are in communities that are already popular tourist destinations. If hotels and restaurants in the host city normally tend to be at or near capacity throughout the time period during which a competition takes place, the contest may simply supplant rather than supplement the regular tourist economy as sports fans crowd out other tourists who would have spent money in the city in the absence of the sports team (Baade and Matheson, 2001).

Next, sports visitors may already have been planning on visiting a city but rearrange their schedule to accommodate a sporting event. Even though the traveller or economic analyst may attribute this visit to the athletics contest, in fact, this type of time switching does not lead to a net increase in economic activity in the city but simply alters the time period in which the activity takes place.

Finally, casual visitors are those persons who visit an area for reasons unrelated to an athletics event but happen to participate in the sports economy while they are in town. For example, if a business traveller attending a convention goes to see a basketball game one evening, an impact analysis would likely attribute the conventioneer's expenditures at the event as well as his/her food and lodging to the sports team even though the food and lodging revenues would have accrued to the city in the absence of the sports team. In fact, as mentioned earlier, the presence of the franchise may lower metropolitan area income as the visitor spending switches from high-income multiplier businesses to the sports club.

Conclusion

Economic impact analysis is frequently used to justify public expenditure on sports franchises or infrastructure, but economists argue that these analyses frequently overstate the true economic benefits of professional sports by a significant margin. Analysts tend to overstate benefits, understate costs and misapply multipliers. In addition, even when survey data accurately estimate the economic activity that occurs due to an event, nearly all analyses fail to account for activity that *does not* occur due to an event. While economic estimates should not be rejected out of hand, casual observers would be wise to view with caution any economic impact analyses provided by sports leagues or franchises.

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13 Physical activity, sport and health

Jean-François Nys

The World Health Organization (WHO, 1946) considers that health is ‘a complete state of physical, mental and social prosperity’. While this definition conjures up a Utopian dream, it has the merit of offering a vision of health which is not confined merely to the absence of disease. Such a state of wellbeing is not constant; certain actions will maintain or increase it and others will reduce it. Among others, physical activity and sport are actions considered to be favourable to health. In the past, sport was not associated with health and it was only at the end of the nineteenth century that Juvenal’s maxim, *mens sana in corpore sano* (a sound mind in a sound body), found a voice and when the benefits of sport and physical activity on health were recognised. This became increasingly evident as the mechanisation, robotisation and tertiarisation of society meant that physical effort connected to work was reduced and a more sedentary way of life began to manifest some perverse effects.

Taking into account all the activities in which the body expends more energy than it does when in a state of rest, physical activity includes not only sport but also games, dancing and walking. It is characterised by its frequency, its intensity and its duration. The second international Symposium of Consensus on Physical Activity and Health in Toronto in May 1992, defined the indicators of physical activity, identified the effects of physical activity on health and proposed tools for research on this subject (Bouchard et al., 1994).¹

Numerous studies show that participation in sport increases life expectancy and decreases absenteeism at work. But sports activity also has negative effects on health, for example, through accidents or when the desire for success and victory leads sportsmen and -women to resort to any means at their disposal, in particular doping. In such cases, the individual and social profits of sport can be disputed.

Sports Participation, Longevity and the Frequency of Diseases

From the nineteenth century, researchers began to measure the impact of sports participation on life expectancy; they showed that Oxford and Cambridge University rowers, and Finnish skiers, could expect to live longer than non-sportsmen (Bouchard, 1994). On the other hand, Rook, studying the longevity of 2045 former students who had been enrolled at Cambridge University between 1860 and 1900, could find no significant difference between the sportsmen (those who participated in inter-university meetings), the intellectuals (those who achieved the highest grades in exams) and a control group. The intellectuals even lived, on average, two years longer than those of the control group and 18 months longer than the group of sportsmen (Rook, 1954).

Another study involving more than 15 000 Harvard alumni shows that sports participation, especially walking, increases life expectation by nearly 2 years (Paffenbarger et al., 1986). This gain may seem marginal, but it applies to a homogeneous population (the students) with a high standard of education, and it is known that life expectancy is higher for graduates.

On the other hand, the life expectancy of the Harvard sportsmen is less than that of the nonsportsmen. Also, studies of the mortality of boxers, racing drivers and racing cyclists have shown that death rates are higher than for the population as a whole (Houdaille, 1973, 1986). Indeed, in the particular case of racing drivers in Indianapolis, the mortality rate is the same as that of marines in Vietnam. Other sporting activities such as squash and the marathon are also often cited negatively because of the high degree of physical exertion that is required. Nevertheless, although some extreme sports can lead to higher mortality rates than the average, participation in a regular sports activity can increase life expectancy. The early studies concerning the relationship between sport and health took into account physical activity generally rather than the particular sport. Such reports, from the early 1950s, examined how the evolution of employment conditions in industry resulted in a more sedentary way of life. Mechanisation and robotisation gradually reduced the need for muscular energy. This phenomenon first affected industrial jobs, but in the developed countries, it also applies to the service industry and domestic activities.

A more sedentary way of life can have fatal effects on health which are summarised in Figure 13.1. The system seizes up; less physical activity becomes self-perpetuating: not only do individuals lose the habit of making an effort but, because such efforts become painful,² people become less and less motivated to exert themselves.

Although calorie intake did not increase during the twentieth century, the number of cases of obesity grew in the developed countries. In 1850, a third of the necessary energy expended on factories and farms was a result of human labour, whereas it is less than 1 per cent today. Urbanisation, ever-more frequent use of the motorcar, an increase in the number of hours spent in front of the television and the less physical contemporary lifestyle are partially responsible for increasing obesity (Prentice and Jebb, 1995). Now it is widely accepted that the intensity of sports participation is conversely proportional to the excess weight of young people. But what is the direction of this relation? Is obesity a cause or consequence of less physical and sports activity? It would be necessary to analyse the correlative influence of several factors such as food, excess weight, time spent in front of the television, sports participation and so on to answer this question.

One of the most visible fatal effects of physical dysfunction is manifest in cardiovascular and coronary diseases. From 1953, a study of employees working on London buses showed that drivers were twice as likely to suffer from coronary heart disease than the

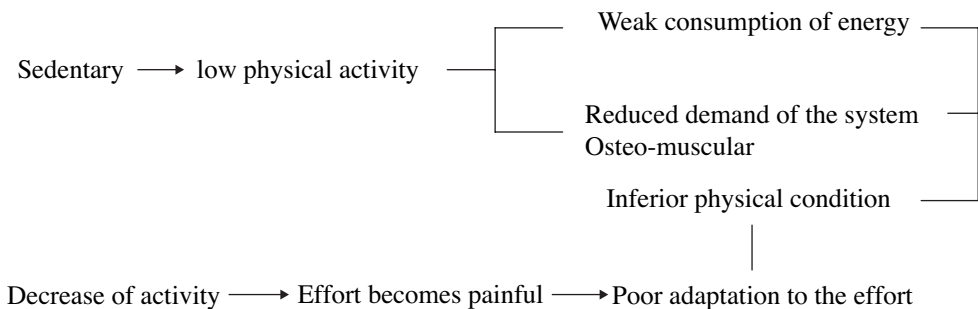


Figure 13.1 *Effects of a less active lifestyle*

more mobile conductors (Morris et al., 1953). For the first time the benefits of physical activity on the rate of coronary diseases was demonstrated. In a further study from 1968–72 and extended to 1978 – involving 16 882 people, Morris confirms that coronary attacks occurred less frequently in the group of sportspeople: 3.1 compared to 6.9 per cent (Morris et al., 1980). A study of 16 936 Harvard alumni showed that those who took part in only light physical activity each week have a higher cardiac risk, 64 per cent, compared to those participating in more vigorous physical activity (Paffenbarger et al., 1978).

The analysis of the results of the multiple risk factor intervention trial (MRFIT) study in the United States, involving 12 866 35–57 year olds, with all the risk factors associated with coronary heart disease, reveals, in a follow-up 10½ years later, that mortality rates were significantly lower in the group of that had 45 minutes of daily physical activity compared to the one that exercised for only 15 minutes (Leon and Connett, 1988).

Numerous studies have shown clearly that physical and sporting activity reduces the risks of morbidity, in particular cardiovascular diseases. Exercise tends to decrease triglycerides and cholesterol; it helps to prevent osteoporosis and diabetes; and it reduces stress and anxiety.

The WHO report (2002, 2003), estimates that globally, physical inactivity is the cause of 1.9 million deaths every year, 250 000 of which are in the United States. Inactivity in the US is responsible for 18 per cent of cardiovascular diseases and 22 per cent of cancer of the colon, and absorbs 3.5 per cent of health expenditure (US Department of Health, 1996). In Canada 21 000 premature deaths, attributed to inactivity, cost the country \$2.1 billion in 1999 and accounts for 2.5 per cent of health expenditure (Katzmarzyk et al., 2000). An increasing number of studies show the cost of inactivity and the benefits of sport and physical activity.³ These justify the encouragement of physical and sporting activity programmes proposed by an increasing number of states.

More generally, sportsmen and -women enjoy better health than those not participating (Koralztein, 1986). In addition, the beneficial effect of sporting activities on health increases with age. However, how are physical activities and health related? People are obliged to reduce their physical activity because of poor health. They can even be forced to give up any physical activity because of their health. In that case, causality goes from health towards sport. In this case, healthy people are more attracted to sporting activities than those whose health is poor. However, witness the participation of disabled people in such activities – disability is certainly not a bar to taking part, on the contrary! The desire to participate is explained by a number of reasons, among which health would play only a minor role.

Physical Activities and Absenteeism in Companies

The first study on the subject in France was carried out in 1980 by the doctor in the Alsthom Atlantique company in Belfort (Marini, 1980). Marini shows that sportspeople have an absentee rate of 3.64 per cent, against 6.58 per cent for the entire staff. Furthermore, sick leave is of longer duration than for those who were not sportspeople. Marini also notes that sportspeople have 3.1 times fewer industrial accidents than the other employees. However, it is necessary to qualify the results of this study because the sportspeople studied were all graduates and among those classified as ‘non-sportspeople’ are some who participate regularly in sporting activities. On the other hand, absenteeism increases with age. Now the discounted sportspeople are younger than the average age of

all the employees. Thus the sporting practice/absenteeism relationship is only partially demonstrated.

To extend the remit of the simple monographic study, the National Association for the Promotion of Physical and Sports Activities in the World of Work (ASMT), in association with company doctors, organised a national inquiry from March 1990 to April 1991, during the course of which, 22 482 questionnaires were completed.⁴ The results show that the frequency of industrial accidents decreases as the level of sports participation increases: for non-sportspeople the rate of industrial accidents is 4.52 per cent, against 3.78 per cent for sportspeople and 3.15 per cent for those undertaking light physical activity for one hour a week. Furthermore, the average duration of incapacity for an injured employee decreases with the intensity of sports practice: 24.6 days for sportspeople practising more than 3 hours a week, against 27.9 days for the others. The beneficial effects of participation are felt all the more by those aged over 35 years. These people have fewer accidents than the average of the population and those playing most sports are incapacitated for a shorter period: 19.9 days, against 24.6 for the rest of the population. This study confirms that physical and sporting activity favours recovery (a shorter incapacity period) and plays a preventive role (less illness and fewer industrial accidents).

Numerous studies in other countries confirm the conclusions of the French studies. At the beginning of the 1980s, Cox and his colleagues noticed that in a big Toronto insurance company that offered a programme of physical activities to its employees, the rate of absenteeism was 22 per cent, less than that of other companies not offering the same type of programme. The authors estimated that a saving of 1 per cent was made (Cox et al., 1981). In an analysis of 39 studies, Shephard finds that 35 of them show a decline in the rate of absenteeism according to the level of physical condition of the employees. He estimates the decline of absenteeism connected to the practice of physical activities to be 1.6 days per year, equivalent to 1.1 per cent of staff expenses (Shephard, 1989, 1992).

It is evident that the practice of physical and sporting activities reduces in proportion to the amount of sick leave taken and its average duration. The fact that the result is reversed for those less than 35 years is due to accidents and trauma engendered by sports participation. On the whole, the economic benefits for companies represents about 1 per cent of their staff costs.

Some studies widen the analysis of the relationship between physical activity and productivity but they neither define clearly the concept of productivity nor demonstrate the link of causality between physical and sporting activity and earning productivity (Opatz, 1994). This measure is complex because of difficulties concerning both the elaboration of health indicators and productivity measures. With regard to performing a physical activity it seems evident that a healthy employee will obtain better results than one who is less healthy. But today employees of the Western world undertake fewer physical activities in the course of their employment. Rather, there is an emphasis on developing service skills and in this sector the aptness of the concept of productivity is questioned and is replaced by that of efficiency. But to be effective an employee has to be in good shape and participation in physical and sporting activities is one means of achieving this.

Companies have a vested interest in the health of their employees. Because the implementation of programmes to encourage physical and sporting activities result in more gains than costs, such programmes will be given positive encouragement (Shephard, 1985, Van den Bossche, 1991). Thus, in the United States, more than 12 000 companies of more

than 50 employees finance health promotion programmes, and as a result, savings have been estimated at \$272 per employee or \$26 billion in total. The cost/profit ratio varies, according to studies, by 1 in 8 (Kaman and Patton, 1994).

In Canada, in 1992, 48 per cent of companies with more than 20 employees encourage their staff to keep fit and 53 per cent of them offer the opportunity to participate in company sports teams or in skiing or golf tournaments.⁵ For a long time, Japanese companies have encouraged their staff to take part in exercises during breaks. In France company sport is more familiarly known as corporate sport. Clubs are federated by the French Union of Corporate Sport (FFSE) which, in 2003, numbered more than 2000 clubs and 1.2 million members. The FFSE is affiliated to the European Federation for Company Sport (EFCS) which comprises 22 countries and 5.2 million members. Every year the EFCS organises the Euro Sports Festival. The 15th festival organised in France in June 2005 brought together more than 5000 participants. The first national corporate games, organised by the FFSE took place in 2004.

Similar to companies, some governments encourage the practice of physical and sporting activities because they also have a vested interest in seeing that their citizens are in good shape. We shall not address the issue of physical activities in schools, although, using the same logic as that developed to show the beneficial effects of sport in the work situation, the positive effects of sport on the cognitive capacities of pupils are evident. An analysis of 134 studies shows a significant improvement in cognitive performance in conjunction with a sporting activity (Etneir et al., 1997). States encourage sporting activities by the masses by dubbing them 'sports for all'. The pioneering programme in this field is undoubtedly the one that was developed from 1967 in Norway. Called 'Trim', its aim was to encourage the population to participate in sports activities en masse. Some years later, in 1973, Sweden also developed a 'sports for all' programme, centred particularly on company sport. In Quebec, the 'Kino' programme, aimed at improving the physical condition of as many people as possible, was set up from 1977. Its objective is to promote a way of life that is sufficiently physically active as to be in the best interests of the Quebecois population. Following the success of the 2002 World Day, 'Move for Health', the WHO suggested that states should dedicate one day annually for this purpose.⁶ This recommendation is roundly supported by observations appearing in the World Health Report (WHO, 2002).

Sport and Accidents

If sport can produce beneficial effects for health, it can also, however, cause accidents (fractures, sprains), or even result in fatalities (Miller and Adams, 1991). In France, insurance and mutual insurance companies covering sports risks estimate a 5 per cent accident rate for graduates but in certain sports this rate is higher. Two national inquiries, *Barometer of the Health of Young People 1997–1998* (Comité Français, 1999) and the inquiry of the Caisse nationale d'assurance maladie des travailleurs salariés (CNAMTS) on accidents in modern life, 1987–95, addressed the problem of sporting accidents, in particular those involving young people (Garry, 1999). Contrary to received ideas, traffic accidents are not the prime factor in medical intervention. Sporting accidents, including cycling, are far more common: 13.9 per cent as opposed to 3.8 per cent. Of the 850 000 sporting injuries suffered by young people every year, 24.7 per cent involve boys and 17.4 per cent involve girls.⁷

Among the sports responsible for these accidents are soccer: 29 per cent; handball and volleyball: 19 per cent; rugby: 6 per cent; gymnastics: 6 per cent; skiing: 6 per cent; cycling: 6 per cent; and athletics: 4 per cent. The high proportion of accidents due to ball games is explained by the fact that each sport involves a large number of players and because they are team games, collisions are more frequent.

Sporting accidents sometimes result in hospitalisation and the injured often require rehabilitation sessions (Table 13.1). Distances covered in any sport seem to be a relevant factor. Thus more than 20 per cent of the accidents that occur in car racing, horse riding or cycling result in hospitalisation compared to less than 5 per cent of jogging or tennis accidents. Accidents as a result of car racing, playing tennis or skiing on average involve a hospital stay of 10 days. Rehabilitation is particularly lengthy following car-racing accidents (105 days), and injuries to athletes. Generally more than 20 rehabilitation sessions are required.

The French 'Sport and health' inquiry in 1994 studied 8666 15–49 year olds divided into three groups (non-participants; those practising less than 500 hours a year: moderate participants; and those practising more than 500 hours a year: very active participants) showed that the non-participants suffered less trauma than the moderates: 54.8 per cent as opposed to 66.9 per cent and that trauma (sprains, dislocations, fractures) was five times higher in the very active group compared to the non-participants. Progress is regular and constant for sick leaves connected to sporting accidents: 1.1 per cent for non-participants, 4.9 per cent for moderates and 10.9 per cent for the very active (Geneste et al., 1998).

With regard to climbing accidents in France, the National System for the Observation of Safety in the Mountains (SNOSM) listed 44 799 people injured and 43 deaths between 1 December 2001 and 31 May 2002 (Lefevre and Fleury, 2002). One summer there were 2268 incidents involving 2907 people, including 1448 injured persons, 202 patients and 105 deceased. Contrary to popular belief that walking is a safe activity, 57 deaths occurred

Table 13.1 Hospitalisation and rehabilitation following sporting accidents

Sport	Hospitalisation		Rehabilitation	
	%	Period of stay (days)	%	Number of sessions
Motor racing	25.3	15	17.7	105.4
Horse riding	24.8	5.1	10.9	12.8
Cycling	21.2	5.8	5.8	22.0
Skiing	15.5	11.6	31.1	25.0
Contact sports	15.5	5.0	16.4	24.2
Ball sports	12.9	7.1	22.3	22.3
Winter sports	11.0	2.8	12.1	15.3
Athletics	10.4	4.4	19.9	40.6
Swimming	7.9	4.5	6.6	21.3
Jogging	4.6	8.8	18.3	11.6
Tennis	4.5	13.2	17.2	13.9
Others	10.7	4.7	16.0	11.0

Source: CNAMTS.

during walking tours, while climbing accounted for 30 deaths and hang-gliding and mountain biking each accounted for four.

A Belgian study of 3203 sporting accidents listed in the 'European Home and Leisure Accident Surveillance System' programme (EHLASS) shows that three accidents out of four are the consequence of a fall (41 per cent) or a hit (36 per cent) (Vandercammen, 2003). One accident in 20 results in the hospitalisation of the victim. The most risky sports are squash, hockey, rugby, motor racing and volleyball. On the other hand, tennis, swimming, cycling and athletics rarely involve accidents.

A lack of warm clothing, inadequate preparation, and a lack of stamina plus the temptation to exceed one's limits increase the risk of accident. Better preparation, provision of information concerning the necessity of good physical preparation, the use of materials and equipment adapted and meeting safety standards are all factors that will reduce sporting accidents appreciably.

Some explain the increase in the number of accidents and injuries in professional sports to be a consequence of the strong pressures on players so that they take risks with their health. The example of the Brazilian footballer Ronaldo during the 1998 World Cup final is well known. (At around 2.30 pm on the day of the final. Ronaldo was taken ill with severe convulsions, so serious that some of his team-mates feared him dead. After being taken to a private clinic in Paris for neurological and cardiac tests he was declared fit enough to play. Brazil went on to lose the Match 3–0.) However, an inquiry into English rugby shows that professional players receive more medical support and seem more inclined to make use of it (Malcolm and Sheard, 2002).

Sporting accidents engender direct, indirect and intangible costs, which affect the victim of the accident as well as his/her employer or the company in general (Table 13.2). Various studies present a partial estimation of the costs of injuries and sporting accidents. An evaluation for France in 1995 estimated the cost of sporting accidents at 2.96 billion francs (€450 million) of which 52 per cent was for hospital care and 31 per cent for compensation subject to medical certification (Garry, 1999). Accidents occurring as a result of leisure-time activities were estimated at 1.7 billion francs. In Australia sporting injuries cost A\$1.5 billion annually (Medibank, 2003). The most dangerous sports are: Australian Rules football (21.6 per cent of accidents), cycling (10.0 per cent), soccer (8.0 per cent), rugby (7.8 per cent) and cricket (7.3 per cent).

Why is it necessary to analyse the global impact on the economy of such an evaluation? On the one hand, it is about an increase in the demand for involving health services in an increase in production, thereby benefiting the whole of the economy. On the other, it is about absenteeism involving a loss in production. According to whether health expenses will exceed the losses of production connected to sports accidents, the global impact on the economy will be positive or negative. Shephard has estimated that the saving in expenditure due to the improvement of health engendered by participating in sporting activities would be \$239 and the costs would be \$28, resulting in a saving of \$211 (Shephard, 1986). The difficulty with this calculation is the consideration of the opportunity cost of time dedicated to sporting activities. For the whole of the community, the calculation is more complex: to individual expenses engendered by sporting activity, it is necessary to add the cost of the sports equipment, and the expenses arising from promoting sporting activities.

When sports participation pushes an individual up to and beyond the limits of his/her abilities, then health is endangered. All the quoted studies show that the beneficial effects

Table 13.2 Breakdown of the total cost of sporting injuries

Total injury cost	Individual	Family	Employer	Economy	Society
<i>Direct cost</i>					
Accident cost	x		x	x	x
Medical cost	x		x		
Non-medical cost	x	x	x		
<i>Indirect cost</i>					
Absenteeism			x	x	
Productivity losses	x			x	
Family worker substitution		x			
Worker replacement			x		
Taxation				x	
<i>Intangible cost</i>					
Loss of life	x	x			x
Reduced life expectancy	x	x			x
Loss of quality of life	x	x			x
Physical suffering	x	x			x
Mental suffering	x	x			x

Source: Godchild et al. (2002).

of sport disappear when practice becomes extensive. When the sport involves suffering, it becomes a cross to bear. There is a long list of sportspeople who have collapsed after crossing the finishing line and sometimes even before, as in the case of the British cyclist Tom Simpson, who collapsed and died during the Tour de France. In that case, drugs were blamed.

Sport and Doping

Doping is pervasive in sport, where drug abuse can take different and varied forms. The Festina affair during the 1998 Tour de France brought to light practices that were already widespread in certain sports (Calvet, 1981). Why do sportsmen and -women take drugs and endanger their health?⁸

Bourg's (2000) cost–advantage analysis considers that sportspeople take drugs when the net financial advantage exceeds the psychological threshold of the value of the renunciation of honesty and/or a different quality of life. But as the author points out, doping exists even where monetary gains are low – for example, amateur sporting events, body-building and certain professional sports. Many non-economic variables are also involved in doping. Among them are the desire to exceed one's limits, the taste for victory and the search for a certain aestheticism of the body. Analysing doping from the point of view of the theory of games, Breivik (1992) shows that if victory is the most important thing, then doping can only become even more widespread.

But if the fact of taking drugs is an individual decision, doping itself becomes part of the whole sports and social system. The search for sporting excellence, and increasing excellence within any area, allowing individuals to distinguish themselves and be recognised, is

aided by inducements offered by society. The European sports movement, more widely imbued with the 'Coubertinian' spirit than that of the United States, immersed itself in an anti-doping campaign. Regulations were formulated to anticipate controls and penalties. The cost of fighting drugs is increasing. So, in France, the budget allocated to doping by the ministry of sports (prevention, detection, search, communication, sports medicine) was multiplied by 4.2 in six years, from €5.6 million to €24.2 million between 1997 and 2002. The multiple stakes in the sport and the divergent interests of the various actors make the fight against doping as difficult to operate nationally as at the international level (Maitrot, 2003).

Can doping in sport be analysed only within a sports framework? In a society where the consumption of drugs, both natural and chemical, is constantly rising, the question of doping cannot be excluded from a more general reflection on the improvement of capacities, regarding both individual performance and the general health of humans worldwide. This aspect must be included in any discussion about the evolution and ethics of sport.

Notes

1. This voluminous work of 1055 pages (70 chapters) made the point on the state of the consensus.
2. Poor adaptation to effort implies a maximal consumption of weak oxygen ($V_{O2} \text{ Max}$ – the maximum amount of oxygen measured in millilitres one can use in one minute per kilogram of body weight), a highest heart rate and high blood pressure for weak efforts.
3. J. Stephenson, A. Bauman, T. Armstrong, B. Smith and B. Bellew 'The costs of illness attributed to physical inactivity in Australia', Preliminary study of the Commonwealth Department of Health and Age and the Australian Sport Commission, 2000; B.W. Martin, I. Beeler, Th. Szucs, A.M. Tribe, O. Brügger, C. Casparis, R. Allenbach, P.A. Raeber and B. Marti, 'Répercussions économiques du rapport entre santé et activité physique: premières estimations pour la Suisse', *Bulletin de l'Office Fédéral du sport*, No. 33, 2001, 604–7; C. Swales, 'The costs–benefits of the physical activity strategy for Northern Ireland', Health Promotion Agency for Northern Ireland, Belfast, 2002; D. Chenoweth, 'The economic cost of physical inactivity in New York State', *Journal of the American Medical Athletic Association*, **14** (2), 2000, 5–8; D. Chenoweth, 'The economic cost of physical inactivity in Michigan', Governing Council, Michigan Fitness Foundation, 2003.
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5. 'Active living in Ontario workplace', Canadian Fitness and Lifestyle Research Institute, 1993.
6. Annual global 'Move for Health' initiative, World Health Organisation, 2003.
7. 'Prévention des accidents de sport et de loisirs chez les adolescents', L'assurance Maladie, Press release, November 1999, www.cnamts.fr.
8. See also Chapter 84.

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14 Employment in sport

Didier Primault

This subject poses well-known methodological problems in the economics of sport which relate to the definition of sport, as well as to the lack of reliable data.

A Recurring Problem for Economists: How to Define ‘Sport’

This chapter is primarily concerned with the sports sector; that is, with the support and management of sport and sporting events, as well as with managing sports facilities which are directly connected to sport.¹

The businesses where sport, so defined, is the main activity, mainly offer three types of employment:

- sports technician jobs: sports teachers and organisers, trainers, athletes and so on;
- administrative, management and commercial jobs: management of sports associations (clubs and federations) and sports facilities; and
- maintenance, caretaking and reception jobs: golf course green-keepers, gymnasium caretakers, receptionists in tennis clubs and so on.

The sports industry – also called ‘the sporting sector’² – represents the heart of sport as a field of activity which includes, at the beginning of the chain of production, industries producing sports goods and equipment (production and services) and, at the end of the chain, all the economic activities relating to sport (Figure 14.1).

Economists and statisticians encounter two major difficulties: one is due to the problem of statistical categories which, because sport is badly understood, means that it is difficult to make an appraisal; the second is due to the problem of defining sport. Whereas the beginning of the field of activity is relatively well known throughout Europe, the end of the chain is too badly defined to make an accurate approach possible. Industries producing sports goods and sports facilities are partly identified in European classifications, but are often grouped together with other types of activities, for example, the production of sports shoes. In addition, there is another difficulty: how to take into consideration the situation when the shoes are used only for sport – and therefore what part of the employment must be included in any account of sport? Much more accurate surveys of consumer behaviour are necessary in order to refine the analysis.

More difficult still for the sports economist, is the question of understanding induced activities (downstream of sport as a field of activity). Which part of a job is due to the effects created by sport in activities as diverse as the press, medicine, transport or catering? The answers are complex and will remain vague as long as national accounting does not take sport, as such, into account in a better way.

A second problem is how to define sport? More precisely, which definition should be used in order to understand employment in sport? Should a very institutional definition be accepted, inspired by the thinking of jurists who give priority to competition and to

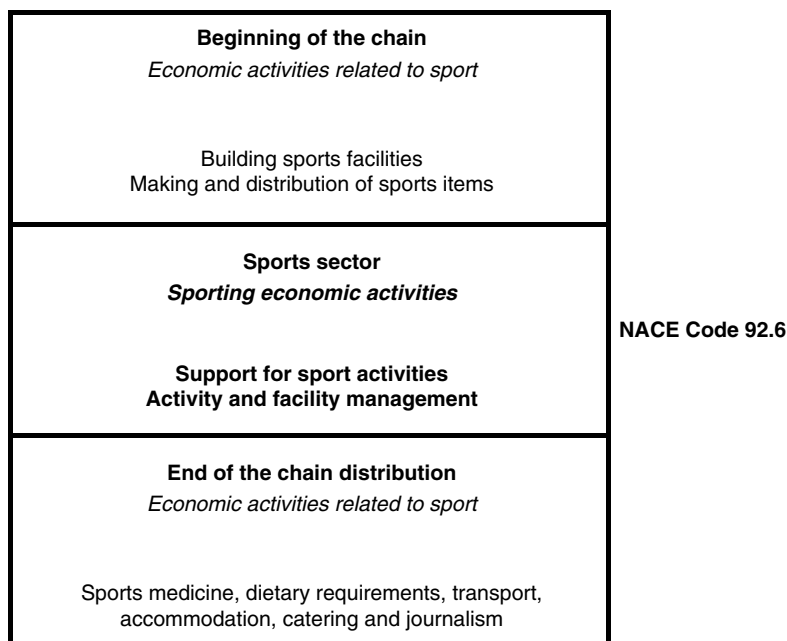


Figure 14.1 Sport as a field of activity, central activities and peripheral activities

activities organised within the sporting movement – or perhaps that of certain sociologists who combine the senses of physical activities and sporting activities? Depending on which of these two definitions is adopted, the economic sector in sport will be more or less important and its impact in terms of jobs more or less great (Bourg and Gouguet, 2001). In the end, it matters little, as the most important thing is to work with a common definition on a European level, so as to begin valid comparative analyses.

Taking into account the weakness of available statistical tools, we therefore favour a rather restrictive approach to sport, so as not to artificially overestimate its influence in terms of jobs.

Sport: the poor relation in statistics

It is necessary to be careful when tackling the economics of sport. In France, in particular, statistical tools are not adapted to this field of study. There are many complex reasons for these shortcomings:

- *historical*, in so far as sport comes from the non-commercial sector (unofficial economy) placing great emphasis on voluntary work and amateurism;
- *social and economic*, taking into account the weakness of the organisation of sport at this level (a general lack, until recently, of collective labour agreements and representative organisations everywhere in Europe, a lack of economic culture, and a lack of awareness of what is at stake with regard to a better statistical knowledge when most of the time those in sport prefer things to remain undefined, as it is easier that way);

- *administrative*, for in France particularly, the will of the supervising ministry to acquire such tools has never been very strong; this shortcoming has not been addressed by the national authorities who manage statistics.

As a result, there is either a complete absence of reliable data in certain cases (an exact inventory of sporting facilities in France) or very limited information (lack of knowledge about the workload makes it impossible to know the number of equivalent full-time jobs in the French sports industry). The situation is more or less the same everywhere in Europe. Moreover, comparative economic analysis poses problems about the consistency of methods of calculation, data collection and the accepted definition of sport, which we discussed above. The best example of this is given by Germany, for which the accepted data of the REISS (Réseau Européen des Instituts de Sciences du Sport – the European Network of Institutes of Sport Sciences) and the OEES (Observatoire Européen de l'Emploi Sportif – the European Watchdog for jobs in sport)³ and that highlighted by Weber et al. (1995) or even Meyer and Ahlert (1999) show worrying variations (between 95 and 287 thousand!) which could completely reverse some analyses (Kurscheidt, 2000).

The problem has not been seriously considered since the 1980s, when the Council of Europe financed the first work: Jones (1989), followed by Andreff et al. (1995). These works concern the economic impact or the economic influence of sport in Europe, but only marginally touch on the question of employment. It was not until 1999 that the first reasonably comprehensive report on the subject appeared (REISS/OEES, 1999) at the request of the European Commission. During this time, national work continued at a reasonably high rate. On the international level, there is an awareness of the need to fully understand these dynamic sectors of the economy. In addition, the 'classification' division of the UN⁴ has already started thinking along these lines, so as to reform the statistical categories concerning sport in order to achieve a more perceptive analysis.

The following sections will analyse, in turn, employment in its quantitative aspect, the respective situations of employment in France and the UK, the main characteristics of employment in sport and the salaried population in the sector in Europe, before finishing with a long-term analysis.

Quantitative Approach to Employment in Sport in Europe

Comprehensive data

The figures shown below relate to the number of people employed and/or the number of jobs, but in neither case the equivalent of full-time jobs. This limitation is all the more harmful in the field of sport, as we are dealing with very patchy employment, for which the gap between the number of employees concerned and the number of full-time equivalent jobs is particularly wide.

Employment in the sports sector Employment in the field of sport represented about 700 000 jobs in 1998,⁵ in the European Community of 15 members (REISS/OEES, 1999). The workload represented, in all cases, less than 1 per cent of the total employment of every country considered, and about 0.45 per cent of total employment within the EU.⁶ This volume should increase by nearly 60 per cent in 10 years, which would make the sector, in terms of employment, one of the most dynamic in the EU (ibid.).

Employment in sport as a field of activity The whole of the field of activity affects 1.5–2 million people in the European Union, of which about 250 000 are in the sports goods and kit industry and 400 000 in physical education in schools; that is, 1–1.3 per cent of total jobs in the EU in 1998 (Table 14.1).

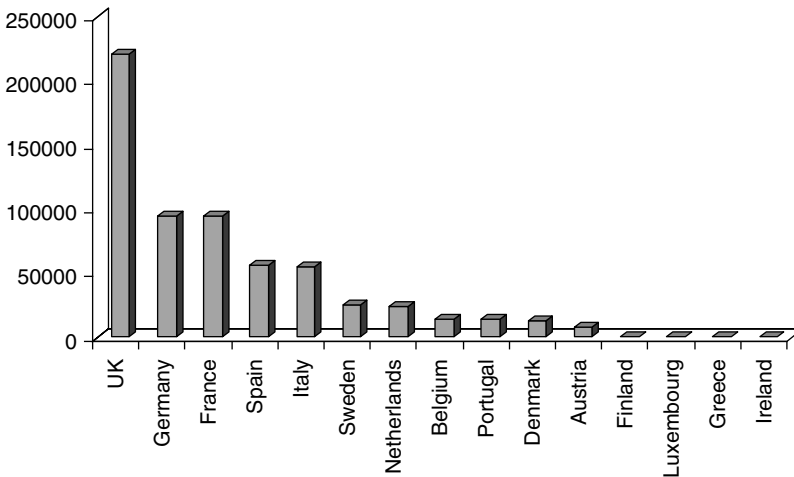
Very diverse situations depending on the country

The difference in situations seen in the organisation of sport can be found in the graph of employment in sport by country (Figure 14.2); the fracture lines vary according to, in particular, types of sport management, the relationship with volunteer work and the economic characteristics of the country.

Table 14.1 Estimate of the workforce employed in sporting chain of distribution in Europe

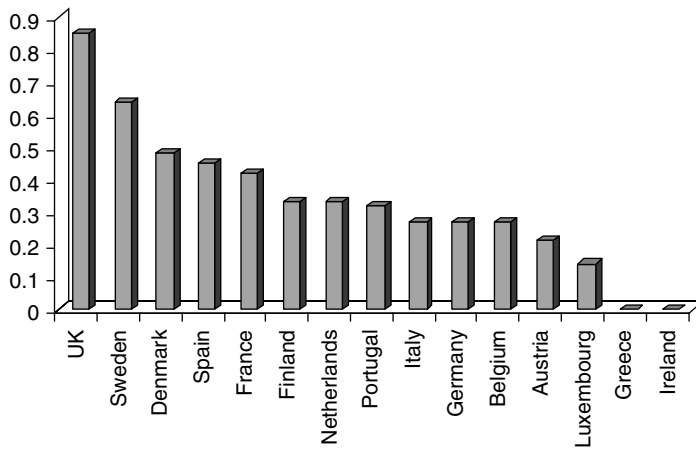
Sector	Number
Education and training sector (including PE)	400 000
Sports kit and goods manufacturers and distributors	200 000
Public administration of sport (state or local authorities)	200 000
Companies specialising in building sports facilities	50 000
Specialised media	30 000
Health sector and 'companies' specialising in sport	10 000
Total	890 000

Source: REISS/OEES (1999).



Source: Based on data from REISS/OEES (1999).

Figure 14.2 Employment in the sports industry by country



Source: Based on data from REISS/OEES (1999).

Figure 14.3 Part of jobs in sport as part of total jobs (1998)

Whereas the figures in absolute terms could give rise to some dispute, the hierarchy of European countries according to jobs in sport has been clearly established by the most recent work (REISS/OEES, 1999) – the UK, Germany, France, Spain and Italy make-up, in order, the largest providers of jobs in sport (Figure 14.3). What remains, however, is that the value of these figures in absolute terms depends too much on the size of the country to be truly significant. The data pertaining to total employment in the country shows a rather different hierarchy, since behind the UK now appear Sweden, Denmark, Spain and France. Germany⁷ and Italy for various reasons have reduced levels of jobs in sport, while the UK has established itself as the European champion of jobs in sport. The UK, on its own, represents 35 per cent of jobs in sport in Europe. Germany, France and the UK together account for 65 per cent of the total jobs in the EU in 1998.

The differences result from the culture, history and economic and social organisation of very different countries. They manifest themselves on the sports field in very different organisations. A comparison between France and the UK provides an interesting illustration – taking into account a reasonably significant difference in the level of jobs in sport, despite socio-demographic characteristics which are, on the face of it, similar.

United Kingdom–France: A Comparative Approach

Sports organisations specific to each country

The position of the state is very different in the two countries. In France, it is very involved in the economic and social management of the country and is quite directive, whereas in the UK it is relatively discrete. This is also borne out in the field of sport. Whereas France has had outline laws in place for nearly 30 years, the British are content with several texts of limited impact. The British model could be described as liberal, whereas the French model tends to be interventionist.

The position of the French Ministry of Sport is symptomatic of these differences. The French sporting movement is partly under its direct authority – with the, at least, passive complicity of the movement – as much legally as financially, whereas British sport is still run by a very autonomous sporting movement. A selective example illustrates this profound difference: whereas in France 10000 public officials are employed to deal with sporting issues, there are only 750 in the UK.

Different ways of managing sporting services and jobs

The systems of labour law are also very different: the recent introduction of a minimum wage in the UK contrasts sharply with the French labour code, which is voluminous, very precise and protective of employees' interests, but which is also extremely complex and, for the employers, unwieldy to manage. The difference is even more pronounced in the field of sport, in so far as access to the labour market is regulated in France, yet is completely free in the UK. Moreover, before the new law of July 2000 (which modified the 1984 law) in France, it was the state which defined the qualifications, provided some of the training and controlled access to jobs in sport – which it justified as essential protection for users. These, along with consumers and management and labour, were completely excluded from training and employment management systems until very recently.

The situation is currently changing at the instigation of management and labour, who have entered into a negotiation process for collective bargaining in sport. The fact remains, and this is symptomatic, that the recent strong growth of jobs in sport is the result of a political decision, implemented within the framework of a 'new jobs, new services' system (still called '*emplois jeunes*'; special contracts for young people).⁸ In the UK, on the other hand, the employer–trainer relationship is decisive. The purpose of SPRITO,⁹ the employers' organisation, is to improve the quality of service, while developing qualifications itself. In this system, based on market logic, the user appears at the heart of the organisation.

Significant differences

For relatively comparable populations and working populations in France and the UK, the latter has about twice as many jobs in services and more than twice as many in the sporting sector. This difference in sport is perhaps due particularly to a much greater voluntary involvement in France (18 per cent) than in the UK (4 per cent) – in so far as the number of those who do sport is quite similar, as well as the overall level of funding in sport.

It is also due to the fact that there are more jobs in the public sector in France (see Box 14.1), which is not taken into consideration here; furthermore, the minimal investment of the state has pushed English sport into a speedy professionalism which has not been seen in France until recently. In addition, this difference shows the variations of a qualitative type in jobs in sport on the level of the distribution of jobs by type of post; the proportion of managers compared to technicians is higher in the UK than in France; the distribution of jobs according to working time (Table 14.2); the distribution of employees by age group; and even the distribution by sex.

BOX 14.1 ASSESSMENT OF JOBS IN SPORT IN FRANCE

The sports sector

Some 100 205 jobs were counted in the sector (private sector) during the 1999 population census. They were divided into 35 247 people doing a job in sport and 64 958 working in the sporting sector in another job; in addition, 31 411 people were working in sport outside the sector (for example, a sports instructor in a holiday centre).

About 95 000 jobs were also counted in sport in the public sector, including:

- 33 800 PE teachers in state education;
- 6 731 officials of the Ministry of Sport; and
- 48 815 jobs in local authorities.

All the jobs thus identified amount to a total of 180–200 thousand people working in the sporting sector or doing a job in sport. Finally, note that these figures indicate the number of people affected, without prejudging their working time.

This variable working time could have a very strong impact in a sector where part-time work and short-term contracts are important. Thus, the studies carried out in the Limousin region show that there are 5 031 employees in sport as a field of activity, which corresponds to a volume of employment of 2 899 full-time equivalents – that is, only 57 per cent of the number of employees. This figure is quite closely confirmed by a study carried out by the French Gymnastic Federation (CDES, 2000).

Sport as a field of activity

At the beginning of the chain of distribution, 7 400–25 000 jobs are listed as manufacturing sports goods in France, 3 200–60 000 jobs in distributing sports goods (Camy and Le Roux, 2002) and 30 000 jobs in constructing sports facilities – that is, a total of between 91 000 and 130 000 jobs upstream of sport as a field of activity (note that the wide ranges reflect the limitations of the available data).

Jobs at the end of the chain of distribution (or even jobs created because of the impact of sport) are even more difficult to assess. The statistical unit of the Ministry for Sports* puts forward the figure of 400 000 jobs, but no reliable source as yet can validate it.

Source: * Stat-infos 01–02 May 2001, 'Poids économique et financement du sport'.

The Main Characteristics of Jobs in Sport

Although job characteristics are quite different, the major variations do seem quite comparable overall in the different European countries.

Table 14.2 Employment in the sports sector (France and UK, 1998)

	France	UK
Total population (1998)	58 728 000	59 090 000
Working population (1998)	22 287 000	26 177 000
Employment in community services (1998) (NACE 92)	387 900	770 700
Employment in the sports sector (NACE 92.6)	94 700	221 500
Employment in the sports sector (% of total population)	0.16%	0.37%
Employment in the sports sector (% of total employment)	0.42%	0.85%
Employment in the sports sector (% of employment in division 92)	24%	28.7%
Number of voluntary workers per 1000 inhabitants	18	4
Number of jobs per 1000 inhabitants	1.6	3.8

Source: Based on REISS/OEES (1999).

Table 14.3 Growth in jobs in the EU sports sector

	Workforce 1990	Workforce 1998	Growth 1990/98 (%)
Italy	4 874	5 497	13
Denmark	1 079	1 258	17
Luxembourg	190	241	27
Netherlands	1 800	2 400	33
Portugal	960	1 430	49
France	6 185	9 474	53
Belgium	921	1 452	58
Spain	2 820	5 630	100
UK	11 074	22 144	100
Germany	–	9 500	–
Total	29 903	59 026	98

Source: Based on data from REISS/OEES (1999).

A rapid growth

As far as can be judged from the quality of available indicators, the sector is very dynamic. It seems that within the EU, jobs in the sports sector saw a remarkable overall growth of nearly 60 per cent between 1990 and 1998 (REISS/OEES, 1999). In comparison, the growth of jobs between 1993 and 1997¹⁰ in all the services is set, for example, at 2.7 per cent in Italy, 3.9 per cent in France and 12.2 per cent in Spain (Table 14.3).

Major differences are hidden behind such figures. Compared with the strongly growing markets of the UK and Spain (100 per cent), others have shown a much weaker progression (for example, Austria, Finland and Sweden). The little data available in France confirm this dynamism by example. Thus, in March 2000, the Ministry for Sports announced an increase in waged and unwaged work in sporting businesses (upstream) of 60 per cent between 1993 and 1998. This is a rate of growth close to the sporting sector itself, since it was estimated at 56 per cent between the censuses of 1990 and 1999.

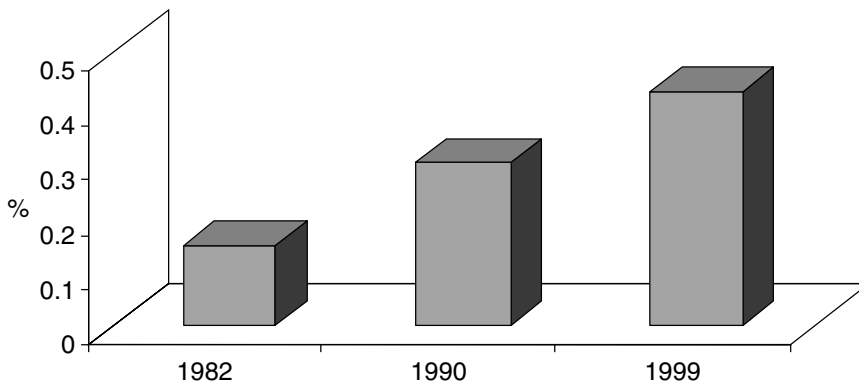


Figure 14.4 Proportion of sporting sector jobs in the working population (France)

In 20 years, the proportion of jobs in the sporting sector in the French working population has also grown steadily (Figure 14.4).

This trend is also confirmed by other recent work (Camy and Le Roux, 2002), which showed a growth of more than 69 per cent between 1990 and 1999. This progression is remarkable compared to that – equal to 3.5 per cent – of the working population in France during the same period. This dynamism can be explained in various ways:

- the development of sporting activities themselves (diversification of ways of doing sport, diversification of people doing sport and an increase in the offer of services);
- the continuing professionalism of the sector, as far as participation – professional sportspeople – and management structures are concerned. Volunteers are increasingly often assisted, if not replaced, by professionals – due to the increasing complexity of management missions undertaken, in the widest sense (law, tax and accounting). This professionalism has also been given an impetus by the French government (new job–new service programmes, with about 20 000 jobs being created and subsidised in the sporting sector by the end of 2002). At the same time, elsewhere in Europe,¹¹ sport is at last being understood to be a way of providing jobs; and
- the rise in the standard of living of all Europeans, which has increased the inclination for leisure consumption and, in particular, recreational sports.

Finally, it must be remembered that the sector has emerged from the non-commercial sector and, partly, from the underground economy. Certain jobs are not really new, but have come to light as part of incentive (or repressive) policies by states.

Employment that is fragmented

Those organisations whose activities consist of managing sporting activities, competitions and sports facilities are generally small, if not very small, organisations. Thus, in France in 2000, 96 per cent of organisations had fewer than 20 employees, employing 67 per cent of the employees in the sector. These employer organisations are usually associations, and are responsible for 76.9 per cent of all jobs in the sector.

The figures concerning water sports also show this profusion of small employers, even though this is one of the most professional sectors: 98.4 per cent of the organisations have fewer than 10 employees. In gym clubs, 1.61 employees per club are listed, which corresponds to 1.06 full-time equivalents. Those businesses offering fitness activities employ an average of 4.3 employees, with 73.4 per cent of the organisations employing fewer than six employees. The situation is the same in the UK; thus, in the fitness sector in 1999, 83.4 per cent of the organisations employed fewer than 20 employees.

Even though the sector is gradually becoming structured, employment is still fragmented (part-time, short-term contracts and a multiplicity of contracts and so on) in France, as in the UK. Full-time employment has been increasing strongly for at least 10 years and more recently as a result of the impact of *emplois jeunes*. Part-time jobs represented more than 75 per cent of employment in 1990, whereas by 1999 it was set at around 27 per cent – as much in the sports sector (27.4 per cent) as in those jobs in sport (26.8 per cent). It remains, however, higher than average in all the sectors in France (16.9 per cent in March 2000) and part-time jobs correspond more frequently to very short working times: 42.7 per cent of part-time employees with jobs in sport work less than one part-timer. In addition, situations can be very uneven. For example, 61 per cent of employees in gym clubs worked part-time in 2001, whereas the *emplois jeunes* and most employees in sport as a field of activity in local authorities work full-time. Permanent contracts represent only 52 per cent in the sports sector (Camy and Le Roux, 2002), whereas they represent 54 per cent in water-based activities.¹² In the sports sector as in others, casual work and, particularly, part-time work affects women much more than men.

In the private sector, job offers are very fractured; seasonal and/or part-time jobs represent a significant volume. This insecurity tends to be quickly reduced, without even reaching the standards of other sectors. The overall percentage, all sectors taken together, of part-time employees in Europe went from 13.5 per cent in 1990 to 16.4 per cent in 1998; during this same period in sport, the figures were, respectively, 42.7 and 34.2 per cent. However, variations persist, depending on the country and on the markets concerned (Table 14.4). For example, in the fitness sector in the UK, 53.3 per cent of employees worked full-time¹³ in 1998, whereas it was only 39 per cent in France.

Table 14.4 *Part-time employment in the European Union Member States*

Country	Part-time workforce, 1990	Total workforce (%)	Part-time workforce, 1998	Total workforce (%)	Variation
Luxembourg	50	26	70	29	▼
Finland	1400	19	1200	17	▲
Netherlands	7000	39	11000	46	▲
Portugal	1900	20	2500	18	▲
France	14400	23	27100	29	▼
Belgium	1200	13	3200	22	▲
Spain	4900	17	13300	24	▼
UK	74000	67	95700	43	▲

Source: REISS/OEES (1999).

Profile of the Salaried Population

It is difficult to draw up a typical profile for the whole of Europe, since the scene is varied. Consequently, we concentrate here on France, where jobs in sport attract a salaried population which is usually male, young, relatively well-trained, multi-disciplinary and who often share several employers.

Young men in the majority

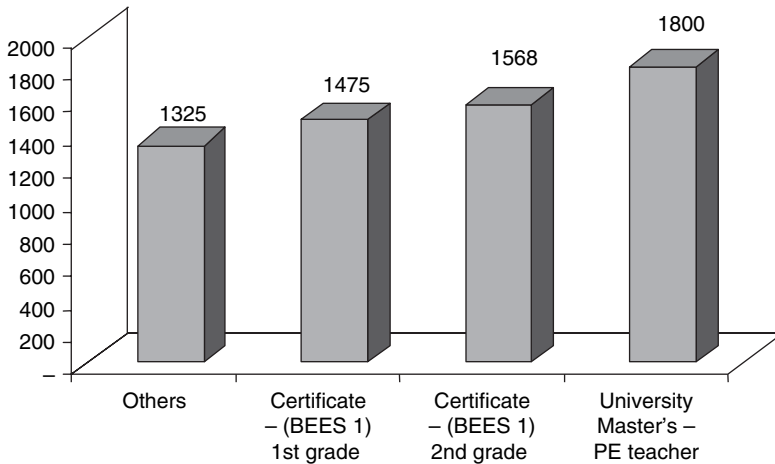
The salaried population is indeed predominantly male; women held 40.6 per cent of the jobs in the sector according to the 1999 census in France (58.3 per cent in Europe). However, the proportion of women seems to be growing steadily; in 1990 it was only 37.2 per cent (Camy and Le Roux, 2002). In addition, the female population represents 37.9 per cent of jobs in sport. Although it remains significant, the proportion of young people under the age of 25 has been decreasing for the last 10 years, despite the setting up of *emplois jeunes*, from 19 to 11.4 per cent in the sports sector and from 19 to 11.9 per cent for jobs in sport (*ibid.*). It remains appreciably higher than the proportion of young people under the age of 25 in the general working population, which was assessed at 7 per cent during the 1999 census. On the level of the EU as a whole, the situation is more varied; although the rate is equally high in the UK (34 per cent of under 25s in 1998), this is much less true for Germany (7.9 per cent). However, caution is necessary, as in addition to the somewhat contradictory figures, the data could be affected by the average school-leaving age. There is, for example, a significant difference, from this point of view, between France and the UK.

Well-trained employees

Moreover, contrary to a certain generally accepted idea, the level of training of sports instructors – in France, at least – is rather good if compared to that of their counterparts who are coordinators. In 1996, more than 52 per cent had a qualification of at least Baccalaureate level, as opposed to 49.8 per cent among coordinators of socio-cultural activities.¹⁴ It is equally true in comparison with the whole working population: 20.8 per cent of employees have no qualifications, as opposed to only 15 per cent in the sports sector. Training levels are rising rapidly, since 25 per cent of employees in the sports sector now have a qualification higher than the Baccalaureate, as opposed to fewer than 14 per cent in 1991 (Camy and Le Roux, 2002).

Multi-disciplinary and often multi-salaried or multi-active employees

The success of the ‘Profession Sport’¹⁵ operation in France also confirms the fracturing described above. It offers an illustration of the frequency by which one employee has several employers. In 1998, there were more than 13000 employees in Profession Sport, of which 75 per cent were working less than full-time. From 2000 to 2003 several innovative employers’ associations appeared, which started in the agricultural sector. As in sport, they aim to pool jobs. Combining several employers constitutes one solution to try to reconstruct full-time jobs; another lies in flexibility. Indeed, to have a job in a small organisation necessarily entails being able to cope with several tasks. For example, a tennis instructor should have management and accounting skills or a sailing instructor should know how to supervise a kayaking course. The directory of mountain sport occupations shows that 88 per cent of certified ski patrols and 72 per cent of those holding a certificate in downhill skiing do several activities; fewer than 50 per cent of guides are in



Note: BEES 1 = Brevet d'Etat d'Educateur Sportif first certificate.

Figure 14.5 *Monthly salaries of gymnastics instructors (pro rata) (in €)*

this position. Data concerning working time and type of contract for other European countries is a strong sign (for want of other factors) of multi-activity.

The unknown wage factor

As so often, financial data prove to be the most difficult to collect: a French example shows how, even when very reliable data can be obtained, it is difficult to use. Some 76 000 jobs were listed in sports associations by the Central Agency of Social Security Organisations in 2000, with a total wage bill of 662.8 million francs – that is, a gross monthly wage of 8678 francs. Although these data are reliable and accurate, they are of little use in so far as we have no information about the working time of the individual employees. However, the study carried out by the French Gymnastics Federation (CDES, 2000) is relatively accurate concerning sports instructors. For that particular category, it provides the average conditions of remuneration (Figure 14.5).

Long-term Approach

Employment in sport – the dynamic factors

Encouraging people to do sport is the key factor in developing employment, but contradictory developments make forecasting tricky. Whereas the rise in the European standard of living will contribute to an increase in the number of people participating in sport, the ageing of the population will slow it down – even though sports participation is growing among older people. Businesses involved in sport will therefore have to attract new adherents (women, older people, those with disabilities and so on) or, by diversifying the supply, increase the average length of time spent by Europeans in sporting activities.

Diversifying the supply is the key to its structure. Old ways (competitive sport with, particularly, a strong physical involvement) are giving way to modern trends which, if not unorganised, are at least tailored to individual needs or are self-organised. Businesses

involved in sport have already largely adapted the supply to these new ways; the increase in the time spent on the activity is linked to their ability to secure the loyalty of the person taking part in the activity and to widen the supply in order to reach all ages – especially older people in view of their demographic and economic influence. However, to date, obstacles to job creation still remain, largely depending on the particular country.

Obstacles to creating jobs in sport

The obstacles are far from being purely financial – rather, they are due to shortcomings in market organisation, both on the supply and demand levels. The following sections raise some of the issues involved.

Obstacles connected to supply

The lack of socioeconomic organisation in the field of sporting activities is obvious and indicative of the lack of social dialogue, and is most often due to the lack of truly representative social partners. This deficiency also interferes with the development of jobs (EC, 1996). The world of associations in general – and the sports world in particular – was not recognised as a serious economic or legal subject, perhaps partly because it did not want to be considered as such itself. The result is an almost total economic, statistical and social lack of knowledge about sporting activities in France and in Europe generally. How then to implement consistent policies and assess their worth?

The insecurity of employer microstructures is another major obstacle. These microstructures are responsible for the creation of jobs in sport, when it is not purely and simply a case of self-employment. Thus, the fragility of employment is largely due to the fragility of the employers themselves. Therefore the existence of technical and financial support, or support during training, as well as integration into a support network, provide evidence of permanence for the structures – and therefore for jobs.

Obstacles due to demand

The main problem is due more perhaps to cultural and historical considerations rather than to strict financial conditions. In other words it is more a problem of demand insolvency rather than a problem of a shortfall in demand (Laville, 2000). In many disciplines – and taking into account that in France, at least, certain sports are subsidised and work is done by volunteers – the consumer has not been accustomed to paying the true cost of sporting services, and would not be ready to do so. Setting in motion certain procedures, such as providing deprived families with ‘sports tickets’, has the dual advantage of subsidising certain sporting activities, while at the same time gradually introducing the idea that sport has a cost.

The necessity for reliable observation tools

In continuing to develop jobs in sport in Europe, it is impossible to avoid thinking about the total economic value of sport – which should lead to a definition of a consistent economic model that includes methods of payment which are adapted to the sporting activities.¹⁶ This goal is still, perhaps, too ambitious in the first instance. It has been shown, in the light of our thinking above, that the essential first step involves putting in place consistent and meticulous observation tools. These, however, still remain to be created – as the above developments clearly show.

The rate of growth (IRES, 2000) will determine how dynamic employment in sport is, here as in the rest of the European economy. However, the differences in national organisation – for want of a European employment policy in this field and lack of any structure of collective bargaining in the sector, here more than elsewhere – will remain decisive for some years to come.

Notes

1. Code 92.6 of the Classification of Economic Activities in the European Community (NACE) Code 926 A (management of sports facilities) and C (other sporting activities) of the Classification of French Economic Activities (NAF).
2. Even if these two notions are not strictly identical for statisticians, we shall use them interchangeably to simplify matters.
3. Referred to as 'REISS/OEES' in the rest of the chapter. The data come from the 1998 Mikrocensus as far as Germany is concerned – the equivalent of the employment survey in France; it approaches employment by analysing relatively small samples. The data used here are provided by REISS/OEES, which enables us to make only a limited structured comparison on the European level; their method is to take 'employment survey' standard surveys, which are comparable in all countries and which list only the main jobs. The special fragmentation of jobs in sport could involve major differences in comparison with the real figure of employment in sport, but these discrepancies can be found in all countries.
4. Department of Statistical Coordination and International Relations and Department of Statistical Standards and Comparative Methods.
5. REISS/OEES (1999); this figure takes into account a questionable workload for Germany, see below.
6. We relate the result to the figures from the European Commission Report *Employment in Europe 2000* available on the Commission website.
7. But caution is necessary, since by taking the hypothesis from Weber's et al.'s (1995) work (not used here), compared to total employment, the rate would be 0.81 per cent – putting it just behind the UK.
8. For a detailed analysis of the impact of this programme, see CDES (1998).
9. www.SPRITO.org.uk.
10. Eurostat, Labour Force Survey.
11. See Bertrand et al. (1999), Cabinet Amnyos (2001) and Le Roux (1998).
12. See Camy and Le Roux (2002). Note that long-term limited (5-year) contracts are taken into account here.
13. 'The national training organisation for sport, recreation and allied occupations: the sector plan for health and Fitness', SPRITO website.
14. *Promotion of socio-cultural events*, La Documentation Française. Paris, 2000.
15. The Profession Sport organisations employ sports instructors, then make them available to small associations on condition that they refund the real cost of the hourly wage of the employee. This makes it possible for jobs to be pooled.
16. See the scenario entitled 'les sociétés de création', in Bertrand et al. (1999).

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15 Sporting externalities

Jean-Jacques Gougnet and Eric Barget

The notion of external effects was introduced into economic theory by Alfred Marshall, who suggested two factors to explain growing productivity: internal economies of scale (size of production capacity) and external agglomeration economies (the industrial district). Later, this notion was to have very major repercussions with the rise of environmental concerns and related negative externalities. It was Arthur Pigou, in particular, who from 1926 onwards suggested the internalisation of negative external effects in order to establish a tax of an amount equal to the value of the damage caused. It was necessary to wait for Ronald Coase and his theorem in 1960 to have another form of internalisation by negotiated exchange of property rights on the market.

Sport has not escaped such problems with externalities. The consumption and production of sporting events not only produce positive externalities (social peace, social links, job creation and so on) but also negative ones (hooliganism, doping and so on). It is therefore necessary to try to internalise these effects and to determine the total economic value of sport, which would then be used to measure the true social utility created.

To do this analysis properly, three steps are necessary:

- define sporting externalities,
- measure the externalities and determine the total economic value, and
- internalise the external effects (principles and instruments).

Defining Sporting Externalities

General definition

An externality is defined as the impact of the actions of an individual on the well-being of other people, without this impact being taken into consideration by the market. If the impact is negative, one talks of negative externality or negative diseconomy; if the impact is positive, one talks of positive externality or external economy.

Positive externalities Among the most representative positive external effects, certain human and social consequences could be considered: improved health, lengthened lifespan, reduced absenteeism and sick leave at work, social integration, reduced forms of social pathology and so on.

Negative externalities Among the most representative negative external effects are: the damage caused by sport in sensitive natural environments (wetlands, dunes and so on) or major sporting events in natural environments (noise, erosion, trampling underfoot, pollution and so on); certain consequences of intensive sporting activity (doping, accidents, illnesses and so on); the nuisance linked to major sports infrastructures (noise or visual nuisance, urban integration and so on); and the nuisance linked to sports goods industries (pollution and so on).

As this field of externalities is too big to deal with, we shall limit the analysis in this chapter to the example of the sporting event.

The sporting event

The value of a sporting event is traditionally estimated by the consent to pay of all direct or indirect spectators – which therefore shows the social utility engendered by this good. This type of calculation, which is limited only to commercial values, neglects the externalities (positive or negative) relating to the sporting event – the true value of which is thus distorted.

Positive externalities Sporting events produce two main types of positive externality overall: social links and territorial dynamics. Social links created during sporting events depend on their scale, the type of sport and the public involved, their locations and so on. It is possible none the less to accept that, in general, sporting events improve social cohesion, and even produce social recognition (ethnic minorities, young people from disadvantaged areas, women and so on). This is due to the fact that sport is a carrier of universal values which, thanks to the media, can be disseminated on a large scale.

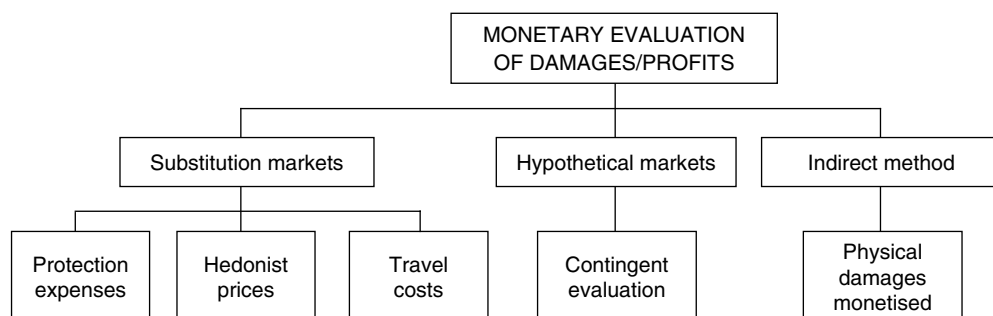
With regard to territorial dynamics, the externalities could take the form of positive social consequences arising from the economic impact of sporting events (for example, the lessening of tensions linked to unemployment, delinquency and drugs). These externalities could also consist of improving the brand image, as much from the economic as the social point of view – which could strengthen its attractiveness.

Negative externalities As in the previous case, these concern social relations and territorial dynamics, but affect them negatively. The most common form of the negative impact of sporting events on social cohesion is hooliganism – along with the loss of credibility due to underground deviations (doping, cheating and so on). Thus, sporting events constitute either the pointers to the rejection of others, or the relegation of sport to an economic activity like any other.

From the point of view of territorial dynamics, negative externalities take three forms: the crowding-out effects due to fears about the area being saturated during major sports events; the debt which ensues for those areas hosting sporting events when the investment which has been made does not later lead to real economic development; and the spatial separation between rich and poor engendered by major urban redevelopment operations involved in hosting major events.

Assessment of Sporting Externalities

The general framework underlying the evaluation of external effects (Figure 15.1) is welfare economics. The researcher aims to estimate the satisfaction (in the case of positive externalities) or the loss of satisfaction (negative external effects) associated with sporting events. This variation of well-being could be expressed in monetary terms, through the individuals' agreement to pay. Economists traditionally distinguish between three categories of method.



Source: Barde (1992).

Figure 15.1 *Monetary evaluation of damages/profits*

Substitution markets and the travel costs method

General presentation In the environmental field, individual preferences can be assessed through observing the behaviour of three markets connected with the environment: accommodation (hedonistic prices method), protection (protection expenses method) and transport (travel costs method).

It is generally the property market that is used as part of the hedonistic prices method. It is assumed here that the price of grounds and accommodation reflect the environmental quality of these goods. If this quality goes down, the market takes account of it by decreasing the price. In the protection expenses method, individuals faced with a deterioration of their environment try to protect themselves from these inconveniences. The sum of these costs makes it possible to approach the value attached to the quality of the environment. Although it has never been done to our knowledge, the application of these techniques to sport could be possible in the case of constructing a large stadium, or more generally, major sporting facilities (a golf course or a swimming pool, for example), in order to quantify the economic externalities and how to calculate minor sporting infrastructures.

The travel costs method, or the Clawson–Knetsch (1966) method, is based on the hypothesis that travel time and expenses indicate the value of the site visited. This method was used from the 1950s onwards in the United States to determine the value of national parks or nature reserves and so on, by assessing the use of the natural environment for recreational purposes (for example, hunting, fishing, swimming or walking).

The travel costs method could also be seen to apply to sporting events, in so far as it would be relatively easy to reconstruct the demand curve of the event and to calculate from this curve the well-being generated for the spectator (that is, the consumer surplus).¹

The travel costs method applied to climbing We refer here to the study carried out in France by Bourdeau and Rotillon (1994) on rock-climbing sites in the Briançon region.

First, the attendance curve or the relationship between the price (cost of the journey) and the quantity demanded (attendance rate) were determined:

- France was divided into nine areas which were progressively more distant from the Briançon region, so that the journey was increasingly expensive for

sportspeople. Only the cost of using a vehicle was taken into account, the opportunity cost of the time being null and void, because the activity took place during the holidays.

- The rate of visits was estimated by taking the registration numbers of vehicles parked in car parks located near the cliffs, with the home department thus being identified. Since such sports are seasonal activities, it was necessary to collect data from different times of the year and for two consecutive years (1993–94). It was assumed that there were two people per car and the rate of visits from each area was calculated by dividing the number of visitors coming from each of them by the number of climbers who were members of the Climbing Federation (Fédération française de montagne et d'escalade).
- The participation function was then estimated econometrically and the functional form of the relation giving the most significant results was the simple linear relation. The expected decreasing relation between the cost and the demanded quantity of the good was obtained:² $V_{i1994} = -0.177C_i + 233.6$ where V_{i1994} is the rate of visits from the area i and C_i is the cost of the journey.

Second, the aggregate demand function was estimated by adding a right of access to the event or the facility to the transport cost:

- In order to construct the demand curve, it was necessary to assume that a variation of the travel cost (a simulation was carried out with successive additional costs of €30) had the same effect as a variation in the price of site access. The levels of visit were calculated from the previously determined relation for each additional price and for each area.
- The population of each area was then taken into account and the number of visits calculated for each supplementary cost; after summation on the nine areas, seven points on the demand curve were obtained (one for each level of cost).

Third, the consumer surplus (area under the demand curve) was calculated:

- The utility brought by the good (or consumer surplus) was then approximated by calculating the area under the demand curve; it amounted to €479 697.
- Sensitivity tests could be used to assess the validity of the results.
- After integrating this consumer surplus into an overall cost/advantage analysis, the authors found that rock-climbing showed a large net profit (approximately €338 000).

Contingent valuation method

General presentation The direct method is also called the contingent valuation method (CVM). It has a very wide field of application and, for certain intangible effects, it is the only one to which there is recourse. The expression 'direct method' is used because the preferences of individuals and their willingness to pay are shown directly through questionnaires and interviews.³ The aim is to show, through the individual willingness to pay, the expected variation in utility of the modification of the environment. According to Bonnieux and Desaignes (1998), more than 1500 studies produced in 40 countries over

30 years have allowed economists to improve the stability of the method. This method has many problems of bias, but when conducted well, it can give a strong evaluation of the agents' willingness to pay.

CVM calls for a very particular process. It is suggested that individuals introduce their own evaluation of the good on the contingent market, when a hypothetical transaction is offered to them. This requires that individuals, who are considered to be the best judges of their preferences, find sufficient motivation to conduct this introspective process which leads to the determination of their willingness to pay. Such a motivation could be lacking if the people who are questioned have a poor knowledge of the good considered or if they have a poor understanding of what they are being asked to pay for. The forecast willingness to pay would not be very significant in this case, either because the protest values equal zero or because unreliable values had been given. Indeed, there is a likelihood of strategic behaviour – that is, that false values, which are more profitable to the interviewee, are deliberately given. For this reason, a relatively complex questionnaire should be used, in order to condition the person being investigated and to assess the reliability of the answers. So, provided that a representative sample of the population was chosen and that the response rate was high enough, the transition from individual to collective willingness to pay can be done simply by summation.

The example of the Davis Cup The taxpayers' willingness to pay for the organisation of a quarter final of the Davis Cup in Limoges (Limousin, France) was estimated on the basis of a hypothetical market (Barget, 2001). A survey of taxpayers was carried out in the host region of this unique event.

In this first test, methodological precautions were taken in order to limit the inherent biases in such an evaluation technique, which had been listed by Mitchell and Carson (1990).⁴

After summation on the adult population, it appeared that the value of the non-use of the sporting event amounted to €322 696 – 58 per cent of which was associated with the male population. The main motives of the taxpayers were linked to the economic effects (stimulating tourism and the economic impact figured among the three main reasons for their support for 34.6 per cent of those asked) or associated with improving the image of Limousin abroad. The benefits can also be of a social nature: the fight against delinquency (37.2 per cent), the education of young people (35.9 per cent), helping social cohesion (30.8 per cent) or, not so strongly, encouraging people to do sport (16.7 per cent).

The indirect method

General presentation The indirect method consists of the monetary evaluation of the physical effects. To begin with, the physical effects of the modification of the environment on a given activity (how much soil erosion reduces agricultural production or what impact pollution has on physical health) are assessed by environmental experts. Then, the economist carries out a monetary evaluation of this change in production or costs.

In the field of sports economics, the method could usefully be used, for example, for the negative environmental effects of motor sports (damage to the earth, paths and streams, noise and so on) and, more generally, for damage resulting from using the countryside for recreation. External positive effects, such as the impact of sport on physical and mental

health, could also be understood in the same way. Some work relating to sport seems to apply the indirect method; one of these attempts is discussed below.

The example of Formula One Grand Prix The indirect method was used in a cost–benefit analysis of the Formula One Grand Prix in Adelaide (Burns et al., 1986). The social costs were estimated from the data provided by the surveys carried out among the households and businesses close to the Grand Prix.

Congestion on the roads and the associated loss of time involved about 30 per cent of the population living in Area 1 – the closest to the circuit – and 12 per cent of the population living in Area 4 – situated 12–20 kilometres north of the town. The time value was assumed to be identical for the occupants of private cars and commercial vehicles, assuming that at the margin, the leisure-time value is equal to the working time, that is, A\$10.25 an hour. It was then estimated that the total loss of time cost the people affected A\$6.2 million.

The increase in the number of road accidents just before and after the competition generated an additional cost ranging between A\$3.2 and 5.8 million. These estimates were done in two stages. Initially, the data relating to blood sampling – which is systematically carried out at the time of road accidents – to being taken in an ambulance in the metropolitan area, and to the calls for the breakdown and recovery service for vehicles in Adelaide, were grouped together for the years 1980–85. Over a period of five weeks in 1995, a large increase of 34 per cent of road accident victims was noted, compared with the average over the previous five years. That represents 280 extra road accident victims, for which the connection with the Grand Prix had been made using a variance analysis (other factors could have been involved – for example, the weather, the growth of road traffic or a general increase in accidents in the federal state). Second, the economic assessment involves thinking about the economic value of human life and suffering – subjects which have, for a long time, aroused interest in economics.

Internalisation of External Effects

These externalities, of which we have tried to measure the monetary value, indicate a discrepancy between private and social costs. The economic theorem of welfare asserts that in such conditions, the market equilibrium is not an optimum. It is therefore necessary to put social/private costs on an equal footing – that is, internalise the external effects. Economic opinion is divided between the two solutions:

- for some (Pigou), this failure of the market requires state intervention in the form of taxes (external diseconomy) or grants (external economy);
- for others (Coase), economic agents should be left to correct this difference by themselves on the market through negotiated exchanges on property rights.

Pigou's solution

Many instruments could be used by public authorities to internalise sporting externalities (Organisation for Economic Cooperation and Development) (OECD, 1989, 1991, 1994). Traditionally, regulatory instruments (standards, authorisations, bans and so on) are set against economic instruments (taxes, subsidies, loans and so on). The following gives some illustrations for sporting events, while differentiating between the instruments coming from the sporting movement and those coming from public authorities.

The sporting movement

The International Olympic Committee (IOC) Since the first world conference on sport and the environment, held in Lausanne (1996), the IOC has officially embarked on a policy which, in many forms, internalises external effects as far as the environment is concerned:

- by making all levels of the Olympic family aware of environmental problems;
- by taking the environment into account when awarding the Olympic Games; and
- by respecting the environmental standards imposed by national and international regulations.

International federations These have asserted their will to impose new operating rules on national affiliated federations which respect the environment. The proposals concern, for example:

- the choice of location of major sports infrastructures;
- measures to limit and regulate competitions in the natural environment; and
- grouping together sports facilities for reasons of convenience and to save energy.

All sporting institutions are also supporting the fight against doping. It is particularly interesting to analyse the conditions for setting up and operating the World Anti-Doping Agency (see Chapter 81).

Public authorities: the example of the European Union The European Commission (1999) guidelines on the subject of applying competition rules to the sports sector, draw a very clear distinction between ordinary sporting practice and a professional sporting event. In particular, it is recognised that sporting activity fills a social, integration and cultural role which should be preserved. Nevertheless, the subject of the equalisation of resources between elite and mass sport has never been tackled. And yet, there has to be a cost when a social utility is created or a service rendered. In the absence of markets, two difficulties arise: the evaluation of their monetary amount (see above) and, above all, the question of their financing.

Since the sports industry benefits to a very large extent from the externalities produced by amateur sport, it could appear legitimate to put in place equalisation instruments between these two sectors. Two sources of revenue could be taxed: problems specifically linked to sport (for example, doping, lack of training in clubs and speculative player transfers); and commercial products linked to sporting events (for example, TV broadcasting rights, byproducts and sponsorship).

Coase's solution

To make competitions – which have been marred particularly by many doping scandals – credible again, the organisers of sporting events should probably look towards voluntary agreements. The organiser would promise to respect a charter or code of conduct. All, therefore, would depend on declared ambitions, in relation to commitments given in respect of the objectives put forward. Doubts may arise as far as the sincerity of the organisers is concerned:

- if the objectives are modest and easy to achieve, while seeming to believe in a radical reorientation of their strategy; and
- if the ambitions are ambitious and difficult to achieve, but without envisaging an exact method of verification.

In such a context, it could be questioned whether this type of instrument may be intended to distract the vigilance of consumers and public authorities. The recent cases of doping during the last world athletics championships demonstrate public mistrust of the declared commitments to fight doping by the organising authorities. For this to be effective, voluntary commitments must respond to at least two conditions:

- It is essential that third parties exert credible threats: spectator boycott, withdrawal of sponsor support.
- Independent inspectors must monitor the implementation of initiatives and a mechanism must be instituted for applying sanctions in case of breach of promise. Thus, non-governmental organisations (the World Wide Fund for Nature; WWF; Greenpeace; and so on) are increasingly seen to be taking part in monitoring operations. For example, during the Olympic Games in Sydney, Greenpeace was responsible for checking the application of the organising committee's environmental charter. In case of failure to comply with the charter, the organiser runs the risk of a media campaign which could prejudice its reputation. Nike, for example, was the subject of such a sanction and reorientated its external quality strategy for its products, particularly on the level of its working conditions and employment in its factories in the third world.

Notes

1. The researcher must nevertheless overcome several difficulties (Barget, 2001). There are technical problems, partly of an econometric nature (the choice of the functional form of the demand curve and the problem of homoscedasticity and so on) or connected to multi-purpose journeys, including time costs in travel costs and including socioeconomic variables (incomes, substitution distraction opportunities and so on) in the demand function, for example (Cooke, 1994).
2. The quality of the regression is right, since Fisher's F -statistic is significantly different from zero at the 95 per cent level (it takes the value of 52.3 when the critical value is 5.59). Student's t shows that the coefficient of the independent variable (C_i), as well as that of the constant term, is significantly different from zero at the 95 per cent level of confidence. The correlation coefficient is right at 0.88.
3. Administering the questionnaire one to one is one of the recommendations given by Arrow during the estimate of the damage linked to the sinking of the *Exxon Valdez* (Arrow, 1993).
4. Mitchell and Carson (1990) distinguish between different types of bias: 1. incentives to misrepresent responses; 2. implied value cues; 3. scenario misspecification; 4. sample design and execution biases; and 5. inference biases.

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16 The economic impact of mega-sporting events

Robert A. Baade

The World Cup and the Olympic Games qualify as sport mega-events. Nation states compete as vigorously to host these events as the athletes who participate in them. Why? A variety of reasons explain the quest to host the most spectacular international athletic competitions, but no reason appears more compelling than the promise of an economic windfall. Does the economic benefit compensate for the costs incurred by the host nation? The purpose of this chapter is to identify and discuss in the broadest sense issues relating to the cost–benefit analysis undertaken to assess the economic efficacy of hosting a sports mega-event.

The cost of sponsoring the Olympic Games or the World Cup is enormous, and has, with few exceptions, required public subsidies. The most prominent capital costs are those incurred in providing the infrastructure necessary to accommodate the athletes and spectators to include the venues in which the games and contests are held. These costs currently number in the billions of dollars. For example, the Fédération Internationale de Football Association (FIFA), the governing body for soccer worldwide, requires that the host country provide at least eight and preferably 10 modern stadiums capable of seating 40–60 thousand spectators (FIFA, 2002). For the 2002 event in Japan and South Korea, each offered to provide 10 separate stadiums. As neither country had a large existing infrastructure for soccer, South Korea built 10 new stadiums at a cost of nearly \$2 billion, and Japan built seven new stadiums and refurbished three others at a cost of at least \$4 billion. The total investment for new infrastructure in Japan ‘is unknown but some analysts pegged the expenditure at more than 750 billion yen (\$5.6 billion)’ (Sloan, 2002).

The operating costs of a mega-event are also enormous and are growing. In the wake of terrorist incidents at the 1972 and 2000 Olympics and on September 11, 2001 in the United States, security arrangements alone can run into the hundreds of millions of dollars. Greece reportedly spent up to \$1 billion on security for the 2004 Summer Olympics (Reyes, 2005).

Can the economic impact of an event, even one the size of the World Cup or the Summer Olympic Games, compensate the host nation for the substantial infrastructure and operating costs and justify the public largesse? There exist widely divergent views on this matter, and the size of the disagreement can be brought into sharp profile by examining the views of subsidy boosters and most scholars.

Consider, for example, a sampling of the economic impact estimates prepared by those who champion public support for hosting the World Cup. The 1994 World Cup Organizing Committee in the United States predicted that ‘as many as one million international visitors will travel to the United States in conjunction with the World Cup, making the event one of the most significant tourist attractions in American history. The 1994 World Cup economic impact could conservatively exceed four billion dollars in the United States’ (Goodman and Stern, 1994, p. 1). The South Africa bid for the 2006 World Cup was based, in part, on the promise that it would bolster the economy by approximately \$6 billion and

create as many as 129 000 new jobs (Khoza, 2000). The largest estimates to date have been provided by the co-hosts of the 2002 World Cup. A study by the Dentsu Institute for Human Studies estimated a \$24.8 billion impact for Japan and a \$8.9 billion impact for South Korea. As a percentage of total national income, these figures represent 0.6 and 2.2 per cent of Japanese and South Korean GDPs, respectively (Finer, 2002).

The promise of substantial economic impact provides a justification for public subsidies for mega-event infrastructure. Promoters of subsidies for these global athletic competitions argue that the expenditures should properly be treated as investments that generate positive economic returns, that is to say yields that exceed those generated by the next-best, alternative use of those funds.

Claims that sports mega-events provide a substantial boost to the economy of the host city, region and country have been strongly criticised by some scholars. In assessing the impact of the American Football Championship, the Super Bowl, Philip Porter disputed claims by the National Football League (NFL) that the contest provided substantial economic impact. In fact, Porter claimed a proper measurement of the Super Bowl's economic impact would show that the event had no impact. Porter (1999, p. 61) observed:

Investigator bias, data measurement error, changing production relationships, diminishing returns to both scale and variable inputs, and capacity constraints anywhere along the chain of sales relations lead to lower multipliers. Crowding out and price increases by input suppliers in response to higher levels of demand and the tendency of suppliers to lower prices to stimulate sales when demand is weak lead to overestimates of net new sales due to the event. These characteristics alone would suggest that the estimated impact of the mega-sporting event will be lower than impact analysis predicts. When there are perfect complements to the event, like hotel rooms for visitors, with capacity constraints or whose suppliers raise prices in the face of increased demand, impacts are reduced to zero.

Baade and Matheson (2000) challenged an NFL claim (NFL, 1999) that as a result of the 1999 Super Bowl in Miami, taxable sales in South Florida increased by more than \$670 million. Their study of taxable sales data in the region concluded that the NFL had exaggerated the impact of the Miami Super Bowl by approximately a factor of 10 using assumptions that favoured identifying a strong economic impact. The next section of this chapter identifies and discusses the reasons for the substantial disagreement.

Theoretical Issues in Assessing Costs and Benefits of Sports Mega-events

The exaggeration of benefits induced by a sports mega-event may occur for several reasons. First, the increase in direct spending attributable to the games may be a 'gross' as opposed to a 'net' measure. Some subsidy advocates estimate direct spending by simply summing all receipts associated with the event. The fact that the gross-spending approach fails to account for decreased spending directly attributable to the event represents a major theoretical and practical shortcoming. Surveys on expenditures by those attending the event, complete with a question on place of residence, would appear to be a straightforward way of estimating direct expenditures in a manner that is statistically acceptable. However, while such surveys may well provide acceptable spending estimates for those patronising the event, they do not reveal changes in spending by residents not attending the event. It is conceivable that some local residents or potential visitors may dramatically change their spending given their desire to avoid the congestion at least in the venue(s) environs. A fundamental shortcoming of typical economic impact studies, in general,

pertains not to information on spending by those included in a direct expenditure survey, but rather to the lack of information on the spending behaviour for those who are not.

Economists have cited the failure to account for the difference between gross and net spending as a chief reason why sports events or teams do not contribute as much to metropolitan economies as boosters claim (Baade, 1996). However, in the case of an international soccer tournament, a very large proportion of all attendees come from other countries, and their spending qualifies as export spending. Furthermore, the host country's residents who do not attend probably do not reduce their expenditures in the country, even if they avoid temporarily the cities or neighbourhoods of the stadiums. Thus one might expect that direct expenditure by non-residents who attend events approximates net impact. Unfortunately, this will not be true if some non-residents, who might have visited the country, decide not to do so because of congestion and high prices during that period.

Recent evidence assessing the economic impact of the Summer Olympics in 2000 in Sydney, Australia indicate that the 'substitution effect' may be substantial even in cases where the event has a clear international character. An Arthur Andersen (2000, p. 5) survey on hotel activity in Sydney and other capital cities prior to and during the Olympic Games concluded:

As expected, survey results indicate the vast majority of Sydney hotels peaking at near 100 % occupancies during the Games period from September 16–30. This represents an increase of 49% in occupancy levels relative to the first half of September. In contrast, other capital cities experienced significant demand shortfalls for the same period. For example, occupancies in Melbourne and Brisbane plummeted by 19% and 17% in the second half of September relative to the period from 1–15 September. Overall, with the exception of Sydney and Adelaide, all hotel markets in Australia experienced a decline in occupancy in September 2000 relative to September 1999 despite the Olympic Games, as reported in the Hotel Industry Benchmark Survey. Hoteliers indicate that while international demand was strong . . . domestic leisure travel traditionally taking place during the September school holiday period was displaced to Sydney for the Olympics.

The Andersen report indicates the importance of the substitution effect, and compels consideration of which, if any, governmental entities should be involved in subsidising sports mega-events. Sydney's gains may well have come at the expense of other Australian cities, and if the federal government subsidises the games there must be a rationale for enriching Sydney at the expense of Adelaide and other regional cities.

A second reason why economic impact may be exaggerated relates to what economists refer to as the 'multiplier', the notion that direct spending increases induce additional rounds of spending due to increased incomes that occur as a result of additional spending. If errors are made in assessing direct spending, those errors are compounded in calculating indirect spending through standard multiplier analysis. Furthermore, correct multiplier analysis includes all 'leakages' from the circular flow of payments and uses multipliers that are appropriate to the event industry. Leakages may be significant depending on the state of the economy. If the host economy is at or very near full employment, for example, it may be that the labour essential to conducting the event resides in other communities where unemployment or a labour surplus exists. To the extent that this is true, then the indirect spending that constitutes the multiplier effect must be adjusted to reflect this leakage of income and subsequent spending.

Labour is not the only factor of production that may repatriate income. If hotels experience higher than normal occupancy rates during a mega-event, then the question must be raised about the fraction of increased earnings that remain in the community if the hotel is a nationally owned chain. In short, to assess the impact of mega-events, a balance of payments approach should be utilised. That is to say, to what extent does the event give rise to money inflows and outflows that would not occur in its absence? Since the input–output models used in the most sophisticated *ex ante* analyses are based on fixed relationships between inputs and outputs, such models do not account for the subtleties of full employment and capital ownership noted here.

Finally, there is no guarantee that hosting an elite athletic competition increases local value added in an amount equal to or in excess of local public expenditures on the event. The key to a sustained increase in economic activity attributable to the competition depends on the extent to which the money spent in conjunction with the event stays in the metropolis, region and country. This, in turn, depends on the extent to which local resources are utilised in preparing for and hosting the competition. If the event simply serves as a conduit through which money passes from the hands of alien consumers to non-resident resources, then the public subsidisation of such activities, in the final analysis, may serve to divert resources from other public projects that have a greater potential to contribute to local growth through a more extensive and better use of resident resources. The litmus test for the economic efficacy of using public funds to subsidise global sporting competitions is not whether they enhance local economic activity, but whether the realised growth exceeds that of all other public uses of those funds.

Table 16.1 summarises the most common errors and/or omissions that are made in compiling ‘scientific evidence’ in support of subsidies. A subjective evaluation is offered on the extent to which these alleged errors and omissions bias the results upward are noted, as is the frequency with which they typically appear. The table could provide a theoretical checklist for those charged with evaluating the economic impact statements of those attempting to persuade the public that subsidies for sports mega-events are economically efficacious. This is not an exhaustive list nor is every booster economic impact study deficient in the ways noted.

The discussion to this point has focused on an expenditure approach to estimating the economic impact induced by a mega-sports event. An alternative to estimating the change in expenditures and associated changes in economic activity is to survey those who provide goods and services directly in accommodating the event in an attempt to measure directly how their activity has been altered by it. In summarising the efficacy of this technique, Davidson (1999, p. 11) commented:

The biggest problem with this producer approach is that these business managers must be able to estimate how much ‘extra’ spending was caused by the sport event. This requires that each proprietor have a model of what would have happened during that time period had the sport event not taken place. This is an extreme requirement, which severely limits this technique.

Conclusions and Policy Implications

Cities and countries compete intensively for the right to host sports mega-events. The public expenditures necessary to host such competitions are substantial. Those who advocate the use of public funds for such purposes promise an economic windfall in return, and offer economic impact studies to bolster their claims. There are reasons to be sceptical of

Table 16.1 Errors and omissions which generally account for the exaggerated claims of the economic impact attributed to mega sports events¹

Error or omission	Extent of upward bias		Frequency with which error or omission appears in booster economic impact estimates	
	Zero	Substantial	Never	Always
1. Failure to account for local value added		+		+
2. Failure to account for changes in resident consumption during the event		+		+
3. Gross as opposed to net changes in spending		+	+ ²	
4. Duplication of facilities to host sports events ³	+			+
5. Constraint imposed by a fully employed local economy	+			+
6. Reduced economic activity during the construction phase of the project ⁴	+			+

Notes

1. This information and conclusions noted in this table are based on the author’s reading of the literature and economic impact statements provided by advocates for public subventions for mega-sports events, and are, therefore, highly subjective.
2. The criticism directed towards economic impact statements which use gross as opposed to net measures of spending associated with elite athletic competitions apparently has convinced authors of economic impact studies to reduce the use of gross spending measures.
3. Duplicate facilities lead to competition among venue operators within a community for highly attended stadium events. Such competition may reduce rents, and, arguably, adversely influence the economic viability of all venues within that community.
4. Advocate economic impact estimates general conclude that economic activity expands during the phase in which the infrastructure necessary to host a mega-sports event is constructed. This assertion ignores the disruption that large construction projects cause. Commercial traffic of all kinds is rerouted as a consequence of construction, and booster economic impact studies generally fail to acknowledge this possibility. In general, it appears to be the case that the costs of hosting a mega-event are inadequately incorporated into the economic impact analysis provided by those who advocate the use of public funds for sports infrastructure.

the evidence offered by boosters, and the purpose of this chapter was to identify and analyse the errors and omissions common to booster economic impact studies. It is hoped that those charged with evaluating public subsidies for elite athletic competitions will benefit from this analysis.

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17 The Olympics

Holger Preuss

The staging of the Olympic Games is quite different from the one for soccer world championships (see Chapter 18). The organisers of the Olympics must plan for the staging of 26 different sports while the football World Cup can concentrate on one sport. There are numerous reasons why cities are motivated to host the Games. First, the Games are the biggest, most prestigious, peaceful multi-sport event in the world. In addition, they provide a unique opportunity for politicians and industry to advance hidden agendas such as the improvement of infrastructure for sport, housing, communication, traffic and other sectors. Furthermore there are a number of political, cultural, ecological and social issues related to the Olympic Games, thus making their organisation a multidimensional complex project. While many of those issues have a non-economic aim, they remain closely related to economic issues. For example, new political relations can increase the national trade balance (for example, Seoul 1988) as well as reaching greater consensus of politicians regarding decisions for infrastructure construction (for example, Athens 2004, Barcelona 1992). Ecological sustainability of Games-related structure can showcase newly developed technology (for example, Sydney 2000) and cultural presentation can increase post-Olympic tourism (for example, Sydney 2000; Barcelona, 1992).

When one considers the gigantic scale of the Olympics and the huge finances required to stage them, it is reasonable to assume that only the largest cities in the world could host the Games. Smaller cities may often have budgets that are stretched and may not have all the sufficient infrastructures without public investment, such as Los Angeles in 1984.

The lack of public money makes it difficult to trigger huge developments that can re-urbanise or restructure a city. Therefore recent trends suggest that large events such as world exhibitions, continental games or world championships are used to attract visitors and investors to a city (Garcia, 1993). However, this 'festivalisation of city politics' has an inherent risk of false development and therefore may not be an appropriate strategy for each city.

This chapter will focus on the scale of the Olympics and its economic impact. The autonomous means will be analysed as well as the cities' potential structural changes. The question arises whether the Olympic Games are 'fool's gold' (Baade and Matheson, 2002) or a lottery jackpot? While the Games themselves are lucrative, it has to be examined whether their impact has a limited duration and/or creates an economic Olympic legacy.

The Scale of the Olympic Games

The economic dimension of the Olympic Games cannot be determined either by a single figure or by comparing several Games. The economic dimension depends on both the economic intention of the politicians and on the development level and size of the city. Smaller and/or less-industrialised cities must invest much more in their infrastructure than larger cities. Therefore 'expensive' and 'cheap' Games can be distinguished. Games are expensive if they require extensive investments in traffic infrastructure, communication

systems, housing and sports facility construction. Sydney, Barcelona, Seoul, Montreal and Munich invested large sums of money in the construction of sports arenas. Barcelona and Seoul used the Games for extensive improvements of the entire city infrastructure. Munich, Montreal and also more recently Athens and Beijing developed parts of their city. These organisers saw the basic maxim in compensating short-term Olympic expenditures with long-term benefits. Games were cheap if costs were largely limited to organising and staging them. Los Angeles and Atlanta only built a few sports facilities while maximising the use of their existing infrastructures. Their basic maxim was maximising short-term profit or avoiding any deficit. The past decades have shown that the Olympics grew not only on the cost and revenue side but also with respect to structure and organisation. 'Because ever upward is the Olympic creed – that is *citius, altius, fortius* – the recent Games experiences have enlightened some limits. These are e.g. negative external effects of oversized sport facilities and ecological effects' (DaCosta, 2002, 80). Due to the gigantic constructions that took place in Athens and Beijing, the International Olympic Committee (IOC) wants to make the Games more streamlined and efficient in future. The IOC Olympic Games Study Commission's recommendation was to: '[m]aximize temporary installations over permanent construction especially where legacy requirements are lower than Games requirements' (IOC, 2003, 44).

The comparison of some national economic indicators with the costs of hosting the Olympics illustrates the economic dimension of the Games for a country. Table 17.1 shows that the Olympics have no important economic dimension in relation to national accounts. An industrialised country can easily finance the Games, while the investments are huge for a city budget. For the 1976 Olympics a 'written guarantee that the federal government would not be called upon to absorb the deficit nor to assume interim financing for organization' left the Organising Committee for the Olympic Games (OCOG) and the city of Montreal with the sole responsibility of financing the staging of the Games (OC Montreal, 1976, 55). When including the interest paid on the debt over the years and the additional \$537 million required to complete the facilities after the Games had finished, the Olympic debt totalled \$2.729 billion (Levesque, 2001). Municipal and provincial tax dollars eased the burden of the debt with final payment scheduled for the 2005/06 financial year.

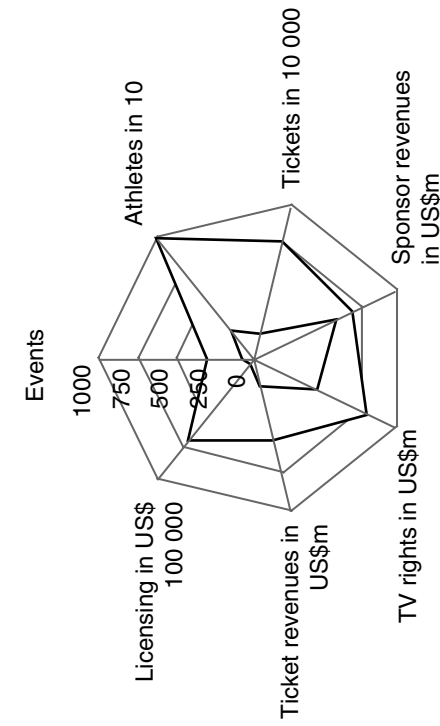
Figure 17.1 compares the economic dimension of the Sydney 2000 Olympics with those of the Salt Lake City 2002 Winter Olympics and the 2002 Commonwealth Games in

Table 17.1 Cost in relation to indicators of national accounts

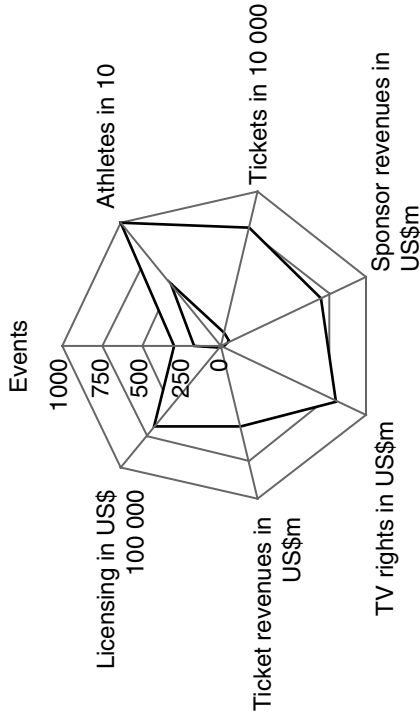
Games	Costs in US\$m (6 years prior to Games)	Costs in % of GDP (6-year period)	Costs in % of government consumption (6-year period)
Olympic Games			
Atlanta 1996	2021	0.006	0.026
Sydney 2000	3438	0.102	0.553
Olympic Winter Games			
Lillehammer 1994	1511	0.245	1.154
Nagano 1998	3412	0.015	0.156

Sources: International Monetary Fund (2000); Preuss (2002).

Olympic Games 2000 – Olympic Winter Games 2002



Olympic Games 2000 – Commonwealth Games 2002



Note: The economic indicators represent only those of the organising committees.

Sources: Preuss (2000); IOC (2001, 2002b); Barney et al. (2002).

Figure 17.1 Multi-sport events in comparison to the Sydney 2000 Olympic Games

Manchester, England. Ticket sales revenue, sponsorship, TV rights and licensing were chosen as indicators for business economic dimensions. Macroeconomic dimensions are represented by the number of athletes and number of sports events. These indicators represent investments in sporting facilities and the Olympic village. In addition, the number of tickets indicates the need for tourism infrastructure and tourist spending. However, this figure does not distinguish between spectators who are citizens, who reallocate their money and tourists who bring new money into the regional economy (Preuss, 2005).

The Economic Impact of the Olympic Games

To measure the economic impact of the Olympics it is important to determine both the size of the region under consideration and the time involved. The region is naturally given by the city, state or country border. The time span is difficult to determine. Nowadays the Olympics create impacts as early as 11 years before the Games to several years afterwards. The post-Games phase very much depends on the Olympic legacy, for example, St. Moritz still profits from its image gained through hosting the Olympic Winter Games in 1928 and 1948. On the cost side, Munich 1972 and Montreal 1976 will soon have to redevelop their Olympic parks, which are now 30 years old.

The 'idea and feasibility' phase can take much longer than shown in Figure 17.2. Olympic cities such as Athens and Beijing often had to bid twice before winning, which increases the first phase to 10 years. The 'IOC bid' phase is split into two stages and takes nearly two years. The first year is the 'applicant stage' which is used by the IOC to evaluate the physical infrastructure of the cities. The second year is the 'candidature stage' and is a rather political phase which ends with a secret ballot to decide the Olympic city by 126 IOC members. The seven years of preparation for the Games are important especially if there is a lot of permanent construction planned. The economic legacy comprises all economic effects that are related to the Games after the closing ceremonies. Thereby transitory benefits have to be distinguished from permanent benefits.

The transitory economic impact

Olympic Games preparation triggers many direct and indirect investments and consumption. The direct money entering a host city stems from investments in sport facilities, the organisation of the Games and spending by thousands of tourists. The indirect impact stems from investments in housing, telecommunication and transportation but also from post-Games exports and post-Olympic tourist spending. Only the so-called autonomous expenditures (new money) in a local economy have an impact. In order to compare the annual net impacts (benefits minus costs) they have to be homogenised. Figure 17.3 is a simulation of potential Olympic Games in Frankfurt/Main 2012, Germany.

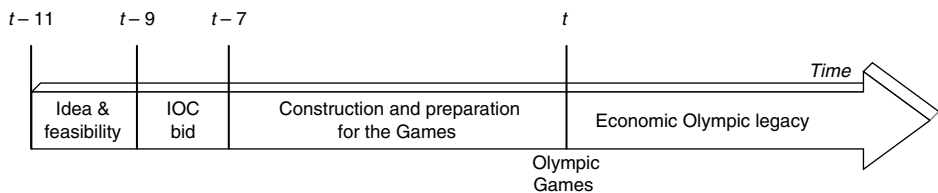
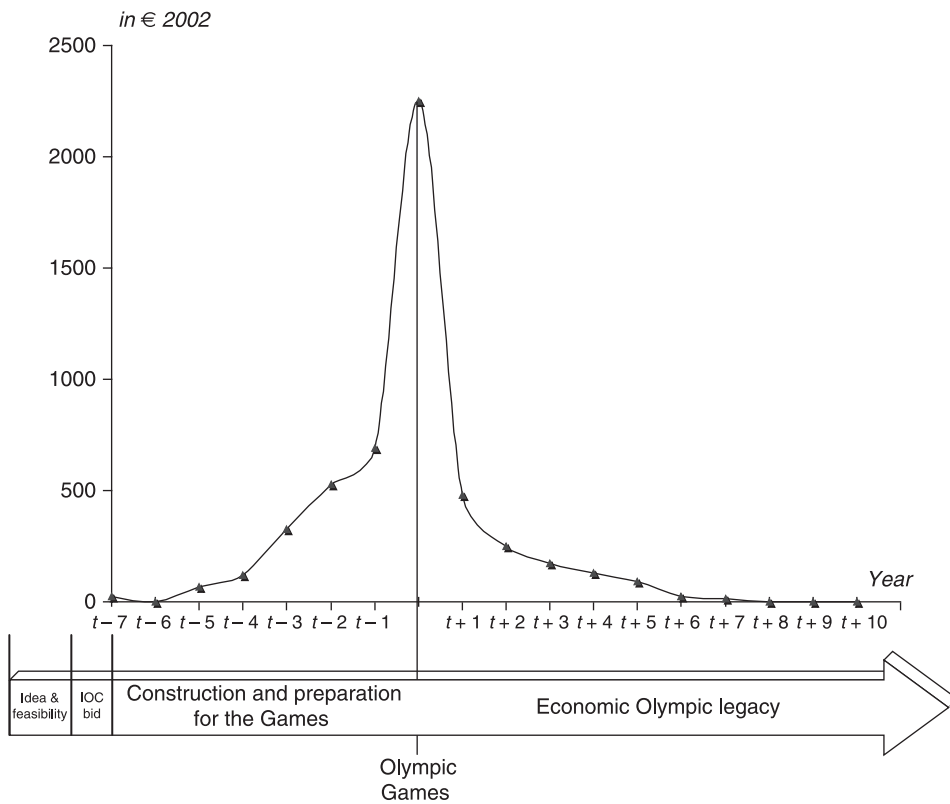


Figure 17.2 *Phases of economic activities throughout the Olympic Games*



Source: Preuss and Weiss (2003, 213) – data from case study: Frankfurt/Main 2012.

Figure 17.3 Discounted net benefit of the Olympic Games

The figure shows the annual impacts in a curve over the entire period under consideration. A strong single impact occurs during the Olympic year, which is also typical for other major sport events (see Rahmann and Kurscheidt, 2002, 185). However, the peak is not necessarily positive as politicians like to assume. If there is a strong economic situation during the Olympic year, crowding-out effects are likely to occur. If the post-Olympic phase is also accompanied by a recession, the payment for the Olympic debts will weaken the local economy. On the other hand, if the economic situation were reversed, then staging the Games would be an economically wise decision because the peak impact improves the regional economic situation.

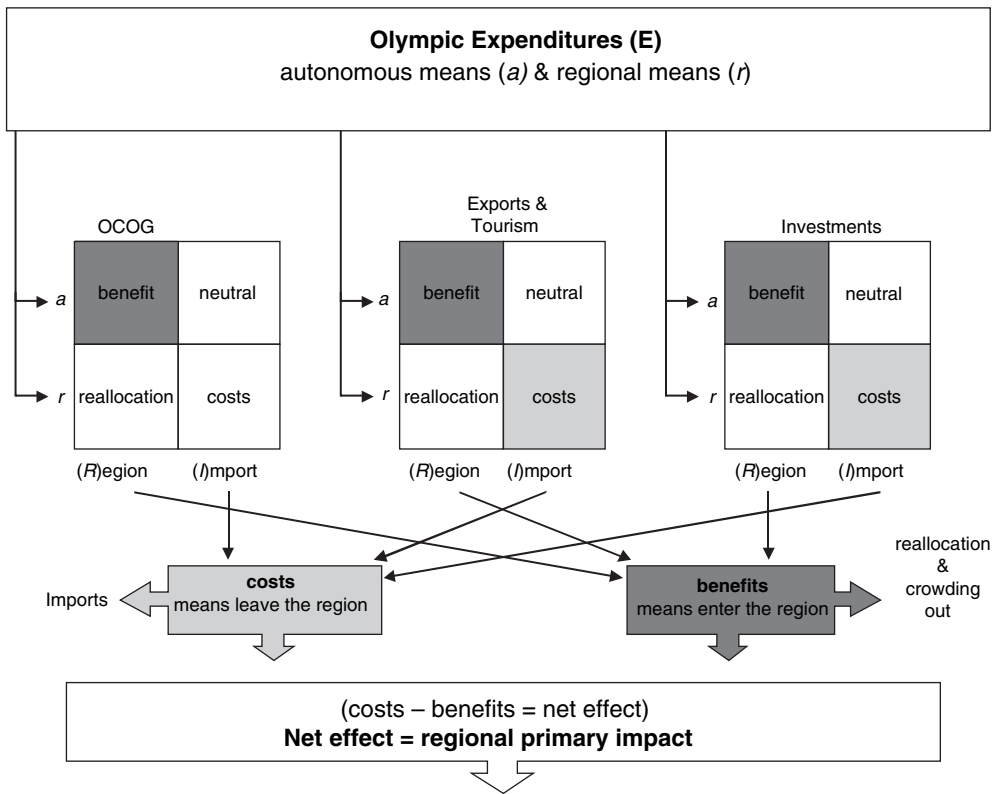
The size of the annual impacts differs from city to city depending not only on the strength of the economy but also on the capacity of tourist accommodation and existing infrastructure. However, the peak at Games time is most likely to be very strong, but occurs only once. Therefore organisers, businesspeople and politicians should try to leverage the curve before and after its peak (Chalip, 2001, 144).

So far we have looked at the shape of the annual economic impacts of the Olympics. But what influences the dimension of the Olympic economic impact?

1. The amount of autonomous money entering the city (primary impact).
2. The size of the multiplier (secondary impact), which depends on the amount of autonomous expenditures that remains in the host city/region and creates income that is being spent again and again. The marginal propensity to consume expresses the part of the income that is spent again. An outflow from the region is determined by imports and taxes.

The challenge of calculating the economic impact of the Olympic Games is to regionalise the economic impact. Therefore it is crucial to distinguish between autonomous and regional means. The primary impact stems from three fields: consumption of the OCOG, exports/tourism and investments (Figure 17.4). Figure 17.4 shows how to calculate the regional primary impact. Olympic expenditure (E) for each category ($i = 1-x$) can be regionalized by the following formula:

$$Y_R = \sum_{i=1}^x E_{(i)} \times [a \times R_{(i)} - r \times M_{(i)}]$$



Source: Preuss (2004a, 25).

Figure 17.4 Model to identify the regional primary impact

where Y_R = regional primary impact, E = expenditure, i = category of expenditure, a = percentage autonomous means, R = percentage expenditures in the region, r = percentage regional means, M = percentage imports.

To better understand the calculation of the regional primary economic impact you can read Figure 17.4 as follows. Suppose a French Olympic tourist spends money in an Athenian restaurant. Then the tourist's expenditure (E) is autonomous (a) and therefore creates a regional benefit, because 'fresh' money enters the city (R). The origin (autonomous (a) or regional (r)) and destination (region (R) or import (M)) of each expenditure determines if a regional economic impact occurs. Each expenditure can create one of the four following effects:

- benefits (autonomous means which stay in the region) ($a \times R$),
- costs (regional means which are used for imports) ($r \times M$),
- reallocations (regional means which are spent in the region) ($r \times R$),
- neutral effects (autonomous means which are used for imports) ($a \times M$).

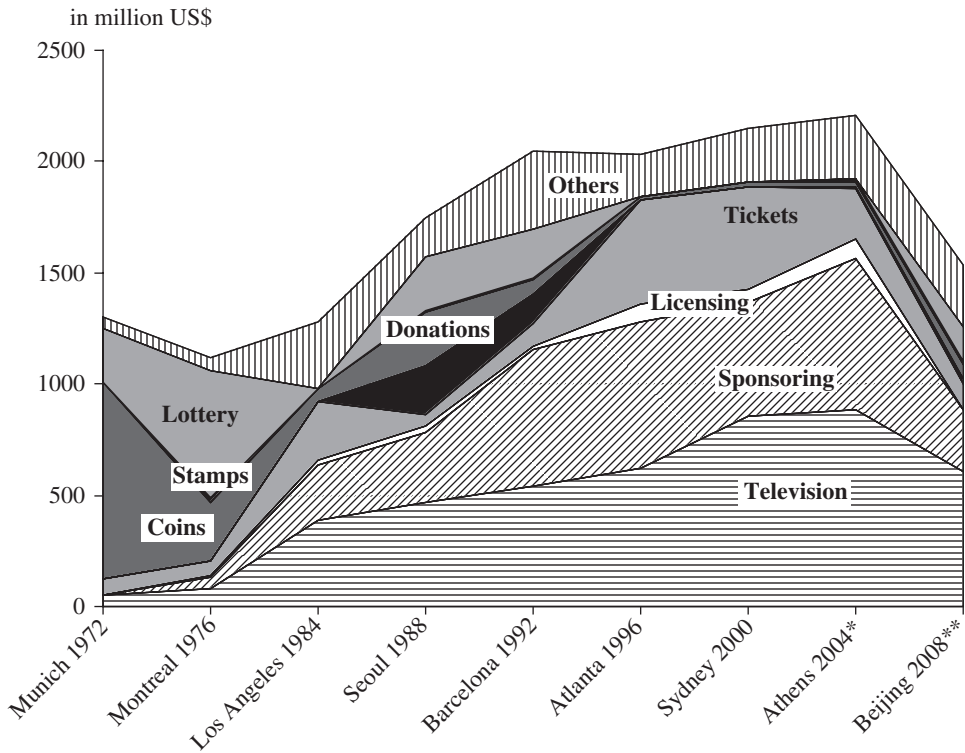
Once the regional primary impact is calculated, the regional multiplier has to be used to calculate the net effect of the Olympics. No previous Games analyses have interpreted the multiplier with its clear limitation, namely that the effect of a non-recurring expenditure weakens over the course of time and vanishes completely. This means that the income increase declines with every new period and, in the long run, the falling demand leads back to the equilibrium income that existed before the Games. Nevertheless the peak impact is strong and can change the structure of the host city. Therefore the three fields (Figure 17.4) that mainly create the impact will be examined in detail.

Field I: consumption of the OCOG In absolute terms the OCOGs have been able to continuously increase their revenues from marketing and selling TV rights. In relative terms these financing sources have remained almost stable since Los Angeles, despite the general opinion that the sales of TV rights and sponsorship are playing an increasingly dominant role. Figure 17.5 clearly reveals a moderately increasing but relatively high share of revenues from selling TV rights (approx. 30 per cent) and from marketing (approx. 30 per cent) since 1984.

These key financing sources are controlled, to a large extent, by the IOC. As a result of these financing sources, future bidders can count on nearly 40 per cent of their budget being guaranteed revenue before they have even started. Despite ever-growing organisational costs, this reduced the obstacle to bid for the Games. All other revenues depend on specific situations in the host country.

The comparison of the balances from Munich 1972 to Sydney 2000 shows that the operational costs have always been less than the OCOG revenues (Figure 17.6).

For the host cities, the investments necessary to stage the Games are higher than OCOG's financial surplus. From an economic and urban development perspective, bidding for the Olympics makes sense if the long-term city development plans go along with those of the needed Olympic structure. However, the Olympic Games have reached such a magnitude, triggering pride and self-confidence, that the permanent infrastructures required to stage them (facilities, airport and exhibition halls) are often oversized for their



Notes: * estimated in January 2004; ** estimated and conservatively set by the Bidding Committee Beijing 2008 (2001).

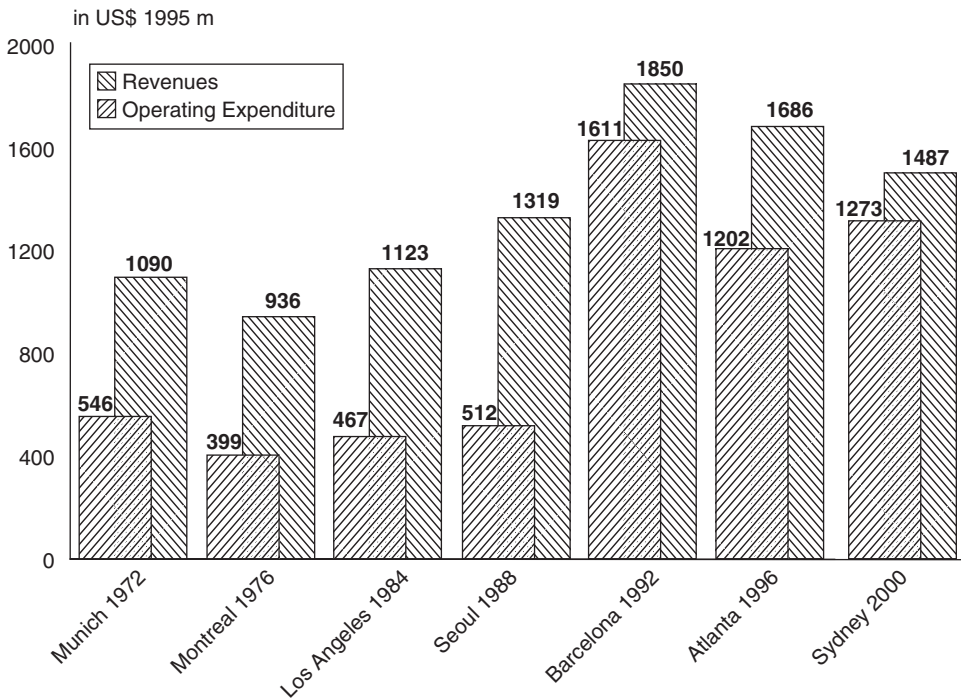
Sources: Athens OCOG (2003, p. 22); Bidding Committee Beijing 2008 (2001); Preuss (2000).

Figure 17.5 Revenues of OCOGs from Munich 1972 to Beijing 2008 (%)

post-Olympic use. This is the so-called ‘winners curse’. Due to promises when bidding for the Games the cities have to construct more than they really need.

Field II: tourism and exports Both export of goods and tourism bring foreign money into a local economy. Therefore, visitors that come to see the beauty and experience the culture of a country can be included in the same field with exports of sport facilities and ‘Olympic know-how’. Olympic tourism is a main source of autonomous revenues during the Games. A good tourism strategy can add to this effect and increase post-Olympic tourism (Chalip, 2001). However, after the Games it is not the Olympic attribute that motivates hundreds of thousands of tourists to visit, rather it is its changed image. Worldwide coverage of the Games for 16 days stresses positive attributes and raises an awareness of the country/city in the mind of the world’s population. This awakens the desire to visit the country/city in the future.

The Olympics can also trigger new trade relations. Presumably, the 1988 Seoul Games contributed their share to the South Korean foreign trade surplus between 1986 and 1989.



Sources: Preuss (2000, 243); Olympic Coordination Authority (2002).

Figure 17.6 Operative expenditures and revenues from Munich 1972 to Sydney 2000 in US\$ 1995

The Games served as a catalyst for the improvement of relations between Eastern Europe, the Soviet Union and South Korea (Kim et al., 1989; Kramar, 1994). Even if the Olympics might not have directly affected the national income, they involved a lasting benefit by proving the effectiveness of the Korean economy. The Games offer a special chance for the host nation to reposition previously weak products. Not only sponsors but also enterprises and the whole country can improve their image. The Munich 1972 Olympics were a single public relations campaign for Germany. Korea and Spain were able to evidence their high level of technological development to the world. Finally, New South Wales (Australia) registered €1.7 billion Olympic-related exports due to the Sydney Games. A share of €1.16 billion was earned from exports of sport infrastructure and sports know-how (PWC, 2002). For China the Olympics will be the gateway to new economic relations and to show up that it is an industrialized country. It recently joined the World Trade Organization, which provides a good environment to further the new contacts that will be established during the Olympics.

Field III: infrastructure The Games require sport facilities of the highest quality, a single Olympic Village for 15 000 persons, at least 42 000 hotel beds, modern telecommunications, a large modern airport, a fibre-optic cable network and a high capacity public transportation system which can handle the additional demand of thousands of

Table 17.2 *Distribution of investments for the Olympic Games (%)*

	$t-7$	$t-6$	$t-5$	$t-4$	$t-3$	$t-2$	$t-1$	t	$t+1$	$t+2$
Seoul 1988	0	1	3	4	10	26	32	24	0	0
Barcelona 1992	1	2	5	9	13	17	22	31	0	0
Sydney 2000	0	0	2	3	18	28	26	18	5	0

Source: Preuss (2003, 140).

tourists, volunteers and security personnel. The pressure to provide such infrastructure gets confused with the pride of presenting the city to the world and therefore there is a risk of overestimating the need for permanent structures.

Calculation of the economic impact requires a knowledge of the origin and destination of all Olympic investments. Because many cities have hard budget constraints, such investments are subsidised from the government or financed by credits. Both origins are positive for the local economy, because it represents new money in the region. Concerning the destination, increasing globalisation makes it difficult to keep the investments in the local economy. The location and size of the host city determine imports of workforces. European laws, for example, force an EU-wide procurement for all major projects. However, contracts made with foreign companies decrease the potential primary impact of the Olympics. On the other hand, cities such as Sydney or Atlanta, which are located in huge countries without large nearby cities, can allocate the majority of contracts to local construction companies.

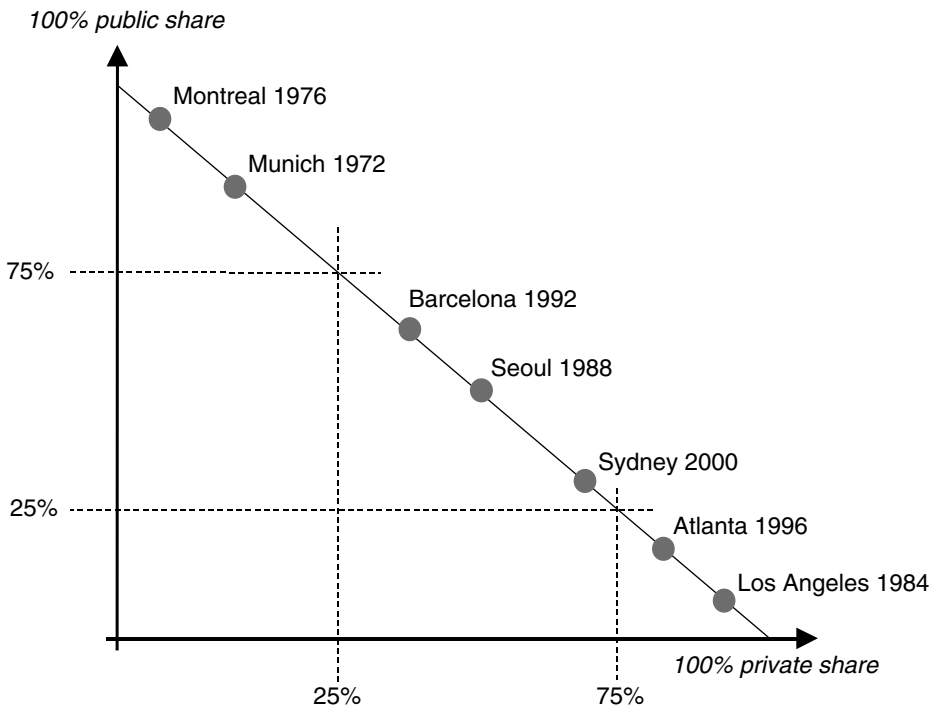
Past Games show that construction was primarily done three years before the Games, which explains the early increase/decrease of the curve in Figure 17.3. The curve increases if the majority of investments are autonomous money, but decreases if the investments are from regional budgets (Table 17.2; see also Chapter 18).

The Olympics are financed by public and private sources. All means provided by the government, the province and the city comprise the public share in the financing of the Olympic Games. All means that originate from privately owned corporations and individuals comprise the private share. Figure 17.7 reveals that the financing of the Munich 1972 and Montreal 1976 Games was primarily public, that of Seoul 1988, Barcelona 1992 and Sydney 2000 was mixed and that of Los Angeles 1984 and Atlanta 1996 was private.

Permanent benefits from the Olympic Games

Winning the Olympic bid process usually triggers high developmental pressures. One welcome effect is that the pressure speeds up the city development. On the other hand, negative external effects are often not anticipated. Therefore, politicians should commission a serious feasibility study in order to avoid high follow-up costs and unsuitable city development.

In Figure 17.8, field (A) is the city development that is planned regardless of the Olympic Games. Field (B) is the structure needed for the Olympics but also planned for the development of the city. Field (C) is the necessary structure that is needed only for the Olympics and does not fit the city's long-term development plan. It is crucial if field (C) is expensive that construction in fields (A) and (B) is negatively affected or slowed



Sources: Preuss (2004b, 19).

Figure 17.7 Financing models of the Games from Munich 1972 to Sydney 2000

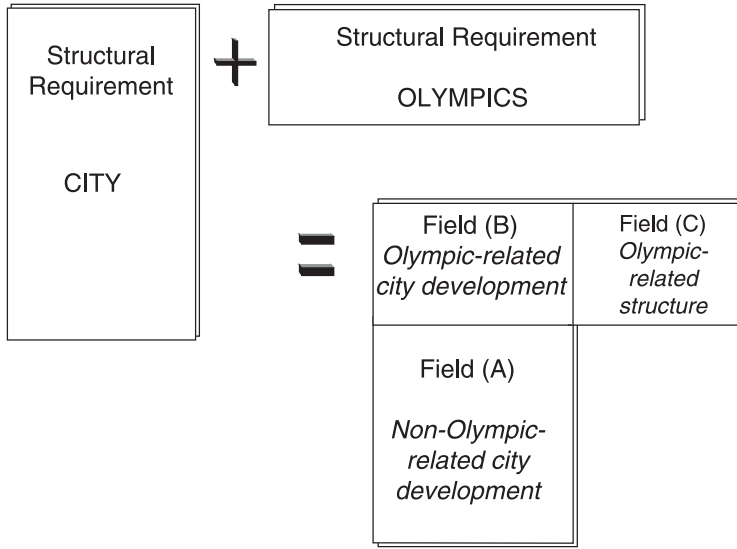
down. If field (C) is too large, the city runs the risk of developing a structure that is not needed in a long-term perspective. In this case the city should not have bid to stage the Olympics.

As seen in Figure 17.3, major sporting events trigger a one-time surge of development. However, the entire new structure will no longer be used for the original (Olympic) purpose after the 16 days of the Games. While the Olympic structure from field (B) develops the city, field (C) structure should be rebuilt.

The IOC now requests reliable proof of post-Olympic utilisation of all Olympic-related structures (field C) during the bid process. Either the structure is temporary and disappears after the Olympics or it must be maintained. In the case of permanent sports facilities, for example, the city should attract other major sporting events for additional post-Games impacts. This means that the city must develop an event structure that probably was not in its long-term development plan. In other words, the Olympics can have an unforeseen impact on city development, by inheriting the risk of maintaining 'white elephants'.

'Fool's gold' or lottery jackpot?

The economic impact can be visualised by the net present value (NPV), which is the accumulated discounted effect of all tangible effects of the Olympics. Figure 17.9 depicts a simplified version of four cases of economic impacts. Cost-benefit analyses usually



Source: Preuss (2004b, 70).

Figure 17.8 *City development and development as a result of the Olympic Games*

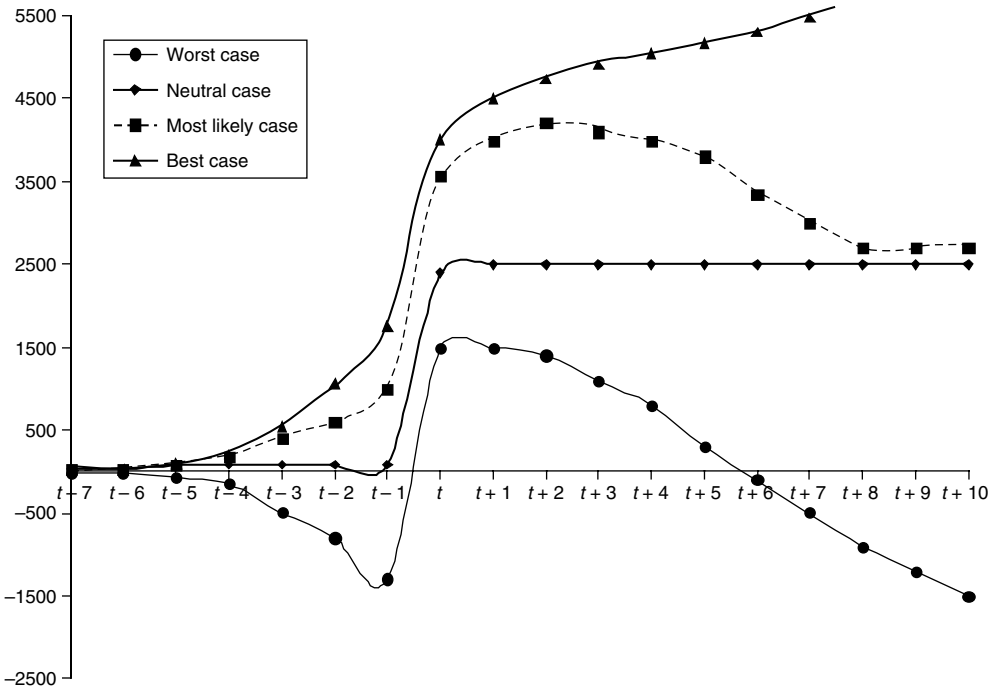


Figure 17.9 *General Olympic scenarios of the net present value (€m)*

present one figure, which represents the NPV of the entire period. Figure 17.9 provides more information. Here the NPV of each year can be seen. For example, at the 'worst case' the NPV three years after the Games ($t + 3$) is €800 million. Thus, the sum of all discounted annual economic impacts from $t - 7$ to $t + 3$ is €800 million. In the case where the curve cuts the abscissa, the economic effect of the Olympics is negative for the city.

The 'worst case' for a city occurs, if all necessary infrastructures are set up in a permanent way. The years before the Games have negative impacts, because construction is imported and financed from regional means. The only increase in the curve is the impact through tourists and the operational expenditures of the OCOG. However, already the first year after the Games has a negative net impact. The costs of restructuring and maintaining the new facilities cannot be compensated by benefits from, for example, post-Games tourism, exports or follow-up events. Five years after the Games, the benefit of the Olympic boost is compensated by post-Games deficits.

The 'neutral case' illustrates Olympics without substantial investments such as in Los Angeles 1984. The curve shows neither pre-Olympic investments nor post-Olympic activities. The only impact is during the Olympic year.

The 'most likely case' shows Games that induced new infrastructure, which is partly financed by autonomous means as well as by credits. After the Games the impact can be leveraged due to post-Olympic exports and increased tourism. A few years later the payments for interest and debts lead to annual negative balances. Finally, in $t + 8$ all credits are paid back but the curve is still in the positive part.

The 'best case' occurs if most new infrastructure can be financed by autonomous means or private sources. In the post-Olympic years the new structure creates positive net values because it was needed for the development of the city.

The cases show how difficult it is to judge whether Olympics are fool's gold or a lottery jackpot. It depends on the structure a city needs for further development and which can be provided through the staging of the Olympics. Cities such as Munich, Seoul and Barcelona benefited positively from the Games. Los Angeles and Atlanta on the other hand did not gain new structures and therefore there was no long-term economic benefit (Baade and Matheson, 2002, 145).

Conclusion

Essentially, the Olympic Games have three welcomed economic effects for a host city: improved infrastructure, increased income/employment and a new image for the city. However, there are also limitations. The improved infrastructure has to fit in the long-term development of the city. The increased income is limited to a short period and is only leveraged if the new structure induces new impacts and a higher level of economic activity. Finally the new image has to be maintained in order to leverage the tourism effect for more than a very few years after the Olympics. The Games have become an event that seems to be a panacea for urban redevelopment. This chapter showed both the limited ability of the Olympics to develop every city and the risk of wanting the Games at any cost.

The high number of cities bidding for the Olympics has increased the sunk costs for the bidders because they have to plan their bid seriously and pay a non-refundable bid fee to the IOC. The huge interest in the Games and even in bidding has forced the IOC to increase the hold-up costs for bidding in order to avoid free riders. Free riders and cities that overestimate their ability to provide adequate Olympic infrastructure cause problems

and create costs for the IOC. Therefore the first bidding phase, the applicant stage, is based on critical checks of the infrastructure. The paradox is that the most multicultural event in the world can be staged in only a very limited – mainly Western – number of cities in the world.

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18 The World Cup

Markus Kurscheidt

The football (that is, soccer) or FIFA World Cup (henceforth World Cup) has its origin in the Olympic Football Tournament which was first organised by the world governing body of football, the Fédération Internationale de Football Association (FIFA), in France, 1924. The success of this event gave rise to the idea of establishing FIFA's own world championship to determine the world's best national football team every four years independently of the International Olympic Committee (IOC) and in between the years of the Olympics. FIFA decided in 1929 to award the first World Cup in the following year to Uruguay which, having won the Olympic Tournament twice in a row, possessed the strongest national team at that time. Two competitions followed before the Second World War, both held in Europe. Whereas the first World Cup was still organised in a format like the Olympics with only one city (Montevideo) providing three stadiums, from the second tournament onwards, it became usual practice to allocate the matches to a number of venues throughout the hosting country. Moreover, a preliminary round of qualifying matches for the finals at the event itself was introduced on a regional level (see www.fifa.com).

During the post-war period, the tournament experienced a considerable growth in sporting, social and economic importance which was increasingly fuelled by the progress of broadcasting technology and coverage throughout the world. Nowadays, the World Cup not only is the major financial source for FIFA but also a large number of national football officials and governments are keen to host the event to benefit from its expected socioeconomic impacts with regard to sporting as well as national and regional development. Competing countries have to apply and undergo a rigorous bidding procedure. They can only keep and increase their chances of being chosen by the FIFA Executive Committee, the body responsible for the allocation of the World Cup, if the bid is supported by considerable public subsidies. Otherwise it would be impossible to meet the demanding infrastructural requirements of FIFA which consist in constructing new football stadiums or refurbishing old ones and also modernising local as well as long-distance traffic networks. While most practitioners believe that the event-induced economic return from investments in durable facilities and from the spending of event visitors outweighs the costs of hosting the World Cup, a substantial number of scholarly contributions find no or weak empirical evidence for a sizeable economic impact usually claimed by sporting event organisers (for a review of this literature with reference to the World Cup see Szymanski, 2002 and Baade and Matheson, 2004). It seems to be at least debatable whether a significant degree of public financing of such events is economically justified. Hence, the issue of national and regional economic impact is the predominant concern in the academic discussion on major sports events and therefore as well the focus of this chapter on the World Cup.

In view of the socioeconomic importance of the World Cup it is, however, surprising that the event is under-researched in sports economics. In the main literature on the economics of football as, for instance, reviewed extensively in Dobson and Goddard (2001),

the World Cup and other national team tournaments are almost ignored. Research on the economic relationship between club-based leagues and national team competitions is still in its infancy (Szymanski, 2003). So far, comprehensive work has been done only on a specific World Cup such as France 1998, but rather from a social and cultural perspective (Dauncey and Hare, 1999). *Ex ante* forecasting studies of the economic impact which have become a standard for Olympic Games since the 1980s are also rare, and the existing ones mostly report dubious results. The study by Rahmann et al. (1998) on the World Cup 2006 in Germany still seems to be the only thorough economic analysis of that type. Moreover, there is a general lack of *ex post* studies on the economic outcome of major sports events of whatever kind (Jeanrenaud, 1999) since, once organisers have received public money, they are no longer interested in a (possibly negative) evaluation after the event. So it is a lucky coincidence that Baade and Matheson (2004) recently investigated the economic legacy of the 1994 tournament in the United States. Finally, Szymanski's (2002) brief article should be mentioned as an easily accessible introductory text.

As a result of this shortage of literature, the chapter relies to a great extent on the author's own work (among others, Rahmann et al., 1998; Kurscheidt and Rahmann, 1999; Kurscheidt, 2001; Rahmann and Kurscheidt, 2002) and some extensions. It is organised as follows. The next section deals with the general economics of the World Cup by, first, highlighting some basic empirical figures and institutional arrangements, second, providing some theoretical insights on those findings and commenting on methodological approaches to the measurement of the economic impact. A following, more specific section reviews an empirical *ex ante* cost–benefit model for the World Cup 2006 in Germany. The final section concludes.

The Economics of the World Cup

Economic dimensions

Although not the biggest sporting event in terms of participants and attendance figures, the World Cup today may be regarded as the most popular event, reaching a total TV audience, for instance, at the 1998 tournament in France of over 33 billion people according to FIFA, that is, about 50 billion viewing hours which is far in excess of the 2000 Sydney Olympics of 36 billion viewing hours claimed by the IOC (Szymanski, 2003). This is also supported by repeated consumer surveys of sports marketing agencies regularly reporting the highest scores of awareness and interest for the World Cup compared to other (predominantly club-based) football competitions.

In stark contrast to the weight – and sometimes overemphasis – given to the competitive balance paradigm in sports economics, this overwhelming demand for the World Cup has been maintained and even extended despite an obvious dominance of just a few national teams. Until 2006, the five teams of Brazil (five times), Italy (four times), Germany (three times), Argentina and Uruguay (twice each) have won 16 of 18 World Cup competitions, whereas the remaining two victories of England (1966 against Germany) and France (1998 against Brazil) each went to host teams evidently benefiting from their home advantage. The admired Brazilian team *Seleção*, for instance, has a 76 per cent winning record in all matches played at World Cup finals until 2002 (see *ibid.* and www.fifa.com). It is apparent that the outstanding appeal of the World Cup does not stem from a high uncertainty of outcome but rather from the overall quality of play during the tournament which brings together the world's best playing talent. Furthermore, patrio-

tism is a significant demand factor, uniting almost the whole population of a country behind its team. Hence, the combination of top sports, player stars, team and national spirit, and the characteristic of football – like, for example, music – as a sort of worldwide spoken language with different dialects, render the World Cup a highly valued product and global brand.

Moreover, generating an estimated worldwide turnover of about \$4 billion for FIFA and its contractors, it probably is the most profitable event of the world for its organisers (Szymanski, 2003). On the revenue side, it has a unique drawing potential and, on the cost side, the monopoly position enables FIFA to transfer a great deal of the costs associated with the event on to the host country. First, even the best players appear for a comparatively negligible amount of money because of sporting ambition, patriotism and self-marketing opportunities on a global platform.¹ Second, the strong interest to participate exhibited by players, national football associations and football fans as consumers prevents clubs from refusing to continue to pay player salaries during the World Cup without compensation.² Third, the most important costs for sports, logistics and security infrastructure are borne by the local organising committee (OC) and the government of the host nation. This is possible because, unlike the IOC, FIFA never had any difficulty attracting a sufficient number of bidders willing to compete for the right to host the event and, thus, to accept the demanding infrastructural requirements. Therefore FIFA is able to finance virtually its entire operation from the World Cup revenues, which makes it probably the wealthiest sports governing organisation in the world. This, in turn, puts it into a position to foster its wealth by effectively promoting its sport throughout the world with the allocation of funds to emerging football markets, particularly in the lucrative big markets and areas of (expected) rapid economic growth.

Increasingly, FIFA also seems to use the World Cup itself as a strategic means to open new attractive markets. By awarding the 1994 tournament to the United States, FIFA broke with the tradition that the event was alternately held in the strong football regions of Europe and South America. In 1996, the FIFA Executive Committee took the historical decision to give the 2002 competition to Asia as the first co-hosted event by South Korea and Japan. In both cases, the choice was obviously made not on the grounds of footballing merits, but rather for economic reasons (Baade and Matheson, 2004). It is also unlikely that FIFA, and notably its president Joseph Blatter, wished to award the 2006 World Cup to Africa for the first time merely on equity and sporting considerations which indeed provided compelling arguments. Yet, in a dubious Executive Committee vote on 6 July 2000, Germany was the unexpected winner.³ As a result of this (unintended) outcome, FIFA took the groundbreaking decision to replace its previous practice of open access for all interested countries at every new bidding process for the World Cup by a system of rotation among their member confederations. According to a certain – not yet established – schedule, only bids of affiliated national associations from the respective region will be invited. The rotation started in 2004, with African nations eligible to apply for the 2010 event. FIFA thereby secured the continuity of its new strategic awarding policy.

Furthermore, the number of national teams at the World Cup finals is also a key variable for FIFA's economic expansion strategy, as Table 18.1 indicates. The number of participating teams went up by two major steps from 16 to 24 in 1982 and 24 to 32 in 1998.⁴ Both steps may reflect not only an 'organic growth' of the sport but also economic intentions, among other things maximising ticket sales and opening new markets. The latter

Table 18.1 *World Cup Statistics, 1930–2010*

No	Year	Host nation	Teams in preliminaries	No. of teams	No. of matches	No. of cities/stadiums	Total attendance	Attendance per match
1st	1930	Uruguay	–	13	18	1/3	434 000	24 111
2nd	1934	Italy	31	16	17	8/8	395 000	23 235
3rd	1938	France	36	15	18	9/10	483 000	26 833
4th	1950	Brazil	33	13	22	6/7	1 337 000	60 773
5th	1954	Switzerland	38	16	26	6/6	943 000	36 269
6th	1958	Sweden	53	16	35	12/12	868 000	24 800
7th	1962	Chile	56	16	32	4/4	776 000	24 250
8th	1966	England	71	16	32	7/8	1 614 677	50 459
9th	1970	Mexico	71	16	32	5/5	1 673 975	52 312
10th	1974	Germany	98	16	38	9/9	1 774 022	46 685
11th	1978	Argentina	106	16	38	5/6	1 610 215	42 374
12th	1982	Spain	109	24	52	14/17	1 856 277	35 698
13th	1986	Mexico	121	24	52	9/12	2 407 431	46 297
14th	1990	Italy	112	24	52	12/12	2 517 348	48 411
15th	1994	USA	144	24	52	9/9	3 587 538	68 991
16th	1998	France	172	32	64	9/10	2 785 100	43 517
17th	2002	Korea/Japan	193	32	64	20/20	2 705 197	42 269
18th	2006	Germany	195	32	64	12/12	3 115 800	48 684
19th	2010	South Africa	–	32	64	9/10	–	–

Note: Attendance data for Germany 2006 are estimates of the author. The Korea/Japan 2002 event provided 10 venues in 10 different cities in each co-hosting country.

Sources: Rahmann et al. (1998, p. 207) and www.fifa.com.

seems to be supported by the shift of places for national teams at the finals which are allocated to FIFA's confederations. Table 18.2 shows the recent tendency in favour of the emerging football markets in Asia, North and Central America, and also Oceania, whereas Africa keeps the places it won before and, finally, the established markets of Europe and South America lose slots. Another indicator for this economic growth strategy was Blatter's attempt to double the frequency of the World Cup, that is, every two instead of every four years. Apart from other objections, this was especially against the interest of the Union of European Football Associations (UEFA) whose increasingly successful European Championship would have suffered.

The World Cup nowadays is utilised as an *economic tool* on several levels and in various regards: (i) it is the financing basis and economic 'door opener' for FIFA and the global football business; (ii) it assumes a similar role for FIFA's corporate sponsors and in particular the global players in the sports goods industry; (iii) it is an opportunity for professional players to accelerate their career; and most importantly in the recent debate, (iv) it is perceived as a means of economic development for host countries and cities. Whereas the instrumental effectiveness on the first three levels may find wide support among scholars – though scarcely researched – the last one had been repeatedly challenged for different sporting events in academic work as mentioned above.

Table 18.2 Allocation of confederations' places in recent World Cup competitions

World Cup	Europe (UEFA)	Asia (AFC)	South America (CONMEBOL)	Oceania (OFC)	Africa (CAF)	North, Central Am., Caribbean (CONCACAF)	Total
1998	15 ^{a)}	3.5 ^{d)}	5 ^{b)}	0.5 ^{c)}	5	3	32
2002	14.5 ^{b) c)}	4.5 ^{a) e)}	4.5 ^{d)}	0.5 ^{f)}	5	3	32
2006	14 ^{a)}	4.5	4	1	5	3.5 ^{c)}	32

Notes

- a. Including hosts.
- b. Including defending champion.
- c. Play-offs against AFC.
- d. Play-offs against OFC.
- e. Play-offs against UEFA.
- f. Play-offs against CONMEBOL.

Source: www.fifa.com.

The scepticism inevitably arises from often exorbitant promises of forecasting studies commissioned by organisers. For USA 1994, for instance, thousands of World Cup tourists were expected, leading to an economic impulse of \$4 billion. South Africa, which will host the 2010 competition, reckons with \$6 billion (Baade and Matheson, 2004). The latest figures were computed for Korea/Japan 2002 and are literally breathtaking considering the fixed number of currently 64 World Cup matches that had to be shared equally by two nations and allocated to 20 venues, 10 in each country. The Japanese Dentsu Institute forecast a total economic impact of roughly \$11 billion which could accumulate to a long-term result of about \$25 billion. The Korea Development Institute assessed the investment for stadiums at \$1.54 billion and in total at \$2.6 billion, whereas other expenditures induced by the event should amount to \$6.18 billion. Those highly optimistic estimates lead to an overall impact of about \$8.8 billion and may account for 2.2 per cent of the Korean GDP (Finer, 2002; Szymanski, 2002). In contrast to those results, the figures found by Rahmann et al. (1998) for Germany 2006 using cost–benefit analysis (CBA) and a scenario approach are comparatively tiny (see also Kurscheidt and Rahmann, 1999). In the best case, the accumulated long-term impact could amount to nearly €2.5 billion whereas the worst case even yields a loss of roughly €270 million.

Institutional economic structure and evaluation methodology

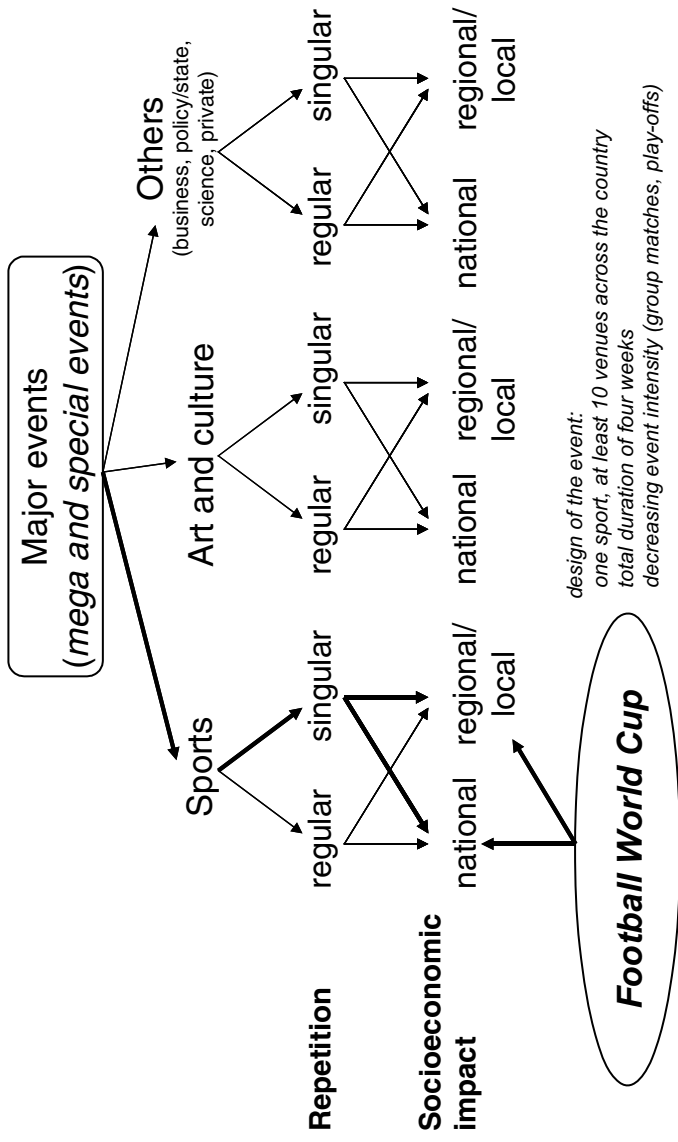
World Cup Competitions – like various other major sports events – can be economically characterised as follows. They are organised in a championship series constituting a global quality brand of which the property rights are exclusively owned by FIFA, which has the last word on all matters regarding the event (Rahmann and Kurscheidt, 2002). Hence, FIFA is a monopolistic supplier of the right to host the World Cup in a particular year and selected number of venues of a certain country. This economic organisation resembles a franchise system. But in contrast to the usually long-term relationship between franchise partners, the hosting right is restricted to a single tournament at a defined point of time and is allocated to one candidate in a kind of auction with several

competing bidders. While customary auctions are typically ‘price driven’, the bidding process for the World Cup is ‘quality driven’ in the sense that a bundle of inputs to the event (especially new stadiums and other facilities) is offered by bidding nations which are evaluated by FIFA’s Executive Committee relative to certain (non-transparent) criteria. The final decision is determined by a rather policy-influenced voting as noted above.

For local organisers willing to stage a World Cup, this institutional constellation creates the problem that they risk to have to put up with sunk costs in case of an unsuccessful (costly) bidding campaign since those expenses are transaction-specific investments. Yet, for FIFA, a certain degree of financial investment in advance as a deposit and credible signal for the commitment of bidders is needed to limit the risks of choosing a weak candidate (‘adverse selection’) and of post-contractual misconduct (‘moral hazard’). Such problems of asymmetric information could seriously harm the reputation of the World Cup series as a quality brand if, for instance, a designated host withdrew shortly before the event and no substitute were available. On the other hand, the threatening potential of FIFA should not become too strong because otherwise it might partially or completely deter countries from bidding and, then, the market for the World Cup could suffer or even break down (risk of ‘hold up’). Hence, in this event market, we find typical problems of principal–agent theory so that the interests both on the supply and demand sides have to be carefully balanced for efficiency reasons.

Another important characteristic of major event series is its singular nature for host countries, that is, the event cannot be planned to be repeated in a foreseeable period of time. Local organisers thus have to undergo four planning phases: (i) bidding phase, (ii) (in case of a successful application) pre-event phase, (iii) present phase and (iv) post-event phase. Therefore, rationally planning local organisers of a World Cup face a twofold, two-stage decision problem. The first stage consists, *ex ante*, in approximately assessing the overall ‘value’ of the event for the society in qualitative as well as quantitative terms (that is, money). A positive net result of theoretically all possible costs and benefits is decisive to justify a bid for the event on allocative grounds. Additionally, on a second level, the organisation that carries out the bidding campaign has to take strategic decisions with respect to the resources available, structures and processes, strength of competitors, future contingencies, political constellations and expected risks (internal and external organisational analysis). Those considerations are needed to assess the chances of success of a possible bid, that is, minimising the risk of sunk costs.

The second decision stage emerges once the candidature is successful. It aims at putting strategies into action, that is, the specific institutional design of the event organisation has to take shape. In particular, organisers will have to determine the exact locations – and, if necessary, new constructions – of sports and other facilities (for example, media centres) as well as the corresponding operational structures (for example, public–private partnerships) including the financing and planning of the post-event utilisation. This poses a strategic decision problem under prior set objectives (for example, benefit-maximisation, risk-minimisation, politico-economic development goals) and institutional constraints (primarily, suitable locations/facilities available as well as general regulations and infrastructural requirements of FIFA). The consequences of strategic institutional options should be thoroughly examined because they may exercise a considerable impact on the overall socioeconomic outcome. Key features of the World Cup are summarised and categorised in Figure 18.1.



Source: Modified from Rahmann et al. (1998, p. 91).

Figure 18.1 Characteristics of the World Cup as a major event

It is increasingly agreed among economists that CBA is the most suitable approach to back up decisions on the evaluation problem of sporting events (Jeanrenaud, 1999; Kurscheidt, 2001; and the seminal paper of Thöni, 1984). Other approaches frequently used in economic impact studies in the field of sports, particularly the (pure) expenditure approach in conjunction with (simple) multiplier or input–output analysis, (i) fail to clearly distinguish between positive and negative repercussions of the examined event, (ii) often focus just on short-term impacts and, even if a longer period is considered, they are not able to intertemporally evaluate long-term effects, (iii) neglect ‘intangibles’, that is, impacts which are difficult or impossible to monetise, and (iv) do not provide a theoretically underpinned evaluation criterion.

In contrast to these approaches, CBA is *explicitly* designed to respond to these analysis requirements to a proper project evaluation: first, it differentiates event-induced effects in clear-cut cost and benefit categories including indirect and intangible impacts; then, they are evaluated as far as possible, reckoned up and discounted for time over the whole (long-term) planning horizon; finally, the often complex positive and negative repercussions and interdependencies can be reduced to one aggregated figure, the net present value (NPV). The project that exhibits the highest NPV relative to alternative uses of resources should be chosen (Boardman et al., 1996). But a sporting mega-event like the World Cup is so unique that literally no meaningful alternative can be identified. It thus is a ‘do it or leave it’ decision which refers to an NPV exceeding at least zero according to the Kaldor–Hicks welfare criterion, that is, a *potential* Pareto optimality.

An Empirical Cost–Benefit Model of the 2006 World Cup

Rahmann et al. (1998) clearly identified three main driving forces of the economic impact of the World Cup: (i) the level of *stadium investments* in the pre-event phase, (ii) *foreign tourist spending* in the present phase, and (iii) the net result of *operating the stadiums* in the post-event phase. The investments play a crucial role since they induce both additional income by multiplier effects, that is, benefits, and current capital charges accruing from debt-financed (sports) infrastructure expenditures during the post-event phase. Moreover, they are indirectly positively correlated with the tourist spending as a result of the impact of stadium capacity and regional attractiveness for World Cup tourists. Therefore the effects of venue investments are ‘ambivalent’ while the spending of foreigners will of course be responsible for an economic impulse in the year 2006 which is also reinforced by multipliers. Running the arenas, finally, brings about continuous deficits because the majority of stadiums in Germany and elsewhere are not able to cover operating costs, not to mention capital charges. Thus, the choice of venues is a crucial strategic task for local World Cup organisers which largely determines the overall net impact of the event (Rahmann and Kurscheidt, 2002).

In order to assess the national impact of a World Cup, one has to model the economic constellations of the local investment that differ from venue to venue (Kurscheidt and Rahmann, 1999). For this purpose, Rahmann et al. (1998) used the portfolio shown in Figure 18.2, which links, on the supply side, the (sport) infrastructure endowment relative to FIFA requirements with, on the demand side, the potential of post-event demand which is responsible for the future profitability of the new or renovated sports stadiums. When the German OC had to choose the match locations for 2006, 16 bidding cities were available. These can be evaluated according to their position in Figure 18.2 (see Table 18A.1)

Potential of post-event demand

High	<i>short term: B < C,</i> I high investment	<i>short term: B ≈ C,</i> II medium investment	<i>short term: B > C,</i> III low investment
	<i>long term: B > C,</i> high utilisation	<i>long term: B > C,</i> high utilisation	<i>long term: B > C,</i> high utilisation
Medium	<i>short term: B < C,</i> IV high investment	<i>short term: B ≈ C,</i> V medium investment	<i>short term: B > C,</i> VI low investment
	<i>long term: B ≈ C,</i> medium utilisation	<i>long term: B ≈ C,</i> medium utilisation	<i>long term: B ≈ C,</i> medium utilisation
Low	<i>short term: B < C,</i> VII high investment	<i>short term: B ≈ C,</i> VIII medium investment	<i>short term: B > C,</i> IX low investment
	<i>long term: B < C,</i> low utilisation	<i>long term: B < C,</i> low utilisation	<i>long term: B < C,</i> low utilisation
	Low	Medium	High

(Sport) infrastructure endowment

Note: B = benefits, C = costs.

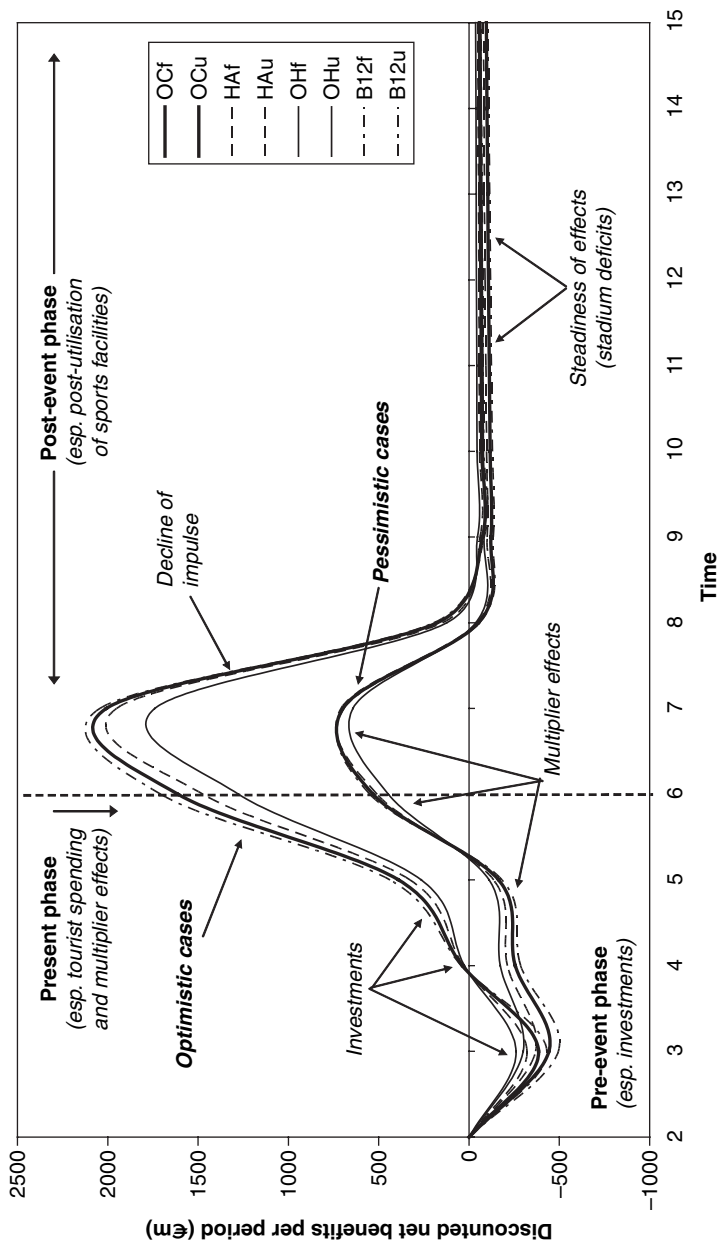
Source: Kurscheidt and Rahmann (1999, p. 87).

Figure 18.2 Regional economic constellations of World Cup venues

and be selected with regard to two major strategies: (i) *risk-minimising*, that is, stressing economic criteria, and (ii) pursuing *development goals* including related qualitative sub- or side-goals (among others geographical dispersion of venues, distributional equity, urban and regional planning, international competitiveness of sports infrastructure, socio-cultural considerations), that is, emphasising (sports) policy criteria. Moreover, strategically composed sets of locations that may potentially maximise the achievement of those goals have to meet institutional constraints, notably quality and capacity requirements⁵ and a total number of venues between 10 and 12.

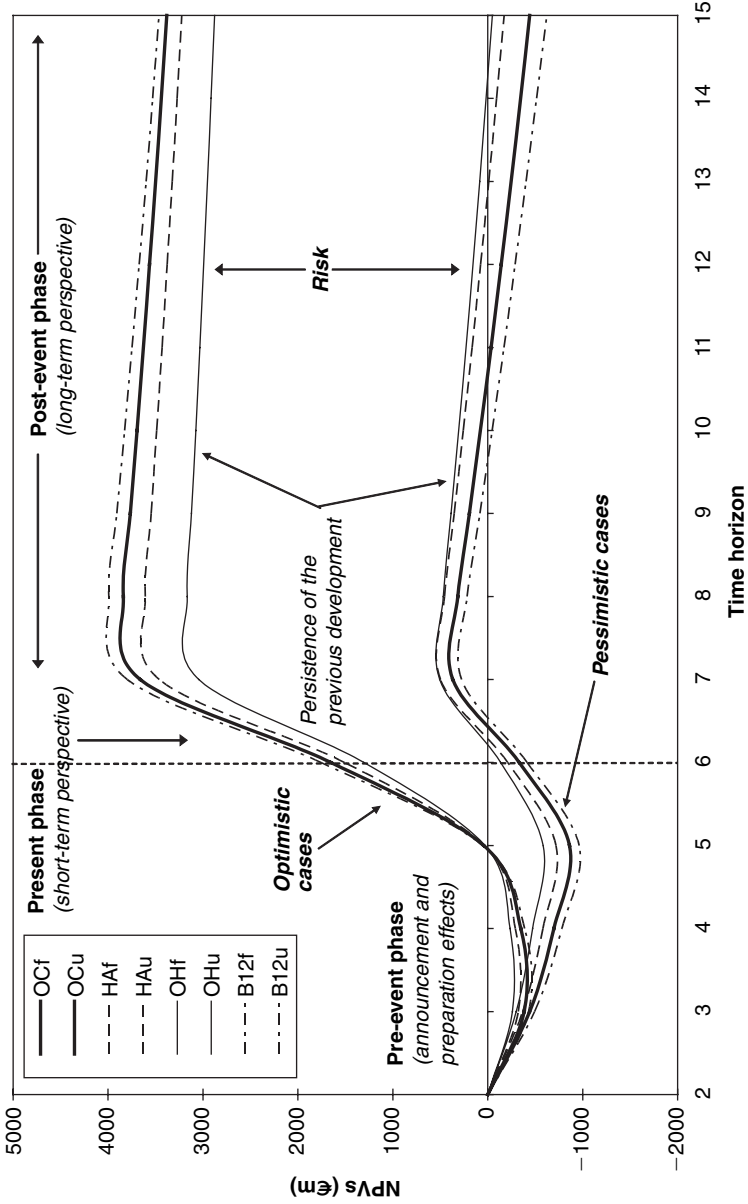
Combining the strategies and constraints yields four realistic hypotheses on venue selection which considers some match locations as pre-set (see Table 18A.1). Those as well as the actual decision of the OC should be evaluated relative to the alternative of an economically ‘optimal’ set of available venues that neglects socio-political qualitative considerations. Finally, the model parameters are estimated in currency units (in euros at 2002 prices) with an upper and lower bound for uncertainty reasons (see Table 18A.2).

Figures 18.3 and 18.4 show the aggregated result of the cost–benefit model. The discounted net benefits per period and NPVs, respectively, of the three hypotheses HA (risk-minimising with 10 venues), OH (‘optimal’ set), and B12 (development goals pursuing with 12 venues) as benchmarks are depicted over time relative to the OC’s choice. There are two graphs for each selection, one for optimistic and one for pessimistic expectations.



Note: f = favourable circumstances, u = unfavourable circumstances.

Figure 18.3 Discounted net benefits per period of the 2006 World Cup



Note: f = favourable circumstances, u = unfavourable circumstances.

Figure 18.4 Net Present Values of the 2006 World Cup

The pattern shown in both figures is consistent with theoretical anticipation: the pre-event phase is dominated by the cost effect of the investment in sports infrastructure, then a considerable upswing occurs in the present phase due to multiplier effects and tourism expenditures whereas constant deficits of operating the sports facilities prevail in the post-event phase.

The crucial phase of the planning horizon is actually *after* the event when the business loss of the venues risks devouring the benefits of the present phase. This can be best seen by the NPVs in Figure 18.4. At the upper bound and for the mean outcome, this is not vital. The 2006 World Cup indeed could be responsible for a sustainable shift in economic wealth of about 2.8 (OH) up to €3.4 billion (B12). The average result as well remains quite stable on a still considerable level of approximately €1.5 billion. But, in difficult general circumstances, the future financing burdens in particular might generate an overall loss four (B12), five (OC) or seven years (HA) after the event. The economic reference selection of venues OH is the only one that almost remains in the gain zone over the whole planning horizon with a negligible loss of about €48 million in 2015. Thus, at the lower bound of the results, it is clear that the hosting nation might have to pay an ‘economic price’ in the form of forgone utility for any socio-political concession made, whether for development reasons or to settle a compromise solution of 12 venues if the choice of venues becomes politically delicate.

Using statistical inference methods, *objective* probabilities can be attributed to certain areas of the spread of possible outcomes shown in Figure 18.4. By its construction the cost–benefit model satisfies the so-called central limit theorem of statistical inference theory since it consists of a large number of independent parameters of which none dominates the overall result. Therefore the calculated NPVs for different time horizons can be treated as asymptotically normally distributed random variables. The range of outcomes of the model then constitutes an interval estimator for the real mean value in the population. Given that the upper and lower NPVs represent best- and worst-case scenarios, respectively, we may furthermore suppose that the spread of outcomes is at least equivalent to a 95 per cent confidence interval, that is, the level of significance is $\alpha = 0.05$. Finally, by means of the usual statistical formula and the standardised normal distribution, the probability of different levels of NPVs for varying time horizons can be assessed as listed in Table 18.3. It could be argued that the suitable planning horizon may be found between 2010 and 2015, that is, between 4 and 9 years after the event.⁶

Actually, the probability for an overall negative outcome is fairly low, ranging between roughly 2 and 7 per cent for reasonable planning horizons. However, an economic impact of this size or a bit higher would not be a desirable outcome when also considering opportunity costs of forgone utility from hypothetical alternative public projects to the 2006 World Cup. Thus, it is helpful to define some realistic level of the NPV which might be regarded as a ‘good performance’. A sensible approach to this idea is to set the sample mean value of nearly €1.5 billion in 2015 as the benchmark. Then, one might characterise a positive result up to this value as ‘underperformance’ and NPVs above it as ‘overperformance’. An interesting – though by definition of this category statistically logical – finding is that the likelihood of underperformance even rises from 31.73 to 44.62 per cent as a reasonable planning horizon is extended whereas the probability of the other performance categories diminishes during the same period. In other words, once an

Table 18.3 Probabilities of outcomes for the 2006 World Cup ($\alpha=0.05$) (%)

Time horizon	Negative $\leq \text{€}0$	'Underperformance'			'Overperformance'				
		$0 \leq \text{€}0.5\text{bn}$	$0 \leq \text{€}1\text{bn}$	$0 \leq \text{€}1.5\text{bn}$	$\geq \text{€}1.5\text{bn}$	$\geq \text{€}2\text{bn}$	$\geq \text{€}2.5\text{bn}$	$\geq \text{€}3\text{bn}$	$\geq \text{€}3.5\text{bn}$
2006	9.55	27.89	65.23	85.56	4.90	0.41	0.01	0.00	0.00
2007	0.82	2.75	10.53	26.18	73.00	50.70	28.18	12.05	3.86
2008	1.04	2.93	10.51	25.02	73.94	53.40	31.88	15.22	5.67
2009	1.49	3.73	12.63	28.44	70.07	49.11	28.39	13.14	4.76
2010	2.05	4.61	14.80	31.73	66.22	45.09	25.30	11.38	4.02
2011	2.72	5.54	16.97	34.83	62.45	41.38	22.57	9.88	3.41
2012	3.52	6.50	19.10	37.68	58.80	37.95	20.17	8.62	2.91
2013	4.43	7.48	21.15	40.28	55.29	34.82	18.05	7.54	2.50
2014	5.45	8.45	23.09	42.59	51.96	31.96	16.19	6.62	2.16
2015	6.58	9.40	24.89	44.62	48.80	29.37	14.56	5.84	1.87

overall loss can be avoided it becomes increasingly unlikely to dip again into the negative area. On the other hand, overperformance is rather sensitive to lengthening the planning horizon with a quite high probability of over 66 per cent in 2010 which falls under 50 per cent in 2015. Finally, hoping for an 'outperformance' of €3 billion and above amounts to playing the lottery as the corresponding likelihood is nearly halved between 2010 and 2015 from 11.38 to 5.84 per cent and ends up with an even lower probability than a negative outcome.

Conclusion

The World Cup has a significant socioeconomic importance in the sports world and is increasingly used as an economic tool, not only by FIFA itself. However, the instrumental effectiveness for host countries is debatable as the only *ex post* analysis available for USA 1994 finds a probability of a negative result of over 60 per cent (Baade and Matheson, 2004) which is in line with critical results on other sporting events. The findings for Germany 2006 reported here give rise to more optimism but are still far lower than the promises of forecasting studies commissioned by event organisers. Taking the latter results as a benchmark, France 1998 might have experienced a comparable, perhaps slightly lower outcome, whereas for Korea/Japan 2002 the economic impact indeed turned out to be 'grand illusion' (Finer, 2002). The reason is that the institutional setting like, most prominently, the choice of match locations is crucial for the economic success of a World Cup for their hosts, that is, efficient event management and financing matters (Ahlert, 2001; Chalip and Leyns, 2002). Not only in this regard, further research is needed on the World Cup. Finally, it can be expected that antitrust authorities, especially of the EU, might have a closer view on monopolistic and subsidising practices of FIFA and host countries, respectively, in the future.

Appendix 18A

Table 18A.1 Economic evaluation of bidding cities for the 2006 World Cup

No.	City	Stadium (supply)			Demand		Evaluation			Hypotheses ^{a)}					
		World Cup compatibility ^{b)}	Planned investment ^{c)}	Capacity in 2006 ^{d)}	Population (in 000)	League division ^{e)}	Supply side ^{f)}	Demand side ^{g)}	Scenario ^{h)}	Selection category ^{h)}	OH	HA	HB	OC/A12	B12
1	Berlin*	low	242	76 000	3400	1st	low	high	3	backw.	X	X	X	X	X
2	Bremen	high	28	43 000	550	1st	high	high	1	well	X	X	(X)	X	X
3	Dortmund*	full	36	60 000	595	1st	high	high	1	well	X	X	X	X	X
4	Dusseldorf	low	184	51 500	570	3rd	low	med.	4	backw.	X	X	X	X	X
5	Frankfurt/M	low	126	48 000	650	2nd	low	high	3	intern.	X	X	X	X	X
6	Gelsenkirchen*	low	192	52 000	285	1st	low	high	3	intern.	X	X	X	X	X
7	Hamburg*	full	0	50 000	1700	1st	high	high	1	well	X	X	X	X	X
8	Hanover ^{j)}	low	61	45 000	525	2nd	med.	med.	3	intern.	X	X	X	X	OC
9	Kaiserslautern	high	48.3	48 500	100	1st	med.	high	2	well	X	X	X	X	X
10	Cologne	low	110	45 000	1000	1st	low	high	3	intern.	X	X	X	X	X
11	Leipzig*	low	90.6	44 000	530	4th	med.	low	4	backw.	X	X	X	X	X
12	Leverkusen ^{k)}	full	2.8	22 500	160	1st	high	high	1	well	X	X	X	X	X
13	Mgladbach	low	87	43 000	270	1st	med.	med.	3	intern.	X	X	X	X	X
14	Munich ^{l)} *	low	280	66 000	1300	1st	low	high	3	intern.	X	X	X	X	X
15	Nuremberg	high	56	45 500	490	1st	med.	high	2	well.	X	X	X	X	X
16	Stuttgart	high	56	60 000	550	1st	med.	high	2	well	X	X	X	X	X

Notes

OH = economically optimal hypothesis of available venues with 10 arenas; HA = risk-minimising hypothesis with 10 venues; HB = development goal hypothesis with 10 venues; A12 = risk-minimising hypothesis with 12 venues; B12 = development goal hypothesis with 12 venues; OC = selection of 12 venues finally decided by the OC.

* Venues considered to be pre-set for (sports) policy reasons in the realistic hypotheses HA, HB, A12 and B12.

a. Venues chosen for the respective hypothesis are marked by an X. OC here describes the deviation of the OC's choice from hypothesis A12.

b. World Cup compatibility according to technical requirements of FIFA and international 'standards' of modern venues.

c. Figures are given in € million, latest data from 13 April 2002.

d. Seating capacity planned for the year 2006, latest data from 13 April 2002.

e. League division of the local football club by the time of the OC's decision on World Cup cities, that is, 15 April 2002.

f. Evaluation criteria: current quality and capacity of football stadium, traffic and hotel infrastructure, tourist attractiveness.

- g. Evaluation criteria: population and hinterland, local purchasing power, attraction potential (especially league division in 2001/02 and fan loyalty) and supposed future performance of the local football club, competition in the football and leisure market (all relative to the planned stadium capacity in 2006).
- h. Scenario according to the evaluated position in Figure 18.2.
- i. Selection categories: well prepared (scenarios 1–2), intermediate (2–3), backward (3–4).
- j. Hanover is not being considered in any hypothesis because of its quite low evaluation (intermediate, scenario 3) and financing burdens of EXPO 2000. The city seems to have had strong lobbying support so that it was finally chosen by the OC instead of Bremen as hypothesis A12 would have recommended.
- k. The capacity of the stadium in Leverkusen does not nearly meet the FIFA requirements (40 000 upwards) but it is very well constructed and equipped. Therefore it is considered at least in hypothesis OH. In the end, the city withdrew its bid after settling an agreement with the OC and the DFB (Deutscher Fussball-Bund) to host the German national team as a sort of compensation for stepping back. It can be supposed that such an arrangement was actually the aim of their bid right from the start in view of the lack of capacity of the stadium. However, the new coach, Jürgen Klinsmann, did not support this solution.
- l. The Olympic Stadium in Munich is the only one in Germany which is regularly used by two first division football clubs, FC Bayern and TSV 1860 Munich (now second division). Thus, it has by far the highest capacity utilisation and is likely to be (the most) profitable (venue). Since this is a special case and exact data are not yet available, for consistency reasons, the venue is classified in Figure 18.2 and treated according to the same criteria as all other stadiums, that is, the local outcome of Munich in the model is much worse than can be expected in reality. Furthermore, a new stadium project has been approved by a local referendum on 21 October 2001. The 'Allianz Arena' opened on 30 May 2005 but there are still a number of uncertainties.

Source: Modified and updated after Rahmann and Kurscheidt (2002, pp. 180–81).

Table 18A.2 *Data and dynamics of the CBA model of the 2006 World Cup*

Variables	(time t)	Estimation intervals				
		Upper bound			Lower bound	
Investment costs ^{a)} (at 1/3 in $t = 3$ to 5)	scenario 1	€36 m (Dortmund)			€0 m (Hamburg)	
	scenario 2	€56 m (Stuttgart, Nuremberg)			€48.3 m (Kaiserslautern)	
	scenario 3	€280 m (Munich)			€61 m (Hannover)	
	scenario 4	€184 m (Dusseldorf)			€90.6 m (Leipzig)	
Benefits on investment in sport facilities (from $t = 6$ to $t = 15$)	scenario 1	€5.3 m			€3.55 m	
	scenario 2	€5.3 m			€2.8 m	
	scenario 3	€5.3 m			€2.8 m	
	scenario 4	€3.55 m			€0.8 m	
	Hypotheses	OH	HA	HB	OC/A12	B12
Scenario distribution (from $t = 0$ to $t = 15$)	scenario 1	4	3	2	2/3	2
	scenario 2	2	2	0	3	2
	scenario 3	4	4	6	6/5	6
	scenario 4	0	1	2	1	2
Operating costs (from $t = 6$ to $t = 15$)		(for all scenarios) €5.3 m			(for all scenarios) €3.55 m	
Capital charges (from $t = 6$ to $t = 15$)		(for all scenarios) 9.5 per cent of investment as annuity (interest + repayment)				
Capacity utilisation at the event		90 per cent			75 per cent	
Proportion 'foreign tickets'		(for all scenarios)			32 per cent of total tickets	
Proportion 'journalists' tickets'		(for all scenarios)			0.36 per cent of total tickets	
Expenditure per 'foreign ticket' ^{b)}		in $t = 6$: €798			in $t = 6$: €532	
Surplus of OC (in $t = 6$)		€85 m			€0	
Multipliers ^{c)} time:		in $t = 4$:	in $t = 5$:	in $t = 6$:	in $t = 4$:	in $t = 5$:
	for investment expenditures ^{1.1} ^{d)}	1	0.8	0.4 ^{d)}	0.2	0.2
	for tourist expenditure	in $t = 7$:	2.45		in $t = 7$:	2
Discount rate		4 per cent				

Notes

- The lower bound of the investment estimation for each venue is represented by the official assessment of stadium owners made in 2002 (see Table 18A.1). Since the true construction costs in most of the cases significantly exceed the initial assessment, the upper bound is estimated at 115 per cent of the lower bound.
- The assessment incorporates all expenses for travelling, accommodation, food, shopping and so on induced by one 'foreign ticket' assuming a plausible spending behaviour of an average World Cup tourist coming from abroad (staying about 10 days and visiting three matches with a total spending of about €1995). The upper and lower bounds are the result of an interval of 20 per cent built around the mean of €665.
- Both multipliers were computed by the Rheinisch-Westfälisches Institut für Wirtschaftsforschung (RWI), Essen. The investment multiplier is dynamic over three periods and was derived for public infrastructure investments from an econometric business-cycle model. The multiplier of the tourist expenditure is a static one for the hotel and restaurant industry and had been calculated by an econometric input-output model.
- The value of the multiplier is reduced by one in the first successive period after the investment to make sure that only *additionally* induced income from the impulse of investment *costs* (!) are counted as benefits. Tourist multiplier effects can be fully counted as benefits.

Source: Modified and updated after Rahmann and Kurscheidt (2002, pp. 198–9).

Notes

1. FIFA just pays small appearance money to the national associations whose team made it to the finals. The latter generally offer winning bonuses to their players according to their sporting goals at the World Cup.
2. But, on the other hand, clubs may benefit from scouting new playing talent and enhanced transfer values of their own players that perform well at the competition. Furthermore, the event is a unique opportunity for meeting the entire international football community and, for example, preliminary negotiations on player transfers.
3. South Africa, Morocco, England, Brazil (who withdrew before the ballot after an under-the-table deal with African delegates to support it for 2010), and Germany had submitted a bid for the World Cup 2006. The 24 members of FIFA's Executive Committee voted the narrowest ballot result possible with 12 votes to 11 and one abstention of the Oceanian delegate against the last remaining competitor, South Africa, in the third and final round of voting. In the case of a tie, the president could have taken the decision in favour of Africa.
4. Recent calls for further expansion failed so there are still pressures for increases in the future.
5. For the 48 group matches of the first round, a seating capacity of 40 000 and upwards is required, the 16 play-offs need a capacity of about 50 000 and the final of 60 000 plus.
6. Note that the last 'waves' of tourist and investment multiplier effects occur in 2007 and 2008, respectively.

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19 The economic impact of sporting facilities

Brad R. Humphreys

To those unfamiliar with the topic, the economic impact of sporting facilities may appear innocuous. Economists do not focus much attention on the economic impact of train stations or movie theatres. But unlike many other structures, most sporting facilities are built and operated using public funds. These large public subsidies devoted to the construction and operation of sports facilities, combined with the high visibility of and affection for sports stadiums in the public's minds and hearts, has pushed the issue of the economic impact of sporting facilities to the forefront of public debate.

A boom in new professional sporting stadium and arena construction in North America in the latter part of the twentieth century heightened interest in this debate. Siegfried and Zimbalist (2000) documented this explosion in new facility construction, along with the share of public spending on these construction projects. From 1910 to 1959, 22 new professional sporting facilities were built for teams in North American sports leagues, and the public share of the expense of these facilities was well under 30 per cent. From 1960 to the end of the century, more than 100 new professional sporting facilities were built, and the public share of this construction binge was over 70 per cent. In the 1990s alone, over \$11 billion was spent on new professional sporting facility construction in North America. This boom was accompanied by a boom in the construction of Minor League baseball parks and athletic facilities on college campuses, but this concurrent increase has received little attention from economists to date.

Although there are many different types of sports facilities – swimming pools, velodromes, golf courses, bowling alleys and so on – a relatively small subset of the universe of sports facilities have received the attention of economists. The literature on the economic impact of sporting facilities focuses entirely on stadiums and arenas that are home to professional baseball, basketball, football, hockey and soccer teams and the facilities put in place to host large events like the Summer and Winter Olympic Games. Economists do not focus on the economic impact of the neighbourhood tennis court because it did not take hundreds of millions of public dollars to build, and the people who use it do not claim that the surrounding neighbourhood will reap tangible economic benefits – millions of dollars in new income, thousands of new jobs – as a result of the tennis matches played on the court.

Many people care passionately about sport, and by association care passionately about the venues where sporting events take place; government decision makers spend hundreds of millions of dollars in public funds to build, operate and maintain sporting facilities, generating considerable public interest in the economic impact of sporting facilities. This topic should interest economists because of the stark dichotomy among the existing estimates of the economic impact of sporting facilities. This large literature has two distinct components – each generated by different groups – and two contradictory conclusions. Highly visible public policy debates with this amount of tension tend to be fertile ground for research.

In the past 20 years, almost every new sporting facility built with public funds has been accompanied by an 'economic impact study' detailing to the last penny and job the myriad positive tangible economic benefits that will flow into the local economy as soon as construction begins. These impact studies are designed to justify the spending of hundreds of millions of dollars on a new sporting facility and to convince opponents of these subsidies, as well as fence-sitters, that the proposed sporting facility will produce important tangible economic benefits for the community. Siegfried and Zimbalist (2000) provide a thorough summary of this literature. These impact studies are commissioned by the owners of the team seeking public funding and typically performed by consulting firms. These reports typically receive extensive attention from local print, radio and television outlets and may also be accompanied by public opinion polls showing broad local support for a new facility.

Economic impact studies share two common features: they are prospective in nature, estimating future economic benefits of one type or another and they are uniformly positive in their conclusions. Every proposed facility will pump millions of new dollars of spending into the local economy during the construction period, and when built will continue to create thousands of new jobs, raise incomes significantly, and enrich local government coffers with millions of dollars in new tax revenues.

Economic impact studies also rely heavily on 'multipliers' to generate these large positive economic impacts. Multipliers have been a part of economics since at least John Maynard Keynes, and a simple description of how multipliers work can be found in every intermediate macroeconomic theory textbook published in the past 50 years. Each dollar of direct spending in a sporting facility generates \$X in secondary or indirect spending in the surrounding community. You tip the vendor at the match \$5, he/she spends that \$5 on cigarettes at the corner store, the store owner spends it on lunch, and so on. Impact studies often use multipliers of 2 or more, assuming that the indirect economic impact will be double or triple the size of the direct economic impact. Estimates of direct spending in a sporting facility come from forecasts of attendance coupled with historical patterns of direct spending in similar types of sporting facilities. Although multiplier analysis fell out of favour in macroeconomics decades ago, after a number of methodological problems were pointed out, it is still widely used in economic impact studies of sporting facilities.

These prospective economic impact studies often contain a number of other important methodological flaws. Crompton (1995), Siegfried and Zimbalist (2000) and Hudson (2001) describe these flaws in detail. In short, these studies use inappropriately large multipliers to estimate indirect benefits, inappropriately identify costs as benefits, fail to distinguish between net and gross economic benefits, and ignore important indirect costs, including opportunity costs, associated with sports facility construction and operation. These methodological flaws are pervasive and potentially important and their existence suggests that the estimates of the tangible prospective economic benefits flowing from new sporting facilities reported in these studies may be significantly overstated. Despite these problems, economic impact studies continue to be commissioned and taken at face value by local media outlets and a sizeable fraction of the population.

Opposing the results in economic impact studies is a small but growing academic literature on the economic impact of sports facilities. While this topic had been examined by economists as early as in the essay by Okner (1974), the seminal academic work in the area is the volume edited by Noll and Zimbalist (1997), *Sports, Jobs and Taxes*, a collection of

essays examining the economic impact of sporting facilities from a number of perspectives. Most academic research on the economic impact of sporting facilities shares two common features: these studies are retrospective in nature, using econometric models of the determination of income or employment and historical data from various sources to look for evidence that past construction of new sports facilities had a detectable impact on the economy, and they almost uniformly find no evidence that sports facilities produce tangible positive economic benefits.

The retrospective academic literature has examined standard aggregate economic indicators like real per capita income or employment in Standard Metropolitan Statistical Areas (SMSAs) in the United States. The Regional Economic Information System (REIS), published by the Bureau of Economic Analysis of the United States Census Bureau is the most common data source for these studies, but some other city-specific data sources such as hotel occupancy rates and airport gate arrivals have been used. Regardless of the data source, no evidence of tangible positive economic impact associated with a new sporting facility has been published in this literature.

It would be difficult to find a more striking contrast in empirical evidence. Prospective economic impact studies forecast significant and positive economic benefits flowing from sports facilities; retrospective academic studies find no evidence of positive economic benefits, at least in terms of higher real per capita income or more employment, in economic data. Either the assumptions underlying economic impact studies must be wrong or retrospective academic research must contain important methodological flaws or use data that are poorly suited to answering the question at hand.

Interestingly, this disagreement in empirical results extends to the period during which new sporting facilities are being built, as a period when these differences might be small. Sporting facilities tend to be large structures and their construction requires hundreds of workers and can take years to complete. Some economic impact reports forecast thousands of new jobs created during the construction period. But retrospective research using time-series employment data has concluded that, at most, a handful of the hundreds of new sporting facility construction projects have created only a few hundred new jobs. This difference in empirical evidence arises from the failure of prospective economic impact studies to distinguish between new and gross job creation. While sporting facility construction projects employ hundreds or perhaps thousands of construction workers, these workers might have been employed in other construction projects if a new sporting facility was not built. Unemployment rates in construction-related occupations in many cities are quite low, suggesting that these workers have many alternative job opportunities. In this case the net effect of a new sporting facility construction project on employment will be small.

The empirical evidence in economic impact studies and retrospective econometric studies may be consistent in one area: mega-events like the Olympic Games. Hotchkiss et al. (2002) examined the impact of the 1996 Summer Olympic Games on wages and employment in and around Atlanta, Georgia. This study found that total employment in counties with Olympic sporting venues was higher during and after the games than before, although wages were unaffected. However, this evidence comes from a single city and is associated with a single event that involves a large number of sporting facilities, casting some doubt on the robustness of the evidence.

It is important to keep in mind that the absence of any empirical evidence of positive economic impacts flowing from sporting facilities does not imply that these facilities are

not worthy of public subsidies. Spectator sports are important public goods. Casual and fervent sports fans derive important consumption benefits from attending, watching, listening to, reading about and discussing sporting events. Sports teams and facilities provide the residents of cities with an important shared bond and sense of community. Many people hold the opinion that one or more high-profile professional sports teams and facilities help to make a city 'world class'. All of these factors have economic value and support the argument that public funds should be used to subsidise sports facilities. However, the proponents of public subsidies have clearly chosen to avoid this argument. Instead, they persist in arguing that public subsidies for professional sports facilities are justified by the positive economic returns that they generate.

Coates and Humphreys (1999) pointed out one possible flaw in the methodology used in retrospective academic research on the economic impact of sporting facilities and discovered a surprising result. Prior research used simple indicator variables for the presence of one or more sports facilities and teams in a city, or counts of the total number of sports facilities or franchises, when looking for evidence of economic impact. Rather than use simple indicator variables, Coates and Humphreys posited that indicator variables or counts did not capture the sports facilities and teams present in cities, and developed a vector of variables that captured the 'sports environment' in cities. This vector of variables included indicator variables for the presence of facilities and franchises, facility capacities and indicator variables for franchise entry and departure. Although few of these individual variables were statistically significant in a model of the determination of real per capita income in US cities, they were jointly statistically significant, suggesting that taken together this vector of sports environment variables explained an important part of the observed variation in real per capita income in cities. The overall impact of this vector of variables was negative, suggesting that increases in the sports environment were associated with lower real per capita income in cities with sporting facilities and franchises.

The possibility that sporting facilities and franchises have a negative impact on local economies raises several interesting questions that generally remain open at this point. The different conclusions from economic impact studies and earlier retrospective research – which found no evidence of economic impact – could be reconciled by a combination of methodological flaws in impact studies and the fact that professional sporting facilities and the economic activity that takes place in them are relatively small compared to the size of a metropolitan economy. But in order for sports facilities and the activity in them to have a negative impact on the local economy, some other factors must be at work. What are these factors and how might they work?

Siegfried and Zimbalist (2000) discuss a number of possible explanations for this negative economic impact. One likely explanation is that the spending within and near a sporting facility is a reallocation of entertainment spending that would have taken place somewhere else in a city. Instead of going to a sporting event, in the absence of a sports facility, consumers would have eaten a meal in a neighbourhood restaurant or attended a movie or play. If the money spent by consumers of these alternative entertainment activities circulates widely in the local economy, but money spent inside a sporting facility goes primarily into the pockets of highly paid players and owners who do not live in the city, and who spend only a small fraction of their large incomes, then the local economy could be made worse off. Siegfried and Zimbalist call this 'substitution in private spending', and if present, it suggests that the economic impact of sports facilities and franchises will be

felt unequally over different sectors of the local economy. Other possible explanations include opportunity costs of public spending on sports facilities leading to reduced public spending on education, public health, public safety and infrastructure that eventually reduce local income, and the notion that sport may be an amenity, like pleasant weather or low crime, that produces compensating wage differentials.

Investigation of these explanations will be an important part of the future research agenda in this area. In one recent paper, Coates and Humphreys (2003) showed that sporting facilities and franchises increased employment and earnings in the sector of the economy that contains sports teams and persons employed in sporting facilities – the amusements and recreation sector (SIC code 79) – but reduced employment and income in other related sectors like food services and hotels and lodgings. This provides support for the ‘substitution in private spending’ argument proposed by Siegfried and Zimbalist (2000).

Other important research remains to be done in this area. Economists know little about the spatial dimensions of the economic impact of sporting facilities. Do rents and house values rise with proximity to a sports facility? Does the opening of a new sporting facility and the redirection of consumer spending from other parts of a city into and around the facility harm entertainment-related businesses in outlying areas? Are sports, like access to an ocean and pleasant weather, sufficient to generate compensating wage differentials? Is the evidence of a negative economic impact of sports facilities on local economies, or at least the lack of evidence of positive economic impact, only present in the aggregated REIS data, or are these results robust to the data source used to test them? These interesting and important questions remain to be answered in future research on the economic impact of sports facilities.

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20 Voluntary work in sport

Wladimir Andreff

Sports have traditionally been able to function cost-effectively only because of the work of volunteers, whose commitment is based on individual, social, ideological or economic motives. Voluntary work is the 'cornerstone of the development and growth of (British) sport', as it was once phrased by the British Sports Council in 1996. The economic analysis of voluntary work raises such issues as how to define it, how to measure its economic significance and should volunteers get some sort of remuneration (in excess of their own expenses). This chapter looks at the profile of volunteers in sports clubs and also examines the burning issues of a relationship between voluntary work and unemployment and the so-called 'crisis' of voluntary work in the face of increasing sport commercialisation.

Definition of Voluntary Work

One suggested definition of voluntary work, adopted in some British surveys, is that it is 'unpaid work (except for expenses) done through a group or on behalf of an organisation of some kind, but not for a trade union or political party'. Another is: 'any activity which involves spending time, unpaid, doing something which aims to benefit someone (individuals or groups) other than or in addition to close relatives, or to benefit the environment' (Shibli et al., 1999, 13). In France, volunteers involved in sport have been defined as 'devoted, voluntary, and autonomous citizens who participate to social promotion and development of sport and physical activity' (Andreff and Nys, 1983, 163). They provide a part of their leisure time and, sometimes, a part of their professional work time to sport.

For statistical purpose, volunteering in sport is often narrowly defined as time contributed by volunteers for a sports club affiliated to a sports governing body. It follows that voluntary work encompasses the time contributed to a club or sporting organisation, which is not paid for – but for which expenses may be paid. A statistical distinction between voluntary work and leisure is based on the response to the question: can the presumed volunteer be replaced by a wage earner? If so, he/she is a genuine volunteer; if not, he/she is simply a member of a non-profit organisation (Archambault et al., 1996). The distinction between voluntary and paid work is apparently easier. However, this distinction is not always crystal clear within a sports organisation, even for the volunteer him/herself. For instance, some coach, club steward or secretary may receive payment for a set number of hours or a specific task while contributing time and effort in excess of what he/she is paid for. Therefore, in practice, the voluntary sector often overlaps with the public and commercial sport sectors, which blurs any survey about its economic importance.

Profile of Volunteers in Sports Clubs

From published surveys it appears that volunteers are well accustomed to taking the following roles in sports clubs: chair, secretary, treasurer, fixtures secretary, committee member, coach, team captain, and other administrative and operational posts. Most surveys, in various European countries, show that men are more involved than women

among volunteers in sport, in particular as chair and committee members. Volunteers are more likely to be working full-time and less likely to be unemployed or economically inactive, among men, while women are more often working part-time. Most chairs, secretaries and treasurers are over 45 while most coaches and team captains are under 45. Volunteer administrators are usually found to be significantly older than paid employees in sports organisations and to put significantly fewer hours per month into their administrative and non-administrative roles. Waged employees have a higher level of continuous commitment, since they see their participation in career terms.

Volunteers in sports are unevenly distributed according to socioeconomic groups. Professionals, employers, managers, intermediate non-manual workers and other white-collar workers are far more likely to volunteer than farmers, manual workers, other blue-collar workers, the unemployed and economically inactive. Chairs, secretaries and treasurers are often more educated, to degree level or above, and are less likely to be former coaches or captains. Finally, when surveyed about their motivations, volunteers never mention economic and financial interests; they refer instead to satisfying family, friends or community needs, helping and meeting people, making friends, and to a connection with their paid work (only 1 per cent of responses for the last motive in a 1996 British survey, Shibli et al., 1999). Even if it is not mentioned in surveys, power, decision making, reputation and fame often motivate volunteers as well.

In the last two decades, volunteers in sports clubs have adjusted to an increasing share of their social roles that are typically economic and financial. They have to negotiate funds with sports governing bodies, municipalities, advertising agencies, sponsors and TV channels while they have to manage gate (and other) receipts and financial rewards to 'amateur' athletes, if not salaries to professional players. Such a professionalisation of their roles has become a major concern for volunteers. They are also concerned with increasingly demanding and time-consuming roles, the private cost of voluntary work (travel expenses, the trade-off between family life and volunteering), and the managerial training and education required by more commercial roles (volunteers are increasingly requesting vocational training in law, accounting, management science and economics).

One consequence of the professionalisation in sports management is that the more a sports club needs unpaid work from volunteers (that is, the more it is a big sports organisation), the more it employs paid employees. In French sport, in sports clubs that employ paid employees, the average number of volunteers is 26, working for 126 hours per year; in clubs with no paid employees, the average number of volunteers is 17, working 115 hours per year (Andreff, 1998).

The Economic Significance of Voluntary Work

Depending on the country, the date of the survey and the sample, it is found that volunteers typically spend from 2 to 15 hours per week on work for their sports clubs; the coaches, older volunteers and committee members work more than the average. A 1989 report by the Commonwealth Government revealed that approximately 1.45 million volunteers provided 165.5 million hours work in the delivery of sport and recreation over one year (Cuskelly et al., 1999). The overall number of volunteers in French sport was estimated to be 900 000 in 1983, providing 190 million work hours per year – close to the French leather-shoe industry with 213 million work hours (Andreff and Nys, 1984). A more recent evaluation ('guesstimate') by the French Ministry for Sports is 300 million

work hours provided by more than 1 million volunteers in 1998. In Denmark, Ibsen (1992) estimated administrative honorary work on average at 166 hours a year per person while coaching amounted to 157 hours per year. The aggregate amount of voluntary work totalled 50 400 000 work hours, corresponding to 29 000 full-time jobs. A recent survey shows that 1.42 million volunteers were involved in Australian sport in 2002 while, in addition, 877 500 players have volunteer roles (Cuskelly, 2004). The Australian survey also exhibits a decline in the number of volunteers since 1997 and a decreasing rate of volunteer participation since 1993.

In order to measure the economic significance of voluntary work in sport, a sort of shadow price should be applied to this volume of unpaid work. Three shadow wages are usually applied in national accounting to give a money value to voluntary work (Archambault et al., 1996): the opportunity cost wage (the wage rate that is paid to each volunteer at his/her paid work), the overall replacement cost (the total number of voluntary work hours multiplied by the average gross hourly earnings for private employees), and the replacement cost by activity (multiplication of voluntary work hours by industry average wages).

The French study for 1983, cited above, calculated two variants, respectively utilising the current regulated rate of minimum wage in France, and twice its amount. The result was an economic value of voluntary work in sport comprising between 10 and 20 times the overall state expenditures for sport in France (and above 0.1 per cent of GDP). Another solution adopted by the French Ministry for Sports was to fix a lump-sum payment rate per hour. In some European countries, the average (and not the minimum) wage rate per hour was suggested for calculating the economic significance of voluntary work in sport. In other countries, one hour of voluntary work was expected to be valued at the same rate as a one-hour lesson by a sports teacher (an average of tennis, skiing, windsurfing and so on, lessons). In the UK, the average wage per hour of manual workers was once suggested as a benchmark (evaluation of voluntary work in the UK provided to Andreff et al. 1994).

A debate followed as to the accurate shadow price to be used, namely in the framework of the Committee for the Development of Sport at the Council of Europe. From country to country, the minimum wage or a basic wage rate or the pay of a sports teacher were used to measure the economic significance of voluntary work in the survey conducted for the Council of Europe for the year 1990 (Andreff et al., 1994). The results were given in purchasing power parity millions of dollars: 1630.4 (or 0.1 per cent of GDP) in Germany, 252.8 (0.1 per cent) in Belgium, 562.9 (0.4 per cent) in Denmark, 390.8 (0.3 per cent) in Finland, 1804.1 (0.1 per cent) in France, 2127.5 (0.2 per cent) in Italy, 78.9 (0.3 per cent) in Portugal, 507.9 (0.1 per cent) in Spain, 1505.3 (2.2 per cent) in Sweden and 335.8 (0.03 per cent) in the United Kingdom. The highest shadow prices were used in Scandinavian countries and Italy, and this partly explains the high ratio of voluntary work to GDP observed in these countries.

Voluntary Work and Unemployment

There is also a possible relationship between voluntary work and unemployment. In France, it was roughly estimated that replacing all volunteers in sport would create about 120 000 full-time jobs (LES, 1998). However, such a 'substitution hypothesis' is less than obvious. In Germany, a prospective calculation using the SPORT model (macro-econometric model) has simulated a shift of household sports-related demand for services

from sports clubs to services provided by relevant commercial suppliers, between 1993 and 2010 (Ahlert, 2000), and by the same token a substitution of paid work to voluntary work. It is assumed that commercial sports organisations have a considerably higher value added than sports clubs and associations, with the underlying assumption that paid labour has a higher productivity than voluntary labour. The shift in demand results in shrinkage of aggregate intermediate consumption and an increase in the German gross value added, whereas employment decreases over the whole forecast period. Commercial sports organisations have a lower labour input coefficient and a higher labour productivity in comparison with the sports clubs, thus leading to fewer jobs. The substitution hypothesis is not clearly validated: replacing part-time voluntary work by full-time paid work would not reduce unemployment as much as it is sometimes expected.

On the other hand, the voluntary sports sector can participate in the fight against registered unemployment. In Sweden, for instance, some unemployed people have been seconded to sports organisations to act as 'voluntary workers' in exchange for their unemployment allowances (Andreff et al. 1994). In France, in 1999, 14 700 jobs were created in sports organisations and in municipality sports offices to welcome young potential unemployed on a contractual basis (*contrat emploi jeune* – employment contract of a young unemployed person) (MJS, 2001). In Germany, the Baden-Württemberg *Land* suggested to 62 sports clubs based in Stuttgart that they should hire unemployed people in order to cope with the shortage of volunteers. Their remuneration was to be funded by the *Land* the first year and up to 30 per cent by the sports clubs subsequently (Andreff, 1998).

Voluntary Work in Crisis?

The lack of sufficient available free time is a crucial constraint on volunteering in sports, particularly for those groups who have traditionally provided volunteers. The complexity of managing sports organisations has increased and it is difficult for all but the most committed volunteers to find the time or to develop the skills necessary to work efficiently in the contemporary sports system. Commercialisation of sporting activities has led to the marginalisation of the voluntary sector. Sports participants increasingly behave as consumers of other (than sports) goods and services and like to acquire a higher-quality supply of sports (in the private commercial sector) even at a higher price than the one provided by voluntary work in sports clubs. Compelled to compete with the commercial sector and facing more complex tasks and more demanding sports consumers, the job responsibility and accountability of volunteers has increased and become so complicated that a growing number of sports organisations prefer to employ professionals. The dominance of free market transactions in recent years, where effort is exchanged for money, probably decreases the willingness to engage in voluntary work, where the reward does not include a monetary payment.

Moreover, the administration of not-for-profit sports organisations, which had relied on volunteers' involvement and commitment, is increasingly facing the demands of government funding agencies, sponsors and the legal system (Cuskelly et al., 1999). Some volunteers may find this difficult to cope with, and then sports clubs have to move towards the employment of paid staff to manage in a more professional manner. Other studies (Slack and Hinnings, 1987, 1992) have demonstrated an increasing professionalisation of sport management in the Canadian context. Similar results were exhibited in European and Australian sports (Auld, 1997). Thus, the success of many sports organisations is

becoming more reliant on the nexus between volunteers and paid employees (whose financial motives are greater), and their failure depends on a weak integration or conflict between the two groups. There is a tendency for volunteers to be pushed from the core to the periphery of decision making in sports organisations. Then, volunteers feel as though they are being managed as human resources rather than being seen as the owners and managers or custodians of sports clubs.

On the other hand, sports participants often realise that their fees would increase if paid labour were substituted for volunteer labour for all tasks in sports clubs. From this derives a pressure on players and ex-players to volunteer (Cuskelly, 2004).

Towards a Volunteers' Remuneration

The voluntary sector in sports is one of the few economic industries that is still capable of utilising unpaid labour in fully-fledged market economies. Even though the productivity of volunteers is lower compared with that of employed professionals, since the wage rate of voluntary work is zero, the profitability of the voluntary sports sector may well be based on this opportunity. Which enterprise, which tycoon, which investor would not like to benefit from the use value of unpaid labour? Some would warn against some sort of volunteers' 'exploitation' by commercial interests. Although this warning is not the cause of the volunteering crisis, one solution has been sought in better moral and financial rewards (remuneration) of sports volunteers.

As a consequence, in recent years, the remuneration of voluntary work has emerged as a hot, debatable and debated issue. A first reward has been considered in the form of a degree recognising the skills acquired by volunteers during their voluntary work (which could be sold afterwards on the professional labour market). Another idea was to compensate unpaid work hours with some 'points' gained for the calculation of the future pension of the volunteer when he/she retires. In 1998, the Thüringen *Land* passed a law allowing each volunteer to receive from 30 to 50 Deutschmarks for eight work hours per month, the excuse being his/her personal expenses for telephone calls, insurance, vocational training and so on. Moreover, all volunteers over 16 can get 12 additional vacation days over two years to complete their vocational training, each day paid by the *Land* (DM 70) to their employers. The idea of levying a 1 per cent tax on all advertising and sponsoring contracts in sport in order to set up a national fund for voluntary work (Andreff, 1998) has never materialised, although such a fund has been created in France.

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PART IV

SPORTING GOVERNANCE AND THE STATE

21 Governance and governing bodies in sport

*Thomas Hoehn*¹

Introduction

Every sport requires effective governance arrangements that underpin the rules of the game and facilitate the organisation and scheduling of sporting contests. Central to such arrangements are governing bodies with wide-ranging responsibilities for updating sporting rules, enforcing these rules, settling disputes, coordinating and organising individual events, championships or leagues, and generally promoting the development of a sport.

This chapter provides an overview of the typical role and structure of governing bodies that are found in almost every major sport. In the first three sections I discuss in turn the governance of the complex relationships between different stakeholders in sport, the degree of coordination and control required by a governing body, and the nature of political autonomy a governing body will typically possess. The final section provides illustrative examples and a historical overview of governance arrangements for six major sports: European football, golf, heavyweight boxing, British horseracing, the Olympics and tennis.

Role and Functions of Sports Governing Bodies

Unlike management boards in public companies, or regulatory boards in the utility sector, governing bodies in sport perform an unusually wide range of functions.² Moreover their functions exhibit a greater amount of complexity. This wide scope and complexity exists for three main reasons:³

- First, a wider range of stakeholders are involved, typically including bodies at both grassroots and professional levels, as well as investors and business partners, participants spectators and fans, and a wide range of commercial, governmental and training organisations. These groups by their very nature have different priorities and relationships both within and outside the sport. This is not the case with corporate boards, which are chiefly responsible and accountable to shareholders.
- Second, sports organisations and governing bodies, particularly at the national and pan-European levels, have wide-ranging roles and responsibilities which reflect those of corporate boards, governments and the judiciary. The ways that governing bodies perform their roles and fulfil their responsibilities impact on both the stakeholder relationships and the broader legitimacy in the societies in which they operate. Corporate boards, on the other hand, have a much narrower supervisory role.
- Third, historical factors and tradition have shaped the organisation of many sports, particularly their geographic and operational structure, rules and regulations and their standards of governance. Historically, governments have granted sports governing bodies considerable autonomy to manage their affairs without resort to sports-specific legislation. In contrast, corporate bodies and corporate entities are subject to an extensive set of rules based on corporate and commercial law.

The functions carried out by governing bodies can be seen as parallels to the constitutional functions of government and the functions of corporate boards in business. These functions can be defined under three headings, (i) the regulatory and rule-making functions (legislative role), (ii) the resolution of disputes (judicial role) and (iii) the carrying out of management functions (executive role). Governing bodies also represent their sport in discussions with governments or within international federations and distribute moneys for the development of sport (diplomatic and redistributive role). Examples of such roles are summarised below.

1. Legislative role

- Establishing the rules of a sport – these rules must be universally accepted by the participants if there is to be credible competition. Often sporting rules were established a long time ago and have survived without significant changes for 100 or more years.
- Defining and regularly reviewing these rules, often in response to changes in technology, to enhance safety or consumer interest. Formula One motor sport is at one end of the extreme with regular and frequent rule changes, whereas horseracing and golf have seen little or no changes in the main sporting rules.

2. Judicial role

- Monitoring and enforcement of rules is required for the rules of a sport to be credible to both participants and consumers. Cheating is potentially lethal for the reputation of a sport.⁴ Sabotage, match fixing and performance-enhancing efforts (doping) are hugely problematic for sporting as well as public health reasons and require strong disciplinary actions to prevent them from destroying a sport.
- Dispute arbitration – there are many instances where athletes feel aggrieved by the behaviour of rivals, referees, linesmen or race judges. Equally, national selection committees make decisions that sometimes get challenged by athletes. In all these instances, appropriate mechanisms need to be in place with arbitrators who have the confidence of those whom they arbitrate over.

3. Executive role

- Managing and regulating entry into competitions – governing bodies manage a sport through licensing of participants and clubs. They record regulated transactions of athletes and keep official records of results, performances and so on.
- Promoting competitions – as part of their executive function governing bodies also carry out certain ‘impresario’ functions which are designed to promote their sport, support its economic development and strategically allocate financial and other resources between participants and facilities. This can include activities such as changing the rules of the sport to make the game itself more exciting, handicapping to maintain competitive balance and creating new ways for consumers to appreciate the contest (for example, technological advances).
- Endorsing competitions – permitting the name of the governing body to be used in association with particular competitions and thus enhancing recognition by consumers.
- Scheduling fixtures for championships and competitions – scheduling is required so as to prevent double booking (of teams, players or facilities) both

within and between competitions. Scheduling may also help to generate continuing consumer interest in the sport by spreading competitions across the season.

- Entering into agreements on the commercial exploitation of sports events and championships.

Governing bodies also get involved in the distribution of revenues from commercial exploitation by approving agent deals and revenue-sharing schemes, and establishing and maintaining training centres and youth development schemes.

Organisational Structures

There is no unique model for the commercial organisation of sport and there are many different forms of organisation operating at local, regional national and international levels. Within almost all sports there is a hierarchy of governance and governing bodies with relatively strong global governance arrangements. This can be seen with reference to Table 21.1, showing a set of international governing bodies and some of their functions.

Generally, the world governing bodies surveyed permit only one member per country, and there is no example of a world governing body accepting that more than one national governing body has jurisdiction in each territory. The more professionally managed governing bodies tend to perform more functions.

Often governing bodies choose to split their commercial and regulatory roles. This is not a general rule. It is a matter of judgement in each case and the benefits of separating these roles are ambiguous. The tension between the two roles was highlighted in the FIA/FOA (Formula One) European Commission investigation a few years ago⁵ and also surfaced when the leading football governing bodies FIFA and UEFA decided to let external agencies handle the marketing and selling of major tournaments. In the case of FIFA this went badly wrong and they had to rescue the bankrupt commercial entity and bring the operations back in-house.

Major differences exist between the structure and organisation of sports in the United States and Europe, particularly for league sports. First, in US the leagues are generally 'hermetic'. They are closed in the sense that new teams are seldom admitted to a league, and there is no annual promotion and relegation between junior and senior leagues. Expansion franchises are admitted on agreement between existing league members and the entry fee is divided between them. This sense of solidarity is undermined in Europe by the fact that the composition of each league division changes from year to year and that the set of competitors differs in different competitions.

The second notable feature of US leagues is the extent to which the league authorities have tried to maintain a competitive balance between the clubs, either through intervention in the labour market or through redistribution of club revenues. The main intervention in the player market has been the 'rookie draft' system, which allocates young players entering the league among the clubs. Players finishing college or high school enter professional sports through a draft system. Each club takes turns to pick players, with the first pick being awarded to the team that finished last in the previous season's competition, the second pick to the second to last team and so on. The reverse-order-of-finish allocation enables poor-performing teams to acquire the best young talent and therefore improve their standing in the following year. The system also limits the ability of players

Table 21.1 Comparative features of sports world governing bodies

	Only 1 member per country	One body jurisdiction in each territory	International body owns rights to competitions	Top international events need body approval	Prohibition from unauthorised events	Sanctions: unauthorised events
IAAF – Athletics	✓	✓	✓	✓	✓	✓
IOC – Olympics	✓	✓	✓	✓	○	○
IRFB – Rugby	✓	✓	–	✓	○	✓
ITF – Tennis	✓	✓	✓	✓	✘	–
FIFA – Football	✓	✓	✓	✓	○	○
IBF – Badminton	✓	✓	✓	✓	✓	○
FINA – Swimming	✓	✓	✓	–	–	○
AIBA – Amateur Boxing	✓	○	✓	✘	✓	–
FIBA – Basketball	✓	✓	✓	✘	✓	○
FITA – Archery	✓	✓	✓	✘	–	○
UIT – Shooting	✓	✓	–	○	✓	✓
ISF – Softball	✓	✓	–	✓	✓	✓
IIHF – Ice Hockey	✓	✓	✓	✘	✓	✓
ITTF – Table Tennis	✓	○	✓	✘	–	–
IWF – Weight Lifting	✓	○	✓	○	–	–

Key: ✓ = Yes, ✘ = No, ○ = Implied Yes, – = Position unclear.

Source: Governance in Sport Committee 2001, www.governance-in-sport.com.

Table 21.2 Differences in structure of US and European sports leagues

	US Sports	Football in Europe
League system	Closed, no promotion or relegation Teams compete in single league competition	Open, annual promotion and relegation Teams may compete simultaneously in many competitions
League functions	Collective sale of TV rights Centralised marketing	Collective sale of TV rights
Competition between clubs	Limited substitution by consumers	Significant potential for substitution
Competition between leagues	Numerous cases of entry by rival leagues	All leagues contained within the established hierarchy
Player market	Rookie draft Salary caps (NFL, NBA) Collective bargaining	Active transfer market
Revenue sharing	Equal division of national broadcast income Gate sharing (NFL 40%, Baseball average 15%, NBA 0%)	Sharing of television income Little or no sharing of league gate revenues Some sharing of gate from cup competitions
Competition policy	Antitrust exemption for baseball Sports Broadcasting Act exempts national TV deals from antitrust	Centralised sale of TV rights under attack Selected interventions (ticket allocation FIFA)

Source: T. Hoehn and S. Szymanski (1999), 'The Americanisation of European football', *Economic Policy*, 28, 205–40.

to market themselves, and there have been a number of legal challenges that have led to some amendments of the system. Player contracts are typically longer in US sports than in European football. For example, in baseball five- or six-year contracts are common, compared to a more typical three-year contract in Europe. Other restrictions imposed by US leagues include salary caps on the overall wage bill of clubs. These were introduced through a process of collective bargaining in the NBA in 1984 and the NFL in 1994. Table 21.2 summarises the main differences described in this section.

Governing Bodies and the State

As top sports have become more commercialised, governments worldwide have taken an interest in sport and increasingly intervened, mainly through the application of employment law, selective (financial) support mechanisms aimed at grassroots and talent development and competition law. Local governments are often involved in the provision and management of sporting facilities, but generally, governments in developed market economies have tried to steer clear of excessive involvement in the management of sport.

This is in contrast to socialist and centrally planned economies, which set great store by producing superior athletic and sporting performance for the greater good of society and glorification of its leaders.

Governing bodies typically have had a great deal of freedom to organise their sport in terms of setting sporting rules, designating a hierarchy of competitions and leagues, selecting athletes for championships, promoting and relegating clubs in leagues, assigning media and sponsorship rights and redistributing moneys earned from the commercial exploitation of these rights. At the same time there have been signs that politicians are more actively promoting solutions to the particular challenges faced by sport. The Helsinki Report of the European Commission⁶ specifically stated that sports federations should 'define their missions and statutes more precisely' and their 'operations with an economic dimension should be founded on the principle of transparency and balanced access to the market, effective and proven redistribution and clarification of contracts'. In December 2000, the European Council declaration at Nice stressed its support for the independence of sports organisations and their right to organise themselves. It also noted that such support was conditional on sports bodies observing principles of democracy and transparency, solidarity across their sports and observance of a code of ethics. The Helsinki Report further states 'the regulations of sporting organisations drawing up rules without which a sport could not exist, or which are necessary for its organisation or for the organisation of competitions, might not be subject to competition rules'.⁷ However the report also outlines that there are practices that are, in principle, prohibited by the competition rules.

Competition authorities have taken an interest in the governance of sport and the role of governing bodies (including event organisers and leagues) in parallel with the increased commercialisation of sport. Much of this interest has focused on the organisation and marketing of sporting contests which rely heavily on restrictions imposed on participants and other input providers as well as downstream operators such as broadcasters and sponsors. The coordination functions that enhance the value of sport in the eyes of consumers might appear to be a restraint on competition, which within a normal business context may well be unacceptable or deemed collusive. Normally, vertical restraints are thought of in terms of the relationship between a manufacturer and a retailer. However, analogous restraints frequently appear in the organisation of sports leagues and championships, as shown in Table 21.3.

Restraints in sport may occur for efficiency reasons, primarily to avoid free-rider problems that arise when activities within the vertical supply chain are not coordinated. An example in a sporting contest is when one team invests heavily in youth development policy. Other teams may attempt to free ride on this investment if players have freedom of movement, resulting in no teams making the socially efficient level of investment in youth players. Contractual restraints, either on the freedom of the clubs or the freedom of movement of the players can help avoid the free-rider problem. Hence the restraint may be efficiency-enhancing. There are many examples of such efficiency-enhancing restraints in the case of sports markets as suggested in Table 21.3.

The sale of media rights has been another major focus of concern of competition authorities in the European Union.⁸ The overriding aim is to prevent foreclosure of sports content markets with adverse effects for competing broadcasters and viewers who face restricted access to major televised sporting events. In the United States the same overriding concern is a feature of media regulation generally. Unlike the EU, the United States has tradition-

Table 21.3 Vertical restraints in business and sports

Type of Restraint	Typical business context	Sports markets
Non-linear pricing	Two-part tariffs	Redistribution formulas for revenues from broadcasting and other sources, association membership fees
Quantity forcing	Minimum sales volume	Commitment to participation in a fixture list
Service requirements	Pre- and post-sales services and promotions	Stadium or track quality standards, promotion and youth development requirements
Quality controls	Selective distribution	Registration and entry requirements
Exclusive distribution	A single distributor licensed in a given territory	Regional team franchises, representative national teams and individuals
Exclusive dealing	A given distributor committed to a single manufacturer	Requirements for individuals or teams to commit themselves to particular contest formats
Tie-in sales	A requirement to market associated products	Broadcast contract guaranteeing minimum coverage for all teams

Source: The list of restraints is taken from P. Dobson and M. Waterson (1996), 'Vertical restraints and competition policy', Office of Fair Trading Research Paper No. 12, London.

ally been more liberal when it comes to collective selling of sports rights. However, the emerging consensus at the EU level is less dogmatic about negative effects of collective selling of sports rights and generally promotes the right to impose and manage sporting rules. Restrictions of output of televised sport are the key focus of concern, with several recent decisions limiting the degree of exclusivity available for Pay-TV broadcasters.⁹

Case Studies

The following overview of governance arrangements in six major sports demonstrates the points made in the main body of this chapter but also highlights the importance of history.

European football

The organisational structure of football in Europe is similar across all countries. Clubs are the fundamental unit, whether the game is played professionally or as an amateur game. The role of football associations as the governing bodies who regulate the conditions under which the game is played is key everywhere. What is different from country to country, however, is the role of the state. In some countries governments have traditionally taken a back-seat role, and given the ruling bodies a free hand. In others, there is a heavy

involvement at the municipal level through the ownership of stadiums, and at the federal level through football-specific legislation.

The creation of governance structures in football dates to its earliest beginnings. Thus the English Football Association (FA) was founded in 1863 when there were still only a handful of clubs in existence. The primary concern of the founders was to agree to a common set of rules by which all clubs could abide. This 'regulatory' function, although much expanded, remains a central function of the FA to the present day. By contrast, the Football League, founded in 1888, was essentially created to promote a more interesting and attractive form of competition for clubs. League competition enhances the attractiveness of the game because it adds new forms of competition (the race for the title as well as the outcome of the match itself), makes competition more systematic and therefore enhances the ability of fans to recognise success. League championships also create a consistent basis for historical comparisons of team performance. In that sense, governing bodies possess 'impresario' functions, and responsibilities for the promotion of competition among clubs and in the game as a whole. In practice the FA and Football League in England compete over the control of both regulatory and impresario functions. Some European countries have followed this dual structure. For example, in Italy the Federazione Italiana Gioco Calcio (FIGC) is the national governing body while the Lega Nazionale Professionisti (LNP) governs the Serie A and B championships. Others have adopted a more centralised approach. In Germany it is the Deutsche Fussballbund (DFB) which strictly controls the game through a number of regional bodies on the basis of a very detailed rule book and set of statutes. The Bundesliga, the top league, is obliged to observe the statutes of the governing body and acts on delegated authority from it, even though it has been a legal entity in its own right since 2001.

The national associations of most European countries were founded around the turn of the century (Belgium 1895, the Netherlands 1889, Italy 1898, Germany 1900, Austria 1904, Spain 1913 and France 1918). The main function of these national associations has traditionally been regulation of the clubs themselves, not just the professional clubs but also the huge number of amateur ones. Regulation has affected the market both for players and for fans, including issues such as stadium management and even ticket prices, and other controls relating to commercial activities such as limiting dividend payments. These governing bodies have extensive powers to regulate the conditions under which the game is played. They traditionally license players and set the rules by which players are contracted by clubs. Similarly, they assume a central role in the marketing of television rights for games played in the league or cup competitions. Governing bodies fund themselves from membership fees, from competitions they run and increasingly from sponsorship and sale of TV rights.

The world governing body, FIFA, was founded in 1904 by Belgium, Denmark, France, the Netherlands, Spain, Sweden and Switzerland. During its early years it was largely dominated by European countries, with the British associations (Scotland, Wales, Ireland and England) joining and then quitting on a number of occasions prior to the Second World War. However, as football became a significant sport in the rest of the world, primarily South America, FIFA came increasingly to represent a wider set of interests, and in 1954 UEFA was formed as a specifically European governing body. Each tier of these governing bodies retains both regulatory and impresario functions.

FIFA, in combination with the British associations, controls the rules of the game. However, its main activity is the organisation of the World Cup, a competition among national teams run by the national governing bodies. Players are drawn from the professional clubs who are obliged by the governing bodies to release their players, although they do not share in the revenues. Thus to a limited degree the World Cup is in fact a substitute for league competition. However, the degree of substitutability is limited by ensuring that league and national team games are never scheduled simultaneously.

UEFA's main activity has been the running of annual European-wide club competition. It also runs the European Championship, which is a competition between the European national teams held every four years. UEFA runs three club competitions, the European Champions League, (formerly the European Cup) for which the national league champions (and now for some countries the runners up) are eligible. This competition, which began in 1956, pits the top European clubs against each other and has come to be seen as the supreme competition in European club football. In addition, UEFA runs the UEFA Cup (since 1958), for which clubs ranked up to second, third, fourth or fifth (depending on national league performance) in the previous year's national league are eligible as well as teams that won the previous year's national (knock-out) cup competition. UEFA also imposes its own rules for clubs participating in its competitions, most notably in relation to the eligible players. Until 1995 it maintained the '3 + 2' rule which permitted clubs to include more than three 'foreign' players (that is, players registered to play for another national association) in the squad for a match and to have no more than two foreign players on the pitch at any one time.

Golf

Golf was being played by the British monarchs in the early seventeenth century but the oldest organised golf society, the Company of Gentleman Golfers, was founded in 1744. The Royal and Ancient Golf Club of St Andrews (the Royal and Ancient), now considered to be the home of golf, was formed in 1754 by a group of 22 golfers that regularly played there. For years both these organisations played a major role in the development of the game in Scotland. Over time there was a general acceptance that the Royal and Ancient had become the game's leading authority. This acceptance was formalised for the first time in 1897 when the senior clubs throughout Britain gave authority to the Royal and Ancient to formulate and administer a common code of rules.

Golf spread to the United States in the late nineteenth century and several clubs were quickly established. Some of them organised championships, leading to a lengthy debate over which competition was more valid. To ensure that further confusion was minimised, the US Golf Association (USGA) was formed in 1894 with the aims of organising the US Amateur and Open Championships and administering the rules of the game. Both the Royal and Ancient and the USGA continue to administer the rules of golf to this day. Representatives of the Royal and Ancient and the USGA meet twice a year to discuss the revision of clauses, which are then examined in consultation with both amateur and professional golfing bodies worldwide. Any agreed changes to the rules of golf are made every four years.

By the end of the nineteenth century, the UK was producing great players. John Henry Taylor and Harry Vardon, together with James Braid, a Scotsman, between them won the

Open Championship 16 times between 1894 and 1914. These three supreme golfers were known as 'the great triumvirate' and were primarily responsible for the formation of the Professional Golfers Association (PGA) in 1901. This body is responsible for professional tournaments in Great Britain and for the biennial Ryder Cup match when played in the UK. The British PGA and the European Tour were amalgamated but subsequently split, in 1971. The PGA European Tour now runs events successfully throughout Europe and other countries worldwide.

The European Tour started in 1971, and from 1972 prize money and points from the European tournaments were included in the 'Order of Merit' (the official ranking system). In 1980, the minimum number of tournaments to be played for inclusion in the Order of Merit was raised from five to seven. The 1998 schedule includes 45 tour and 'approved special' events, of which players must participate in at least 11 to be included in the ranking system.

The US PGA was founded in 1916, and like its British counterpart was concerned with promoting interest in professional golf and increasing playing standards. The US PGA Tour became more structured following the Second World War and began to expand rapidly in the late 1950s and early 1960s. The touring professionals began to gain control of the tour in late 1968 and from 1974 the value of tournament purses escalated. The US PGA currently organises an extensive tour throughout the United States, including the Ryder Cup.

The US PGA plays a similar role to the PGA in the organisation of golf in the United States, although on a much larger scale. From 1974 to 1993, the number of PGA Tour events rose from 43 to 116, with income rising from \$9.9 million to \$230 million. This is substantially larger than the PGA European Tour.

Heavyweight boxing

The Greeks introduced boxing into the Olympic Games in the late seventh century, but boxing as a sport can be traced back to as early as 1500BC. It declined towards the end of the Roman Empire and no further reference to boxing exists until modern times when it reappeared in England in the early eighteenth century. It was not until the end of the nineteenth century that gloves were reintroduced (the Greeks having used them earlier). Early in the boxing revival there were no rules – wrestling was permitted and a boxer could strike an opponent when he was down. It was not until Jack Broughton, heavyweight champion of England from 1734 to 1750, introduced the rule that a round ended when a man was down, that any structure was imposed on the sport. London fighters dominated boxing until the end of the nineteenth century.

The first revision to the rules of boxing occurred in 1839 with the introduction of the London Prize Ring Rules. These were later superseded by the Marquess of Queensbury rules in 1867. From the end of the nineteenth century the United States started to dominate boxing, due in part to the steady stream of immigrants. By 1915, Irish immigrants dominated every weight division. The early barriers that surrounded African-American boxers were overcome by Joe Louis in 1937 and since that time, more black fighters than white have held the heavyweight title.

Amateur boxers were the first to introduce organisation into the sport and in 1880 the Amateur Boxing Association was established as the British governing body. A similar organisation was founded in the United States eight years later. Together they introduced the Amateur International Boxing Association in 1946, which now conducts Olympic boxing.

Professional organisation effectively began in England in 1919 with the establishment of the British Boxing Board of Control (BBBC), which still exerts control over the sport in Britain. In the United States the World Boxing Association (WBA) was instituted in 1962. US dominance of the WBA led to the formation of the rival World Boxing Council (WBC) in 1963. Since the mid-1980s, 12 bodies have had at least some organisational control over heavyweight boxing.

Both the WBA and the WBC were concerned with the sponsoring of championship fights and the recognition of champions. They began naming rival champions from 1965 (with occasional agreements). Another professional organisation, the International Boxing Federation (IBF), was founded in 1983. To credibly be called the world heavyweight boxing champion a boxer currently needs to hold the WBA, the WBC and the IBF titles. From 1892 to 1978, only 22 men won the world heavyweight championship. Since 1978, 28 men have held versions of sport's richest prize.

The historical development of the sport has led to a rather convoluted organisational structure and although attempts have been made to provide one unifying body, none has been successful.

British horseracing

Horseracing originated in fifteenth-century England, from the desire of groups of owners to race their horses (usually ridden by themselves or their friends and family). The first issue of the Racing Calendar was published in 1727 and the Jockey Club (JC) was created in or just before 1752, out of a desire for central coordination in this increasingly complex sport. It was formed, as a private club, to create uniformity in the rules of horseracing, to settle disputes, to protect the quality of the sport and the horses from corruption, to develop the breed through the breeding of bloodstock, and eventually to license individuals and racecourses. It is a non-profit-making body with 123 ordinary members elected for their experience and knowledge of racing (for example, as owners, breeders, trainers, jockeys, stewards and so on), and 17 honorary non-voting members. There are seven stewards on the board ('JC Stewards'), who are responsible for strategy and policy, and have never been remunerated for their services. The safety and fairness of each day's horseracing is the responsibility of the officials appointed by the JC (collectively known as the 'Field Force') divided into various specialisations (for example, veterinary and security). All fixtures are overseen by the stewards of the meeting, of whom there are at least four watching and reviewing each race with a view to identifying breaches of the rules.

The British Horseracing Board (BHB) was established in 1993, almost 250 years later, because of the growing need for a strong central governing authority for horseracing, to represent the increasingly divergent interest groups involved in the sport and to ensure that it had sufficient funds. It was formed after extensive scrutiny of horseracing by a parliamentary committee, and with the active support of the government.

Since the creation of the BHB, the JC has only been responsible for regulating and encouraging the proper conduct and integrity of the sport of thoroughbreds. The JC's relationship with the BHB is entirely collaborative. In its capacity as regulator, the JC supports the work of the BHB through the nomination of three JC members to the BHB Board. In horseracing, as in many other sports, the quality of the regulatory role enhances the demand and hence the commercial value of the sport. Equally what might

be regarded as 'commercial' aspects of the sport, such as the BHB's prize money orders, are supportive of its regulatory role. This close interaction between the two roles has been recognised by the Office of Fair Trading, which in 2004 after a four-year long investigation concluded its investigation of the governing bodies of British horseracing with only minor modifications to its statutes and rule books.

Olympics

Organised athletics contests are as old as human civilisation itself but can be traced, with certainty, back to Greece some 3500 years ago.

The modern Olympic Games were first conceived by Baron Pierre de Coubertin in 1887. He spent seven years gauging public opinion in France, England and the United States and at an international congress in 1894 his plan was accepted. The International Olympic Committee (IOC) was formed at this congress and the first modern Olympic Games were held in Athens in 1896. Thirteen nations sent nearly 300 representatives to take part in 42 events in 10 different sports. Since that time the Summer Olympic Games have been held every four years, except during the First and Second World Wars.

The IOC's duties are primarily to maintain the regular celebration of the Olympic Games according to the established spirit and tradition, and in general to promote the development of amateur sport worldwide.

The IOC was formed as a permanent organisation that elects its members from countries that maintain a National Olympic Committee (NOC). Current membership is approximately 70. Every country that wants to participate in the Olympic Games must have a National Olympic Committee accepted by the IOC, and by 1998, 167 national committees existed.

Each NOC is made up of at least five national sporting federations affiliated to an appropriate international federation. It is the responsibility of the national Olympic organisation to promote the development of amateur sport. In addition, the NOC supervises the equipping of and arrangements for their respective national Olympic teams. NOCs must act as not-for-profit organisations and must not associate themselves with commercial or political activity, allowing them to act in an independent and autonomous manner.

Tennis

The dispute over the origins of modern tennis has never been fully resolved. Officially, the centenary of tennis was celebrated in 1973, commemorating its introduction by Major Walter Clopton Wingfield of North Wales, in 1873. Variations of the game were being played earlier, however, and there is evidence that the first tennis club was established in Leamington, England in 1872. During the 1870s the game also spread to America. One of the most important events in the history of tennis was the decision by the All-England Croquet Club to allocate one of their lawns at Wimbledon to tennis. The game soon proved so popular that the club changed its name to the All-England Lawn Tennis and Croquet Club, and in 1877 decided to hold a tennis championship. A championship committee was established to decide on such matters as court dimensions and scoring methods, many of which remain part of the modern rules of tennis. The winner of the first Wimbledon Tennis Championships was Spencer Gore. The Women's Championship was not added until 1884.

In 1880 the first US championship was held at Staten Island Cricket and Baseball Club. The increasing popularity of the game and frequent disputes over the rules led to the foundation, in 1881, of the US National Lawn Tennis Association (later the US Tennis Association). In that same year the first US Open was played. In 1888, due to similar disputes over the rules of tennis, the British Lawn Tennis Association (LTA) was established. The Australian Championships were first held in 1905 and the French National Championships in 1891.

Tennis was played professionally from the 1920s but the traditional circuit was technically amateur, with money being paid to top players covertly. This hypocrisy was ended some 40 years later when 'open' competition between amateurs and professionals was ratified by the International Tennis Federation (ITF, the worldwide governing body for tennis). During the transition from quasi-amateurism to full professionalism several player guilds were formed to further player interests in what was becoming a big-money sport. The men's Association of Tennis Professionals (ATP) and the Women's International Tennis Association (WITA) continue to play a major role in the organisation of tennis.

The power of Wimbledon has grown from its status as the first tennis championship, and from its organising bodies, which continue to have a profound impact on modern tennis. Since the first Wimbledon Championship in 1877, its evolution has been closely tied to the two organisations that manage the modern event. The All-England Club (the more common abbreviation of the All England Lawn Tennis and Croquet Club) is joined by the LTA in the management of the Championship. The LTA is the governing body of lawn tennis in Great Britain.

The LTA's responsibilities include the training of elite players and the management of international teams, particularly Davis and Federation Cup teams. It also organises and coordinates events and tournaments, and develops tennis facilities. As a member of the ITF, the LTA plays an important role in the management of the game internationally. Today, Wimbledon is one of the four highly prestigious Grand Slam events centrally organised by the Grand Slam Committee of the All-England Club. These events are 'open' in that amateurs and professionals are entitled to enter, regardless of affiliation.

Notes

1. I am grateful for the research assistance of Lizzie Lothian and Chantelle Bramley and the illuminating insights into the economics of sport of Stefan Szymanski. My understanding and appreciation of governance issues greatly benefited from discussion, with fellow members of The Governance in Sport Committee. The usual disclaimers apply.
2. The closest analogy for the multidimensional and relatively autonomous system of governance in sport are the governance arrangements in the media sector and the professions. In many countries these sectors enjoy a considerable degree of self-regulation. For example, the Press Complaints Commission is a self-regulatory system for the press media. In another example from the media sector, the UK's public service broadcaster, the BBC, is subject to control and supervision of its management through a board of governors who have a wide-ranging remit under the Royal Charter which forms the regulatory framework. In the world of professional services we find bodies such as the Law Society, Institutes of Certified or Chartered Accountants with wide-ranging powers to grant professional qualifications, discipline members for misconduct and set rules on advertising.
3. M. Gaved and T. Hoehn, 'Governance in sport', paper presented at the 18th annual conference of the European Association of Law and Economics, Vienna, 13–15 September 2001.
4. I. Preston and S. Szymanski, 'Cheating in contests', *Oxford Review of Economic Policy*, 2003, 19: 612–24.
5. COMP/36.638, The Commission closed its investigation after the Fédération Internationale d'Automobile (FIA) agreed to limit its role to a sports regulator, concluding a 100-year deal with a separate commercial body, the Formula One Administration (FOA), not to prevent or impede new motor racing competitions

(leveraging its market power over the racing circuits) and to conclude contracts of up to three years' duration (or five years if there are substantial investments).

6. Helsinki Report, Report from the Commission to the European Council with a view to safeguarding current sports structures and maintaining the social function of sport within the Community framework, December 1999, COM (1999) 644.
7. *Ibid.* at 5.
8. T. Hoehn and D. Lancefield, 'Broadcasting and sport', *Oxford Review of Economic Policy*, 2003, **19**: 552–68.
9. *Ibid.*

22 The economics of the IOC

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The IOC (International Olympic Committee) is a non-governmental organisation over 100 years old that controls two of the world's largest sports events: the Olympic Summer Games and the Olympic Winter Games. This unique 'property' has permitted it to head a flourishing business enterprise since the 1980s, even if its legal status remains that of a non-profit association like FIFA (the International Football Federation) and most national and international sports governing bodies. The ever-increasing funds at its disposal permit it to promote the Olympic ideal and to provide financial support for the entire Olympic movement. Since it needs no governmental subsidies, it is also highly independent from state authorities.

To understand how the IOC achieves this enviable status, it is necessary to provide a brief explanation of its role within the Olympic movement that it dominates, its sources of revenue and its expenditure. The IOC's assets are then presented. A conclusion sketches out the directions its future development could take, notably in the light of the new players that are emerging.

Obviously, the IOC can also be presented from angles other than the economic one, which takes precedence in this chapter (for example political, social or cultural). The main sources of information used are the IOC's own publications, including its accounts as certified by its auditors (IOC, 2001), as well as its most recent marketing file (IOC, 2004). For detailed contextual elements, reference can also be made to Chappelet (1991) and Barney et al. (2002). All figures quoted in the text are in US dollars (US\$) and rounded. Any conversions to this currency are stated at the exchange rate valid at the time.

The IOC and the Olympic Movement

The IOC is a membership association, and was founded in Paris in 1894 following a Congress for the Revival of the Olympic Games convened by Baron Pierre de Coubertin. At the outset, the IOC consisted of 15 members from 12 countries. By its centenary in 1994, this had risen to 100. In 1999, 10 members resigned or were expelled and 10 others were reprimanded because of favours they had received from the Candidature Committee for the Salt Lake City Winter Games in 2002. After this scandal, the IOC underwent reforms and limited the number of its members to 115, of which 70 act in an *ad personam* capacity (representing the IOC in their country) and 45 act in their official roles (15 representing the Olympic athletes and elected by their peers, 15 from the National Olympic Committees (NOCs) and 15 from the International Sports Federations (IFs) – see below). Moreover, members are now elected by their peers by means of a secret ballot, for renewable terms of office lasting eight years, and the age limit is established at 70. In the past, the terms of office were unlimited, elections were by tacit approval, and the maximum age limit was 80 (and for life prior to 1966). In 2004, at the time of the Athens Games, the IOC consisted of 122 members from 81 countries, with those already elected in 1999 benefiting from provisional measures. There were also 22 honorary members, including an honorary

life president (Juan Antonio Samaranch) and 4 honour members. Generally speaking, all members are at least relatively wealthy. Their activities as IOC members are unpaid, but since 1981 they have been reimbursed for the cost of taking part in Olympic meetings.

The main responsibilities of the members are to promote the Olympic ideal in their country and their organisation (and supposedly not to represent their country within the IOC); to elect the President, the members of the Executive Board and the new IOC members; and to select the Olympic cities. Their annual meeting (called the Session) makes regular amendments to the Olympic Charter, which lays down the operating rules of the Olympic movement and also constitutes the IOC's statutes. This Charter states that the members bear no responsibility concerning the commitments (notably those of a financial nature) made by the IOC. The Session is a kind of parliament behind the IOC's government, its Executive Board, and it is the annual general meeting of the IOC, which is a non-profit-making association according to its statutes governed by Swiss law (Articles 60 and following of Swiss Civil Code). The IOC's headquarters have been in Lausanne (Switzerland) since 1915. It should be noted that in legal terms (Article 61) the IOC should be entered into the Swiss Trade Register since it undertakes commercial activities in order to achieve its idealistic objectives. This is not, however, the case.

Once it has been awarded the Games by the IOC Session, a city constitutes an Organising Committee for the Olympic Games (OCOG) to prepare for the event over the coming six to seven years. Today, the OCOGs have operating budgets in the order of US\$1.5 billion for the Winter Games and US\$2.5 billion for the Summer Games (excluding capital investments).

The NOCs are recognised by the IOC in each of the countries and territories they control: they numbered 202 in 2004. Their main responsibility is to send a team to the Games. All but one did so for the 2004 Summer Games, and 77 took part in the 2002 Winter Games. In exchange, they receive various kinds of aid from the IOC (and often from their government). Around 40 NOCs have significant resources that come from their national sponsoring programme.

The IFs each organise their sport on a world level. They are a confederation of the National Federations (NFs), which manage the sport concerned in each country. With the objective of sending their athletes to the Games, the NFs of a country can also be members of their NOC. The IOC recognises 35 IFs (28 for the sports on the programme of the Summer Games and seven on that of the Winter Games). The IFs sanction the Olympic competitions. In exchange, they receive a portion of the revenues from the Games. They also have their own revenues from various competitions they control (World Championships, European Championships and so on). Numerous other bodies linked to the Games or to sport are recognised by the IOC and benefit from its subsidies.

According to the IOC (2001) itself, its six core functions are: promoting Olympism; coordinating the Olympic Games; supporting the Olympic movement; encouraging the development of sport; advancing sport sciences; and contributing to society through sport. One could say that the first two functions constitute the net sources of revenues (by developing the Olympic brand in the long term and by collaborating with the OCOGs with a view to the sporting and economic success of the Games), while the other four functions are more those that incur expenditure (to finance the IFs, the NOCs, the many recognised organisations and the IOC's various socio-cultural activities). We shall present these revenues and expenditure in turn.

The IOC's Sources of Revenues

Today, the IOC's revenues are extremely high, but this has not always been the case. During the early days, the Committee was entirely financed by its founder, Pierre de Coubertin, who was moreover ruined by doing so and died in extreme poverty (although this was also due to bad investments he made during the 'roaring twenties'). After he retired as President in 1925, the IOC basically survived with the fees paid by the membership, as is appropriate for an association. Since the members were rich, they paid their own expenses for attending meetings or the Games, and there were virtually no overheads. This situation continued until 1972, when the IOC began to receive about a third of the broadcasting rights for the Games. As of 1985, the IOC set up a vast programme to market the Olympic rings (the TOP Programme), which rapidly became a second pillar for the Olympic movement's revenues. Royalties from the OCOGs have constituted a third source since 1992. In addition to this accumulating income as of the 1980s, the IOC also receives revenues from its assets invested in Swiss banks. The next section will examine the various sources of revenue in detail.

Broadcasting rights

Since 1960, the broadcasting rights have been paid by the television channels and networks for the exclusive transmission of the Summer or Winter Games on their national territory or within the boundaries of their union (for example, the European Broadcasting Union: EBU). The IOC, however, only began taking part in negotiating the contracts concerned as of those for the 1972 Games. It has been controlling the negotiations (and amounts paid) only since those of 1992. Prior to 1972, the IOC received only meagre amounts paid out of goodwill by the OCOGs signing the contracts. Table 22.1 shows the amount (rounded) for broadcasting rights since 1960, in American dollars since most of these contracts were concluded in this currency. Depending on the source, these amounts can vary slightly; here we use those from Chappelet (1991) and the IOC (2004). (These amounts are not compounded at today's US\$ value.)

The table shows that the broadcasting rights are progressing constantly and today reach considerable sums. Although the National (American) Football League (NFL) still obtains larger amounts for its season's broadcasting rights, the Summer Olympics' annual rate of increase, at about 16 per cent, was nearly twice the NFL's (HBS, 1999). In the eyes of the Olympic broadcasters, however, the sums paid are justified because the Games remain one of the few televised events to attract large audiences and that incite the entire family to gather around the television. This therefore makes it possible to sell slots for commercials at a very high price (around US\$600 thousand for 30 seconds in the United States in 2002). Sponsors of, and suppliers to, the Games are almost forced to purchase these slots in large quantities (known as telecast sponsoring) if they wish to avoid their competitors deriving benefit from an association with the Games by means of televised presence during Olympic reporting (a form of ambush marketing). In certain cases, the IOC shares in the broadcaster's profits (revenue sharing) and benefits from promotional programmes of the Olympic ideal (value in kind).

This strong growth of the rights is also due to the competition between the three major American networks (ABC, CBS and NBC), which have more recently been joined by Fox. Other countries have followed, a little later, to equal the amounts achieved for the US territory as and when competition between networks develops. The proportion of the rights

Table 22.1 *Olympic Games broadcasting rights, 1960–2012 (US\$m)*

Year	Winter city	Broadcasting rights	Summer city	Broadcasting rights
1960	Squaw Valley	0.05	Rome	1.1
1964	Innsbruck	0.9	Tokyo	1.6
1968	Grenoble	2.6	Mexico	9.7
1972	Sapporo	8.5	Munich	17.8
1976	Innsbruck	11.6	Montreal	32
1980	Lake Placid	20.7	Moscow	101
1984	Sarajevo	102.7	Los Angeles	287
1988	Calgary	325.5	Seoul	403
1992	Albertville	292	Barcelona	636
1994	Lillehammer	353		
1996			Atlanta	898.2
1998	Nagano	513.5		
2000			Sydney	1331.5
2002	Salt Lake City	735		
2004			Athens	1492.5
2006	Turin	832*		
2008			Beijing	1715*
2010	Vancouver	820**		
2012			London	1181**

Notes: *Provisional figure; ** US rights only.

for the United States is reducing in proportion to those for the rest of the world (from 78 per cent in 1984 to 52 per cent in 2008). The signature of contracts for several Olympiads has developed since 1998 at the request of NBC, which since 1992 until 2012 at least is the exclusive Olympic network in the United States. Some observers believed that Olympic broadcasting rights would reach a ceiling after 2008 and would suffer from the rising influence of the internet as a medium. Broadcasting rights contracts signed by the IOC with NBC for 2010 and 2012 (including those for the new media) have nevertheless proved that this is, for the time being, by no means the case. In July 2004, EBU has signed a US\$746 million contract for the broadcasting of the 2010 and 2012 Games in all its member countries except Italy (a 110 per cent increase over the previous contract). For the first time, multi-media and mobile telephony are included in such a contract.

TOP programme

Since the beginning of Juan Antonio Samaranch's presidency in 1980, the IOC has endeavoured to diversify its sources of income, that is, it attempted to find 'clients' other than television. A commission chaired by Canadian member Richard Pound handled this issue, and proposed creating an integrated marketing programme for the Olympic symbols, and known as TOP (The Olympic Programme, and later The Olympic Partners). TOP learned from previous marketing programmes carried out by the OCOGs since 1972, and which suffered from two major shortcomings: they were mainly limited to the country hosting the Games, and they created no income for the IOC.

With TOP, the IOC permits a company to purchase – by a single signature – the right to be associated with the Winter and consecutive Summer Games (use of the Games' logos, hospitality occasions and so on), with the IOC (use of the Olympic rings standing alone), and with the NOCs in the world (use of their emblems). This facilitation is a major advantage for a multinational company that wishes to carry out a world campaign linked to the Games in the countries where it is present. This Olympic partnership is for a four-year period and includes two editions of the Games (Winter, then Summer), or longer if the contract is signed for several Olympiads. This latter solution is becoming a trend similar to the case for broadcasting rights, and for example includes McDonald's and Visa, which have signed for both 2004 and 2008, and Coca-Cola until 2020.

The partnership is, of course, concluded exclusively for a well-defined category of products. It is much sought after thanks to the renowned Olympic symbol (the five interlaced rings), which is said to be the best-known logo in the world, above that of Royal Dutch's shell, McDonald's arches and Mercedes' star, and well ahead of that of the Red Cross or the United Nations (IOC, 1997). The Olympic ideal, which evokes values such as peace, fraternity and fair play, is also an excellent vector as long as it retains its purity. Some state that it is one of the world's most powerful brands. Since 1985, the IOC has been carrying out an ongoing study on the subject under the Olympic Image Research Project.

Table 22.2 shows the evolution of the TOP programmes since the first of its kind (Preuss, 2000; IOC, 2001). The management of the first two TOP programmes was entrusted to the limited company ISL (International Sport & Leisure), founded at the beginning of the 1980s in Lucerne, Switzerland by Horst Dassler (the owner of Adidas at the time) and his sisters. In 1989, the IOC created a marketing department within its administration and took over the negotiation of contracts with the Olympic partners while permitting ISL to service these once signed and to handle marketing relations with the NOCs. In 1995, the IOC agreements with ISL came to an end and the work relating to the TOP sponsors, the OCOGs and the NOCs was transferred to a limited company under the name of Meridian Management, founded for the purpose by two specialists formerly with the OCOGs of Albertville and Atlanta. The IOC owned 25 per cent of the equity investment in this company, and 50 per cent of the voting rights. In 2001, after the election of its new President, Jacques Rogge, the IOC decided to buy out the entire company, maintaining its former shareholders as managing directors, and to integrate its marketing department within it. The IOC member who chaired the Marketing Commission thus became the Chairman of the Board of Meridian. In 2004, the managing directors were fired and replaced by the IOC Director General and Marketing Director. In 2005, the company name was changed to IOC Television and Marketing Services SA. These developments, which have taken place over successive Olympiads, reflect the IOC's determination to control its marketing rights to the greatest possible extent and to maximise its income, notably by no longer paying commission to agents.

Other revenues

Besides broadcasting rights and the TOP programme, the IOC's other sources of revenues are much smaller. They should nevertheless be mentioned, however, because they are developing progressively. We can make a distinction between revenues from the OCOGs' activities and those from the IOC's own commercial activities.

Table 22.2 *Evolution of TOP programme*

	Number of companies	Companies involved	Number of countries	Revenues (US\$m)
TOP I 1985–1988 Calgary – Seoul	9	3M, Brother, Coca-Cola, Federal Express, Kodak, Panasonic, Philips, Sports Illustrated/Time, Visa	159	106
TOP II 1989–1992 Albertville – Barcelona	12	3M, Bausch&Lomb, Brother, Coca-Cola, USPS-EMS, Kodak, Mars, Panasonic, Philips, Ricoh, Sports Illustrated/Time, Visa	169	192 (including ViK*)
TOP III 1993–1996 Lillehammer – Atlanta	10	Bausch&Lomb, Coca-Cola, IBM, John Hancock, Kodak, Panasonic, Sports Illustrated/Time, UPS, Visa, Xerox	197	376 (including 185 ViK*)
TOP IV 1997–2000 Nagano – Sydney	11	Coca-Cola, IBM, John Hancock, Kodak, McDonald's, Panasonic, Samsung, Sports Illustrated/Time, UPS, Visa, Xerox	199	579 (including 276 ViK*)
TOP V 2001–2004 Salt Lake – Athens	10	Coca-Cola, John Hancock, Kodak, McDonald's, Panasonic, Samsung, Schlumberger-Sema, Sports Illustrated, Swatch (for Athens only), Visa, Xerox	202	Circa 650 (including 280 ViK*)
TOP VI 2006–2008 Turin – Beijing	11	Coca-Cola, General Electric, Kodak, Lenovo, Manulife, McDonald's, Omega, Panasonic, Samsung, Athos-Origin, Visa	202	Circa 866

Note: * ViK = value in kind.

In addition to the (world) TOP programme in which its participation is mandatory, each OCOG develops its own, national sponsoring programme in cooperation with the NOC of the host country (which holds the rights to use the Olympic rings on its territory and which receives a maximum of 10 per cent of the revenues from the programme set up by the OCOG). A professional merchandising/licensing programme has been set up by the OCOGs since 1972. In accordance with its contract with the Host City (signed on the day the Games are awarded), the IOC must approve all contracts signed by the OCOG for the sponsoring or merchandising of the Games, and today receives 5 per cent of the revenues this generates, in cash or in kind. This also applies to revenues from the sale of tickets for the competitions, which since 1996 are considerable (US\$374 million for

Sydney 2000). (During the 1950s and 1960s, the IOC and IFs imagined they could finance themselves thanks to a tax on these tickets). Finally, the IOC contractually reserves the right to 20 per cent of the possible profits made by the OCOGs, but tends to forgo this sum for the maintenance of the Olympic facilities.

As of the 1990s, the IOC has also been generating revenues independently of those from the Games and above and beyond interest on its assets. It organised a numismatics programme for its centenary. It designated official suppliers for its secretariat in Lausanne (for example, Mercedes for cars, Swissair for air transport, Mizuno for uniforms, Schenker for freight and so on). It organised the sale of historical images (photos and videos) of the Games (this income was allocated to the Olympic Museum). It also attempted, without success, to diversify in the direction of creating Olympic theme parks and sports lotteries. Moreover, it sells some publications without really covering the related production costs.

For the 2001–04 period, the Olympic revenues from the IOC and from the OCOGs of Salt Lake City and Athens can be estimated at over US\$4.26 billion, of which around 53 per cent consist of broadcasting rights and 33 per cent in sponsorship and licensing, against US\$3.77 billion for the 1997–2000 period (IOC, 2004). Only part of these revenues remains with the IOC.

The IOC's Expenditure

For 2000 (the last year published, IOC, 2001), the IOC's annual accounts showed revenues (rounded) of US\$180 million and expenditure and charges of US\$102 millions, that is, a surplus of US\$78 million that would bring in around US\$19 million interest and thus a total 'profit' of US\$97 million. Nevertheless, these annual figures make little sense within a body organised around a four-year cycle. In 1999, for example, the IOC registered a 'loss' of US\$48 million. In fact, it is only after the Games (in this case Sydney 2000) that the IOC receives the balance of the related revenues. The IOC's expenditure is thus better examined on the basis of the Olympiads.

Table 22.3 shows the IOC's own revenues and expenditure since 1970 (compounded at 1996 US dollars) by four-year periods (IOC, 1999a, 1999b, 2001). This is a previously unpublished synthesis. The revenues mainly consist of the portions due to the IOC from the broadcasting rights and TOP programme, OCOG royalties and interest on the IOC's invested assets. Expenditure includes: operating expenses for the IOC administration (mainly salaries and employee costs, since the headcount has risen from an average of 19 for the 1973–76 period to 264 for 2001–04); the extra-budget sums for grants, which mainly concern the financing of the Olympic Museum and payments made to two foundations (see below); and the charges against designated funds notably to cover costs linked to the IOC's coordination of the Games, subsidies to certain sports organisations and expenditure for one-off projects (IOC pavilion at universal exhibitions, the acquisition of televised archives, audits and so on). It should be noted that most of the expenditure is in Swiss francs, whereas the revenues are negotiated in US dollars: this exposes the IOC to exchange rate fluctuation risks.

A major portion of the IOC's expenditure (extra-budget grants) is in fact to constitute reserves, via two foundations: the Olympic Foundation and the Olympic Museum Foundation. The Museum Foundation manages an annual expenditure budget that has increased from US\$13.6 to US\$16.6 million between 1995 and 2003 (and has almost

Table 22.3 *IOC revenues and (expenditure), 1973–2000 (US\$m)*

Years	1973–76	1977–80	1981–84	1985–88	1989–92	1993–96	1997–00
Revenues							
TV rights							189.7
Other rights							101.0
Finance income							55.1
Total revenues	14.1	28.9	92.9	131.0	175.6	230.9	345.8
Expenditure							
Functional	(9.4)	(15.0)	(32.0)	(46.9)	(67.4)	(99.7)	(119.5)
Extra-budget grants			(3.9)	(8.5)	(52.7)	(37.1)	(86.3)
Charges against designated funds				(25.3)	(36.9)	(47.8)	(83.5)
Total expenditure	(9.4)	(15.0)	(35.9)	(80.7)	(157.0)	(184.7)	(289.3)
Special items	3.8	(2.7)	(3.3)	19.5	10.4	(50.1)	0
Excess of revenues (expenditure)	8.5	11.2	53.7	69.6	29.0	(3.8)	56.5
Fund balance at December 31 of last year of each quadrennial	14.3	21.2	70.4	131.6	139.8	121.2	105

doubled in Swiss franc terms). Half of this consists of salaries for the 75 employees (Olympic Museum, 2003). Around one-quarter of this budget is covered by operating revenues (two hundred thousand entrances to the Museum per year, royalties for the use of historical images, boutique, restaurant, sponsors and so on). The balance comes from interest on the Foundation's assets and (for some years still) from an IOC grant.

Since 1993, the Olympic Foundation has little by little constituted a reserve intended to permit the IOC to function during an Olympiad even if the Games do not take place (and thus the related revenues are not received). President Rogge, following his election in 2001, demanded that savings be made, and this has made it possible to reduce the IOC's operating expenses by US\$11 million in 2002 (albeit an Olympic year) compared to 2001 (the last year of Samaranch's presidency).

The IOC has not yet published its accounts for 2001–04 at the time of writing (November 2004). It is known, however, that at the end of 2004, its fund balance amounted to US\$240 million, more than twice the amount at the end of 2000 (IOC, 2005).

As Table 22.3 shows, the IOC's accounts are relatively modest in comparison with the billions generated by the Olympic brand. This is because the IOC, unlike other owners of major events (such as FIFA for the football World Cup), shares its two main sources of revenue (broadcasting rights and TOP programme) with its Olympic movement partners (OCOGs, IFs and NOCs). The allocation ratios are explained below. The IOC thus only preserves around 8 per cent of the Olympic revenues generated over an Olympiad (including those by the OCOGs alone).

The sharing of the revenues (including those in kind) from the TOP programme is carried out by contract according to the following approximate ratio: 60 per cent to the two OCOGs

Table 22.4 Distribution of TOP sponsorship revenues (US\$m)

	TOP III	%	TOP IV	%
Atlanta '96 / Sydney '00 OCOGs	169	44.9	221	38.2
Lillehammer '94 / Nagano '98 OCOGs	65	17.3	132	22.8
NOCs (excluding USOC)	62	16.5	93	16.0
USOC (United States Olympic Committee)	52	13.8	85	14.7
IOC	28	7.5	48	8.3
Total	376	100	579	100

Table 22.5 Distribution of broadcasting rights, 1994–2000 (US\$m)

	Lillehammer '94	%	Nagano '98	%	Atlanta '96	%	Sydney '00	%
OCOG	239.8	67.9	308.2	60	564.7	62.9	800	60
WADA	0		0		0		25	1.9
IOC	28.7	8.1	58.8	11.4	94.1	10.5	130.9	9.8
IFs	27.8	7.9	65.4	12.7	114.2	12.7	189.7	14.2
USOC	29.5	8.4	37.5	7.3	45.6	5.1	70.5	5.3
Olympic Solidarity	20.3	5.8	30.0	5.9	56.4	6.2	88.7	6.7
NOCs Games costs	6.8	1.9	13.6	2.6	45.6	5.0	26.7	2.1
Total = broadcasting rights	352.9	100	513.5	100	898.2	100	1331.5	100

concerned (winter and summer), 30 per cent to the NOCs (including USOC) and 10 per cent to the IOC. Table 22.4 shows the precise ratios for the last two Olympiads (IOC, 2001).

As of the 1972 Games, the IOC imposed a distribution ratio for the broadcasting rights, which was roughly equivalent to two-thirds (66 per cent) of the total amount for the OCOG and one-third for the Olympic movements, with this last third itself divided into three equal portions (IOC, IFs, NOCs). This ratio has evolved considerably since then. From 1996 to 2002, the OCOGs received 60 per cent of the broadcasting rights, and only 49 per cent since 2004. There is some talk of reducing this percentage further without the absolute amount reducing, since the total amount from the rights continues to increase. The allocation within the Olympic movement now takes into consideration the demands of the IFs (which are not included in the TOP programme contracts), and of USOC (which could block broadcasting of the Games in the United States thanks to its control over the Olympic rings on its territory). As of 2000, the World Anti-Doping Agency (WADA) participates in the distribution because it is, in theory, financed in equal proportions by the Olympic movement and the governments of the world (although the latter are not always inclined to pay).

Table 22.5 indicates the distribution for the two last Olympiads in net amounts and percentages (IOC, 2001). The amounts available form an allocation 'tree': first the WADA

subsidy is deducted; then the direct costs for the IOC, IFs and NOCs linked to the Games; finally the amounts reserved for the IFs under the TOP programme and for the IOC's special programmes. The balance (non-designated funds) is shared equally among the IOC, the IFs and the NOCs.

The Olympic IFs share their Olympic income among themselves. They are divided into five categories depending on their Olympic status. Each of the 28 IFs concerned received the amounts mentioned in Table 22.6 at the end of 2004 (Huba, 2004) out of about US\$254 million available for the IFs.

The five winter sports IFs share the income from broadcasting rights for the Winter Games (US\$92.4 million for Salt Lake City 2002) according to another ratio: one that favours the major sports (ice hockey, skating and skiing) over the smaller ones (biathlon, bobsleigh, curling and sledge). The amounts are, however, much higher in terms of absolute value than those for the summer IFs, which were four times more numerous in Sydney 2000 and Athens 2004.

Unlike the IFs, the NOCs did not adopt a distribution ratio because they are too numerous (202 in 2004). Since 1972, the sums due to them are managed by Olympic Solidarity, a redistribution institution whose objective is to assist the most needy NOCs via 21 worldwide programmes (for the 2001–04 plan) intended for athletes, coaches, administrators and so on. Since 1984, Olympic Solidarity has been an IOC department and forms an integral part of the decision making structure of the Olympic Committee's administration in Lausanne. It nevertheless has a separate budget and is managed by a commission chaired by the Association of NOCs (ANOC) President since 2002 (and before that, by the IOC President). Table 22.7 shows the funds per four-year period that are available to Olympic Solidarity (IOC, 1998) from the distribution of revenues from

Table 22.6 Distribution of 2004 broadcasting rights among IFs (US\$m)

Categories	Athens 2004
A athletics	25.21
B basketball, football, gymnastics, swimming, volleyball, tennis, cycling	12.22
C handball, hockey, equestrian, rowing	8.12
D archery, badminton, baseball, boxing, canoeing, fencing, weightlifting, judo, wrestling, modern pentathlon, softball, table tennis, shooting, sailing	6.75
E taekwondo, triathlon	6.07

Table 22.7 Olympic Solidarity budget, 1985–2008 (US\$m)

Quadrennial plans	1985–88	1989–92	1993–96	1997–2000	2001–04	2005–08
NOCs involved	167	172	197	199	202	203
Budgets	28.36	54.71	74.11	121.9	209.48	244

broadcasting rights and the TOP programme (Tables 21.4 and 21.5). Since 2001, around half of these funds are managed on a decentralised basis, in the five continental associations of NOCs.

Although the distribution of the revenues between the IOC, USOC and the OCOGs is usually governed by precise contracts, amounts paid to the other partners of the Olympic movement are settled by negotiations on a goodwill basis from one Olympiad to another, without being specifically mentioned in the Olympic Charter, even though the Charter provides considerable details on many other subjects.

The IOC's Assets

This presentation of economic aspects of the IOC would not be complete without a brief examination of its assets. Table 22.8 shows the IOC assets at 31 December of the years 1997–2003 (IOC, 1999b, 2001). The restricted assets are bank deposits and broadcasting right instalments held in trust for the NOCs and IFs.

As of 1993, a large portion of the IOC's assets has regularly been transferred from this association to the Olympic Foundation and the Olympic Museum Foundation, both of which are governed by Swiss law (Article 80 and following of the Civil Code). The Foundations were created in 1993 and are entirely controlled by the IOC. The supreme authorities (Councils) of both have virtually the same members as the IOC's Executive Board. In accordance with their statutes, they are chaired by the IOC President, but since 2001 the Museum Foundation has been chaired by ex-President Samaranch, the IOC's Honorary President for Life.

The IOC has transferred ownership of the Museum building and its fittings to the Foundation of the same name, but lent it the collections, works of art and Olympic archives accumulated since Coubertin's time, free of charge. The construction of the Olympic Museum, between 1988 and 1993, had cost around US\$68.6 million, of which US\$56.4 million was financed by donations or sponsoring (IOC, 1999a). As its name indicates, the objective of the Foundation is to portray and preserve the history of the Olympic movement thanks to a museum located in Lausanne and which houses an Olympic Studies Centre. The assets of this Foundation stood at US\$8.4 million at the end of 2000 (IOC, 2001).

At the same point, the assets of the Olympic Foundation stood at US\$103 million (IOC, 2001). This Foundation also holds the IOC's share capital in several limited companies linked to the organisation of the Games (see below). Its objective is to achieve assets of approximately US\$300 million and which would serve as insurance for the IOC if the Games were not held or the IOC was faced with claims by third parties. In 2004, the IOC took a US\$170 million insurance policy to protect against the cancellation of the Athens

Table 22.8 IOC Assets, 1997–2000 (US\$m)

Assets	1997	1998	1999	2000
Current	55.59	75.84	39.83	108.59
Non-current	79.97	101.26	89.86	110.96
Restricted	156.09	181.81	270.52	129.83
Total (rounded off)	291.67	358.92	400.23	349.39

Games at a reported cost of US\$7.4 million through a syndicate led by New York-based insurance company AIG. The IOC wishes to negotiate individual cancellation policies for future Olympic Games.

In conjunction with the Greek government, the IOC created the International Foundation for the Olympic Truce in July 2000. This Foundation, governed by Swiss law, is headed by the IOC President and the Greek Minister for Foreign Affairs and controls a Centre for the Olympic Truce based in Athens. It is financed primarily by Greece. The Foundation's main assets are its capital, which is modest.

Like the IOC itself, these three foundations are exempt from direct taxation in Switzerland although they are required to pay VAT in accordance with the agreement concluded with the Swiss government in 2000 (Latty, 2001).

The IOC is, moreover, the owner of its administrative headquarters building in Vidy, built on land for which it benefits from a free lease granted by the City of Lausanne and that runs until 2083. It also owns the 'Villa du Centenaire' building which adjoins the Museum and which houses the offices of its Ethics Commission and, until 2004, the Court of Arbitration for Sport.

Finally, the IOC controls the following companies, either directly or via the Olympic Foundation: 100 per cent of the Meridian Management SA founded in 1995; 99 per cent of the Olympic Broadcasting Services (OBS) founded in 2001, which will be participating in the production of the base signal for broadcasting the Games as of 2008 (20 per cent used to be owned by a former EBU television executive); and 100 per cent of the Olympic Games Knowledge Services (OGKS) founded in 2001 and aimed at selling training and advice on the organisation of the Games and major, multi-sports events (33 per cent were held by Monash University until 2004). The boards of directors of these limited companies under Swiss law are chaired by IOC members. Moreover, the IOC controls the British companies Olympic Television Archive Bureau (OTAB), created in 1995 and managed by the Trans World International (TWI) agency, and Olympic Photo Archive Bureau (OPAB), created in 1996 and managed by the Allsport press agency.

In mid 2005, the IOC published a first consolidated report of all its activities and organisations (IOC, 2005). Its total assets amounted to US\$1.036 billion at the end of 2004.

Conclusion

At the end of the twentieth century, the IOC had reached a position of financial prosperity that its founder could never have imagined. This is due to the efforts of millions of volunteers and athletes who have made the Olympic Games what they are today: a unique and well-studied form of entertainment with an idyllic image. The IOC members, who are not paid for this role, have also contributed to this success. Their association (the IOC) derives benefit from this, as does the Olympic movement as a whole. On the other hand, and even if they are professionals, the main actors in the Olympic 'show' are the athletes, and compete only for the glory of doing so whereas they receive premiums for taking part or for achieving results in many other championships. A certain form of remuneration for athletes at the Games will no doubt have to be considered in the twenty-first century, and will obviously bring about considerable changes within the economics of the IOC.

Another type of major Olympic player has also contributed towards the IOC's wealth, yet without really being aware of doing so. These players are the local, regional, and to an ever-increasing extent the national governments of countries that have hosted the

Games. By means of the candidatures that they have supported, the facilities they have built at huge expense for the Games, and often because of the deficits they have absorbed, they helped to perpetuate the Olympic myth and thus generate increasing revenues for the IOC.

The question that must be raised today is whether the Games should remain the exclusive property of the IOC (as the Olympic Charter drawn up by the IOC itself has been proclaiming since the 1980s). Do they not belong to humanity, as President Samaranch said at the beginning of his presidency? Should they not be public property, a World Cultural Heritage, for which the IOC would only be the guardian for future generations? This, too, would constitute a fundamental change to the economics of the IOC. It would seem, however, that the IOC has for the time being chosen to remain the monopolistic multinational behind the Olympic show.

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23 Government objectives and sport

Barrie Houlihan

In reviewing the objectives of government intervention in many areas of social policy there is often the temptation to see continuity and consistency of objectives where none exists. Claims that similar policy interventions indicate sustained purpose on the part of state institutions or individual governments need to be treated with scepticism. As will be argued, it is much more plausible to explain the history of British government intervention in sport policy in terms of opportunism, the short-term response to immediate crises and the application to sport of broad policy orientations such as privatisation or social inclusion. British sport policy is arguably better described as episodic rather than sustained, as reactive rather than proactive, and as a means to non-sports policy ends rather than being focused on objectives such as increased participation as ends in themselves.

Although there had been isolated instances of state intervention in sport over the last 200 years or more, it is only since the mid-1960s that there has been a reasonably regular, though far from coherent, series of state interventions that could be loosely termed 'sport policy'. From the mid-1960s to the late 1970s sport policy, such as it was, amounted to little more than a willingness to allow, and allocate limited funding for, the provision of sports facilities such as swimming pools and indoor sports halls. Governments were generally reluctant to intervene too extensively in sport and were content to leave the management and development of the new facilities to local authorities and to voluntary clubs. There was a general predisposition to support greater participation in sport, but a reluctance to be overly directive.

This period of facility investment was followed by a period from the late 1970s until the early 1990s which can be best characterised as one of neglect of sport policy. The governments of Margaret Thatcher tended to ignore sport except when it was a convenient short-term palliative for the series of urban riots in 1981 or when exogenous events, such as the Heysel stadium disaster in 1985 in which 39 football supporters (38 Italian and one Belgian) lost their lives at the European Cup Final between Liverpool FC and Juventus, forced the government to intervene in an attempt to curb the rise in football spectator violence. Most of the sport policy interventions of the Thatcher governments were either short term or clumsy or both. It is only since the early 1990s that sport policy has appeared to be both consistent and coherent. The Conservative government of John Major gave sport a much higher priority on the government agenda and identified sport for young people and elite success as twin objectives (Department of National Heritage, 1995). The Conservative government also put in place a new funding source, the National Lottery, which gave it the ability to use its grant-giving powers to encourage voluntary sports organisations and schools to support its policy priorities. The Labour government elected in 1997 broadly confirmed the priorities of its predecessor (Department of Culture, Media and Sport, 2000). The period since the mid-1990s has consequently been unique in the history of sport policy in so far as it has been one of relatively high political salience of sport to government, sustained and relatively generous funding, and broad continuity of policy priorities.

Although the current period of policy stability may be short-lived it is unlikely that any future government would withdraw completely from the policy area. Sport, not only in Britain but also in most developed countries, is firmly embedded in the machinery of government, in the policy discussions of political parties and in the expectations of the electorate. Yet the involvement of governments in sport is far from being uncontested. For Roger Scruton, for example, sport and leisure are, or at least should be, examples of that increasingly rare commodity 'free time'; that is, time in which we can make choices independent of the state. According to Scruton 'It [the state] cannot invade the institutions of leisure without perverting them to its own uses' (1980: 100). Despite Scruton's concern, few states have had any qualms about invading the institutions of leisure. In Britain, the reluctance to intervene directly in sport lasted until the mid-1960s when the more interventionist Labour government established an Advisory Sports Council. Since then, government involvement in sport has steadily increased to the current position where sport in Britain is embedded in an elaborate state infrastructure of regulation, administration and funding.

In explaining increasing state involvement in sport it is possible to identify four broad and recurring sets of objectives, namely, health, social control and cohesion, diplomacy, and economic development, with all four sets of objectives mediated by the ideological themes of deference and paternalism. The state's concern with sport and health underpinned the 1937 Physical Training and Recreation Act, which aimed to improve the health and fitness of potential recruits for the approaching war in Europe. This concern with physical fitness was reinforced in the Education Act 1944, which required local authorities to provide facilities for recreation and physical training. The promotion of participation in sport to improve health has not been a consistent priority over the last 60 years but it has certainly been a regularly recurring theme. While promotional campaigns have generally been aimed at young people there have been some publicity campaigns aimed at the middle-aged, particular ethnic groups or other social groups whose participation was considered to be unhealthily low. In more recent years, from about the mid-1990s, there has been a steady accumulation of evidence of an increasingly sedentary lifestyle among young people and a corresponding increase in concern about the impact on their long-term health. The Allied Dunbar National Fitness Survey (Sports Council & Health Education Council, 1992) was the first study to document systematically the low level of participation by young people in sport. Subsequent studies of young people's participation in sport showed that there had been little progress in improving participation levels between 1994 and 2002 (Sport England, 2003). In 2002 the government strategy document 'Game Plan' (DCMS/Strategy Unit, 2002) reinforced the growing concern with the upward trend in obesity among both young people and adults. It was noted that obesity had almost trebled for both men and women between 1980 and 1998 and was showing no sign of levelling out. According to the National Audit Office, the 'main reason for the rising prevalence [of obesity] is a combination of less active lifestyles and changes in eating patterns'. It was no surprise that in 2003 Sport England adopted an increase in physical activity through sport as one of its two key priorities. It should be noted that the primary motive is to improve health, to reduce costs to the health service, and to reduce the loss of earnings and productivity among the employed rather than to increase participation in sport for its intrinsic benefits.

The terms 'social control' and 'social cohesion' cover a wide range of related governmental objectives. In Victorian England, the middle-class fear of social instability due to

the swelling ranks of the urban poor fostered the development of 'rational recreation' and the 'muscular Christian' movement which aimed to instil self-discipline (a conventional euphemism for obedience) among poor young urban males through physical training in school and participation in sport in their community. In the twentieth century, the problem of too much undisciplined leisure recurred as a policy theme in the 1950s and 1960s with the influential Wolfenden Report commenting that 'if more young people had opportunities for playing games fewer of them would develop criminal habits' (CCPR, 1960: 4). Despite recent scepticism about the capacity of participation in sport to reduce criminal behaviour among the young, the government has persisted in investing public money in sports-related schemes, such as Positive Futures and Summer Splash, designed specifically to tackle anti-social behaviour and youth offending.

Only slightly less controversial is the use of sport in recent years to further the Labour government's social inclusion policy. The underlying assumption is that sports participation has the potential to develop personal qualities, such as self-esteem, and a variety of transferable social skills, as well as to enhance community social capital. Although evidence is scant, confidence in the beneficial effects of sport for socially marginal individuals and deprived communities is deeply entrenched in the conventional wisdom of public policy. More recently, greater emphasis has been placed by governments on the capacity of sport, and especially international sporting success, to generate a sense of social cohesion, national well-being and national pride. In 'Game Plan' it is argued that 'social capital increases with the "feelgood factor", crime is lower, there is increased bonding between sections of society and possibly an increase in GDP' (DCMS, 2002: 63).

The third common set of objectives for state involvement in sport is to exploit its value as a diplomatic resource. International sport provides a generally high-profile, low-cost and low-risk diplomatic resource which governments can use to express criticism of, or support for, other states or use to indicate a cooling in diplomatic relations or a desire to improve relations with particular countries. Since the late 1960s there has been a rapid increase in the number of international sports events with more international federations of sport organising world championships to add to well-established events such as the Olympic Games, the football World Cup and the Commonwealth Games. The growth in the number of international sports competitions was complemented and reinforced by the growth in live televised sport which further increased the diplomatic potential of sport for both the host country and for the participating nations. However, if governments were to be able to exploit fully the diplomatic opportunities that international sport offered, it was important that they had successful athletes who would be missed if they took part in a boycott or who would confer status on, or at least generate publicity for, the countries that they visited and the events/competitions in which they participated. This need for world-class sportsmen and -women to help realise the diplomatic potential of sport has encouraged many countries, Britain included, to invest heavily in elite sports institutes and pay athletes to train full-time.

The fourth common set of objectives for state involvement in sport is its perceived contribution to the economic regeneration of urban areas. Until the mid-1980s, major sports events such as the Olympic Games or the football World Cup received substantial public subsidy with little expectation that the direct or indirect income would cover the costs. States were willing to bear the considerable expense of hosting the Olympic Games for example, because of the opportunity that it presented to achieve diplomatic objectives

such as the promotion of a particular ideology or regime (for example, the Olympic Games in Berlin 1936, Moscow 1980 and Los Angeles 1984), or the signalling of the symbolic readmission of a state back into the international community after war (for example, the 1964 Tokyo Olympics and the 1972 Munich Olympics). However, since the mid-1980s there has been a recognition on the part of governments that major sports events, while still requiring public subsidy, are capable of generating considerable indirect economic benefits. For example, while the total bill for staging the 2000 Sydney Olympic Games was £2.4 billion it was estimated that the Games would reduce Australia's current account deficit by 1.25 per cent of gross domestic profit largely through the attraction of an additional 2.1 million tourists.

Barcelona used the hosting of the Olympic Games in 1992 very effectively to generate momentum for the regeneration of one of the poorer parts of the city. According to the city's mayor, the Games compressed 50 years worth of infrastructure development into eight years and left a post-Games tourism legacy which has generated over 12 000 new jobs. Britain hopes to emulate Barcelona following its successful bid to host the 2012 Olympic Games. The regeneration of the Lower Lea Valley in London's East End was the fundamental rationale for the bid. Not only would the Games contribute substantially to the renewal of the physical infrastructure of the area, but it was also claimed that over 3000 jobs will be created and that the Games would contribute 'to the social and community renewal for one of the city's most depressed areas and [would] demonstrate the power of sport and the Olympic Movement to rebuild communities and regenerate urban centers' (DCMS www.london2012.org.uk, 2 December 2003).

What all four sets of objectives have in common is their treatment of sport as primarily a means to achieve non-sport objectives such as better cardiovascular health, a more positive image for the UK abroad, job creation and increased community safety. This strongly instrumental attitude of successive British governments raises two important questions. The first is whether there is evidence of a distinct motive to invest public money in sport as an end in itself – simply to respond to public demand for more and better sports facilities and opportunities or, more abstractly, to realise the intrinsic benefits of fun and enjoyment that are a product of participation. While there is some evidence that governments recognise the vote-winning potential of sports investment and of international sporting success (glory by association and the good photo opportunities that sport presents for ministers) there is little evidence that access to, and high levels of use of, sports facilities have established themselves in the thinking of governments as part of a conventional view of a normal quality of life for local communities. In the government's most recent sports policy strategy, 'Game Plan', there are a few references to participation in sport as a 'source of fun' (DCMS, 2002: 12), but these are soon put in perspective. Tony Blair notes in his Foreword: 'But the value of sport goes beyond personal enjoyment and fulfilment' (*ibid.*: 5) and the strategy concludes:

[The] government should set itself two overarching objectives:

- a major increase in participation in sport and physical activity, primarily because of the significant health benefits and to reduce the growing cost of inactivity; and
- a sustainable improvement in success in international competition, particularly in the sports which matter most to the public, primarily because of the 'feelgood factor' associated with winning. (*ibid.*: 12)

The second question is whether the dominance of an instrumental approach to sport results in the maintenance of the utility of the 'sports instrument' becoming a motive for intervention in its own right. In other words, governments intervene to regulate and direct athletes, sports business and organisations in order to ensure that sport can be used effectively as a resource for a wide range of non-sport policy objectives. It is accepted that much state regulation is simply a consequence of the commercial activities of sports organisations rather than the fact that they are involved in sport: regulations about financial reporting, monopoly practices and corporate governance are broadly the same whether the business is involved in sport or in any other commercial sector. However, there are some aspects of state regulation that are particular to sports businesses, for example, the requirement that major 'heritage' sports events, such as Wimbledon and the FA Cup Final, be broadcast on 'free-to-air' television. There are also examples of state intervention to promote particular forms of ownership and control over sports organisations. The present government has provided substantial support for Supporters Direct, an organisation which aims to promote football supporters' trusts and other forms of ownership 'based on democratic, mutual and not-for-profit principles' (Supporters Direct website, www.supporters-direct.org/englandwales/about.htm, 4 December 2003). More significantly, the state has, over the last 15 years, regularly intervened to select the sports that will receive public subsidy. The basis of selection is generally international status (that is, whether they are Olympic sports or not), cultural significance and more recently the willingness of the sport's governing body to modernise its management practices. Finally, there are regulatory interventions that are designed, in part at least, to protect the value of the sports product such as the licensing of football stadiums and the associated regulations designed to reduce the likelihood of football hooliganism, and the state's involvement in doping control.

Each of these five sets of objectives is mediated by deeply embedded ideological orientations towards sport that have changed only very slowly and which have had a considerable impact on the extent and form of state intervention. Part of the explanation of the reluctance of successive governments to intervene more robustly in sport has been a deeply rooted deference towards the voluntary bodies that run sport, such as the national governing bodies and the British Olympic Association. It has only been since the late 1990s that the Labour government has set clear targets for international success, equity, youth development and community involvement as conditions of continued grant aid. Similarly, a deeply rooted paternalism has also helped to shape government sport policy. Managing our free time for our own good underpins the current emphasis on physical activity and sport in the Active Communities programme and also in much of the content of the National Curriculum for Physical Education.

In summary, government policy towards sport since the mid-1960s is best characterised as inconsistent, short term, opportunistic and instrumental: a series of erratically recurring themes rather than a stable and focused strategy. The period since the mid-1990s notwithstanding, governments have rarely offered sustained support for a particular definition of sport policy goals. Policy priorities have tended to shift rapidly either as new sports ministers come into office or as a consequence of shifts in policy priorities in contiguous policy areas such as health, education and urban rejuvenation.

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24 Central government and sport

Jean-François Nys

Originally limited to the ‘kingly’ functions of police, defence and justice, the state gradually spread its field of intervention to education, social matters, economy and sport. This growth of the role of the state in the industrial societies of the Western world characterised half a century from the 1930s to the 1980s. The heaviness, the complexity and the cost of management of this state, which resembled the monster described by Thomas Hobbes in *Leviathan*, led to alterations, changes inspired by the neo-liberal revolution (monetarism, supply-side economics, public choice). The state gradually withdrew from the economic sphere through privatisation, independence granted to the central banks, globalisation of exchanges and so on. At the same time, the state modified the mechanisms of public decision by decentralising. The competencies that were once the central government’s were transferred to regions and to departments. The European construction deprived the state of a number of such competencies, thus it suffered a loss of power both from the top because of Europe and from the bottom because of decentralisation.

Completely integrated into totalitarian systems, more or less regulated in liberal systems, ignored by the European Union, sport was not immune to this evolution. In totalitarian countries, sport was used as a means to improve the physical capacity of individuals, to improve the productivity of work and thus make the state economy more competitive. Thus the state favoured sports participation en masse, developed school sports, trained professors, instructors and coaches, and financed the equipment. Top-level sport was used to provide proof of the superiority of the collectivist system over the liberal system. Since the collapse of the USSR, sport is no longer a means of demonstrating East–West rivalry. However, it remains a motive for the assertion of national prestige, which explains the massive intervention of the state in sports elitism, in all the developed countries.

In liberal systems, the state also encouraged sports participation. It also used sport as a means of public entertainment, and it tried to improve its image by capitalising on good results in international competitions. Public intervention also found its justification in the social dimension of sport, in particular the values of education and socialisation.

With regard to economic theory, if the state intervenes in the field of sport it is because sport is considered as a public good whose good management serves public utility and because its practice has consequences for health and prosperity, that is, external effects. If this intervention is accepted how, then, should investments be made – is it necessary to help the producers of sport or the consumers? Who has to pay? The sportsperson, the spectator, the sponsor, the media, the community? Should participation be freely available?

All European countries are endowed with a more or less specialised administration in charge of sport. According to the degree of intervention, this can be the ministry directly in charge of sport (France, Luxembourg) or a state secretary or under-secretary for sport, attached either to the Ministry of Education or to the Ministry of Culture (Denmark, Greece, Ireland, the Netherlands, Portugal). When there is no specific ministerial department responsible for sport, as was the case until recently in the UK, autonomous bodies

such as sports councils receive capital from various ministerial departments. In other countries, for example, Italy, the state works in association with bodies such as the Italian National Olympic Committee (CONI) which is entrusted with a mission of public utility.

After examining the role of the state generally in sport, we shall then analyse more particularly the situation in France and in the UK.

The Role of the State in Sport

The role of the state in sport varies widely from one country to another. One can identify six functions that it fulfils, either directly or by delegation.

1. The state has a legal role by promulgating rules and imperative standards (laws, decrees, orders). This role was originally limited to law and order during sporting events, but was then extended to the composition and functioning of associations (law of 1901 in France), clubs and federations. When the state is responsible for the organisation of sport, it can pass on this power to a federation through the delegation of power. The relationship with the sports movement can also consist in enabling the development of sports structures. In France, the legal arsenal is sufficient such that a 'Code of sport' was developed, combining all the existing legislation concerning sport, for example, labour law, tax law, safety, doping and so on. This legal role is essential because it determines the framework in which sports activities take place. It allows sports autonomy to be defined with regard to the rules that apply to other activities. Debate on 'the sports exception' was particularly lively when it concerned the issue of whether the rules limiting the freedom of the actors (anti-trust law, duration of contracts) applied to sport.
2. The state has an expertise function, for the sports movement and for the public, through the evaluations that it makes, the accreditation that it grants and the diplomas that it awards. This function also includes the information and the statistics that it produces.
3. The state values and encourages universal sports participation, in particular for those who are discriminated against or disadvantaged, without neglecting the sporting elite. It is mostly through physical education at school, which has become a course in the same way as academic disciplines, that this mission operates. But increasingly the state is taking an interest in sports participation outside school, because the more sedentary way of life in the developed countries can have damaging effects on health. A large number of states have set up programmes to encourage the practice of physical activities. This is fully supported by the World Health Organisation.¹
4. The state oversees the health of sportsmen and -women by developing specialised medicines and participating in the fight against drug usage.
5. The state ensures the development of the country's image through the organisation of international competitions, the preservation of national teams at a high level of competitiveness and by the election of national leaders in international federations.
6. The state fosters international cooperation and grants subsidies to less-developed countries.

Table 24.1 summarises the various actions initiated by the state or in conjunction with the sports movement. The main activities delegated to the regions, within the framework

Table 24.1 *Role of the state and the regions in sport*

State	State–sports movement	Regions–sports movement
Institutional framework		
Protection of users	Sport and health	
Participation for all	Access to sporting activities	Development of activities
Top-level sport	Sports events	
National equipment	National network of equipment	Regional and local equipment
Fight against drugs	Sport and health	
Definition and control of education		Training
Employment policies		Subsidies for clubs
Reduction of social and regional imbalance		
International relations	Sporting events	

of decentralisation, are also represented on the table. In market economies the state mainly plays a regulation role. It ensures solidarity between the rich and the poor sports through the modalities of subsidies or through the establishment of taxes – as it did in France with a charge on TV sports broadcasts.

The means that the state has at its disposal are the legislative and statutory texts, its structures, its staff and its budget. It is by this last means that it grants subsidies to sports organisations. According to its policy it will choose to subsidise sports federations or clubs, through financial help or by putting staff at their disposal. It can provide equipment or participate in financing. Finally it will encourage employment and training for sportspeople through subsidies or fiscal advantages. In many countries state policies are discussed with sports representatives and decisions may be reached jointly.

The efficiency of sports policies is rarely assessed. Rather, what is estimated is the amount of subsidy for the construction and management of the infrastructures. But in most European countries this task falls on regional authorities and not on the state. In any case, the public subsidy is less than the real cost. The efficiency of this policy depends, in good measure, on public sensitivity to the amount earmarked. Studies have shown that price has little influence on the practice of a sporting activity, with the exception of swimming. Indeed, the admission charge in sports installations is only a small part of the outlay with regard to equipment. On the other hand, the nearness of sports infrastructures has a very high impact. The role of the state in the distribution of sports equipment in the region is thus crucial.

The legitimacy of public subsidies (state or local government) to sports clubs is often disputed. The question is knowing whether these subsidies are advantageous for the public in general or for the owners of clubs (in the case when these are companies and not associations) and whether they favour economic development. The economic argument used by many people to legitimise public sporting subsidies is debatable, since numerous studies show that there is no statistical link between professional sport or the

construction of stadiums and economic development.² So, in order to rationalise public spending, some suggest that authorities should invest in sectors likely to create jobs and encourage economic growth rather than in sport. The justification of subsidies tends to be based on the concept of 'psychological income', that is, on the effects of identification or stimulation and on the feelings created within the community. Thus subsidies are justified by their internal rather than by their external effects.³

The Example of France

France is characterised by a strong tradition of political and legal state control, and strong centralisation. Relations between the French state and sporting activities have varied over time. During the seventeenth and eighteenth centuries, the state was interested in the physical training of the population, mainly in a military capacity. Fencing and horse riding, already the privilege of the nobility, along with gymnastics and shooting, favoured the development of military, civil and patriotic values.

But the First World War was the real starting point for the commitment of the state to sport. Apart from the law of 1901 on associations there was no legislation as far as sport was concerned, apart from those relative to law and order during sporting events. The responsibility for physical education, which was shared by three ministries, war, state education and health, tended to ignore sports as such. Gradually, the war ministry relinquished its commitment to physical education, and it came more within the competence of the ministry of education (1928). The budget allocated to physical education allowed France to compensate for its poor provision in playing fields (0.9 square metre per inhabitant compared to 3.0 in Germany).

From 1936, the state endowed means of intervention on the sports movements that claimed autonomy. This interventionism lapsed under the Vichy regime and the issue was not really questioned at the time of the Liberation. Under the 4th Republic school sports, and more especially physical education for girls, became a priority but the various governments could not decide whether to support sports equipment for schools or for the sports movement generally. But during this period of economic reconstruction, sport was not a priority and the poorly equipped stadiums, swimming pools and playing fields would remain unfunded. At this point, the state intervened in the organisation of sport with its policy of 'power delegation'. By this procedure, the state, the real holder of the competence in sport organisation (regulation of 28 August 1945), delegated part of it to sports associations. This principle was regularly preserved by subsequent legislation.

From 1958, with the 5th Republic and its state reform, the first laws concerning provision of sports equipment were enacted, and were in keeping with the policy of French economic planning that prevailed from 1947 until 1985. The first law (1961–65) allowed the realisation of 1000 swimming pools and 1500 stadiums. The following (1966–70), continuing the goal of the first law, allowed the construction of 2850 stadiums and 1480 gymnasiums. With the third law (1971–75) the state asserted that its role was not to take on sole responsibility, but to arouse, support, help, coordinate and facilitate a dialogue between the various parties involved. After the poor results achieved at the Rome Olympic Games in 1960, the state decided to operate a policy of elitism, with the support of the army (Joinville Battalion). It was to be a real 'public service' sport with an administration endowed with numerous services that would develop within the framework of the welfare state. At the same time, the development of physical education at school, which would

become a true educational discipline, would allow the sports culture to become widespread. But, in spite of the government's good intentions, the small Ministry of Sport budget left municipalities with the main responsibility in terms of equipment, motivation and financing of sport. This situation will be exacerbated under the influence of decentralisation, which has operated since 1981.

Under the socialist government of Lionel Jospin, the Sports Minister, Marie-George Buffet, with the law of 6 July 2000 (which modified the law of 16 July 1984) confirmed the central role of the state as acting not alone but in association with the other actors (local governments, associations, federations, companies) for the promotion and development of physical and sporting activities, which the first article of the law clarifies as being 'of general interest'. This same article confirms the public utility mission of the federations: 'the approved sports federations participate in bringing into operation the public utility mission related to the development and to the democratisation of physical and sporting activities'.

In 2002, the new government under Jean-Pierre Raffarin and the Sports Minister, Jean-François Lamour, implemented the directives of President Jacques Chirac, aiming to reduce taxes and thereby decrease state control. However, although the new law of 1 August 2003 modified once again the law of 16 July 1984 by launching a liberalisation movement, it retained its first article. The general interests of physical and sporting activities are safeguarded.

The disengagement of the state in favour of local governments reduced the competence of the Ministry of Sport and today it has the tightest budget. Nevertheless, for many years the aim of the various sports ministers had been to increase their budget from about 0.7 to 1 per cent of the total state expenses. The transfer of the financing of physical education at school from the Ministry of Sport to that of the Ministry of Education rendered this aim void. However, all sports ministers have hoped to increase their remit. In 1975, in parallel with the sports budget, the state created a National Fund for the Development of Sport (FNDS) managed jointly with the sports organisations. Gradually this fund increased, first with the creation in 1985 of the sports lottery and the allowance to the FNDS of a tax on the stakes, then from 1994 with a tax of 2.3 per cent on all the games administered by the *Française des jeux* in metropolitan France. This rate increased to 2.4 per cent in 1996, 2.6 per cent in 1997 and finally 2.9 per cent in 1998. Thus the FNDS has enjoyed a regular financial growth, giving the Ministry of Sport a larger margin of operation for interventions in favour of the sports movement (Table 24.2).

Bearing in mind only the pro-sports actions, it is apparent that the Ministry of Sport allocates about 56 per cent of its budget to sports practice and about 30 per cent to administration (Table 24.3). If the FNDS is included, the funds available to the ministry are doubled.

The FNDS funds are allocated as follows: 58 per cent for the promotion of mass sport, 25 per cent for sports equipment and 17 per cent to top-level sport (Table 24.4).

The €57.8 million of subsidies assigned by the state to the 28 Olympic sports federations in 2003 allow some of them to secure the main part of their budget. This is the case for the pentathlon, for which the subsidy of the central government represents 85 per cent of the federation's budget, for hockey (70 per cent) and for wrestling (68 per cent). On the other hand, although football receives a subsidy of €3.79 million, the second largest, it represents only 3.3 per cent of the federation's budget. In total, six federations receive a subsidy that represents more than 50 per cent of their budget (Table 24.5).

Table 24.2 *Evolution of the budget of the Ministry of Sport, of its weight in the state budget and of FNDS, 1970–2004 (current €m)*

	1970	1975	1980	1985 ¹	1990	1995	2000	2004 ²
Youth and sports budget	162.66	277.91	512.08	338.89	376.40	423.96	480.82	395.8
State budget (%)	0.69	0.68	0.63	0.22	0.22	0.20	0.19	0.19
FNDS	–	–	33.2	57.32	137.20	134.76	154.58	248.00

Notes

1. From 1981 the school physical education budget was allocated by the Ministry of Education.
2. In May 1992 the Ministry of Sports lost its competence with regard to youth. The budget was then cut by about 25 per cent.

Table 24.3 *Financial budget of the Ministry of Sport, 2001–2004 (current €m)*

	2001	2002	2003	2004
Support for sports	217	217	233	222
Qualification and vocational training	56	56	55	56
Support functions	107	110	116	116
Total Budget	380	383	404	394
FNDS	193	204	218	248

Table 24.4 *Distribution of the FNDS funds, 2002–2004*

	2002	2003	2004
Top-level sport	40.4	38.9	43.4
Mass sport	132.8	129.0	143.6
State equipment	7.2	16.9	21.4
Equipment grants	23.6	33.5	39.6
Total	204.0	218.3	248.0

State assistance to the sports movement also includes the technical advisers provided by the ministry to the federations. Following the 1960 Rome Olympics, when the poor performances of the French athletes had roused public opinion, the state decided to create its own programme of Olympic preparation and to proceed with the recruitment experts. About 1700 of these, 1340 of whom work with the Olympic federations, are allocated to the federations. These national technical directors (DTNs), national technical counsellors (CTNs) and regional technical counsellors (CTRs) play a major role in the detection and training of athletes at a high level. Certain federations with reduced financial means have almost no staff financed through their own budget and are able to work only thanks to the technical counsellors provided by the Ministry of Sport. The federation of athletics

Table 24.5 The 5 biggest and the 5 smallest subsidies of the central government for the Olympic federations and the corresponding rates of support, 2003

Federation	Subsidies in €000	Rate of support (subs. / budget, %)
5 biggest subsidies		
Athletics	5022	36.1
Football	3791	3.3
Skiing	3369	32.9
Gymnastics	3150	33.7
Sailing	3127	25.9
5 smallest subsidies		
Triathlon	564	18.3
Pentathlon	668	84.9
Baseball	707	60.0
Badminton	865	30.0
Taekwondo	907	32.6

Table 24.6 Technical counsellors allocated to the federations (situation at the end of 2002)

Federation	Technical counsellors
Athletics	107
Gymnastics	89
Football	88
Swimming	88
Skiing	84
Judo	76
Basketball	70
Sailing	69
Canoeing	67

benefits from the services of 107 counsellors, followed by gymnastics (89) football and swimming (88) (Table 24.6).

From 2005, the legality of the FNDS will be questioned. Indeed, within the framework of the modernisation of the state a modification of the finance law heralds the disappearance of the 'special accounts of the Treasury', among them the FNDS. In anticipation of this, the sports movement has mobilised its resources to ensure that a mode of public financing survives with which it would be associated. The ministry has decided to create an administrative public establishment, the National Centre for the Development of Sport. This centre will have a council consisting of representatives of the sports movement, according to the current model of the FNDS, whose remit is to evaluate the programme of subsidies allocated to sports associations.

Overall, the weight of the central government in sports expenditure, which was 13 per cent in 1990, had fallen to 11 per cent in 2001 (Table 24.7). After the Ministry of Sports,

Table 24.7 *Sports expenditure in France, 1990–2001 (current €bn)*

	1990	1995	2000	2001
Central government including	1.14	1.99	2.7	2.8
national education	0.85	1.64	2.03	2.08
Local governments	3.74	3.82	7.6	7.8
Households	3.06	6.55	12.3	12.8
Firms	0.76	0.95	1.7	2.0
Total	8.70	13.31	24.3	25.4

the Ministry of Education absorbs nearly 75 per cent of the central government contribution. The Ministry of Defence budget is more marginal today because of the abolition of compulsory military service and the move towards a professional army.

The Ministry of Sport, consisting of a central administration, national establishments of education and research, and decentralised services, represents a type of organisation midway between that of the former communist countries, and the liberal model. It is often presented as being a model of the third way. The structure of this ministry and its competence have often varied over time. In the future its power will fluctuate along with the powers granted to other public actors (regions, departments, municipalities) according to the laws of decentralisation and to other ministries, in particular the Ministry of Education as far as sport in school, and the evolution of liberal ideas in society in general, are concerned.

The Example of the United Kingdom

From the beginning, the organisation of British sport was based on private initiatives taken by the sports movement, which determines the rules of various disciplines. However, to obtain results comparable to those of other Western countries in competitive sports, the UK has begun to look to foreign models to perfect its own system. Nevertheless, in spite of moves towards state intervention, the system is still largely based on private initiative.

The UK governmental system is unitarian rather than federal but is nevertheless complicated because it includes four nations and two separate legal systems. Following the administrative decentralisation that established new political structures for Scotland and Wales, and with the Northern Ireland Assembly that has just been created, a more decentralised approach of sports policy is inevitable.

Since 1997, sport has largely been in the competence of the Department of Culture, Media and Sport (DCMS) and of the Minister of State for Sport and Tourism. From 1992 to 1997, the Department of National Heritage exercised this competence. A number of other central government departments are also involved in sport, such as Education and Employment, and Environment, Transport and the Regions. Many departmental activities are carried out by Non-departmental public bodies such as UK Sport or Sport England, which are subsidised within the framework of formal agreements of cooperation foreseeing clearly defined goals for their activities. The DCMS thus grants capital to UK Sport and to Sport England whereas the Scotland, Wales and Northern Ireland offices give capital, respectively, to Sport Scotland and to the Sports Councils of Wales and of Ulster (Table 24.8). The various sports councils receive capital proportionally to

Table 24.8 *Sports subsidies from the DCMS (£000)*

	2001–02	2002–03	2003–04*	2004–05**
Sport England	46.162	80.324	47.075	73.245
UK Sports Council	16.773	16.321	27.525	27.310
Football Licensing Authority	941	955	2.140	1.125
Olympics			100	10.100
Total	63.876	97.600	76.840	111.780

Note: *Provision; **Plan.

their population. The current system is the result of a reorganisation dating from the beginning of 1997, when the former Sports Council was divided into the United Kingdom Sports Council (UKSC) and the English Sports Council (ESC). In 1999, the UKSC and the ESC became, respectively, UK Sport and Sport England.

Among the four priorities of the DCMS Strategic Plan 2003–2006, the first two directly involved sport. The first priority, '[e]nhancing access to a fuller cultural and sporting life for children and young people and giving them the opportunity to develop their talents to the full' has to allow '[an] increase [in] the percentage of school children who spend a minimum of 2 hours on high-quality physical education (PE) and school sport within and beyond the curriculum from 25% in 2002 to 75% in 2006'.

The second priority 'opening up our institutions to the wider community to promote lifelong learning and social cohesion' allows support for London's bid for the 2012 Olympic Games, but above all the recruitment and employment of trainers (45 coach development officers and 3000 community sports coaches). To attain these goals, the government plans to invest £2 billion of public and National Lottery money in sport up to 2006, including £100 million for the Athens Olympic Games and £459 million for school sport.

UK Sport

UK sport, created by Royal Charter on 19 September 1996, became operational on 1 January 1997. Its remit was to concentrate on sport at a high level, with the aim of obtaining excellent sports results at world-class level. This requires the development of and support for a system capable of bringing a constant stream of athletes to world-class standard. The other responsibilities of this body are to increase the UK's influence on the international sports scene, to promote a behaviour ethic, to develop an anti-doping programme and finally to create a framework for attracting and organising major world sports events.

UK Sport set up two programmes: World Class Performance and World Class Events. The World Class Performance programme aims to produce the largest possible number of winning athletes and to place the UK among the top five sporting nations in 2012. To reach these goals, UK Sport has at its disposal two sources of income: the Exchequer and the Lottery. The Exchequer provides about £9 million every year, to which £3 million from the modernisation programme are added. Having become a distributor of the Lottery in 1999, UK Sport is responsible for the distribution of 9.2 per cent of the capital allocated to sports, which is about £25 million a year (Table 24.9).

Table 24.9 UK sports resources (£000)

	2001–02	2002–03	2003–04*
Grant-in-aid	16.773	16.321	27.525
Other income	1.696	2.297	0.970
Total income	18.469	18.618	28.495

Note: *Estimated.

Table 24.10 Sport England resources (£m)

	2001–02	2002–03	2003–04*	2004–05**
Grant-in-aid	34.5	34.6	34.6	34.6
Sports matches	3.6	3.6	3.7	3.7
School sports coordinators	5.0	15.0	0.0	0.0
Community club development programme	0.0	0.0	20.0	20.0
Other programmes	0.0	0.0	4.7	14.9
Other income	13.1	11.4	10.1	10.7
Total income	56.2	64.6	73.1	83.9

Note: *Estimated; **Plans.

The World Class Events programme's remit is to organise major events generating sports, economic, social and cultural profits.

Sport England

Sport England is the country's leading strategic sports development agency, accountable to Parliament through the DCMS. Its role is to advise government and other opinion formers on the development of sport and other relevant policy issues (such as health and social inclusion):

- distribute Exchequer and Lottery money to sport through a clear investment strategy driven by funding agreements and measurable performance targets;
- improve the evidence base of the benefits of sport; and
- provide expert advice and guidance to delivery partners and those that are given funding.

Sport England's resources, with the exception of the Commonwealth Games, have enjoyed a regular growth, allowing it to achieve the goals of the ministry and, more globally, to participate in the framework of the Game Plan Agenda for 2020, to change the framework of sport in England by 2020 (Table 24.10).

The poor results of the British team in the Athens Olympic Games have revived the debate following the Atlanta Games, where the UK won only a single gold medal. After the defeats at Euro 2004 in football and disappointing results in rugby and in cricket,

specialists questioned the reasons for the poor results even though public money was plentiful. With more than £100 million for the 271 athletes competing for the Athens Olympics, Team UK had the highest budget of its history. It is not the lack of money that is criticised but the distrust towards professional sport in a country where the amateur participant, armed with common sense and perseverance, largely represents the public image of sportsmen and -women. In addition, as in most Western countries, the practice of physical exercise has decreased and obesity has increased, putting the English in the top rank in Europe in this matter. Along with this trend but also under the pressure of urban growth, playing fields have disappeared. With the increase in intervention in British sport, renowned as the most liberal model of sports organisation in Europe, gap between it and the more interventionist French model is narrowing and a European model of organisation and of sports financing is progressively appearing whereby public financing, whether from national or local governments, combines with private financing to give a mixed, public-private, model.

Be it in the UK or in France, the intervention of the state as an actor in sports financing results in putting sports participation within everyone's reach, which is particularly noteworthy if one extends the comparison to the American example. Indeed, in the United States, sports are not subject to any state subsidy. The access to sports at a high level occurs through universities, which are highly selective and expensive, so only the most gifted young people or those from a wealthy background can have access to elite sports by gaining admission to these universities. In conclusion, the state plays an important role in sport by reducing inequalities at different levels, between individuals, between sports, and finally between regions.

Notes

1. See Chapter 13.
2. Baade, R.A. (1996), 'Professional sports as catalysts for metropolitan economic development', *Journal of Urban Affairs*, **18** (1), 1–17; Baade, R.A. and Dye, R.F. (1990), 'The impact of stadiums and professional sports on metropolitan area development', *Growth and Change*, **21** (2), 1–14; Lavoie, M. (1997), 'Les arguments favorisant les subventions au sport professionnel sont-ils valables?', in M. Lavoie, *Avantage Numérique l'argent et la ligue nationale de hockey*, Hull (Quebec): Vents d'ouest, 118–26; Noll, R.G. and Zimbalist, A. (1997), 'The economic impact of sports teams and facilities', in R.G. Noll and A. Zimbalist (eds), *Sports, Jobs and Tax: The Economic Impact of Sports Teams and Stadiums*, Washington, DC: Brookings Institution, 55–91; Rosentraub, M.S. (1997), *Major League Losers: The Real Cost of Sports and of Who's Paying for It*, New York: Basic Books; Scherer, J. and Jackson, S.J. (2004), 'From corporate welfare to national interest: newspaper analysis of the public subsidization of NHL hockey debate in Canada', *Sociology of Sport Journal*, **21** (1), 36–60.
3. Crompton, J. (2004) 'Beyond economic impact: an alternative rationale for the public subsidy of Major League sports facilities', *Journal of Sport Management*, **18** (1), 40–58.

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25 Sport and financing

Wladimir Andreff

Sport and money enjoy a long-lasting and necessary mutual relationship. Where sport is competitive, it offers a sports spectacle that requires finance for its organisation, but can bring in substantial income. Sports participation itself has become an act of individual consumption, bringing in its training expenses from households for sports goods and services. Sport development and sporting events are of concern for both central and local (regional) governments, which allocate a part of their budget to sports financing (Andreff and Nys, 2002). This chapter covers the macroeconomic finance of the overall sports economy at a national and regional level in Europe. Financing team sports and the finance of a specific athlete are dealt with elsewhere in this book.¹ The focus here is on the distribution between public and private sports finance. Some examples show that sport – even the so-called amateur sport – is increasingly subject to a purely financial rationale which threatens the survival of a traditional sporting ethic. On the other hand, North American sports finance concentrates on professional sports. Nevertheless, increasing amounts of money do flow into American college sports. Due to their capacity to attract more finance, some college sports are now on the brink of professionalisation.

Financing the Overall Sports Economy in Europe

Money flows into the sports economy from four major, though uneven, sources in European countries. Sports clubs' organisations and federations supply sporting activities. Together with the sports media, they all basically offer sports services while retailers, wholesalers and manufacturers supply sports goods. In return, they earn revenues from the following sources of finance: households, the central government, local governments and enterprises (media, sponsors, patrons and financiers). A European survey of sports financing (Andreff et al., 1994) highlighted, for the year 1990, a basically comparable structure of sports finance in all sampled countries (Table 25.1). Overall sports finance ranged from 0.56 per cent (Denmark) to 3.47 per cent (Switzerland) of GDP. In all countries, private funds overrode public financing of sport, including in the two former socialist economies, Hungary and the Czech Republic, whereas – except in Portugal – households were the main contributors to sports finance, and local governments provided more money to sport than the central government (except in Hungary). Thus, a two-pillar financing model emerges, based on households and local authorities. Beyond these commonalities, some countries have a higher than average share of the central government's sports financing – Hungary, France, Portugal and Italy – while the central government finance is negligible compared to local government finance in Germany, Switzerland, the Scandinavian countries and the UK. The Scandinavian countries, Germany and France enjoy the highest share of local government financing in overall sports finance. Enterprises are a relatively small source, except in Portugal and Sweden. Thus, on average, the so-called 'privatisation' of sports finance is due more to household consumption than to the financial commitment of enterprises, with Switzerland as an extreme case.

Table 25.1 *The structure of sports finance in Europe, 1990 (2000) (%)*

Country	Households	Enterprises	Central government	Local government	Private sector	Public sector	Overall finance/GDP
1990							
Czech Republic	74.8	1.8	6.0	17.4	76.6	23.4	n.a.
Denmark	55.6	5.6	6.3	32.5	61.2	38.8	0.56
Finland	66.2	4.8	4.3	24.7	71.0	29.0	1.13
France	42.4	8.5	11.5	37.6	50.9	49.1	1.10
Germany	69.0	3.8	0.6	26.6	72.8	27.2	1.28
Hungary	47.5	5.7	30.2	16.6	53.2	46.8	0.60
Italy	72.9	7.9	8.2	11.0	80.8	19.2	1.04
Portugal	36.5	42.0	9.9	11.6	78.5	21.5	1.77
Sweden	60.2	17.1	2.2	20.4	77.4	22.6	0.80
Switzerland	91.6	2.8	0.4	5.2	94.4	5.6	3.47
UK	79.1	5.0	0.8	15.1	84.1	15.9	1.49
2000							
France	50.4	7.0	11.1	31.5	57.4	42.6	1.70
UK	79.5	8.4	n.a.	12.1	87.9	12.1	1.50

Sources: Andreff et al. (1994), MJS (2002) and Cambridge Econometrics (2003).

This means that a European model of sports finance (Andreff, 1996) is deeply rooted in the chosen spending of households, which is the logic of a market economy where participants and spectators are considered to be consumers of sports goods and services. Nevertheless, in this model, public finance is not negligible, in particular with regard to local authority funding. This is one of the reasons why the financing of sport by private business remains limited in Europe compared to North America.

Unfortunately, no update of the Council of Europe's survey is available so far. However, in 2000, France and the UK seem to be representative of a more general European trend. The share of households still increases in sports finance while the share of public (both central and local) financing decreases. The public-private finance distribution is moving towards a higher inflow of private money in sport.

Private Sports Finance

Households finance the sports goods industry through their purchases of sportswear, sports footwear, and more specific sports goods. Some also buy the products of the sporting press, which draws its revenues from them. On the other hand, households finance a wide range of services supplied by various organisations involved in sporting activities: subscriptions and fees as sports participants, admissions to sporting events as sports fans, and bets in sport-related gambling as punters. The aforementioned European survey showed that household expenditure was more concentrated on financing sports services than sports goods, in most developed European countries (except Denmark and Sweden), in 1990 (Table 25.2). On the other hand, households spent more money on buying sports goods than on the acquisition of sports services in the Czech Republic, Hungary and Portugal. In some countries, such as the UK, Italy and Sweden, betting and gambling on

Table 25.2 *The share of sports goods and services in household consumption, 1990 (2000) (%)*

Country	Sportswear & footwear	Other sports goods	Subscriptions insurance, fees	Admissions	Newspapers media	Other sports services	Betting & gambling
1990							
Belgium	13.2	19.2	24.3	9.0		27.0	7.3
Czech Republic		86.9*				12.4**	0.7
Denmark	26.8	24.9				48.3**	
Finland	25.8	10.1	10.2			46.5	7.4
France	25.6	12.5	7.4	7.8	4.0	42.7	
Germany	22.6	14.7	12.4	14.0	5.9	29.1	1.3
Hungary		56.9*			3.1	34.7	5.3
Italy	33.7	3.5	13.1	4.7	6.4	9.8	28.8
Portugal		53.7*				38.9	7.4
Spain		22.0*		16.4		61.6	
Sweden	39.1	19.5	14.7	1.5			25.2
UK	20.2	21.1	5.5	14.8	4.8	4.3	29.2
2000							
France	25.5	34.3	16.8	11.6		11.8	
UK	21.6	6.9	23.5	5.2			20.1

Note: * All sports goods; ** All sports services.

Sources: Calculated from Andreff et al. (1994), MJS (2002) and Cambridge Econometrics (2003).

the outcome of sporting events account for a substantial share of the private finance flowing into the sports economy. The methodological tricks backing these figures (see Andreff et al., 1994) do not allow more refined conclusions to be formulated.

With regard to the enterprise contribution to private sport finance, sponsorship has usually been the biggest source of funds, namely in Belgium, Denmark, France, Germany, Hungary, Italy and Sweden, followed by the broadcasting rights fees paid by television companies. Today, the 10 major sponsors of French sport spend an average of more than €10 million per year on sports sponsorship (Andreff and Nys, 2002). The broadcasting rights fees that accrued to all sports, in 1998, reached \$451 million in France, \$841 million in Germany, \$500 million in Italy, \$261 million in Spain and \$791 million in the UK. Football received the major share of television revenues: 37.8 per cent in France, 42 per cent in Germany, 65.2 per cent in Italy, 50.8 per cent in Spain and 51.6 per cent in the UK.² After football, the main sports benefiting from the television windfall were Formula One (9.3 per cent of all broadcasting right fees), rugby (8.1%), tennis (4.6%) and cycling (2.7%) in France; tennis (6.6%), Formula One (6.2%), boxing (4.3%) and basketball (3.5%) in Germany; Formula One (7.4%), basketball (5.1%) and cycling (2.0%) in Italy; basketball (10.9%), tennis (9.8%), Formula One (4.2%) and track and fields (1.4%) in Spain; and rugby (11.7%), cricket (7.9%), Formula One (4.5%) and tennis (2.3%) in the UK. The share of sport sponsorship, compared to broadcasting rights fees, has decreased in the past 20 years in Europe. Both are somewhat volatile sources of sports financing, since it

is not the basic enterprise calling to finance sports, except for those firms involved in the production and trade of sports goods and services.

A minor private source of finance flows through sport at the workplace supported by employers' money, which is a non-negligible share of overall private funds in Scandinavian sports. Sports financing by enterprises was a multiple of the state budget for sports in Finland, Germany, Portugal, Sweden, Switzerland and the UK, in 1990, while it amounted to less than 50 per cent of the state budget in the Czech Republic and Hungary. The data available for two countries in 2000 do not show a precise trend.

Public Sports Finance

In federal and community states (Germany, Switzerland, the UK and Scandinavian states), the central government budget for sports is rather limited, in absolute terms and compared to other sources of sports financing. A more centralised administration of sports in France, Italy, Portugal and Hungary (and to a lesser extent the Czech Republic) results in a more significant share of the state budget in the overall sports finance. In some countries, central government financing is completed with receipts coming from betting and gambling: the French (extra-budget state fund) Fonds National de Développement du Sport collects funds from the gamblers' stakes in the Loto sportif and the Loto national, the Italian National Olympic Committee receives revenues from the Totocalcio football pools and other gambling and the Enalotto lottery, in Germany sports federations benefit from funds collected by Lotto, Toto-Ergebniswette, Toto-Auswahlwette, Glückspirale, Spiel 77 and Rennquintett, and a National Lottery was created in 1994 in the UK with part of its income earmarked for the Sports Council finance.

Although the share of local authorities decreased in France and the UK between 1990 and 2000, the major sources of public sports finance are still the local governments of municipalities, districts (the German *Länder*, the Swiss *cantons*, the French *départements*, the Belgian provinces and the English counties) and regions. In all surveyed countries, the local government share in overall sports finance is larger than the state budget for sports. In some countries, the gambling revenues flow into sport through local bodies, as in Switzerland where 75 per cent of the Sport-Toto net profit is paid to the *cantons* which are obliged to use these moneys for the construction of sports facilities and the financial aid to sport for all. Generally local governments finance sports facilities more than the central government and private enterprises do, in all countries. However, subsidies to local sports clubs are a major expenditure in local governments' sports budgets, and this source of revenue may be extremely important for (the survival of) some small amateur clubs. Local authorities distribute subsidies according to pre-established criteria such as the level of competition, the club's performances, the number of participants (or the number of teams registered in various competitions), the age distribution of participants, and the club's real costs and revenues. In May 2001, the European Commission limited the annual amount of the allowed local subsidy to a single professional club to €2.3 million.

The Distribution of the Funds Allocated to Sport

The funds that finance the sports economy partly flow into the sports goods industry and trade. Another bigger part is used to finance the sports administration structures (federations, clubs), and through them sports practice and competitions, including

Table 25.3 Distribution of sport finance, 1990 (%)

Country	Federations	Clubs	Facilities	Top level
Czech Republic	15.9	63.5	12.7	7.9
Denmark	6.7	47.8	43.2	2.3
Finland	17.6	36.1	31.4	14.9
France	22.6	31.6	44.0	1.8
Germany	4.3	40.9	53.5	1.3
Hungary	32.1	21.7	34.1	12.1
Portugal	5.8	84.5	9.1	0.6
Sweden	6.0	36.2	57.7	0.1
Switzerland	20.1	53.8	25.5	0.6
UK	85.3	6.4	8.4	n.a.

Source: Estimation based on non-comprehensive data, see Andreff et al. (1994).

top-level sport, while some funds finance sports facilities and the organisation of sporting events.

No country has so far been able to carry out, on an annual basis, a comprehensive survey of all the moneys invested in the organisation of sporting events by the country's sports administration structures and private enterprises. The European survey cited above provides an estimation of how sports finance was distributed, with the exception of sporting events (Table 25.3). In all sampled countries, in 1990, sports federations and sports clubs together accounted for the great bulk of funds entering sport, from 42.2 per cent of all the funds allocated in Sweden to 91.7 per cent in the UK. The distribution of funds among sports administration structures, between federations and clubs, is not very significant, since it depends on the specific accounting methodology and the degree of centralisation of sports structures in each country. With regard to the funds devoted to top-level sport, the existing data is very heterogeneous and, in most countries, covers only the public financing of top-level athletes and teams. The only data available for sports facilities on a nationwide basis relates to their public financing; no aggregated figure is available for private financing of sports facilities. In 1990, the latter attracted the highest share of public finance in Scandinavian countries, France and Germany (where the government invested heavily in refurbishing sports facilities in eastern *Länder* after the German reunification).

Regional Sports Financing

Sports financing is increasingly a local and regional issue in Europe since it is unevenly allocated between the different regions of a country. At a regional level, the overwhelming share of finance comes from the expenditures of local households. For instance, households provide nearly 20 times more money than the central government grants to sports in English regions (Table 25.4) and over 200 times more than local government grants. The English case shows that households' sport-related spending ranged from £198 per capita per year in the South West to £266 in the South East. Local government grants are also unevenly distributed (from almost nothing in the North East to £3.9 per capita

Table 25.4 Sports financing by the public sector and households in English regions, 2000

	£ per capita			% of overall spending					
	Central govt grants	Local govt grants	Household spending	Sportswear footwear	Sports goods	Subscriptions, fees	Admission fees	Gambling	
London	13.4	3.9	242	24.3	5.3	25.5	5.7	18.1	
South East	13.1	0.3	266	20.2	7.0	25.9	5.8	17.4	
East	12.9	0.4	215	22.8	5.1	23.3	5.2	19.5	
South West	11.8	1.5	198	20.7	10.1	22.1	4.9	18.9	
West Midlands	13.6	1.7	230	19.9	12.2	21.4	4.8	20.6	
East Midlands	12.8	1.1	207	20.8	6.3	20.6	4.6	20.7	
Yorks & Humberside	15.1	1.2	229	21.1	4.8	25.2	5.6	22.4	
North West	12.5	0.1	226	21.8	6.6	24.0	5.3	20.3	
North East	14.3	0.0	228	22.1	4.1	15.1	3.4	32.8	
England	13.2	1.2	230	21.6	6.9	23.5	5.2	20.1	

Source: Cambridge Econometrics (2003).

Table 25.5 *The finance of all sports leagues in the Midi-Pyrénées, 2001 (%)*

Finance from:		Expenditure on:	
Public subsidies central & local governments	32.2	Salaries and related expenditures	21.6
Enterprises (sponsors)	1.5	Transportation	2.8
Households:		Sport events	13.9
Admission fees	13.5	Sport facilities & goods	10.3
Other services	45.5	Management	13.3
Other finance	7.3	Other expenditures	38.1

Source: Maudet and Coste (2003).

in London) whereas central government grants to regions are less uneven (from £11.8 per capita in the South West to £15.1 in Yorkshire and Humberside).

It is generally the case that the purchase of sportswear and sport-related subscriptions and fees each account for about 20–25 per cent of all household sport-related spending, in English regions. Admission fees average about 5 per cent of sport-related expenditures, the North East being the only region well below average. The share of household expenditures for sports goods and gambling is more uneven across regions.

In France, only a few regions publish detailed data on sports financing. For example, in the Midi-Pyrénées region, roughly one-third of funds flowing into regional sports leagues comes from public grants and subsidies. Enterprises provide a smaller share in financing regional sports than in supporting nationwide sports development. Households are the major source of sports finance in the Midi-Pyrénées (59 per cent of the total). Overall sports finance is distributed by regional leagues, first for paying salaries, then for covering the cost of organising sporting events, their own management costs, the purchase of sports goods and the building and maintenance of sports facilities and, finally, transportation costs (Table 25.5).

Sport Submitted to a Purely Financial Rationale?

It is neither abnormal nor amoral that money should circulate in sport, in quantities sufficient to develop sports participation and spectacle. Commercial companies, associations and the media have found an interest in financing sporting spectacles and the commercial use of sporting images. Such trends prompt sports organisations (clubs, leagues and federations), which began with non-profit objectives, to transform themselves into commercial associations, and sometimes shareholding companies. Rising amounts of money and growing temptations bring in a risk of embezzlements and fund diversion, in particular in the best-endowed sports, unless the sports governance structures are strengthened. The growth of private sources of finance upsets the structures of European mass sport, notably federations and clubs. Both favour and support the development of new and, sometimes, parallel competitions. The more commercial sponsors finance these competitions, the more the federations' governance over sport is undermined. Federations have usually reacted with an attempt to supervise the revenues derived from sporting events under their control (or ownership), in order to avoid any unmonitored leakage of

power and money to commercial decision makers. In any case, sports federations have increasingly been involved in commercial and financial schemes over the whole range of sporting activities, which are nowadays regarded primarily as an act of individual consumption.

Attracting new membership has become a competitive challenge among the various sports federations and clubs, and it increasingly implies a marketing approach to attract more 'customers'. In the search for increased finance, most sports organisations have moved towards commercialisation and professional management, but often without required monitoring and regulation as far as accountability and internal audit are concerned. In less professional sports, the influx of money lacks transparency, and sometimes has led to financial crises (Andreff, 2000). There has been a demand for hiring professional waged managers even in small federations, paying salaries to federation chairmen in order to fight illegal payments from 'secret funds', and isolating commercial operations (sports shows) from mass sporting activities. The problem is that, just as sport for all is necessary to preserve the credibility of sporting values, the sporty image 'for all' is necessary to maintain the attractiveness of sport to those who invest in it for commercial purposes. On the other hand, the penetration of major financial interests in European sports carries some risks with it. Above all, sports shows are staged to make money, not the reverse. Another emerging risk is one of the media and sponsors taking over the financing and possibly organisational power lost by sports federations, that is, a profound change in the less business-orientated European sport (compared to North America). That the amount of financial inflows determines sport performances is not a new concern with major sporting events, but the involvement of increasing financial interests adds to the risks that match fixing, corruption and other distortions may escalate uncontrollably. For example, there is a statistical correlation between the frequency of wins and the size of team budgets, namely in European football (Andreff and Bourg, 2006).

Sports Finance in the Face of a Sporting Ethic

A sporting ethic refers to moral values regarding sports practice as a socially useful endeavour likely to breed sportsmen and -women imbued with: a fighting spirit; a sense of fair play; a sense of healthy well-being; an anti-doping attitude; a desire for technical and aesthetic beauty in sports practice; a recognition of the equality and fellowship of human beings (when entering the arena); and a strong urge to surpass oneself. Sport is even thought of as a spiritual experience and a deontology (for sport professionals). In this respect, for the last 100 years or so, the European sporting ethic has encompassed a behavioural rationale, a sporting spirit, and a lack of (or marginal) interest in financial matters. When the sport-finance relationships grow and flourish, there is a risk that the financial rationale will supersede the sporting ethic. When it becomes imperative to earn money by any means, then all means appear to be acceptable for winning competitions, such wins being the source of direct (prizes and bonuses) and indirect (publicity fees, broadcasting rights fees, and sponsorship) finance. If finance is allowed to dictate sporting practice, competition and events, non-ethical behaviour is likely to spread to all sports. Is that to say that finance alone is responsible for all sport perversions? Certainly not. However, the ever-more internationalised financing of sport, if unregulated, could downgrade its ethical sense and embroil it in adjusting sporting rules of the game to make them more 'finance-friendly'. With a more globalised profit-seeking money inflow in sport, the

borderline is increasingly blurred between finance-friendly adjustments and cheating, match fixing, falsification of records and accounts, corruption, embezzlement, rigged games, illegal gambling, under-the-table transfers of dubious capital, illegal transfers of teenage athletes (Andreff, 2004), and even money laundering (see examples in Andreff, 2000).³ The most undesirable effect of non-ethical practices might well jeopardise the sports financing itself, since they might 'kill the hen that lays the golden eggs'.

Financing Sports Business in North America

The business orientation of North American sports is financial. The driving force behind the money influx into the American sports business is that both individual and team sports are basically *professional* sports.⁴ Finance is nearly always the counterpart of a market transaction between professional sports and households and enterprises. One major source of finance in most North American sports simply relies on selling their 'products', that is, admission fees, gate receipts and stadium revenues (30–60 per cent of the overall finance, depending on the sports league) paid by those households (or individuals) who are sports fans.

The second source of finance consists in enterprises' funds poured into sports through advertising (stadium-related revenues including corporate boxes, concessions and naming rights), sponsorship (licensing income) and media revenues (broadcasting rights fees). The top 20 advertising companies involved in sport provided \$1876.3 million to American sports in 2000 (Fort, 2003) – from Anheuser-Busch, Chevrolet, Ford, Visa, IBM, Coors, Miller, Nike, Coca-Cola, AT&T, Microsoft, McDonald's and so on. Sports that basically benefit from this money influx are major professional sports (and leagues), namely the National Basketball Association, the National Hockey League, Motorsports, Pro Golf, Major League Baseball and Pro Tennis. Sponsorship provides finance to both individual and team sports. Sports sponsorship has recently grown into an explicit big business. In addition to sponsoring events and individual teams, many very large firms now purchase the right to have their name attached to stadiums and arenas to enhance their advertising (Philips and the Atlanta arena for \$9.2 million per year, Pepsi and the Denver Center for \$3.4 million, Enron and the Houston Field for \$3.3 million and so on). Sponsorship rights fees commonly go to the primary tenant of a sports facility, usually the tenant team owner. Media ownership of teams also provides a source of sports finance, often with a bigger financial support for those teams owned by media. With the exception of the National Football League, corporations can own teams outright, and some corporate owners are media companies (TBS, News Corp., ABC, ESPN). Other owners of professional sports teams are some of America's wealthiest individuals (see Leeds and von Allmen, 2002, p. 71).

League expansion and relocation also attract finance in American sports. The league expansion increases the number of teams, yields franchise rights fees from new owners, inflates gate receipts of member teams, and increases the league television rights values (and further broadcasting rights). Team relocation to a more profitable place inflates the league's finances. Expansion and relocation can be carefully managed in order to enhance the bargaining power of team owners with their host cities and, thus, inflate public subsidies and keep the price of franchises high. Public subsidies take the form of new stadiums and arenas provided by local authorities and, thus, financed by taxpayers or by issuing (state) bonds (*ibid.*). The total bill for 29 professional sport facilities that opened over the

1999–2003 period would be about \$8.9 billion, of which the public share would average about 64 per cent, or roughly \$5.7 billion (Fort, 2003). Since the early 1970s, cities, countries or states have subsidised sports team owners in this way. Subsidies are not limited to stadium construction. Some host cities subsidise streets near the stadium, water and sewer services, match-day safety and crowd control services. Moreover, the stadium and its operations are often exempt from property taxes, another source of public subsidy. Stadium leases grant generous revenues and low rent to the team owners as a subsidy. Recent new stadiums and arenas, have absorbed public funds in the range of \$100–400 million (\$404 million for the Cincinnati Bengals, 100 per cent publicly financed, \$390 million of public funds for the New York Mets out of an overall bill of \$500 million and so on). The states increasingly rely on the funds gathered through lotteries to finance stadiums and arenas.

Let us now turn to the finance of *college sports*. In addition to outside revenues listed below, college sport receives institutional support: a university typically spends money on athletics departments. Thus, one of the raging controversies in intercollegiate athletics concerns whether athletics departments represent a profit centre or a drain on college resources. The National Collegiate Athletic Association (NCAA) sponsors surveys of college team finance which show revenue averages that are in the tens of millions of dollars. Division IA programmes are profitable, far more than lower division programmes (*ibid.*). Division IA athletics departments rely on football and, to a lesser extent, men's basketball profits to subsidise other programmes: 75 per cent of schools make a profit in both football and men's basketball (Sheehan, 2000a). In 1999, the average total revenue of Division IA college athletics departments was \$22 million, \$67 million in Division IA college football departments, \$23 million in basketball departments, and \$5 million in other sports. In college sports, conferences negotiate contracts with media providers. The total value of these contracts signed by college football – the Atlantic Coast conference, the Big East conference, the Big Ten/Pac-10, the Southern conference and Notre Dame – with ABC, CBS, NBC and ESPN was \$373 million per year, in 1996–2000 (Zimbalist, 1999). Such an amount is slightly below the lowest revenue earned by the National Hockey League.

Sponsorship has become widespread in college sports. Every college team attracts money in selling advertising space on its uniform to companies such as Nike, Reebok, Adidas and so on. Conference championships are sponsored by enterprises for millions of dollars. Colleges are selling stadium and arena naming rights as well, up to \$40 million over 23 years obtained by Fresno State College for the Save Mart Center and \$20 million over 25 years secured by the University of Maryland for the Comcast Center (Fort, 2003). Firms have recently become much more interested in sponsoring the college football Bowl Championship series. Post-season money is now a mainstay at the conference level (the average bowl revenue per conference is nearly a quarter of a conference's broadcasting rights fees). Finally, a few colleges require alumni to contribute a minimum amount (for example, \$100) to the university's general fund in order to be eligible to purchase football tickets (which is an indirect football-generated revenue).

Just as in some European amateur sports, cheating on NCAA rules (agreement on not paying athletes) has developed, since it can be worth millions of dollars and coincides with the profit-maximising strategy of nearly all universities. A challenging view (Leeds and von Allmen, 2002) is that the athletics directors and coaches, in fact, maximise budgets rather than profits, and minimise costs of production by depressing the 'pay' of their most

valuable resource – the athletes themselves – due to the monopsony power of the NCAA on the very specific ‘labour market’ of college athletes. Some contend that revenues in college sports appear to be largely driven by expenses (Sheehan, 2000b). In college football, a \$1 increase in expenditures generates approximately \$1 in additional revenue, while it increases revenues by \$0.25–0.35 in other sports. If a school wants to keep throwing money at football, on average it will be no worse off, but following this strategy must be based on a desire to win rather than on profit maximisation. An additional problem is that athletics directors subsidise non-revenue men’s sports, such as tennis, golf or Olympic sports, and women’s sports (whose participants are disproportionately white and middle income) with the money earned from the revenue sports (football, men’s basketball) whose participants are disproportionately black and poor. It is not the least surprising windfall of the professionalisation of college sports.

Notes

1. See Chapter 76.
2. See Chapter 76.
3. See Chapters 85 and 86.
4. See chapter 76.

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26 Military sport

Jean-François Nys

Since antiquity, armies have needed soldiers who are in excellent physical and psychological condition. The aristocratic knights from the time of Homer practised the discus and the javelin and fought in wrestling or boxing matches to prepare for war. The gymnasium, which reached a high point in Sparta, allowed citizens to develop their body, and accustom it to knocks and blows in order to prepare them for battle. The Olympic Games of antiquity comprised mainly running races, discus and javelin throwing, high and long jumping, fighting, particularly boxing and pancrace (an ancient sport) where no holds were barred, and chariot racing.

Developed at first on battlefields, fencing entered the civil domain during the fifteenth century. In the seventeenth century, the foil, a weapon specifically intended for training, appeared. The gym, which was essentially military, became a medical, and then a sports facility. During the nineteenth century, in France, there was conflict between those who wanted to preserve its military character and those who gave it a more playful function. The dispute took a political turn after 1870, when it became necessary to train soldiers to avenge military defeats. This ideology was essentially represented by societies which engaged in shooting, physical training and military preparation. Those who were less militaristic were inspired by the more gentle and less violent attitude towards gymnastics exercised in Sweden.

In spite of the modern mechanisation of the armed forces and the development of systems of complex weapons, physical fitness for soldiers remains a necessary element. Therefore physical and sports training is still an essential part of military training.

Military Sport in France

Structures of military sport

After the Second World War, in 1947, the Centre Sportif des Forces armées (Sports Centre of the Armed Forces) was created. It rapidly became established at Joinville-le-Pont where it became known as the 'Joinville Battalion' in 1956. Seven years later, in 1963, the École interarmées d'entraînement physique et des sports (Inter-army School of Physical Training and Sports) succeeded it. Today the physical training of servicemen and -women, the sports which they practise and the military sports clubs are the responsibility of two specialised structures: the Commissariat aux Sports Militaires (CSM) (Commissionership for Military Sports) and the École Interarmées des Sports (EIS) (Inter-army School of Sports).

The CSM is a combined organisation comprising the joint staff of the armed forces. It was created in 1980 to ensure the representation of the Minister of Defence in national and international sporting organisations, to formulate general rules concerning physical training and sport, to organise competitions, and to select and train national military teams.

The main aim of the EIS, created in 1967, is to train military specialists of physical education and sports. In parallel, the École Militaire de Haute Montagne (EMHM)

(Military Academy of the Haute Montagne) set up in Chamonix in 1932, trains service personnel to fight in the mountains. It is responsible for the military skiing and biathlon teams. The Centre Sportif d'Équitation Militaire (CSEM) (Sports Centre of Military Horse-riding) at Fontainebleau allows service personnel to practise horse-riding during working hours.

Within the framework of the new policy of encouraging military sport at a high level, training centres have been opened in Montpellier for the triathlon, in Aix-en-Provence for aerial sports, in Brest for sailing and in Satory for shooting. In all the armed forces, physical education and sport are the responsibility of the general staff. Policy is discussed in committees, with the aim of facilitating command procedures in the field of physical education.

The military sports policy

Sport and physical education is aimed at preparing service personnel to carry out their duties in times of crisis or of war and to improve their efficiency in times of peace. This is accomplished through physical training adapted to missions and competitions. The end goal is not to create a sporting elite but to encourage teamwork and promote a strict military discipline. Competitions can be internal to units, for example within a regiment. They can involve one of the services or the whole of the armed forces within the framework of the military championships.

The nature of the physical training of service personnel has evolved over time. From 1945 to 1975, the principle was that of military training. Since 1975, participation in sport has been the corner stone of military training. With the professionalisation of the armed forces and the ending of conscription in 1998, physical training has increasingly been based on the concept of sporting activities and leisure. In this respect, the Ministry of Defence encourages sports participation in clubs organised by associations set up under the law of 1901. These are grouped within the Fédération des clubs sportifs et artistiques de la défense (FCSAD) (Federation of sporting and artistic defence clubs), which is a member of the French National Olympic Committee.

A more precise definition of physical and sporting activity for service personnel is needed because the military profession has different requirements from those of other professions. Besides basic physical activities such as walking, running, jumping or body-building, service personnel need to practise specific exercises such as marching with heavy equipment, or obstacle races. If sporting activities are the same as those practised in civilian clubs, the activities take place in the vicinity of these clubs, but separately so that there is no possibility of confusing the two, for example, operational parachuting, the activities of naval frogmen or shooting.

A compulsory annual review of the value of the training and of individual physical fitness is organised for service personnel, which involves a medical examination and takes into account the age and sex of the person. The collective physical value of a unit is calculated from the average of the results of all its members.

After the Second World War, highly achieving sportspeople who did their national service were sent to specialised institutions whose names have changed according to reforms. Since the end of the war, 21 000 athletes have been welcomed into these institutions. They have won 42 Olympic medals, more than 300 military and civil world medals and 1000 national titles.

Since the abolition of compulsory national service, the armed forces have had to rethink their policy. The Joinville Battalion was dissolved and the numbers were reduced from 450 conscript athletes to 80 professional or contract soldiers spread throughout each of the armed services and the national police force. As employees, service personnel do not earn their income from their sporting achievements. Thus, the military representatives are generally found in competitions which require least money: shooting, pentathlon and parachuting.

Taking into account the consequences of the professionalisation of the armed forces, the military sports supervisor instituted a second general review of military sports in April 1998 (the first had taken place in 1983), which was intended to identify new requirements and to propose solutions aimed at satisfying them. The review had to take into account the commitments resulting from involvement in outside theatres of operations as in ex-Yugoslavia or in Kuwait. In November 2000, there was a further review to examine the general state of education and physical training in the land forces. The results were utilised in the development of a multi-annual action plan and the reformulation of a ministerial directive and doctrine concerning military sport.

Sport in the American Army

After the First World War, from the 22 June to 6 July 1919, seven months after the Armistice, inter-allied games were organised at the 'Bois de Vincennes', in Paris in the Pershing stadium, specially built for the occasion. These games were an initiative of the Young Men's Christian Association (YMCA), an ecumenical organisation founded in London in 1844. The American branch grew by using sport as educational means for the young people, and by proposing a union between the body, the spirit and the soul. In 1887, the YMCA created a school in Springfield (Massachusetts) where sports educators are trained. It is in this school that James Naismith invented basketball in 1891 and William Morgan instituted volleyball in 1895. During the conflict in Mexico in 1913, the United States called on the instructors of the YMCA to improve the physical condition of the soldiers.

For President Woodrow Wilson, a good soldier had to be an athlete. Thus, since 1916, training camps have been set up in military bases, where recruits can practise baseball, American football, boxing and athletics. In 1917, President Wilson ordered General John (Black Jack) Pershing, Commander-in-Chief of the American troops, to work with the YMCA to develop 'soldiers' homes', which were used as training camps for the American Expeditionary Force in Europe. During the conflict, sporting events maintained the physical shape of the fighting force and from 1919 onwards, they ensured that the numerous American soldiers who stayed in Europe would not become idle. It was the beginning of military sport in the US armed forces.

Today the Armed Forces Sports Council (AFSC) aims to promote goodwill between the various services by promulgating a positive image of the armed forces through sport, to develop physical prowess through top-level sporting events and to encourage the participation of military athletes in national and international competitions. The organisation of the AFSC is shown in Figure 26.1. The presidency of the AFSC alternates every couple of years between the services. In 2004, the US Air Force held the presidency, in 2006 it will be the turn of the US Marine Corps, then in 2008 of the US Army.

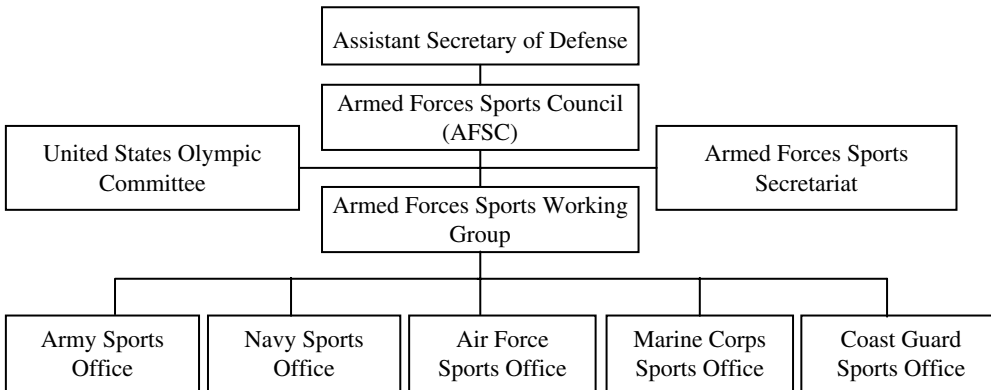


Figure 26.1 Organisation of the AFSC

The International Council of Military Sport (Conseil International du Sport Militaire: CISM)

The CISM was established in Nice on 18 February 1948 by five countries: Belgium, Denmark, France, Luxembourg and the Netherlands – in fact the idea emanated from the United States. At the end of the Second World War, the Commander-in-Chief of the American forces, General Joseph McNarney, seeking to break the barriers of language and culture and to develop cooperation between the allied armed forces, wanted to reactivate the AFSC. However, the project failed because of the tensions between the allies which increased from 1947 and the onset of the Cold War between the United States and the USSR. Following the establishment of the CISM in 1948, Argentina and Egypt became members in 1950, the United States joined in 1951, Iraq, Lebanon, Pakistan and Syria in 1952 and Canada in 1985. Great Britain was among the absentees. Today 127 countries are members.

The general secretary, who is elected for four years by the general assembly, ensures that decisions taken by the general assembly as well as by the executive committee are carried out. The general secretary’s office is located in Brussels.

The purpose of the CISM is to encourage military physical and sporting activities, to develop friendly relations between the armed forces of the member countries as well as to provide mutual technical aid and to contribute to universal peace. To this end, the CISM organises championships, sports meetings and training courses. Echoing Jean Giraudoux’s ideas (Giraudoux, 1928), it adopted ‘friendship through sport’ as a slogan, neatly summarising all these aims. Recognising the need to develop research in the fields of coaching, medicine and military physical wellbeing, in 1957 the CISM set up an academy. Some 21 sports are represented: five military sports (skiing, naval pentathlon, modern pentathlon, shooting and parachuting); four individual sports (cycling, cross-country, sailing and triathlon); four combat sports (boxing, fencing, wrestling and taekwondo); and three team games (basketball, soccer and volleyball).

Inspired by the Olympic Games, the CISM launched the principle of a Military World Games, every four years, to take place in the year preceding the Summer Olympic Games. The first Military World Games, in Rome in 1995, attracted 4017 athletes from 93 nations and 500 000 spectators. The second games in Zagreb, in 1999, attracted

6734 competitors from 82 countries. The third games were held in Catania, Sicily, in December 2003 (postponed from September) and during the 10 days more than 3000 sportsmen participated from 87 countries, in 13 different disciplines. The World Military Games concept has had a difficult beginning, with the original host cities for both the 1999 and 2003 games cancelling their hosting duties, forcing the CISM to find replacement hosts. However, CISM President Gianni Gola was encouraged by the games in Catania, even though they didn't draw many spectators, and is hoping the 2007 games in Hyderabad, India, will be larger and more successful.

Military Sports at the Olympic Games

The modern pentathlon was introduced at the 1912 Olympic Games. The event imitates the journey of a military messenger who had to fight a duel with a sword, use a pistol, swim across a river and finally run through the forest to reach his destination. Originally only officers could compete in this event. The first civilian to win the gold medal was the Swede Lars Hall in the 1952 Olympic Games.

The biathlon, a mixture of cross-country skiing and shooting, was practised in Sweden and Norway from 1767; this discipline was used as a means of defence training, and acquired a growing popularity with Scandinavian regiments. Known as 'military patrol', it appeared in the Olympic Games programme of the first Winter Games in 1924 and subsequently in those of 1928, 1936 and 1948, when post-war sentiment heralded its demise. It was reintroduced in the 1960 Winter Olympics and continues to this day.

Military participation is one of the pillars of civilian sport in a large number of developing countries, particularly in Africa. For example, the Police and Armed Forces of Cameroon were three times champions of Africa in handball.

Sport and the armed forces have, for a long time, maintained a close relationship. Physical exercise is crucial to the development of a soldier's well-being, for both their physical and mental faculties. Moreover, participation in sport is a means to reinforce the cohesion of a unit within the armed forces. The passage, in most western countries, from an army of conscription to an army of trade, has not reduced the role of sport. On the contrary, while modern armies are no longer just the tool of governments desirous to impose their will by strength, nor the conquering legions at the service of belligerent states, they are the guarantors of security and peace, and therefore to succeed in their missions soldiers need to be in peak physical fitness. On top of this, to attract the quality of new recruits that they need, the armed forces have to present themselves as an attractive option. The athletic results of members of the armed forces are one of the main elements in the dynamic picture presented to potential new recruits. As Wakefield (1997) states, by helping to ensure the physical well-being of all soldiers, by inspiring the ideals of sportsmanship and the team spirit of competitive sports, the Army Sports Program continues to be a constructive force in the lives of soldiers everywhere. As the US Army approaches the third millennium, war and sports remain as closely linked in the popular consciousness as they were first at the end of the Nineteenth century.

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27 Local government and regional development in sport

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This chapter examines two issues. First, we endeavour to establish the determinants of public expenditure on sport at the regional level. Second, we examine the role of regional sports expenditure in growth. From this perspective, our study links the literature on sports policy with the literature on regional public finance.

The literature of sports economics recognises the link between city dimension and club dimension (El-Hodiri and Quirk, 1971) based on the population dimensions from which the clubs' fans are drawn. Given that the clubs must at least partially support their finances from the fans' attendance, it seems logical that cities with more inhabitants will have larger clubs. If large cities have large clubs, and these large clubs invest in the best players, paying salaries that small clubs cannot afford, then the performance level of a club is likely to be largely determined by the amount of money that it spends on players (Szymanski and Kuypers, 2000, 198). Therefore, the revenue that a club generates depends on its playing performance and the numbers of fans. Clubs with more fans have higher revenue-generating capacity and will be able to afford more expensive players, and a better long-term performance. The causal link between economic development and sports development seems to proceed from the former to the latter. There is mixed evidence supporting this hypothesis. Szymanski and Kuypers (*ibid.*, 200), regressing the club's league position on the population living in the vicinity of its home territory, found an R-square of 36 per cent, which cannot explain the dominance of Manchester United and Liverpool in the English Premier League during the period studied. This literature does not take into account the role of public policy in promoting sports at the local level. Therefore, we are motivated to investigate the role of regional sports expenditure in promoting growth.

The related literature on regional public economics, or 'decentralisation' literature (Oates, 1979; Gramlich, 1987; Wallis and Oates, 1988), analyses the role of decentralisation in public expenditure. The empirical tests of the decentralisation hypothesis (Heyndels, 2001) analyse the determinants of public expenditure at regional level. Relating these two distinct fields of economics literature, this chapter enlarges previous research on sports economics first, by addressing the determinants of regional sports expenditure in the context of public finance, with panel data from Portuguese municipal authorities and second, by investigating the role of regional sports expenditure in growth.

The chapter is organised as follows. First, we present a literature review that sets the context in which the present research was conducted. Then, we introduce the institutional setting to shed light on particular aspects of the sports market under analysis and we explain the theoretical framework; the empirical study is developed and the results are discussed further.

Literature Review

The economics literature of decentralisation is organised in several strands. With reference to the impact of decentralisation on public expenditure, a first hypothesis, the Wallis decentralisation hypothesis, contends that decentralisation will lead to an increase in the size of the state and local governments (Wallis and Oates, 1988). A second hypothesis, the Brennan/Buchanan decentralisation hypothesis, asserts that an increase in fiscal decentralisation will lead to lower government spending, because any attempt on the part of one jurisdiction to exploit its citizens would cause massive out-migration to an alternative, non-exploiting jurisdiction, based on the Tiebout (1956) intergovernmental competition (Brennan and Buchanan, 1977, 1978, 1980). A third alternative hypothesis, the Brennan–Buchanan collusion hypothesis, posits that the component government in a federal system will collude to organise a cartel-like arrangement, attempting to circumvent the competitive influences of fiscal decentralisation. Empirical tests of the decentralisation hypothesis are mixed and therefore inconclusive (Oates, 1972, 1985; Nelson, 1987; Grossman and West, 1994; Shadbegian, 1999).

Related to this analysis of public expenditure is the flypaper effect. According to common sense, and economic literature (Bradford and Oates, 1971a, 1971b), transfers to local government from central governments are equivalent to cash transfers to local constituents. Therefore, transfers to local governments should have the same impact on local government spending as do increases in local personal income. Empirical studies, however, have found that transfers to local governments have a much greater stimulating effect on local spending than does a comparable increase in the income of local constituents. Empirical tests for the flypaper effect support this hypothesis, concluding that local public expenditure is more responsive to a rise in unconditional transfer, than to equivalent changes in the local electorate's private income (Oates, 1979; Gramlich, 1987; Heyndels, 2001).

The first aim of this chapter is to analyse the determinants of regional public expenditure, alongside the empirical tests performed by the decentralisation literature.

Another line of research emphasises the role of local government expenditure in growth. The role of fiscal policy on long-run growth has been emphasised by Aschauer (1989), Grossman and Helpman (1991), Barro and Sala-i-Martin (1995) and Tanzi and Zee (1997). Yet little has been said about the sources of economic growth at municipal or local level (Duffy-Deno and Eberts, 1991; Crihfield and Pangebean, 1995; Kemmerling and Stephan, 2002; Mello, 2002). Local government spending may be found to be growth enhancing, but the fiscal arrangements among different government levels that are necessary to finance growth-enhancing expenditure at the local level are likely to have an impact on public finances at the national level.

The literature of sports economics recognises the link between city dimension and club dimension (El-Hodiri and Quirk, 1971), based on the population dimensions from which the clubs' fans are drawn (Szymanski and Kuypers, 2000, p. 200).

The second objective of this chapter is to look at the growth-enhancing effect of sports policy, disentangling two competing hypotheses, the first of which is that growth causes sports development. The second puts forward the hypothesis that sports policy is growth enhancing because it contributes in itself to growth in the same way as any service activity: through employment, private demand, public demand, investment, exports and

imports. As with our first objective, we are not aware of any literature in sports economics analysing this question.

Institutional Setting

The current local government framework in Portugal was formally established in the Constitution of 1976, approved in the wake of the 1974 revolution which overthrew the former dictatorial regime. Local government is organised in municipal and parish councils. At present, there are 308 municipalities in Portugal, of which 278 are on the mainland and 30 are in the island groups of Madeira and the Azores. The Lisbon and Tagus Valley region is composed of 50 municipalities. The municipal council is legally empowered to propose to the legislative organ (municipal assembly) the local budget and the plan of activities for the year ahead. Despite having a high degree of discretionary power, the council is subject to various control mechanisms by central government agencies.

Sports policy is one of the most prominent areas within the scope of the town councils' activities. This is justified by an assumed local enthusiasm for sport. The provenance of the municipal authorities' income is, on average, 28 per cent from taxes, 28 per cent from government unconditional grants, and 44 per cent from transfers. The expenditure is decomposed, on average, in 24 per cent out of the total by salaries. With regard to the municipal expenditure on cultural activities, into which sports expenditure is integrated in the statistical data set used, Table 27.1 shows the decomposition for the years under analysis.

We verify that sport accounts for the largest proportion of expenditure on cultural activities, followed by socio-cultural activities (the funding of local popular fairs), libraries and heritage. Moreover, it is observed that public expenditure on sports increased steadily throughout the period.

Theoretical Framework

With respect to the theoretical treatment of the role of sports in regional development, on the basis of previous research (Crompton, 1995; Baade, 1996), we can summarise the positive effects of expenditure on sport, directly and through the multiplier effect. The list includes increases in domestic consumption due to higher aggregate demand, higher levels of public investment inherent in the sports policy, a higher tax revenue available for

Table 27.1 Average composition of cultural and sports expenditure in Portuguese municipalities out of total cultural expenditure (%)

Activities	1997	1998	1999	2000
Heritage	0.14	0.14	0.15	0.04
Publications and libraries	0.11	0.11	0.06	0.08
Music	0.05	0.05	0.01	0.04
Theatre	0.02	0.02	0.01	0.02
Socio-cultural activities	0.11	0.10	0.05	0.09
Cultural premises	0.10	0.08	0.16	0.15
Sports	0.47	0.50	0.56	0.58
Total cultural expenditure in the budget	1.00	1.00	1.00	1.00

providing necessary civic public-sector services, lower health problems thanks to increased participation in sports, fewer social problems, such as drug use and abuse and other forms of youth deviancy problems and finally, spin-offs arising from sports activity which enhance the community's well-being in more abstract ways, ranging from daily conversations on sports at work and in social meeting places, to the nurturing of local identity and unity around clubs, personalities and events, fan loyalty, local civic pride and prestige, all of which translates into the value of an enhanced community image. These effects are external consequences of sporting activities but they may have a positive effect on productivity.

The negative effects are the crowding-out of private investment due to credit shortages when the sports sector is financed through deficit spending and diminished domestic savings and diversion of resources. All of these factors are expected to influence economic growth directly. The final result is unclear. To test the two hypotheses that we posit, that is, the determinants and the sports growth effect, we depart from the following VAR (vector auto-regressive) model:

$$\begin{aligned} Y_{it} &= f(S_{it}, X_{it}, Z_{it}, F_{it}) \\ S_{it} &= f(Y_{it}, X_{it}, Z_{it}, F_{it}) \end{aligned} \quad (27.1)$$

where Y_{it} is the municipality's sport expenditure per annum, S_{it} is the GDP per municipality i in the period t , X_{it} are the economic variables, Z_{it} are the demographic variables and F_{it} are the partisan variables.

The use of a VAR model has been proved to generate more reliable estimates in an endogenous context, requiring less a priori information and treating each variable in the study as being endogenous when the economic theory cannot offer a priori information regarding the variables used in the VAR (Gujarati, 1995, 749–50). A controversial issue in the use of a VAR model arises mainly in the choice of the lag length, and the problem of being a-theoretical, since it uses less a priori information. However, if used with care, it is a useful tool to examine the relationships among economic variables (Enders, 1995, 312). A VAR model allows the measurement of Granger causality, in this two-equation model, between growth and sports. The use of a VAR model is an adequate procedure to generate reliable estimates in an endogenous context, such as the one analysed in this chapter. The underlying model is the result of an effort to unify these disparate concepts of how sports spending can influence economic growth, and to do so in the most robust way possible.

A range of socioeconomic indicators is available to measure the determinants of public sports expenditure. Three considerations guided the choice of indicators. First, in order to facilitate a comparison of results, indicators used by other authors were selected where possible. Second, because many indicators are collected infrequently and with a lag, the indicators used were those for which the most up-to-date values were available. Finally, we have relied as far as possible on a limited number of publications, so as to ensure the consistency of the data set used, in this case the *Anuário da Região de Lisboa e Vale do Tejo* (Annual Bulletin on the Lisbon and Tagus Valley Region), published by the INE (Portuguese National Institute of Statistics), the *Guia do Autarca* (Municipal Authorities Review), 1997–2000 and the *Estudo do Poder de Compra Concelhio* (Study on Local Purchasing Power), INE, 2000. The characteristics of the variables used in the analysis are presented in Table 27.2.

Table 27.2 Characteristics of the variables

Variables	Definition	Range	Mean	Square deviation
<i>Lsports</i>	Logarithm of municipal sport expenditure in euros, 1990 = 100	1.609–9.123	5.476	1.475
<i>LGDP</i>	Logarithm of municipal per-capita GDP Index	3.053–5.503	4.395	0.480
<i>Ltaxes</i>	Logarithm of municipal taxes, euros, 1990 = 100	7.549–13.364	9.400	1.189
<i>Lgrant</i>	Logarithm of municipal grants, euros, 1990 = 100	7.318–10.890	8.427	0.747
<i>Larea</i>	Logarithm of the area of municipalities in square km	2.624–7.021	5.079	0.922
<i>Lpopul</i>	Logarithm of population by municipality	8.246–13.243	10.400	1.155
<i>Lmiddle</i>	Logarithm of population in 15–24 age range	6.291–11.152	8.458	1.163
<i>Lolder</i>	Logarithm of population aged over 65 years	6.530–11.779	8.617	1.045
<i>Lstudents</i>	Logarithm of students by municipality	3.135–10.343	6.864	1.456
<i>Lhealth</i>	Logarithm of the number of healthcare attendances	8.320–14.463	11.421	1.086
<i>Lculture</i>	Logarithm of the cultural expenditure by municipality	3.295–15.035	8.219	2.660
<i>Partisan</i>	Dummy variable which is 1 for left-wing political parties, zero otherwise	0–1	0.804	0.397

Sources: All variables were obtained from the *Anuário da Região de Lisboa e Vale do Tejo*, Lisbon, INE (several years), with the exception of the per-capita GDP index, obtained from the *Estudo do Poder de Compra Concelhio*, Lisbon, INE (2002) and *Partisan*, obtained from the *Guia do Autarca*.

The dependent variable in the first regression is *municipal sport expenditure per capita at 2000 = 100 constant prices*. This is the dependent variable in the analysis of the determinants of growth in the empirical literature of public finance (Mello, 2002). In the second regression, the dependent variable is *per-capita income growth*, which is the dependent variable in growth equations (Barro, 1991, 1996, 1997; Mello, 2002). The independent variables are:

- *Per capita income* is expected to be positively related to public municipal sports expenditure, based on the hypotheses that wealthy societies consume more sports products, and that sports services are normal goods (Heyndels, 2001; Mello, 2002).
- *Municipal local revenue* which is the tax revenue from municipalities, including a tax on cars, a tax on real-estate purchases (*Sisa*) and a tax on private housing in the municipality (*contribuição autárquica*). It is expected to be positive, since a wealthy municipality should spend more money on sports amenities and services. This

variable will possibly be correlated with per capita income, a point to which we shall return further below.

- *Grants* is expected to be positive and, if larger than per capita municipal local income, will constitute evidence of the flypaper effect, indicating that the source of municipal revenue is important (Heyndels, 2001).
- *Population* is expected to be positive, indicating that larger municipalities provide a wider range of sports services. The disentangling effect of different age groups in the population should capture the role of different ages in cultural-expenditure demand. It is recognised that the older sections of the population have a stimulating effect on health expenditure (Gouveia, 1996), but there is no evidence of their role in sports expenditure. Moreover, it is assumed that the population has a non-linear relationship with public expenditure, first rising with agglomeration effects, but later decreasing due to congestion effects (Mello, 2002).
- *Students* is the total number of secondary school students aged 10–18 in the municipality, used as a proxy for athletes practising sports in the municipality, based on the fact that this segment comprises the main body of practising athletes. This variable is expected to have a positive effect on municipal sports expenditure, since this segment is highly likely to express its demand for local sports amenities and services.
- *Number of healthcare attendances* is a variable aiming to capture the role of sporting activities in promoting public health. The variable is expected to have a negative relationship with sports expenditure, since we assume that such activities are deemed to have a beneficial effect on the health of the participants, building a stronger resistance to illnesses.
- *Cultural expenditure* is a variable included to consider the complementary or competitive effect of cultural policy.
- *Partisan* is a dummy variable that is one for left-of-centre political parties (Socialist Party and Communist Party) and zero otherwise. The literature of public choice usually includes this variable as an exploratory one, recognising the role of ideology in policy formation.

Empirical Study

We proceed to estimate the VAR simultaneous equations. Because each equation has identical right-side variables, ordinary least squares (OLS) is an efficient estimation technique (Enders, 1995). The results are presented in Table 27.3. However, the use of OLS techniques for approaching the individual effects (random- or fixed-effects estimators) is debatable in this context, since the assumption of the lack of a correlation between μ_i and the explanatory variables required for the calculation of coefficient estimators are not evident, due to the possible existence of endogenous variables in the RHS of the equation. On the other hand, OLS is inconsistent, just as is Feasible Generalised Least Squares (FGLS), whenever the errors show heteroscedasticity or serial correlation (Sevestre and Trogon, 1996). For these reasons, we estimated several models for comparative purposes.

Determinants of municipal sports expenditure

Table 27.3 presents the determinants of sports expenditure with a log–log model. For comparative purposes, several estimated models are presented. As expected, all models display similar coefficients in sign and value, confirming the robustness of the estimated

Table 27.3 First equation: the determinants of municipal expenditure on sport (dependent variable log per capita municipal expenditure on sport)

Variables	OLS model	Fixed effect model	Random effects model	GMM model
Constant	-10.408 (-3.703)*	-	-10.059 (-3.628)*	-10.408 (-3.820)*
Δ Log GDP	-0.221 (-1.016)	-0.198 (-1.086)	-0.201 (-1.085)	-0.221 (-1.048)
Log(Taxes)	0.584 (3.219)*	0.389 (2.205)**	0.489 (2.684)**	0.584 (3.321)*
Log(Grants)	-0.516 (-1.295)	-0.381 (-1.157)	-0.390 (-1.191)	-0.516 (-1.336)
Log(Area)	0.284 (3.518)*	0.282 (3.947)*	0.286 (3.396)*	0.284 (3.629)*
Log(Population)	4.790 (3.070)*	3.557 (2.349)**	4.302 (2.924)**	4.790 (3.167)**
Log (Population 15–24 years)	-3.022 (-2.539)**	-2.243 (-1.879)	-2.820 (-2.448)**	-3.022 (-2.619)**
Log(Population > 65)	-1.373 (-2.428)**	-1.049 (-2.095)**	-1.256 (-2.433)**	-1.373 (2.504)
Log(Students)	0.009 (0.044)	0.052 (0.297)	0.029 (0.181)	0.009 (0.045)
Log(Health)	0.147 (0.5741)	0.035 (0.132)	0.124 (0.625)	0.147 (0.592)
Log(Culture)	0.354 (1.156)	0.412 (3.605)*	0.265 (4.256)*	0.035 (1.193)
Partisan	-0.233 (-0.9976)	-0.275 (-1.361)	-0.270 (-1.556)	-0.233 (-1.029)
R-square	0.53	0.64	0.42	0.53
R-square adj.	0.51	0.61	0.39	0.51
LM Heter. Test	12.45 (0.000)	13.44 (0.000)	10.96 (0.001)	-
DW test	1.792	1.972	1.184	1.81
No. of obs.	200	200	200	200

Note: *t*-statistics in parentheses are below the parameters; * significant at 1% level; ** significant at 5% level; *** significant at 10% level.

values. This sensitivity analysis of estimating techniques was performed alongside a sensitivity analysis of the model specification and we retain the log–log specification, because it gives better statistical results. We have also analysed the sensitivity of the variables used in the model, estimating the model with per capita variables and cross-effects, but retaining the final presentation because it gives better results.

The models fit the panel data well, with the fixed-effects model presenting an adjusted *R* square of 64 per cent, an *F*(3,184)-test statistic of 18.44 with a *P*-value of 0.000, denoting that the variables jointly explain the model. The model has no lagged variables. The one variable with lagged significant and also negative sign was GDP.

However, we have not retained this lagged variable, because it did not alter the interpretation of the data set, and because we have a short data span.

Assuming that the lack of independence appears to be the rule rather than the exception in panel data, we present the Durbin–Watson (DW) test. In order to evaluate the robustness of the estimated models, we estimate a general-method-of-moments (GMM) model which allows for the simultaneous correction of auto-correlation and heteroscedasticity. The GMM model maintains the sign of all parameters, in addition to almost maintaining their value.

According to the models, the per capita municipal sport expenditure is a positive function of dimension (area, population), of the structure of population (the elderly, students) and of other public policies, such as sport policy. The municipal sport expenditure is a negative function of GDP, grants, the youth component of the population and partisan. Therefore, we can assert that wealthy municipalities are less likely to support sports, probably because the private sector is more actively involved in sports sponsorship, so there is a reduced need for public support. The grants are revealed to have a negative effect on sports expenditure, suggesting that their allocation by the central government is based on other criteria than sports policy. In relation to the structure of population, we verify that the elderly have a negative effect on sports expenditure, probably because they demand other public services which are more in line with their concerns. Furthermore, we verify that young people aged 15 to 24 also have a negative effect on sports expenditure, which seems to contradict the positive effect of secondary school students (aged 10 to 18). The contradiction apparent in two series that overlap to some extent is possibly explained by the fact that the younger schoolchildren are actively involved in sports at school and thus produce the positive effect, whereas adolescents no longer at school may have a negative effect because they have ceased to have the same access to sports amenities (Marivoet, 2000). Healthcare attendance has a positive influence on sports expenditure, despite not being statistically significant, which may represent an unexpected link between health and sports practice. Cultural expenditure has a positive influence on sports, signifying that these are complementary policies at the municipal level. Finally, the left-wing political parties have a negative influence on sports policy at the regional level, which contradicts their policy at the national level.

The general conclusion is that sports policies are based, at the regional level, on the dimension of the municipality, measured by the area and the population, on its tax base, on the number of secondary school students, on the cultural policies adopted and on the incumbency of a right-of-centre political party.

The contribution of municipal sports expenditure to growth

In Table 27.4, we present the results of the growth regression. Naturally, this is an unsatisfactory growth model, since we have neither capital stock nor labour at the municipal level and therefore, we are unable to analyse this issue in a context of production function, as is the usual practice. Consequently, we assume this model as a proxy for the production function. Similar growth models are currently used in development economics (Collier and Dollar, 2001). The model is estimated with several methods for comparative purposes, with a sensitive analysis similar to the above model. As before, the models fit the panel data well, with the fixed-effects model presenting an adjusted R square of 47 per cent an $F(3.184)$ -test statistic of 4.58 with a P -value of 0.002, denoting that the variables do explain the model.

Table 27.4 Second equation: the contribution of municipal expenditure on sport to growth (dependent variable log per capita municipal GDP growth)

Variables	OLS model	Fixed-effects model	Random-effects model	GMM model	Fixed-effects lagged model
Constant	0.274 (0.263)	–	0.274 (0.261)	0.274 (0.271)	
Log(Sports)	–0.027 (–1.032)	–0.031 (–1.104)	–0.027 (–1.092)	–0.027 (–1.065)	–0.027 (–1.207)
Log(Taxes)	0.256 (3.440)*	0.252 (3.422)*	0.257 (3.839)*	0.256 (3.548)*	0.268 (3.688)*
Log(Grants)	0.099 (0.751)	0.094 (0.701)	0.098 (0.786)	0.099 (0.775)	0.192 (1.785)
Log(Area)	0.052 (1.789)***	0.055 (1.852)***	0.053 (1.626)***	0.052 (1.845)***	–
Log(Population)	0.878 (1.561)	0.881 (1.466)	0.889 (1.594)	0.878 (1.610)	0.737 (1.712)
Log (Population 15–24 years)	–0.684 (–1.643)***	–0.689 (–1.544)***	–0.694 (–1.607)***	–0.684 (–1.695)***	–0.585 (–1.744)
Log(Population > 65)	–0.296 (–1.643)***	–0.310 (–1.599)***	–0.303 (–1.552)***	–0.296 (–1.628)***	–0.273 (–1.842)
Log(Students)	0.072 (1.157)	0.087 (1.426)	0.076 (1.244)	0.072 (1.194)	–
Log(Healthcare Attendance)	–0.053 (–0.848)	–0.055 (–0.872)	–0.052 (0.707)	–0.053 (–0.875)	–
Log(Culture)	0.0002 (0.0256)	0.010 (0.344)	0.0006 (0.055)	–0.0002 (0.026)	–
Partisan	0.081 (1.116)	0.075 (1.021)	0.079 (1.206)	0.081 (1.151)	0.045 (0.632)
Δ Log GDP	–	–	–	–	–0.449 (–7.241)*
LogSports(–1)	–	–	–	–	0.082 (4.173)*
R-square	0.46	0.47	0.46	0.46	0.61
R-square adj.	0.43	0.43	0.43	0.43	0.59
LM heter. test	14.78 (0.000)	15.505 (0.000)	14.809 (0.000)		4.9
DW test	2.71	2.724	2.713	2.71	1.908
No. of obs.	200	200	200	200	200

Note: *t*-statistics in parentheses are below the parameters; ** significant at 1% level; * significant at 5% level.

Continuing with the assumed hypothesis that the lack of independence appears to be the rule rather than the exception in panel data, we present the Durbin–Watson test. As previously, in order to evaluate the robustness of the estimated models, we estimate a GMM model which allows for the simultaneous correction of auto-correlation and heteroscedasticity. The GMM model maintains the sign of the parameters and almost maintains their value.

Growth is positively and statistically explained by the area and the tax base and negatively and statistically explained by the population age groups 15–24 and over 65. The other variables are not statistically significant. Most notably, sports expenditure is negative, but statistically insignificant. Introducing lags in the model, we verify that sports expenditure translates into a positive and statistically significant lag, confirming that sports contributes to growth at regional level with a lag. The flypaper effect is not statistically supported.

Discussion

The contribution of our study is two fold. First, we describe a simple, yet robust model of sports expenditure determinants and analyse the contribution of sports expenditure to economic growth that integrates disparate hypotheses gleaned from sports economics literature. Our model allows for many of the various avenues by which sports resources are determined in a municipal authority and these resources are used to permit a municipality's rate of economic growth to be revealed empirically. Second, we estimate the sports expenditure function that is implied by the model. Ultimately, the panel data analysis of Lisbon municipalities reveals that sports function is linear and without lags. These results are consistent with what other studies have found when considering the determinants of local budgeting decisions. We also find that local expenditure on sports goods and services is an inferior good, suggesting that as income increases, municipalities invest less on such goods and services.

Regarding the determinants of municipal sports expenditure, we conclude that the positive determinants are the dimension (area, population), healthcare attendance and other factors, such as cultural policy. The negative determinants are GDP, grants, adolescent to young adult and elderly populations and the left-wing political orientation of the municipal governing party. This result signifies that the municipalities more actively engaged in sports development are those with lower GDP, but larger areas and populations. Conversely, wealthier municipalities give less support to sport, possibly because private-sector involvement in local sport is more developed and therefore, the public civic authorities have fewer obligations to subsidise sports activities. The structure of population is important since there are some groups, such as secondary school students, which support the public sports policy while others, such as the elderly, oppose it. A probable explanation for the latter attitude is that older people are more concerned about healthcare provision than about sports facilities. The municipal support for culture is complementary with sports support.

With regard to healthcare attendance, we verify that it has a positive relationship with sports expenditure, signifying that one of the policy objectives is that sports participation should be a means to improving the health of the community. Regarding the contribution of sports to growth, we conclude that public sports expenditure contributes negatively to growth when measured by GDP. However, if we include a lagged sports expenditure variable, the result becomes positive and is statistically significant. Other variables that contribute to growth are the tax base and the dimensions of the municipal area, signifying that there are scale economies in a municipal production unit.

Conclusion

The general conclusion is that the regional determinants of sports expenditure are the municipality's dimension, its tax base and the structure of the population. The GDP

contributes negatively to sports expenditure. The sports expenditure contributes to growth only with a lag. This chapter is restricted by the following limitations: first, it uses a short data span, which limits its conclusions; second, it does not take into account the positive use of sports for social purposes, such as combating drug use and abuse by the young and to aid in crime prevention. These limitations are based on the data employed. Further research is needed to expand these conclusions.

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28 The European model of sport

Peter J. Sloane

The European model of sport is distinguished from the North American model, also discussed in this volume, by much less stress being placed on commercial considerations, reflecting the origins of European professional sports in which soccer dominates in terms of size and complexity. All sports started on an amateur basis as participant activities. As Andreff and Staudohar (2002, 23) state: 'An amateur club's financial receipts reflect its basic aim of gathering members who are interested in the practice of sport. The club's purpose is for recreation and development of young players. Economic viability is sustained largely through subscriptions and private cash donations'.

As professional sports developed, sports governing bodies tended to have responsibility for both amateur and professional activities and this may itself have reduced the emphasis on commercial gain. An example is the English Football Association's (FA) Rule 34 passed in 1896 which imposed a maximum dividend of 5 per cent on member clubs in order to prevent directors from making money out of the game.¹ In practice, most clubs pay no dividends, including some of those listed on the stock exchange. Rule 34 also prohibited until 1981 anyone drawing a salary as a director of a football club. Szymanski and Kuypers (1999) point out, however, that there is little evidence that football clubs were founded in order to make money. Clubs were legal entities belonging to all their members who elected a committee to run them. While almost all professional clubs in Britain had become limited liability companies by the First World War, the former structure still remains in some European countries. Thus in Spain four of the 42 clubs in the National League are not corporations. Barcelona FC, for example, has a structure in which club members form the assembly of delegates, the highest governing body of the club. Real Madrid is mutually owned by about 50 000 members, most of them ordinary supporters who elect a president to run the club. In Germany similar examples exist of clubs being owned by the members. Thus, in 1994, Schalke 04, a major soccer club, drew up a new constitution which made provision for the club to be owned by the members and the German FA regarded this as a model for the Bundesliga as a whole. In such clubs many sports are catered for.

Perhaps the country furthest away from the North American model is France, where until the 1970s 18 per cent of Division One football revenues were in the form of municipal government subsidies. The legal framework for the organisation of professional football dates back to 1901 when a freedom of association law was passed which provided for the formation of associations of citizens as the basis for the non-profit organisations. Dobson and Goddard (2001) note that there has long been a tradition of local government involvement in the finance and administration of football (including municipal ownership of most of the stadiums). This derives from a statutory duty on municipalities to promote and develop sport. In the 1970s the state itself contributed to the establishment of a National Football Institute for training the most promising young players, while at the same time professional clubs were required to set up their own training centres linked to schools and other bodies in the local community.

There is also a tradition in several countries for industrial patrons such as Fiat, Bayer, Philips and Peugeot to provide financial resources for particular clubs. In their absence this function may be provided by individual benefactors. English Premier League clubs, for example, have a number of these. Mohammed El Fayed, the Chairman of Harrods, is estimated to have spent over £100 million to get Fulham promoted from the Third Division to the Premiership. Jack Walker provided his local club, Blackburn Rovers, with £55 million in 1990 to invest in players and improve the stadium. This led to the winning of the league title in 1994/95, but over a seven-year period there was a cumulative loss of £27 million and no dividends were paid. Similar sums were provided by Sir Jack Hayward for his local club, Wolverhampton Wanderers and Steve Gibson at Middlesbrough. Possibly, the prime example, however, was a Russian oil magnate, Roman Abramovich who took over Chelsea FC in 2003, wrote off its debts of £80 million and provided even more for the purchase of new players with the sole purpose of winning the league championship, which the club achieved in the 2004/05 season.

Financial crises are commonplace in professional sports in Europe and it appears that loss-making is the norm. If maximisation of playing success is the objective of clubs, an 'arms race' may apply and clubs may be tempted to overbid for players or to hire stars at salaries which are greater than profit maximisation would imply. In the 2001/02 season, the turnover of the 92 English football clubs in the Premier and Nationwide Leagues grew by 26 per cent over the previous season according to Deloitte & Touche, but most clubs were unable to make a profit. The 92 clubs together made a record £204 million pre-tax loss in that season, up from £179 million in the previous season. In the Premier League, pre-tax losses rose from £22 million to £137 million. A wage/turnover ratio of 70 per cent or less is regarded as necessary to remain financially secure, but only five Premiership clubs were below this level and 35 per cent of Nationwide League clubs. Leeds United had debts of £92.6 million and Chelsea £73.9 million. Many clubs have gone into receivership as the only means of restoring their finances, recently including Leicester City, Notts County, Ipswich Town, Derby County and Barnsley. Similar problems are found in other sports such as rugby union.

The Distinguishing Features of the European Model

Comparing the European model with the North American model helps to highlight the key differences (see Table 28.1). A fundamental aspect of the European model is that the owners of clubs are not there to make money, but to indulge themselves in consumption activities from which they draw utility. Sloane (1971) proposed a utility-maximisation model which incorporated playing success, attendance, the health of the league and a minimum profit or maximum loss constraint. In order to make this operationally distinct from the profit-maximisation model, a number of authors have modelled the maximisation of playing success subject to a break-even constraint. One implication of this model is that leagues are likely to be more unbalanced where maximisation of playing success dominates profit maximisation. Another is that a greater degree of revenue sharing can enhance competitive balance in contradistinction to the invariance proposition. As Késenne (2000) notes, the invariance proposition is based on a model which includes only the winning percentage of the home team in the revenue function. It is likely, however, that spectators are also interested in the winning percentage record of the visiting team or the absolute quality of the teams. In Europe with more teams in relatively small

Table 28.1 Key elements of professional sports leagues

	The European model	The North American model
Objectives	Utility maximisation (with negative profits)	Profit maximisation
Structure	Open leagues with promotion and relegation	Closed leagues
Size	Large numbers of clubs per head of population	Restricted number of clubs
Geographical pattern	Restricted geographical movement of clubs	Exclusive territories but franchise mobility
International competition	Important at club and national level	Absent
Player drafts	None	Extensive
Sale of players	Sale of players for cash common	Restrictions on sales of players for cash
Roster limits	None	Extensive
Revenue sharing	Limited	Extensive
Salary capping	Limited, but increasing	Extensive
Stock market flotation	Recent	Restricted

geographical areas, supporters of away teams are an important element of club attendance revenues.

A system of promotion and relegation is common throughout Europe and is commonly referred to as an open league system, since it is possible for a minor club to end up in the top division of the hierarchy. This acts as a substitute for either relocating teams to where market demand is strongest or expanding leagues, both of which are common to North America. It also implies an absence of territorial rights and an absence of multiple leagues at the top of the hierarchy.² Noll (2002, 2003) argues that European leagues should be more efficient in relation to territorial rights, as market decisions by individual teams about whether to enter a sport and, if so, where to locate are more likely to allocate teams optimally than where such decisions are made by the league as a whole, but in practice revenue disparities among teams are larger in Europe than North America.³ He also argues that team incentives will be greater under a system of promotion and relegation, since teams obtain financial benefits from promotion and financial penalties from relegation, giving teams a greater incentive to improve team quality than is the case in a league of fixed membership. Since teams at the top of the Premier league have no opportunities for promotion, the gap in quality between the best and the weak teams will be reduced. However, this makes no allowance for the fact that the top teams gain entry into European club competitions where standards are generally higher. Further, by restricting the numbers of professional teams to around 30 in each major league sport, the North American franchise system provides team owners with some protection against the full rigours of economic and sporting competition, thus permitting them to select their preferred profit/win ratio combination. In contrast, as a consequence of the promotion and relegation system, European team owners operate under a far more competitive system,

which in practice would seem to allow owners much less discretion in following their own objectives. Intense open competition will force owners to strive for win maximisation to keep the fans happy, subject only to the financial solvency constraint. For to do otherwise would threaten them with relegation, with all its attendant negative financial consequences.⁴ Thus, club objectives and a system of promotion and relegation are endogenous.

The upshot of the discussion above is that we would expect revenue sharing to play a more important role in Europe than in North America, while the reverse appears to be the case, at least in baseball and particularly US rules football, where until 2002 receipts were split 60:40 between home and away teams. In Europe 100:0 is now the norm. However, in North America the total stock of playing talent is fixed, so that any reallocation is a zero-sum game. In contrast, the supply of talent in Europe is flexible, since clubs can hire players from abroad, which does not imply any loss of talent to clubs in their own league. The impact on the acquiring teams win ratio is therefore smaller than in the fixed talent case and it will be harder for a bigger team in Europe to achieve dominance in this way.

Are the European and North American Systems Converging?

There is some suggestion that the European model is changing. Thus Andreff and Staudohar (2000) note that during the 1980s and even more so in the 1990s, clubs became less dependent on gate revenues as new sources of finance emerged. Television, in particular, is destined to become the main source of sports finance. With this new finance a new breed of entrepreneurs has entered the industry and this in turn has led to more professional management and the mobilisation of new funds to encourage growth and raise the quality of the product. Media companies bought shares in individual clubs and this has been facilitated by more clubs becoming listed public companies, an option which is generally restricted by league rules in North America. By 1998/99, 33 football clubs were quoted on a stock exchange, 22 in the UK, six in Denmark, two in Portugal and one each in Italy, Netherlands and Switzerland.⁵ This might be expected to lead to a greater emphasis on profits and thus behaviour more akin to the North American model. As Syzmanski and Smith (1997) suggest; obstacles to takeover and acquisition allow current owners to follow non-profit objectives, so that the disciplines of the market imposed on those clubs which become publicly traded should lead to more focus on profit objectives. Yet Syzmanski and Hall (2003) were unable to detect any evidence of a shift to more profit-maximising behaviour on the part of a sample of 16 English football clubs that acquired a stock market listing in the mid-1990s. Indeed a number of previously listed clubs have become private once more, as the benefits of listing appear to be limited. The extent to which convergence is taking place should not, therefore, be exaggerated.⁶

Notes

1. The maximum dividend payable was raised to 7.5 per cent in 1920, 10 per cent in 1974 and 15 per cent in 1983.
2. Noll (2003) distinguishes balanced and unbalanced schedules and even and uneven schedules. In a balanced schedule all teams play an equal number of games, whereas in an unbalanced one each team plays some teams more often than others. In an even schedule every team plays the same number of league games, whereas in an uneven one this is not the case. Balanced and even schedules are the norm in Europe, while in North America unbalanced schedules are common and some are uneven. This is presumably designed to maintain interest over the season, while it is more difficult to contemplate this possibility where a system of promotion and relegation applies.

3. This might be a consequence of the relative underprovision of teams in North America, with many large cities without major teams.
4. The existence of player drafts, roster limits and prohibitions on the sales of players for cash which apply in North America, but not in Europe, might be seen as an attempt to prevent too much competitive imbalance among teams and, therefore, act as an alternative to a promotion and relegation system.
5. This trend was criticised in a revealing comment by Sepp Blatter, the President of FIFA who was quoted in the *Times* (9 April 2003, 47) as follows: 'I do not think that football clubs should be on the stock exchange. Their results are evaluated on the field of play. The danger is if there is a diminution of the shares, the reaction of the club is to invest more. Big football is in crisis. It is up to the National federations and the leagues to make sure that clubs are correctly organised and managed'.
6. There is, however, increasing evidence of the use of salary capping in order to control wage costs. This has been applied in England in Rugby League, Rugby Union, Ice Hockey and the Nationwide Football League and is also being discussed at a European level.

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29 The Anglo-American model of sport

Stefan Szymanski

Modern sports are formalised – the rules of play are written down and specified exactly in terms of dimensions, the process of play and the rules of arbitration. The rules of modern sports mimic the rules of liberal representative democracies: they are transparent, apply equally to all and can only be changed by governing bodies that are themselves like parliaments, run by elected officials who owe their position to an electorate that derives its power from the grassroots of the game. They are secular rather than religious, legalistic rather than customary. Regulation also permits accumulation of records for the purposes of comparison and the statistical aspect of modern sports is a characteristic feature.

Almost all of the important modern sports were formalised in the mid to late nineteenth century – baseball (1846), soccer (1848), Australian football (1859), boxing (1865), cycling (1867), rugby union (1871), tennis (1874), American football (1874), ice hockey (1875), basketball (1891), rugby league (1895), motor sport (1895) and the Olympics (1896).¹ What is even more remarkable is that all these sports were formalised in either Great Britain or the United States (the Olympics is perhaps the exception, being revived by the great French anglophile, the Baron de Coubertin). The only major modern sports to be formalised before these dates were golf, cricket and horse racing, all in Britain in the 1750s.

Three possible explanations suggest themselves for the preponderance of Anglo-Saxon influence on modern sport. First, it might be that Anglo-Saxons have always had a greater predisposition to play sport, and that this in turn led them to take the lead in the development of modern sports. Strutt's monumental history *The Sports and Pastimes of the People of England*, first published in 1801, describes several hundred different activities, indicating the richness of these activities in pre-industrial Britain. The difficulty with this explanation is that even if it were true it would be hard to prove. Clearly all cultures engage in some kinds of sporting activities, but records of these before the nineteenth century are sparse.

The second explanation, largely economic, is that modern sports evolved in nations that were industrialised, and that during the critical period these countries were Britain and the United States. The parallels between modern sport and the organisation of modern industry is frequently drawn. Both rely on strict adherence to rules and time-keeping, both are based around industry and both rely on the adoption of new technologies. Modern team sports, notably football and baseball, provide a form of leisure activity that, historically, has been adopted by the industrial working class. In many cases the organisers of football or baseball teams were factory owners who then sold tickets and refreshments to their employees at matches played when they were not at work. The audience for modern sports has grown precisely because of advances generated by urban industrial society – notably transport (trams, rail, cars, aeroplanes) and communication (newspapers, telegraph, radio, TV). The fact that Britain was almost a fully industrialised society, while the United States was the world's most rapidly industrialising society in the second half of the nineteenth century, coincides neatly with the proximate founding dates for most

modern sports. Two principal objections may be raised to this thesis. First, France and Germany were also industrialising rapidly during this period, but were far less productive of modern sports. Second, the fact that golf, cricket and horseracing were formally established in England nearly one hundred years earlier, well before the industrial revolution and the attendant improvements in transport and communications got into full swing, suggests that industrialisation was not a necessary condition (see Holt (1989) for a useful discussion). Indeed, these sports are not minor ones, but extremely important in global terms.²

The third explanation is largely political. Ever since the Civil War, England had been a highly politicised country, and with that came the development of societies and clubs. The principle that groups of citizens could freely meet to discuss common ideas and share activities was well established in England by the beginning of the eighteenth century, and while suppression of political clubs was common by the end of the eighteenth century due to the fear that England might follow the path of revolutionary France, most social clubs during this period were more focused on entertainment than on the affairs of state. In the United States, the first amendment to the constitution guaranteed freedom of assembly. The right of individuals to gather together is a prerequisite for the formation of a sporting club just as much as any other kind of club. In most other countries of the world during this period, clubs of any kind were viewed with suspicion, and could be prohibited by the state. The alternative route by which sports might be adopted was the gymnasium, educational academies where the state paid close attention to what was being taught. Freidrich Jahn's Turnen movement was propagated through the Prussian education system and laid close emphasis on physical preparation for war (for a description see Guttman, 1994). To this it may be objected that France was a great generator of clubs and societies in the eighteenth century, and yet few of these centred on sport.

As is often the case, each of these explanations probably contributed to the phenomenon of Anglo-Saxon sport. With Anglo-Saxon origins came an Anglo-Saxon model, possessing strong cultural, economic and political undertones, which is:

- based around self-governing associations of independent clubs;
- independent of the state, which is accorded little influence; and
- commercially orientated when interest is large enough.

This model has a number of implications for sporting development. Autonomy of clubs and associations has created a huge patchwork of organisations and structures, all competing between themselves for the interest of athletes and fans. Frequently competing associations have struggled over many years to achieve supremacy. In the business world such struggles are usually short-lived, given that cost efficiency is critical to economic survival and sustained economic conflict (for example, price wars) soon lead to financial failure. However, in sports, costs are often of only limited influence in determining outcomes, since an association can survive for an extended period based on voluntary contributions. Hence, there is a tendency towards balkanisation.

Outside the Anglo-Saxon world the impetus to creation and development of sporting associations has come from the state, perceiving athleticism to be an important part of political and cultural life requiring encouragement. In economic terms, physical exercise not only produces benefits for the individual but also creates externalities, in the form of

more socially productive individuals. Hence public subsidy can be justified on the grounds that without it individuals will choose 'too little' sporting activity. In the Anglo-Saxon world this influence has been largely rejected or grudgingly accommodated. Sporting associations have guarded their independence using the same liberal arguments used to defend individual freedoms. To the extent that public subsidy has been accepted, this has usually been project-based finance where the association is contracted to supply specific services.

Both in Britain and the United States, most modern sports were formulated for the entertainment of practitioners or club members, and the commercial side has only come to the fore once the popularity of the sport for spectators has become apparent. However, given the independent nature of the sporting associations, there has been no constraint on commercial development where an association has chosen to go down that path. This is most readily observable in the United States, where commercial sport was well developed by the end of the nineteenth century (see Kirsch, 1989). However, even in Britain where the amateur ideal was forcefully proselytised, commercial exploitation could occur where governing bodies chose to follow that route. In England there developed a struggle between commercial and non-commercial interests, perhaps most notably in the case of football, where the Football Association (the governing body closely wedded to amateurism) reluctantly permitted the development of the commercially orientated Football League at the beginning of the twentieth century.

If the Anglo-Saxon model has a strength, it must be the richness of the sporting culture it has created through the process of rivalry and competition. It may be argued that today this vitality is now threatened by the economics of the information age. Just as small stores have been driven out of business by hypermarkets, minor sports find it increasingly difficult to survive in an environment where individuals are constantly bombarded with information about the dominant sports. Traditional minor sports find it increasingly difficult to attract adherents and to preserve their traditions. However, against this it may be said that new technologies are permitting the spread of new sports, such as extreme sports, whose novelty appeals to the younger generation. The curious interaction of economic possibility with personal liberties that created the Anglo-Saxon model looks set to produce important changes in the landscape of sports in the years to come.

Notes

1. All of these dates, associated with early rulebooks, are subject to controversy. By contrast golf, cricket and horse racing had established rules and clubs from the mid-eighteenth century. There are some modern sports that clearly have origins other than Britain and the US. Nordic Ski competition was known in Norway from 1868 and an international federation was established in 1910. Handball, originating in Denmark, Germany and Sweden began to be played at the end of the nineteenth century but the first rule-book was written only in 1917. Pelota, a Basque sport akin to handball was known from the seventeenth century and the modern version was created by Basques in the late nineteenth century. Korfball, a cross between basketball and netball, was invented in the Netherlands in 1902. Judo, derived from the ancient Japanese martial art of Jujitsu, was created by Jigoro Kano in the 1880s and the first association was founded in 1900. Greco-Roman wrestling was developed in France in the nineteenth century, while Japanese Sumo can be considered modern in almost all aspects, and yet is of great antiquity. Bowls was played all over Europe in the Middle Ages and the most popular modern versions were created by the Anglo-Saxons, but petanque is strictly a French modern variant. No doubt there are many other traditional and invented sports that may be considered modern, but they are of limited economic significance.
2. While cricket is largely restricted to former colonies of the British Empire, the fact that it is easily the most popular sport on the Indian sub-continent means that it can lay claim to being one of the most popular overall.

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30 Sport in developing countries

Wladimir Andreff

There are a number of economic concerns with regard to sports (under)development in developing countries, although most issues have remained unheeded until now in the economic literature. The most investigated topic is about the correlation between the level of economic development and sporting performance in major events such as the Olympics. However, this is only the tip of the iceberg, since the examined correlation is just one piece of the puzzling overall relationship between sport and economic underdevelopment. Very few studies have been carried out on other topics. Another issue that has attracted attention in recent years is the expansion of talented player (athlete) moves from the third world to the European and North American labour markets. Finally, while a fierce debate is running about the pros and cons of the American and European economic models of sport organisation, one wonders whether there is a specific sports model in developing countries, an issue that has recently been raised regarding African countries.

Relationship between Sport and Economic Underdevelopment

No queremos goles, queremos frijoles (we do not want goals, we want beans) was painted on a Mexico stadium during the 1986 football World Cup. This sentence expresses the economic dilemma confronting sport in developing countries. Sporting events and sports teams do not make people forget underdevelopment, poverty, hunger and illiteracy. Regardless of governments' policy declarations, sport is neither a top priority in the state budget, nor a pillar of the country's education system, in any developing country. The great majority of third world countries are to some extent dependent for their sporting activities on foreign aid, the importation of sports goods and equipment, and money from multinational sponsors (Andreff, 1988). Moreover, any assessment of the sports economy in developing countries is hindered by missing data: the lower the level of economic development the lower the availability of statistical data about sports.

Underdeveloped physical education and sports participation

From a questionnaire sent by UNESCO to 32 African least-developed countries (LDCs), with a response rate of 50 per cent (Souchaud, 1995), it emerged that one country had no physical education scheduled in primary schools, three countries had scheduled one hour per week and the other 12 countries between two and three hours per week. In secondary schools, physical education was scheduled for two to four hours per week in nearly all sampled countries. The problem is, however, that the hours supposedly devoted to physical education were often not fulfilled. This is largely due to a shortage of sports teachers compared with the number of pupils (40–100 per sports teacher, on average, in the 16 African countries' primary schools), a lack of sports facilities and equipment and practically no vocational training to upgrade the qualifications of those teachers involved in sport in secondary schools. Most sports teachers qualify abroad in bilateral cooperation programmes with European countries, after having obtained a grant to support their studies.

The capacity to train sports teachers is greater in emerging and middle-income countries like Argentina, Cuba, Egypt, Syria or Thailand (Andreff, 2001) than in African LDCs.

The level of sports participation, measured by the ratio between the number of affiliated members to sports federations and the number of inhabitants, is low in developing countries. In 1983, there was one affiliated member to sports federations per 739 inhabitants in Africa, one per 707 inhabitants in Asia and one per 100 inhabitants in Latin America (Bourg, 1993). In Morocco, in 1993, there were four sports participants affiliated to sports federations per 1000 inhabitants, and in Tunisia, in 1994, 14 per 1000 inhabitants; in Africa's LDCs, in 1995, less than one inhabitant out of 800 was participating in sport (Souchaud, 1995). Thus, the ratio of sports participation in the third world is in the range of 0.01–1 per cent of the population (compared with 20–25 per cent of the population that is affiliated to sports federations in European countries). Moreover, the great bulk of participants are concentrated in a few sports, which are primarily determined by the availability of facilities.

In African LDCs, football is the only national federation capable of organising a regular championship, which qualifies the winning team for the All-African competition (African Cup). In other sports, a calendar is scheduled but it is not regularly adhered to, due to financial problems or the non-credible enrolment of some clubs. The UNESCO study, mentioned above, also revealed that the practice of Olympic sports is more developed than non-Olympic sports. It also shows that more 'sophisticated' sports are not practised, because participation requires specific facilities (swimming pools, golf greens, harbours and so on). The scarcity of qualified coaches remains a problem. The cost of training coaches is beyond the budget constraint of developing countries, and many coaches must be trained abroad or are simply 'imported' foreign coaches. Top-level athletes and sports participants cannot benefit from medical care to the same extent as those in developed countries. In the 16 LDCs surveyed by UNESCO, 10 have an organised system of sports medical care, but eight have no specialised sports doctors, and only four countries have both specialised doctors and sports medical centres.

Low financing of sport

The government is the main sponsor and patron of sporting activities in many developing countries. About 80 per cent of African LDCs subsidise sports federations but, with the exception of football, the amount of subsidies is too low to secure sporting activities all year long. With demographic expansion and the struggle against illiteracy, the number of pupils and students has increased dramatically in developing countries and has exhausted all the budgetary capacities needed for financing sporting activities at school and elsewhere. In the face of a trade-off between literacy and physical education, no ministry of education has privileged the latter against the former. When new sports ministries have been introduced in the governments of developing countries, they have neither been ranked among top priorities nor benefited from a substantial budget. The state budget for sports is rather low in absolute terms. Moreover, the finance flowing from the municipalities' budgets into sporting activities is limited. For instance, facing a budget shortfall for sports development, the military government of Nigeria had launched a one naira (\$0.25) per capita sports development appeal fund. This sort of appeal to the population is unlikely to be successful in countries where the average income is not enough for food. The money flowing from consumers (participants) into sporting activities is practically nil.

Few sports facilities and few world sporting events hosted

There are no comprehensive data available about sports facilities, stadiums, playgrounds and games equipment in LDCs. In the 16 countries covered in the UNESCO survey, the overall number of sports facilities in 1995 was as follows: 1130 football pitches (average: 71 per country), 490 volleyball courts (31), 474 basketball courts (30), 304 handball courts (19), 213 athletics tracks (13), 51 swimming pools (3) and 14 gymnasiums (less than one). No baseball fields, boxing rings, cycling tracks, horse-riding arenas, ice-hockey rinks, tennis courts or sailing harbours were found in these countries. In those nations where sports facilities are present, they have to cater for a large number of potential participants (Table 30.1). Since sports facilities are so rare, we may have expected a large emphasis on maintenance. In fact, it is quite the contrary: facilities are often not maintained at all, due to insuperable financial costs. Consequently their use is reduced to a few exceptional events which in turn diminishes the number of local sports competitions. It also decreases the possible length of training time and hence the number of sports participants. In a vicious circle, with sports facilities being underutilised, their maintenance is felt to be neither useful nor necessary.

Among the 16 surveyed African LDCs, one had no stadium at all capable of hosting a big sporting event that would conform to international rules and norms. Most 'national' (domestic) sporting events are organised in the capitals of LDCs simply because, in each country, the capital is the only city endowed with appropriate and well-maintained sports facilities. Hosting a world sporting event is beyond the means of most developing countries. Usually, international competitions localised in the third world are sponsored and partly financed from abroad or they are 'regional' (African, Asian and so on) international sporting events. Sometimes, the latter are postponed or cancelled due

Table 30.1 Ratio of sports facilities to inhabitants in African countries, 1995

Country	Athletics	Football	Small pitches	Swim. pools	Gymnasiums
Benin	1/650 000	1/66 000	1/115 000	1/150 000	1/4 600 000
Burkina Faso	1/4 500 000	n.a.	n.a.	0	0
Burundi	1/1 100 000	1/550 000	1/275 000	1/1 375 000	1/5 500 000
Cap Verde	0	1/24 000	1/24 000	0	1/360 000
Central African Rep.	1/1 500 000	1/40 000	1/43 000	0	1/3 000 000
Comoros	0	1/140 000	1/140 000	0	0
Djibouti	1/200 000	1/50 000	1/60 000	0	1/100 000
Ethiopia	1/730 000	1/730 000	1/1 500 000	1/6 200 000	1/25 000 000
Gambia	1/900 000	1/60 000	1/450 000	0	0
Ghana	1/7 300 000	1/30 000	1/200 000	1/730 000	0
Guinea Bissau	1/1 000 000	1/60 000	1/100 000	0	0
Equatorial Guinea	0	1/120 000	1/35 000	0	0
Madagascar	1/100 000	1/100 000	1/85 000	1/2 000 000	1/2 400 000
Mauritania	1/2 000 000	1/135 000	1/155 000	0	0
Niger	1/750 000	1/70 000	1/150 000	1/1 500 000	0
Zambia	1/2 000 000	1/65 000	1/350 000	1/1 560 000	0

Source: Souchaud (1995).

Table 30.2 *The location of the football World Cup*

Year	Country	Year	Country	Year	Country
1930	Uruguay	1962	Chile	1986	Mexico
1934	Italy	1966	England	1990	Italy
1938	France	1970	Mexico	1994	United States
1950	Brazil	1974	Germany	1998	France
1954	Switzerland	1978	Argentina	2002	Japan, Korea
1958	Sweden	1982	Spain	2006	Germany

to financial constraints. The cost of organising the 1988 Olympic Games in Seoul (roughly \$5 billion) was higher than the value of the GNP of such countries as Kenya, Ethiopia and most LDCs. For instance, the 16th Central American and Caribbean Games scheduled in 1990 were cancelled when Guatemala withdrew its financial support. Several African countries are not able to participate in African Games or in the football World Cup simply because of inadequate finances. Nevertheless, there are a few exceptions to this general rule in some emerging countries like Argentina, Brazil, Chile, Mexico, South Africa and South Korea. It is only in this group that we can find countries able to organise big world events such as the Olympic Games and the football or rugby World Cups.

Table 30.2 shows that the football World Cup has been organised 11 times in developed countries and six times in Latin American emerging countries up until 2002. For the first time, the World Cup will be hosted in South Africa in 2010, after a FIFA decision that it should be located in turn on the African continent. Although it failed in its bid to host the 2006 World Cup, South Africa had expected a revenue of 6.6 million rands (nearly \$1 million) derived from tourism, building and transport expenditures, an additional inflow of foreign tourists in 2006 (an income of 16 billion rands, close to 2 per cent of GDP), and 130 000 temporary jobs linked to the event. However, the worldwide prestige associated with organising a major international sport event often comes at too high a cost for many developing countries. It remains to be seen whether, once the South African government has accepted this cost, it will be at the expense of the whole population which, as taxpayers, will ultimately cover the cost and the possible fiscal deficit fuelled by the 2010 World Cup.

Correlation between the Level of Economic Development and Sports Performance

A number of publications have attempted to demonstrate that economic determinants of a nation's sports performance really matter. In particular, does the level of economic development explain the number of medals won at the Olympic Games? Intuitively, a richer country with a larger population, better nutritional opportunities, more available sports facilities and more qualified coaches has a higher a priori probability of winning medals than otherwise. In a nutshell, the less developed a country, the lower its (Olympic) sports performance. This relationship between sports performance (Olympic medals) and available economic resources linked to the level of economic development is analysed in Chapter 32, below. Most studies confirm economic development as a very significant determinant of sports performance.

Player Moves from Developing Countries

One major consequence of sports underdevelopment and lower sports performance in developing countries is the so-called 'muscle drain' of talented third world athletes (players) to developed countries. It is increasingly fuelled by the wage gap, which is roughly 1:20 between the African and the French football player markets. The French (or any European) overall minimum wage is well above the average income of a third world football player in his home country. For example, the wage gap between the African and the French labour markets for football players is between 1:10 and 1:20 (Andreff, 2001). Football players in Cameroon earn premiums and bonuses between \$6000 and \$14000 per year, over the domestic average wage but considerably lower than the average income of a French player.

In many North American and European professional sports, developing countries are utilised as nurseries for talent and provide a huge pool of labour. Latin American countries are also suffering from a muscle drain, in particular Argentina and Brazil with regard to football players (Andreff, 2004). In Brazilian football, professional players are earning no more than the legal minimum wage of 120 reals (roughly \$140) per month. The 9 per cent best-paid players were in 1997 earning over \$1400 per month. The same year, Ronaldo (Inter Milan), Denilson (Betis Sevilla), Roberto Carlos (Real Madrid) and Rivaldo (FC Barcelona) were earning collectively over \$140 million per year. Such a revenue gap is a strong incentive for Latin American players to leave their home country and to look to the European market.

Many problems are associated with the muscle drain. It undermines the sporting substance of developing countries. It diverts the most talented athletes, those few who have had the opportunity to benefit from the rare domestic coaches and sports facilities. In some cases, it erodes the capacity of the home country to use its most talented athletes in international competitions, partly explaining the poor performances of developing countries in world sports events. For instance, their European professional clubs did not release football players from Africa for selection to their domestic national teams to play in matches of the 22nd African Cup 2000. The African Cup is nicknamed the 'cattle fair' because a number of well-known European club managers, coaches and players' agents attend it with the objective of recruiting talented new players. At the Sydney Olympics, Cameroon, Nigeria and Morocco had to compete without some of their star football players, in spite of article 38 of FIFA rules that is supposed to compel clubs to release players selected for national teams. The muscle drain turns into a brain drain, to some extent, when it affects sports coaches and managers.

Professionalisation and Corruption in Third World Sport

Professionalisation of sport in developing countries is primarily a concern for football, although it has also spread to a more diversified range of sports in Asia, Latin America and (less) Africa. In this context, professionalisation is not beyond drifting off into bargaining, embezzlements and corruption. Before each match, the players of the Super Eagles (the national team of Nigeria) bargain for a prize of several thousand dollars each, and if they do not get it, they lose the fighting spirit required to win. An increasing inflow of money poured into the third world by foreign and multinational sponsors, media and bookmakers (Andreff, 1988, 2001) is unfortunately being accompanied by increased corruption. In the 1994 Malaysian football championship, 85 per cent of the matches were

found to have been fixed, and some players, coaches and bookmakers were jailed. A betting black market was organised from Singapore (one team from Singapore and one from Brunei were participating in the Malaysian championship at the time) and the bribes paid to players reached some \$600 000. The president of the South African Football Federation was dismissed in 1997 when he was found guilty of embezzlement with regard to broadcasting rights and sponsorship contracts. Since 1997, the coach of the national football team of Brazil has been charged with fiscal evasion, embezzlement and money laundering through the trading of high-quality cars. The good name of Fecafoot – the Cameroon Football Federation – has regularly been sullied by financial scandals. These are only a few examples of widespread misdeeds.

What About an African Sports Model?

In the ongoing comparison of – and debate about – the American and European models of sports organisation, there has been little discussion on the issue of a possible sports model in developing countries. The question of the existence of an African sports model has been raised very recently. The response is focused on French-speaking African countries – FACs (Bouchet and Kaach, 2004). First, this model is characterised by all the features that are listed above with regard to sport in developing countries: no widespread physical education and sports participation, a shortage of finance and a low availability of sport teachers, coaches and sports facilities. These characteristics are the roots of the sports model in LDCs.

In addition, FACs have inherited from the French colonial period a centralised organisation led by a state secretary or a department for sports and a co-management of sporting activities between this central state body and a domestic national Olympic committee. Following political independence, sport was ‘nationalised’ which essentially means that the same centralised organisation has been retained, except that new local leaders have been substituted for former French sports managers. In both cases, before and after independence, a sporting *nomenklatura* (bureaucracy) has channelled new sporting practices from abroad into the country, detrimental to the survival of traditional physical activities. Below the state secretary and the national Olympic committee, a hierarchical structure of sports organisations was imitated from the French 1901 law, with national sports federations divided into regional leagues and, down the ladder, sports clubs which are non-profit-making associations and are run by voluntary workers. Thus, the state handles the whole sports system through subsidies to sports federations, training of sports teachers and coaches, and construction of sports facilities.

The hardening budget constraint after political independence inevitably jeopardised such a sports model, which lapsed into underdevelopment. The situation worsened in the 1980s when FACs decided to adopt the structural adjustment policies recommended by the International Monetary Fund and the World Bank, severing sport from its last budgetary resources. The rate of participation fell while the private cost of participation increased to fill the deepening gap created by state subsidy cuts. In such a context, the sports economy (markets, investment) cannot develop very much. Clubs and federations are run without a strong economic rationale or even a clear managerial strategy, and circumventing them proves to be an easy game for talent-seeking players’ agents and professional clubs based in developed countries.

What Is to Be Done?

No simple recipe can cure sporting underdevelopment. The choice in favour of more urgent priorities (food, health, education) will maintain a very hard budget constraint on sporting development as far as school sports and grassroots sport for all are concerned. Any additional economic aid to developing countries has no chance of being diverted towards the finance of physical education and sport for all. The few possible solutions require the political and economic will of the government to promote and support sport for all instead of giving priority to the desire to win medals in international competitions or enhancing the country's reputation with the organisation of a world sporting event.

A first solution is to put pressure on (re)developing traditional sports, the practice of which does not require any sophisticated sports facilities or imported sporting goods – even though no medal is awarded at the Olympic Games for traditional sports. A second solution has been suggested by UNESCO and addresses children's (and teenagers') sports participation at school. The idea is to set up a UNESCO Games, 'Unesciades' (Souchaud, 1996) specifically for the LDCs and for girls and boys aged 12 to 15. These Games would be convened in the framework of school sports and urban associations (for the children not attending school programmes). They would rely on volunteers for their management; they would use locally produced sporting goods and equipment and would attempt to attract private and public, domestic and international sponsors, as well as governmental aid from developed countries. These types of events would offer some hope to young people and would stimulate sports participation in LDCs. The organisation of Unesciades should have no cost for the LDCs; UNESCO would play a facilitating and catalysing role among various financiers of the event. Some regulation must be envisaged to call a halt to the international migration of talent from developing countries, in the long run.¹

Another issue is bilateral international cooperation in sport between developed and developing countries. Germany has signed bilateral agreements with more than 40 developing countries. Most of this bilateral cooperation is concentrated on football and is used for both grassroots practice and (primarily) selecting the most talented players. France and the UK have a long tradition of sending coaches and sporting goods to French-speaking developing countries and Commonwealth countries, respectively. All this aid is important for developing countries.

Multilateral aid also exists. Olympic Solidarity, which is a sort of social department, within the International Olympic Committee, provides some financial aid to national Olympic committees in developing countries, mainly the poorest ones, to promote short- and long-term action programmes. Olympic Solidarity grants are offered to some athletes from developing countries so that they can benefit from specialised training before the Olympics, and also to some coaches so that they can attend qualification seminars. Olympic Solidarity covers the accommodation and meals of participants to international sporting events from the poorest developing countries and half of their travel costs as well. The final aim of Olympic Solidarity is to help developing countries to attain high-level performances in international competitions and to trigger an authoritative action in favour of sports development. Even though this aid cannot comprehensively meet the huge needs of developing countries, it must be pursued and, as far as possible, extended. The same conclusion applies to the specific FIFA aid to football in developing countries, namely to help them to participate in the World Cup. In 1976, FIFA also launched an aid programme to train players, coaches, referees and football managers, focused mainly on

LDCs. Money may be attracted from the sports business in the future. In 1985, the World Federation of the Sporting Goods Industry (WFSGI) launched a programme of Olympic aid targeted at those countries needing help with the supply of sporting goods. The commitment required from these countries was that the sporting goods supplied by the WFSGI should be exempted from customs duties. All these 'gifts' from multinational corporations to developing countries must be maintained.

Finally, corruption, bribery, embezzlement and money laundering should be considered as criminal, not only as crimes against society, but also more specifically against sports development. Once taken to court, those found guilty should be punished by paying a special and heavy fine, the revenue of which should be put in a fund for sports development.

In no way can a long-run solution to improving sport in developing countries be found without progress towards self-sustained economic development being made. All the proposals such as external debt nullification for the poorest countries, the new priority for the struggle against poverty and illiteracy, suitable aid flows, incentives to foreign capital inflows, and a world trade regime more favourable to LDCs, would be welcome. However, it is doubtful whether even these actions would be enough. Thus, unfortunately, sport can only contribute to a minor extent to economic development whereas the latter is obviously a major determinant of sport development.

Note

1. See Chapter 32, below.

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31 Soviet and post-soviet sport

Sandrine Poupaux

During the second part of the twentieth century, sport in the soviet bloc (the USSR as well as satellite countries with communist governments) was characterised by its efficiency, both in organisational terms and in terms of results. As early as 1908, czarist Russia, as a founding member of the Olympic movement, distinguished itself in the Olympic Games in London, taking 14th place out of 22, and winning three medals, with a team of only five athletes! Half a century later, during the Cold War, the USSR showed its supremacy in sports to the whole world: out of 20 events in which the USSR participated in the Olympics, the soviet team won 16 first places in the general classification. Many Eastern European countries were among the 10 best Olympic performers between 1950 and 1988. All of these achievements were realised despite a quasi-total economic and political isolation and despite, for some countries such as East Germany, a very modest 'pool of potential champions'.

Starting during that period, the exploits of East European athletes, which were considered as being suspect by certain Western journalists and politicians, brought to the forefront implicitly the questions of what really determines performance in sports: how may such results be produced? What organisational means, what sporting institutions, and above all, what financial means need to be invested in order to obtain such high performance levels? The fact that these countries were very difficult to access, that there was little visibility and few statistics available, made it almost impossible for Western researchers to carry out a serious study on the reasons underlying success. However, as the 1980 Olympic Games in Moscow approached, Western researchers, such as James Riordan and Norman Shneidman,¹ were able to uncover a few answers to these vast questions, providing insight into the history of soviet sports.

But as early as 1985, the precursor signs of a great reform were appearing. Four years later, the Berlin Wall came down and the soviet bloc nations started to undergo a major systemic transformation, gradually abandoning an economic mode of operation which was entirely planned by the state in favour of a market economy. These countries started opening up to the rest of the world, from a tourism and economic point of view. To what extent did this process of transition towards a market economy have an effect on sports: were the sports organisations and sporting institutions modified? What was the impact on sports of the financial disengagement of the state in this respect, since the priority became one of meeting the costs of the transition?

After this 'revolution', certain sports economists noted a decrease in sports participation, and subsequently forecast poorer sporting performance in Eastern European countries, since credit was bad and economic preoccupations had relegated sports to a secondary level of importance (Bourg, 1995). More than a decade later, our purpose is to attempt to determine the current status. Lastly, through this description of soviet and post-soviet sports, the underlying question is: if the economic sphere has an undeniable impact on the sporting sector in terms of the organisation and financing of sports, is it

possible to truly observe, in the final analysis, an impact between the economics and the performance of athletes?

Sports in the Soviet Bloc Nations from 1917 to 1985: From the October Revolution to Perestroika

In many countries, since before the Second World War, sports were undertaken in workers' sporting organisations, encouraged by the socialist parties. The objective of the parties was both to work towards the physical development of the working class and to diffuse socialist ideals within that class. In Russia, under the tsarist regime, these organisations were strictly forbidden. Subsequent to the October Revolution in 1917, tsar Nicholas II abdicated and the Bolsheviks came to power, setting up a government rooted in the working class and whose ambition was to create a 'new society, without capitalism'. At the beginning of the 1920s, sports and physical culture became the privileged vectors of the 'cultural revolution', and the new government extended physical activities to the whole population: 'sports for the masses' was born.

In the 1930s, the USSR implemented a vast programme of sports and physical culture, in contrast to capitalist nations. Its objective was to very quickly move its backward population towards modernity. And indeed, the 1930s were marked by the industrialisation of the USSR and Stalin's five-year plans. In this context, the role of sports was to contribute to growth: in industry, exercise improves productivity in the workplace, by improving workers' health and well-being. At that time, workers practised gymnastics at the beginning and the end of their workday, as well as during breaks. Outside of the workplace, sports were started during infancy, continued throughout school, and were considered of prime importance in the army. During this period, this conception of sports was adopted, and sometimes imposed, by communist countries.

In the USSR, sports activities were fully controlled by the state. The supreme council of physical culture in the USSR was responsible for directing the soviets of people commissariat and the trade union central soviet, which were in charge of planning and organising sports activities. The soviets of people commissariat were in charge of supervising sports in schools, the army and the navy, whereas the unions were in charge of sports in factories and offices. The state paid for all expenses related to sports: operating expenses of sporting institutions, the organisation of competitions, and the training of athletes. Sporting activities enjoyed considerable development in the 1930s. This development went hand in hand with the creation of 'instructional' training establishments and the building of well-equipped sports complexes and stadiums. Most large companies had their own stadiums.

The Second World War was to mark the beginning of a change in the way sports worked within the Soviet Union. After the victory over nazism, sports became a political instrument, whose purpose was to demonstrate the advantages of the socialist system and its superiority as compared to the capitalist system. This socialist model was intended to attract third world countries which had recently gained their independence, such as India. Despite a period of general deprivation, during which priority was given to food, reconstruction and re-launching productive activity, the state still attached great importance to sports. The high level of participation in sports was to contribute significantly to the victory of the USSR in all the Olympic Games from 1952 to 1980 (except in 1968, when it came in second).

However, 'sports for the masses' met with a great number of obstacles: sporting facilities were inadequate, and were unequally distributed over the territory, being concentrated in major cities to the detriment of rural areas. The same was true of the major clubs, which were essentially located in Russia, to the detriment of other Soviet republics. In parallel, the most modern and costly sporting facilities were reserved for top-level athletes participating in international competitions. The latter, recognised as amateur athletes, none the less benefited from a state-paid salary of up to twice the average normal salary, and their professional future was ensured in the state-run sporting organisations and institutions. These athletes, as well as their trainers, were given bonuses if victorious. Everything was done to lead these athletes to victory – research teams studied how to optimise performance in sports – and the ideal of sports for the masses became of secondary importance.

The soviet state-run sports model, which had at first contributed to the industrialisation of the USSR via sports for the masses, and which had been used as a political instrument through the excellent performance of the sporting elite, was to be called into question in the middle of the 1980s.

The Major Mutations of Sporting Institutions at the End of the 1980s and in the 1990s

After 70 years, the communist model was becoming inappropriate in the world economic context. A crisis, which was economic, political and social in nature, was successively affecting all of the communist countries: Poland and Hungary at the beginning of the 1980s, the USSR and the Baltic countries in the mid-1980s, and other countries between 1988 and 1989. In reaction to the general discontent, Mikhail Gorbachev promised a 'new revolution' in 1985. He promised a society with more transparency (*glasnost*) and a major programme of economic restructuring (*perestroika*); he also committed to moving towards democracy for the next five years. But none of these reforms was to materialise. This was not the case in the sporting sector, where 1985 marked the beginning of a global restructuring, a kind of *perestroika* for sports.

The first transformations in the sporting sector took place in China at the beginning of the 1980s. Whereas sports had never been a marketable activity in communist nations, China, among other things, opened up to 'leisure' sports such as golf and baseball, which cost money to practise. China was followed first by the Soviet Union in 1985 and subsequently by the other socialist countries. The restructuring of soviet sports was planned according to the following agenda: develop physical education for children, and sports for all; pursue the promotion of top-level sports while monitoring the health of athletes; build new sports facilities; produce more sports equipment; and lastly, encourage sporting federations to be more independent, both from an organisational and a financial point of view.

According to official statistics, in the 1980s, millions of soviet citizens regularly practised a physical activity. However, these figures are not considered to be reliable, since these were voluntarily bolstered by the schools and regions in order to artificially reach state-imposed quotas, and to avoid penalties incurred if these quotas were not met. In fact, participation in sporting activities was actually very low: in 1985, only 8 per cent of men and 2 per cent of women practised a sporting activity in the USSR. So as to incite soviet citizens to practise a sport, and especially to improve the sports offering and quality, the government decided to allow more freedom to sports clubs. The government authorised and facilitated the setting up of sports clubs and private fitness clubs, which, starting in 1987,

were authorised to sell their services. Clubs were also authorised to open shops, cafes and restaurants and to sign contracts with local television networks to broadcast championships, and to determine their own pricing policies. The directors of sporting facilities, as well as elected trade union officials, were able to freely hire staff, determine salaries and award bonuses. Health clubs and sporting institutions were also exempt from worker taxes, and clubs were exempt from fees to help amortise the use of local sports facilities. These reforms thus encouraged both decentralisation in sports management, as well as the delegation of sport-related functions that had previously been controlled by the state.

In 1988, the professional practice of sports was officially recognised in the USSR. Professional clubs could now be set up by big firms. But the conception of professional sports was entirely based on the search for increasingly effective means – for the development of professional sports. The first professional clubs founded were those that needed to be self-financing in order to obtain funding to participate in international competitions. Along the same lines, the sale of soviet players to foreign teams was allowed. A significant number of soccer, basketball and certain Olympic hockey team players were bought, starting in 1988 by Western European and North American teams. The transfers were negotiated by the state-run organisation *Sovientsport*, and profits were distributed among the state sports committee, the original club and the state itself.

Underlying these reforms in the sporting arena was the promise that a radical change in soviet society was about to take place. The increasing degree of freedom granted to sports clubs was a precursor of privatisation, and the authorisation to practise sports professionally was only the beginning of a long mutation towards a Western model of both sports and the economy. Starting from 1990, the economic situation in the USSR and in the other Eastern European countries no longer enabled the state to provide full financial support for soviet sports. If there was some debate as to whether rapid reform or more gradual changes in the economics field were appropriate, there was no such hesitation as to the actual financing of sports. Sports clubs and federations had no choice but to find an immediate substitute for the subsidies previously granted by the state to cover their expenses.

State sports subsidies, which prior to the fall of the communist regime contributed almost the entire amount of the clubs' resources, represented only a small part of funding by 1992, in all of the former socialist nations. At that time there was a great variety of alternative sources of financing, depending upon the country. In Russia, a large part of funding for sports associations derives from sports lotteries such as *Sportlotto* and *Lotto Million*. The Bulgarian union of physical culture and sports obtains funding from builders of sporting facilities, sports equipment, service providers and companies involved in the transportation of athletes. Other funding derives from the clubs' own activity, membership dues and sponsors. Since 1985, sponsorship agreements with foreign companies have enabled clubs to obtain provisions of foreign currency (dollars) and to procure foreign equipment, to enable, in some cases, athletes to train under optimal conditions, often in foreign countries. By the mid-1980s, and even more so starting in 1990, foreign companies had the opportunity to conquer new Eastern European markets. However, even in countries where consumer demand is far from satisfied by national industry, these same foreign investors hesitated to start up, in countries such as Romania, for example, because of the low production level of local enterprise, as well as an almost total absence of appropriate legislation.

Starting in the beginning of the 1990s, a global reform of sports organisations was instituted. The bodies responsible for sports in each country had to be redefined. New legislation also had to be passed to ensure the proper operation of the sports sector taking into account the new national and international contexts.

On the legislative level, new laws often existed side by side with those that were applicable prior to the fall of the communist regime. For instance, in Poland, following constitutional modifications, sporting clubs, federations and confederations were open to private financing, and new sports authorities were instituted, and the powers of the old-school, centralised administration were curtailed, losing their organisational and managerial prerogatives, making room for a decentralised, autonomous and volunteer-based sports system. In 1992, after the splitting up of the USSR into 15 republics, the new nations developed their own laws in terms of physical culture and sports. The central body responsible for supervising soviet sports activities was dissolved *de facto*. A number of non-governmental organisations took over the sporting scene. These were mainly trade union organisations, such as Russia, Spartak and Prosport, or youth organisations (such as Burevestnik), or professional organisations specifically tailored for national defence employees (Rosto), or for the police (Dynamo). In Romania, responsibility for managing sports activities is shared between the private sector, which handles 'sports for all', whereas top-level sports, and trainer training, falls within the public sector. Lastly, in Hungary, although the state retains sole responsibility for the sporting arena, and still provides material and financial resources enabling clubs to operate, these are independent structures, which handle competitions and leisure sports, as well as students' sports, while cooperating with the state organisation.

The Impact of Changes in the Economic and Sports Landscape

Although the socialist regime was characterised by a general restriction of the available offering, and although it subjected the population to a number of quantitative restrictions, its dissolution only resulted in the further impoverishment of most of the population, who were no longer capable of meeting their own needs. The two main causes of this were inflation and the high unemployment rate, which were non-existent under the communist regime, and the resulting fall in household revenue.

Despite the reforms adopted to encourage sports for the masses, and the increase in the number of sporting establishments during the first years of transition, the impoverishment of the general population (see Figure 31.1) brought about an almost universally widespread decrease in the practice of sports (see Table 31.1).

People who were fortunate enough to have employment had to work longer hours, and sometimes juggle with several jobs, in order to eat and, often, to provide for their families as well. As a consequence, leisure time was increasingly restricted. The same was true of the proportion of the family budget that could be devoted to sports participation, which had been practically free of charge up until 1989; from 1990, sports had to be paid for. The great majority of the population spends little on sports equipment. And, preoccupied by economic and financial considerations, most people attach little importance to attending sporting events. For this reason, stadium attendances, and television sports audiences, have declined. As a consequence, clubs whose income depends almost entirely on this type of activity are facing increased financial difficulties. The economic context has thus had a negative effect in the sporting arena, as a result of the hard times that have befallen the average household.

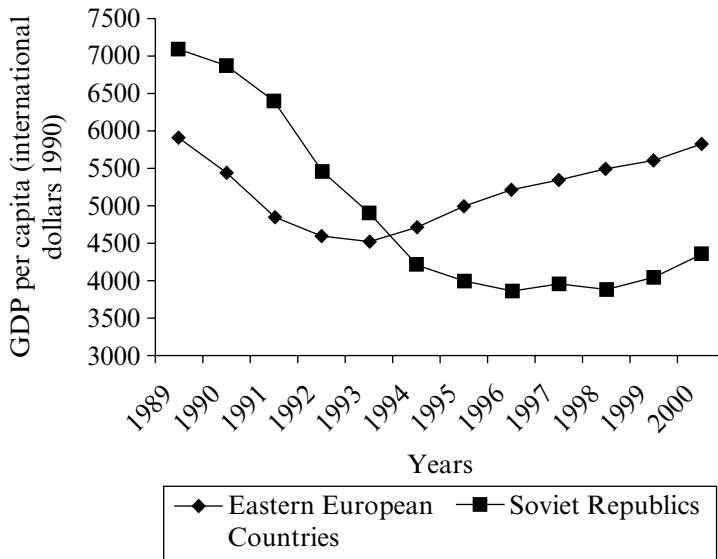


Figure 31.1 GDP per capita in seven Eastern European Countries and in the Soviet Republics (average)

Table 31.1 Evolution of the participation rate during the 1990s (% of total population)

Country	1988	1992	2000
Bulgaria	13.5	13.6	12.2
Hungary	7.02	3.8	3
Slovak Republic	13.7	8.6	5.7
Czech Republic	13.7	8.6	21.6
Poland	9.8	2.9	3

Sources: National statistical yearbooks and author's calculation.

We have already mentioned another effect of the economy on the world of sports, resulting from the state's budgetary constraints. The priority in public funding was more orientated towards stabilising the economy, and progressing towards a market economy, than towards producing champions. As a consequence, the high-performance, state-run sports organisations were a thing of the past, as were many of the material and financial privileges that were granted to soviet athletes. Starting in 1990, fringe benefits disappeared (car, house, job) and bonuses for winning in competitions were significantly reduced. After the fall of the communist regime, some athletes preferred to emigrate to Western Europe, because playing sports was not well enough paid in the east. Others simply put a stop to their career in order to work and provide for their families. Trainers left the country *en masse*, hoping for better pay in Western Europe (in Romania, hundreds of

Table 31.2 *Medals won in selected Eastern European countries*

Team	1976	1988	1992	1996	2000
Poland	26	16	19	17	14
Bulgaria	22	35	16	15	13
Czech Rep.	8	8	7	14***	13***
Hungary	22	23	30	21	17
Romania	27	24	18	20	26
USSR/FSR	125	132	119*	121**	163**

Notes

*Unified Team + Latvia + Lithuania + Estonia.

**Sum of the medals won by the former Soviet Republics.

*** Czech Republic + Slovak Republic.

Source: International Olympic Committee.

trainers, particularly in the gymnastics sector, left the country in the first three years of the transition). Young athletes also chose to emigrate, once they had been discovered and trained by their own country. Two unfortunate consequences resulted from this 'athlete leakage'. The first was a reduction in investments for teaching and training; the second was that the departure of top-level athletes brought about a poorer performance in sporting competitions, and resulted in a lessened interest on the part of spectators. Despite this, in certain instances, the departure of players to foreign countries is sometimes perceived not as a loss, but rather as a source of financial gain. In the case of the Russian soccer club Spartak in Moscow, the club was almost entirely financed by the sale of 20 players between 1989 and 1993.

Undeniably, the economic context at the beginning of the 1990s had a negative impact on sports in eastern countries. But what of the performance level of athletes who remained behind in their own country? Can we still speak about the world supremacy of East European athletes, or on the contrary, has there been a decline in their performance levels?

Table 31.2, which shows the evolution in the number of medals won by Eastern European countries in the Summer Olympic Games, indicates two important facts: first, despite the economic recession and the dissolution of the USSR, all of the old socialist republics won more medals in 2000 than in 1988. The Soviet Union retains its supremacy both in the Winter and Summer Olympics (see Table 31.3). Second, despite the improvement in the economic situation in some Eastern European countries (Poland, Bulgaria, Hungary) in the middle of the decade, their Olympic performance did not decline systematically. So it must be said that there are mixed results, and it is questionable to what extent the economic mutations in Eastern European countries had an impact on sports performance, and more generally, whether economic factors may be considered as determining factors. Other factors are also taken into account: specific national characteristics (type of government, whether former colony or not) and indirect financial variables, such as whether the country is hosting the Olympic Games, or is a neighbouring country.

In sports performance literature, the superiority of Eastern European countries in the Olympics has clearly been proved:² all these countries win relatively more medals than would be expected by the level of national wealth and population. But the explanations

Table 31.3 *Ranking of the Soviet Union in post-war Olympic Games*

Ranking	Year
Summer Games	
First place	1952, 1956, 1960, 1964, 1972, 1976, 1980, 1988, 1992
Second place	1968, 1996, 2000
Winter Games	
First place	1956, 1960, 1964, 1972, 1976, 1980, 1988, 1994
Second place	1968, 1984, 1992
Third place	1998, 2002

Source: International Olympic Committee.

for this phenomena have been superficial. The unverified and very general hypothesis used to explain the fact that communist or post-communist nations have performance levels more than proportionate to their resources as compared to other countries, is as follows: the forced mobilisation of resources by government, and strong centralised power structure, are a decisive factor driving both recognition and organisation; and greater investment in specific sports, training of top-level sports executives, and the use of science to further sport, all provide better incentives for athletes. To summarise, according to Johnson and Ali (2004), communist nations that have a different approach to participation in training, as well as greater incentives to be successful, must achieve differing results.

Conclusion

Soviet sports are characterised by a specific model, which is based on a totally centralised organisation. In the first part of the twentieth century, sports were considered to be a factor conducive to modernisation and the improvement of the productivity of workers. Subsequently, during the Cold War, sports were used for more political ends. Starting in 1985, changes took place: clubs became more independent, and athletes were allowed to go professional. The 1990s were marked by a set of changes in economics, by organisational and legislative transformations, and by the appearance of financial challenges in the sports arena. The state, having priorities other than this type of funding, withdrew from the sports scene. At this point, sports in the Soviet republics moved closer to the Western model. Economic problems at the beginning of the 1990s resulted in financial restrictions not only for sporting institutions, but also for the population at large, which brought about a reduction in the practice of sports, as well as the emigration of many athletes to 'better paying' countries. Lastly, we have observed that economic problems do not systematically lead to poorer performance, and that Eastern European countries, which are relatively poorer than their Western neighbours, do not win fewer medals in international competitions.

What can we predict in the coming years? Will we still be discussing the specific case of soviet sports? Will these countries adopt a Western model, or will they, on the contrary, set a new course, somewhere between sports at the service of the market economy, and sports at the service of the state?

Notes

1. Nevertheless, this chapter relies heavily on Riordan (1979, 1991), Shneidman (1979) and Riordan and Cantelon (2003); see also Andreff (1996).
2. For the most recent studies, see Bernard and Busse (2004); Johnson and Ali (2004).

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32 International labour migration

Wladimir Andreff

International labour migration of athletes, and sportsmen and -women to countries organising professional competitions can be traced back to the late nineteenth and early twentieth centuries when the first professional sports emerged in Europe, North America and Australia.¹ However, no more than 15 countries provided such an outlet to professional players before 1914. From the inter-war period to the 1970s, grand events such as the Olympics, the World Cup (football), the Davis Cup (tennis), the Masters (golf) and the World Championship (basketball) have opened up new opportunities for the most talented athletes to demonstrate their sporting prowess to potential employers abroad. Sporting labour migration, including the athletes from some developing countries, has consequently expanded overseas.²

With the globalisation of the sports economy, international flows of sporting talents started booming in the 1980s after the International Olympic Committee (IOC) allowed professional sportsmen and -women to participate in the Olympics (1981), and the athletics world championship (1983) and the rugby World Cup (1987) were launched. International labour migration really skyrocketed in the 1990s with the liberalisation of the labour market for professional players in major European sports and with an increasing South–North move of athletes from developing and post-communist transition countries to developed West European and North American countries. Because the international market was at first unregulated, a number of international transfers were marred by dubious practices, especially with regard to the transfer of teenage players. Therefore, in football, new regulations concerning international labour migration for the under-24s was introduced while a worldwide tax has been suggested to curb the undesirable effects of international talent migration.

Labour Migration across Developed Countries

The pattern of professional player migration across developed countries is determined by two factors: the comparative economic status (wage, transfer fees if any, tax regime, standard of living) of the player's home and host leagues, and the comparative sporting status of the player's home and host clubs (past performances, whether previously qualified for a European or world competition, reputation). On the other hand, a player registration system necessarily regulates the movement of players between teams, such as the very specific economic control through the payment of a transfer fee in European football before 1995. Until 1995, international labour migration was restricted in major European team sports, namely between different domestic (national) markets, by a nationality clause. In European football, the so-called '3 + 2 rule' limited the number of foreign players in a team to a maximum of three foreign and two 'semi-foreign' players, who had already played in that country for more than five years. However, such a restriction was an infringement of the free movement of workers and the freedom to provide services, which are fundamental freedoms guaranteed by the European Community Treaty, respectively in articles 39 and 49.

In December 1995, the most spectacular intervention of the European Court of Justice (ECJ) in sport business – the *Bosman* case³ – liberalised the international move of professional football players among the European Union (EU) member countries. In *Bosman*, the ECJ held that the imposition of national quotas on teams participating in European competitions violated the right of free movement. In particular, the Court was not convinced that the ‘3 + 2 rule’ preserved a bond between clubs and country, and rejected the contention that the rule was designed to prevent leading clubs from monopolising the most talented players (McCutcheon, 2002). The *Bosman* decision resulted in the abolition of national quotas in European and national football competitions. It also had a consequence on the labour market of playing talent in professional football which had globalised overnight for all granted out-of-contract players over 23 years old who gained the right to move to any team without payment of a transfer fee to their previous team. Thus, a fully-fledged global, and primarily European, market for talent emerged on which prices skyrocketed with some transfers of star players such as Ronaldo, David Beckham, Zinedine Zidane, Hernan Crespo and Luis Figo. UEFA (the European football governing body) extended the enforcement of the *Bosman* judicial precedent to all its 49 national football associations, that is, beyond the EU area. The only exception is young players (those under 23 years old), for whom transfer fees remain payable for out-of-contract players as compensation for training costs.

In February 2000, the *Malaja* case (a Polish woman whose club, RC Strasbourg, denied her the right to play in its team, on the ground that it had already filled its quota of two non-EU players enforced by the French basketball federation) resulted in extending the liberalisation of international labour migration to all countries linked to the EU by either a European association agreement (Central Eastern European countries, Cyprus, Malta and Turkey) or a trade and cooperation (or ‘partnership’) agreement (most former Soviet Union states and south Mediterranean countries). Eventually, the international basketball federation (FIBA) liberalised labour migration worldwide. Most professional sports followed suit.

One consequence of the liberalised international labour migration is an internationalisation of each domestic talent labour market. For instance, in 2000–01, out of a total of 342 transfers in French football, 198 reflected international migration, with 93 foreign players entering the French league and 94 leaving it for a club abroad (and 11 were temporary transfers). A second result is that 113 players (out of 253) of all Western European national squads participating in the 2002 football World Cup finals were registered for clubs located in another European country whereas 362 players (out of 736) of all national squads, including non-European, were registered in foreign clubs (Gerrard, 2004). A third outcome is the globalisation of the clubs’ professional teams themselves. Nowadays in Europe, most major football clubs have more foreign than domestic players. For instance, in 1999–2000, Chelsea employed 34 professional players, 26 of whom were foreign with 14 different nationalities. In addition, most domestic championships are globalised: in Belgium, 41 per cent of first division football players were non-Belgian, while players of 41 different nationalities participated in the British Premier League in 1999–2000 (Bourg and Gougnet, 2001). (See Table 32.1)

Labour Migration from Developing and Transition Countries to Developed Countries

Weak performances and lower comparative wages provide a negative incentive to the most talented players in developing and transition countries and trigger their move away from

Table 32.1 Share of foreign players in professional football, pre- and post-Bosman

First division championship	1995–1996*	1998–1999*
England	34	37
France	18	22
Germany	27	39
Italy	17	33
Spain	29	40

Note: *Foreign players as a percentage of all players

Source: Bourq and Gouguet (2001).

their countries of origin. Increasingly, they are migrating from their home countries to West European and North American professional leagues. The clearest cases in point are North American baseball and basketball, with an inflow of Caribbean, Latin American and African players, as well as ice hockey with players from Eastern Europe. For example, the Dominican Republic had ‘exported’, all in all, over 1300 baseball players to North American baseball leagues. Major West European professional sports attract Third World players as well. Such a ‘muscle drain’ is a cause for concern since it is increasingly affecting teenage (and even younger) players in international transfers, sometimes through illegal means and dubious practices by players’ agents (Andreff, 2004).

In 16 less-developed countries surveyed, athletes were found to leave their country as soon as their sports performance reached an international standard (Souchaud, 1995). From 1989 to 1997, 2084 Brazilian football players migrated to foreign professional clubs throughout the (developed) world, in particular Italy, Spain, Portugal, France and Japan. The same trend was observed in Argentina, Mexico, Paraguay and other Latin American countries. Most of the best African football players tend to migrate to European championships: in 1998, 70 of the 450 Division 1 players in France were from Africa. The best African basketball players migrate as well, sometimes changing their citizenship. The geographical distribution of players’ domestic affiliations for the five African nations that qualified for the 2002 World Cup finals shows that only 21 per cent of the players were affiliated with teams in their home domestic league (and only three of the 23 players on the Senegal squad were not affiliated with French teams).

Between 1990 and 1997, 600 professional footballers, 520 ice hockey players, 300 handball and volleyball players, 100 ice skaters and 20 coaches migrated from the former Soviet Union to North America and West Europe. For instance, Andreï Shevchenko was transferred from Dynamo Kiev to Milan AC for €20 million. Talented young players ‘imported’ from developing and transition countries are a tempting substitute in the face of skyrocketing prices for the best players traded on the European market after the *Bosman* case. On the other hand, once hired, a talented young player from Africa, Latin America or Central Eastern Europe can subsequently be sold again by the ‘importing’ club to another one at a higher price.

With the emergence of the 15–17-year-old player championship in African countries, international transfers have increasingly affected very young players. Most such players transferred to European professional clubs ultimately do not sign a contract and are then

abandoned, cut off from their family, friends and home country, with no source of income and no assistance. Clubs in home countries cannot prevent these transfers and are barely compensated, if at all.

In developing countries, talented teenage players are either enrolled in clubs affiliated with their home country's national football federation or play for non-affiliated sports associations that recruit non-affiliated players. For players in non-affiliated associations, the only route to an international transfer is through an underground labour market characterised by clandestine networks of player agents. Most of the players under the age of 18 transferred from developing countries come via this illicit market. The worst situation occurs when a player enters the market and is eventually trapped in the network of illegal player agents connected with European professional clubs.

For instance, in Italian football, 2273 foreign affiliated players over the age of 16 have been transferred through illicit channels whereas 4809 foreign players, aged 6–16 years, have been imported from Latin America and Africa. Tshimanga-Bakadiababu (2001) cites plenty of detailed evidence about transfers of teenage African and Latin American players. Problems were so prevalent with such transfers in Belgium that, in November 2000, 15 young African players, most of them minors, lodged a complaint in Brussels and Antwerp courts against all the Belgian professional clubs and players' agents. They complained of a 'trade in human beings' since, after being unsuccessfully trialled and then not hired by professional clubs, they had been abandoned by both clubs and agents. Once in that situation, as minors without either a labour contract or a return ticket to their home country, they became de facto illegal migrant workers in Belgium. A number of such cases can be found in all European countries (for a more detailed empirical coverage, see Tshimanga-Bakadiababu, 2001 and Andreff, 2004).

On the other hand, no money accrues to either the national football federation or the youth association when teenagers transfer internationally from non-affiliated associations in their home country. As to transfers of players from affiliated clubs, a dumping price on the European market means a low transfer fee, which often does not even cover the education and training costs of the transferred player.

The FIFA Regulation of International Transfers

Despite the international market liberalisation introduced by the *Bosman* ruling, football faced another challenge in 1998 when the European Commission issued a statement of objection against the Fédération Internationale de Football Association (FIFA) rules governing transfers. The main objections related to payment of transfer fees and players being prohibited from terminating their contracts early (Gerrard, 2002). After lengthy discussions with the Commission, FIFA, UEFA and the international players' union (FIFPro) reached an agreement about amending international transfer rules. A new FIFA transfer regulation came into force on 1 September 2001, containing a number of clauses relating to the protection of minors, training compensation and a solidarity mechanism. Transfer of minors (under 18 years old) is prohibited unless the player's family moves for non-football-related reasons. Within the European Economic Area, players under 18 can move only if teams provide both athletics and academic training. The new rules also establish that compensation for training costs incurred between the ages of 12 and 21 is payable when the player signs his first professional contract and on each subsequent move to another team, up to the age of 23. The first payment of training compensation

is distributed on a *pro rata* basis among the teams contributing to the player's training. Finally, the new rules include a solidarity mechanism whereby 5 per cent of all compensation payments for transfers involving players over the age of 23 will be distributed to those teams involved in the training of the player between the ages of 12 and 23 (for a more detailed presentation, see FIFA, 2001 and Gerrard, 2002).

FIFA has introduced these new rules basically for securing training compensation to junior clubs, and for preventing movement of players under 18. However, there is no explicit sports development objective for home countries. Since the FIFA regulation is already in place, it is enforceable in football, even though the rules may be too complicated and bureaucratic and, for this reason, may require further simplification and revision. Nevertheless, FIFA rules might act as an important role model for regulating international labour migration in other professional sports.

This chapter would have ended at this point had not a 'Coubertobin' tax been suggested (Andreff, 2001, 2004), following which a debate ensued about the respective merits and limits of the FIFA regulation and a worldwide tax supposed to cover all professional sports, in particular for teenage players migrating from developing countries (see Andreff, 2002; Gerrard, 2002). The final section will present an outline of this new regulatory tool.

What About an Overall Coubertobin Tax?

In order to cope with the less desirable effects of international teenage player transfers, we have suggested the introduction of a so-called Coubertobin tax, whose aim is fourfold: (i) to cover part of the education and training costs in the home country of transferred players; (ii) to provide a stronger disincentive to transfer an athlete or a player from a developing country, based on the player's age at the time of transfer; (iii) to slow down the muscle drain transfer from developing countries to professional player markets in developed countries; and (iv) to accrue revenues to a fund for sports development in the home country which would finance the building of sports facilities and their maintenance, and physical education programmes at school. The idea is to levy the tax at a 1 per cent rate on all transfer fees and initial wages agreed on in each labour contract signed by players from developing countries with foreign partners. In order to curb the international transfer of teenage athletes, a graduated tax has been designed, including an increasing surcharge with the decreasing age of minor players transferred. The reduced form of the tax model is as follows:

$$FR = (P_i - r \cdot V_l) \cdot [T + s_x (a - a_x)],$$

where FR are the revenues raised through the enforcement of the new taxation; P_i is the international transfer price (fee) augmented with the first annual wage of the player; V_l is the player's value on the local market of his/her home country; r is the exchange rate between the domestic currency in the home country and the hard currency of the importing host country; T is a Coubertobin tax at a uniform rate of 1 per cent for all transferred players, whatever their age; s_x is a tax surcharge for players below 18 years, the amount of which depends on age thresholds compared to the player's age at the date of transfer; a is the player's age (below 18) at the date of transfer; and a_x (for different values of x) are age thresholds (below 18), the surcharge rate increasing with decreasing thresholds (for a more detailed modelling, see Andreff, 2001, 2004).

The surcharge rates and age thresholds are flexible and can be adjusted and revised at will. There is of course a risk of bargaining and corruption surrounding the tax collection in developing countries. Therefore, it is suggested that the collection of the Coubertobin tax should be monitored and supervised by an international organisation either an existing one (the UNDP – United Nations Development Programme – or the World Bank) or an *ad hoc* one to be created, for instance under the joint auspices of the UN and the IOC. This international organisation would govern the whole process of tax evaluation, collection and allocation, and would have to solve any possible conflict emerging between the home country of the player and his/her recruiting club or agent.

Whatever the hindrances to implementing such a regulation mechanism, the suggested Coubertobin tax seems no less desirable and feasible than the envisaged Tobin tax on international capital flows, from which it derives, as transfer of teenage or younger players is assessed as a harmful practice specifically for developing countries.

Notes

1. See Chapter 45, below.
2. See Chapter 30, above.
3. See the *Bosman* case and European football in Chapter 68, below.

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33 Comparative advantage of nations

Wladimir Andreff

Grand international sports events, such as the Olympics, the football World Cup and international championships in various sports reveal a hierarchy – at least a ranking – of nations. In some sense, these events reveal the comparative advantages of each nation in Olympic sports, professional football, athletics, rugby, basketball and so on. Thus, one question to ask is which economic variables determine the comparative advantages of a nation. For instance, is the level of economic development a determinant? What about the nation size assessed by its population? Since nearly all nations participate, at least with a tiny delegation, in the Olympics, a number of studies have focused on the number of medals won by each nation as the dependent variable, and have looked for significant economic explaining variables (whatever the impact of non-economic variables on a nation's capacity of winning medals such as the intrinsic quality of coaches, physical and psychological training techniques, financial incitements and doping).

We shall not discuss here how the number of Olympic medals has been utilised for the sake of national pride or ideological purpose, as occurred prior to the fall of the Berlin Wall. The former Soviet Union, the German Democratic Republic, Cuba and other socialist countries tended to associate the success of centrally planned economies and communist regimes with the number of medals they won at each Olympics.¹ More recently, totalling up the medals won by its 15 member countries, the European Union had announced that it was the 'winner' of the Olympic Games in 1996. The United Nations Population Information Network even declared Tonga the winner of the Games with a medal to population ratio more than twice as high as the nearest competitor. Needless to say, every four years the number of medals won matters for all nations.

Population Is Not Enough

In 1956, Avery Brundage, President of the International Olympic Committee (IOC), suggested that the larger the population of a nation, the larger the pool of potential medal winners. It follows that the larger the pool of potential winners, the higher the probability of finding the best-quality athletes likely to win at the Olympics. Such an assumption has sometimes been coined as a 'pyramidal' explanation of sports performance (the larger the population base, the higher the quality of top-level athletes). Thus, population should be a major comparative advantage of a nation with regard to sports performance.

The studies that attempted to explain Olympic performance appeared in the 1970s. They measured Olympic performance by the number of medals won by each nation, or using a scoring system based on differential weights for gold, silver and bronze medals. Ball (1972) justified the need for econometric testing by the IOC claim that the Olympics is not a competition between nations but between individuals. According to the IOC, the quality of athletes should prevail, so that the number of medals won should not bear any significant relationship to demographic, economic and political variables (the so-called 'structural variables'). Ball has proceeded with a comparative analysis between nations

and has calculated correlation coefficients between nations' Olympic performances and a number of economic, sociological and political variables. Among the latter, several variables appeared to be significant determinants of nations' performances at the post-war Olympics (see also Grimes et al., 1974; Levine, 1974), although these studies usually examined just one Olympiad. For instance, Ball found that the Olympic performance of a nation is correlated with various economic, sociological and political variables. This train of thought was interrupted by the Moscow Games in 1980 and the Los Angeles Games in 1984, since a number of the best-performing nations did not participate, an absence which would have biased the statistical analysis of the relationship between Olympic performance and economic variables.

The Importance of Available Resources and Economic Development

A second trend in research emerged, more focused on establishing a robust relationship between the aggregate Olympic performance of a nation over several Games and economic determinants. As early as 1963, McIntosh suggested that a richer nation would obtain better Olympic performance because it can provide its athletes with better nutritional opportunities and more sports facilities and coaches.² Analysing the Los Angeles Olympics, Elmandjra (1984) showed that, despite the absence of Soviet bloc nations, developing countries won only 90 out of 687 medals (13 per cent). He also underlined that only 21 developing countries won at least one medal, and only seven countries had obtained at least one of the 28 gold medals distributed to third world nations (of which 15 were for China and six for South Korea). This idea that available resources linked to the level of economic development was interrupted by the boycott of the 1980 Moscow Games by the United States and the counter-boycott of the 1984 Los Angeles Games by the USSR and other socialist nations. The absence of the best-performing nations in terms of medals won would have biased any econometric testing.

Several more recent studies, including more sophisticated econometric tests, have encompassed a set of Olympic Games and have concluded that GDP or GDP per capita and population are significant determinants of Olympic performance. Kuper and Sterken (2000) have examined aggregate nation performance at all Summer Olympics since 1896, combining time-series and cross-country analysis, while Johnson and Ali (2000) have covered post-war Summer Olympics, excluding 1980 and 1984, explaining the number of Olympic medals won by GDP per capita, squared GDP per capita, population and squared population, and using successively ordinary least squares, a probit and an ordered probit regression. The same approach has been extended to the relationship between Olympic performance and GDP per capita of Soviet, then transition economies (Shughart and Tollison, 1993; Poupaux, 2003). These nations are 'outliers' compared to the usual relationship, that is, they have been accustomed to winning more medals than the number predicted by their GDP per capita, both before and after the early years of transition to a market economy. Financial and material incentives appear to be major determinants in the first study, whereas Olympic performance is linked with population through a non-linear relation and is significantly explained by a dummy variable for being a former Soviet republic or a CMEA (Council for Mutual Economic Assistance) state. The latter variable is interpreted in institutional terms as reflecting the budgetary effort in favour of sports, the financial priority given to top-level sport, and the legacy from the past (path dependence).

Comparative Advantage of Nations: GDP Per Capita Matters More than Population

A study by Andreff (2001) has proceeded with an ordered logit model applied to the performances at the Atlanta 1996 and Sydney 2000 Summer Games, and then to all Winter Games since their inception until Nagano 1998. The country sample is first divided into four classes: developing countries (GDP per capita < \$600), middle-income countries (\$600 < GDP per capita < \$2000), emerging countries (\$2000 < GDP per capita < \$9000), and developed countries (GDP per capita > \$9000). With regard to the second independent variable, that is, population, the sample is classified as follows: small countries (less than 2 million inhabitants), middle-sized countries (2 million < population < 29 million inhabitants), large countries (between 29 and 100 million inhabitants), and very large countries (over 100 million inhabitants). Both explanatory variables, GDP per capita and population, are found to be extremely significant in the case of Atlanta and Sydney. Equally significant, but slightly different, are the results for the overall Winter Games up to 1998: GDP per capita is more influential than population on the probability of a country switching to a superior class of medals won. All in all, the level of economic development is a major determinant of Olympic performance, more than the population size.

Bernard and Busse (2003), working with panel data on the 1960–96 Summer Games, first estimate a model which explains a nation's share in the total number of medals. Then a production function of Olympic medals expresses the share of medals won as a function in population and national income and a log function for the translation of relative talent to medal shares. Probit and tobit regressions are used. The hypothesis that medal winning should be proportional to population (assuming de facto that physical prowess is randomly distributed) is econometrically rejected. Interestingly, per capita income and population have very similar and significant effects at the margin on the production function of Olympic medals. This suggests that total GDP is the best predictor of national Olympic performance. The model is then used to predict the number of medals won by Australia in 2000, which is slightly different from the observed total. Bernard and Busse conclude that forced mobilisation of resources by governments can also play a role in medal total (an argument that probably applies in retrospect to past Soviet and Eastern European Olympic performances as well).

Conclusion

Economic development, assessed by either GDP per capita or total GDP, is an important determinant of a nation's international sporting performance. If the resources mobilised by the government play a role, this very fact is likely to widen the gap between developed and developing countries even further, in terms of sports performance, since sports budgets are quite small in the latter.

Notes

1. See Chapter 31, above.
2. See Chapter 30, above.

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PART V

INDIVIDUALISTIC SPORTS

34 The theory of tournaments

Stefan Szymanski

The literature on the economics of sport dates back to Simon Rottenberg's landmark article published in 1956, but since that date there have been relatively few articles that have set out to model sports leagues in a precise way, using the tool-kit of calculus and game theory which is now standard in most of the economics literature.

The most natural way to conceive of a sporting contest, theoretically speaking, is within the framework of a Tullock (1980) contest.

Tullock Contests

A Tullock contest involves several players competing to win a prize. Each player is assumed to choose independently an input quantity, which might be thought of as effort or as a financial payment towards winning the prize, such that the probability of winning is increasing in this quantity. The most important feature of the Tullock model is that expected payoffs are proportional to the contribution of each player. Thus the simplest framework for thinking about the problem is the case where there is a prize V and there are n contestants. Each contestant supplies effort and the probability of winning for each player depends on the share of total effort supplied:

$$p_j = \frac{e_j^\gamma}{\sum_{j=1}^n e_j^\gamma}, \quad (34.1)$$

where the payoff to each player is:

$$\pi_i = p_i V - c_i e_i, \quad (34.2)$$

where V is value of the prize and c_i is contestant i 's marginal cost of effort/investment. Equation (34.1) is commonly known as the 'contest success function', and is commonly used in this simple logit form, although other specifications exist. Note that (34.1) incorporates an *adding-up constraint* such that $p_k = 1 - \sum_{j \neq k} p_j$. In the mainstream contest literature, attention usually focuses on the symmetric case where the value of the prize is identical for all contestants, as are marginal costs ($c_i = c_j$ for all i and j). The parameter γ in the contest success function represents the sensitivity of the probability of success to effort; when $\gamma = 0$ success is independent of effort, as $\gamma \rightarrow \infty$ then if one player contributes more effort than the others, that player becomes increasingly certain to win (in this case the contest becomes like an all-pay auction where the highest bidder wins with probability one).

The conventional approach is to search for a pure-strategy Nash equilibrium of the model. The best-response function for each player is found by taking the first-order condition with respect to effort, holding the choices of all other players as given. This is:

$$\frac{\partial \pi_i}{\partial e_i} = \frac{\gamma V e_i^\gamma \sum_{j \neq i} e_j^\gamma}{e_i \left(\sum_{j=1}^n e_j^\gamma \right)^2} - c = 0. \quad (34.3)$$

Equation (34.3) describes the best response of player i to any possible combination of effort choices of all the other players in the game. At the symmetric equilibrium it must be the case that $e_i = e_j$ for all i and j , and hence (34.3) simplifies to:

$$e^* = \frac{(n-1)\gamma V}{cn^2}. \quad (34.4)$$

If each player in the contest supplies e^* effort then every player's choice of action is a best response to choice of action of every other player, and hence this is a pure-strategy Nash equilibrium. At the Nash equilibrium each player has a probability of winning the prize that is $1/n$ and hence the payoff of each player is:

$$\pi^* = \frac{V[n - \gamma(n-1)]}{n^2}. \quad (34.5)$$

The central question in this literature has been the extent to which competition will eliminate economic rents. Clearly this depends on the number of contestants and the sensitivity of the contest success function to effort. For each value of n there exists a critical value of γ which will ensure that profits are zero at the pure strategy equilibrium. However, there can be no presumption that the true γ in any given contest will take this value. Moreover, it is questionable within the framework of this model that rent dissipation is socially beneficial. As stated the contest is of no intrinsic benefit, and since effort is costly the socially optimal outcome is to cancel the contest and award the prize randomly. There are a number of ways in which a benefit can be attributed to the contest. For example, it might be supposed that effort produces some output that is socially desirable (such as innovation) and hence a planner's objective might be to maximise total effort. Alternatively, it may be that each contestant is an agent for some principal who values the prize and that effort, since it increases the probability of winning the prize, generates a reward which is paid by the principal to the agent. This is essentially the team sport interpretation of the contest, where the agent is the owner of the team, and then fans are the principal.

Sporting Tournaments

Fort and Quirk (1995) and Vrooman (1995), basing their models on the earlier work of Quirk and El-Hodiri (1974), adopt a Tullock framework where teams in a league choose a share of the number of wins in a season. Strictly speaking, teams cannot choose wins (unless they fix matches), instead they choose to invest in talent, which then delivers wins. If as is commonly supposed for North American leagues, the quantity of talent is fixed, teams cannot even choose the quantity of talent independently – there must be some function that relates planned investment to realised talent share. This function, of course, is a contest success function, and it would appear from the literature that sports economists typically have in mind a function such as (34.1). Suppose that each team allocates a budget B to talent investment, and that each team is awarded a share of talent that is proportional

to its investment, and that the share of talent in turn determines the share of wins. If we restrict ourselves to the simple two-team case, we can write:

$$w_i = \frac{t_i}{t_1 + t_2} = \frac{B_i}{B_1 + B_2}, \tag{34.6}$$

which is strictly analogous to (34.1), with the assumption that $\gamma = 1$. In passing it is worth observing that restricting ourselves to the two-team case, while frequently considered objectionable, in fact makes little difference to the equilibrium analysis. The reason why the two-team case is often considered unreasonable is that it ignores externalities that may be imposed by one team on another. However, in a non-cooperative game such as this, teams impose externalities on each other even when there are only two. For example, team 1 will choose an investment level to maximise its own profit, ignoring the impact that this choice will have on the profits of team 2 (which is clearly a negative externality). It remains an interesting question whether the possibility of positive externalities would much affect the nature of the equilibrium in the case of a model with more than two teams, but it is not obvious that the effect would be anything more than second order.

From equation (34.6) it should be apparent that there is no need to model the budget choices B_i independently of the choices t_i , even if the sum of talent is fixed. That is because any given share of the aggregate budget will, from (34.6), translate into exactly the same percentage share of talent, and hence we can model the problem as if teams could choose talent directly. We can now write the profit function for each team as:

$$\pi_i = R_i[w_i(t_i)] - ct_i, \tag{34.7}$$

and maximising this subject to (34.6) generates the first-order condition (or best-response function):

$$\frac{\partial \pi_i}{\partial t_i} = \frac{\partial R_i}{\partial w_i} \frac{\partial w_i}{\partial t_i} - c = 0, \tag{34.8}$$

so that the marginal revenue of an additional unit of talent is equal to the marginal revenue of a win multiplied by the marginal effect of a unit of talent on win percentage. Fort and Quirk (explicitly) and Vrooman (implicitly) assume that the marginal effect of a unit of talent on win percentage is a constant. Strictly, this is not possible, given that win percentage can never exceed unity. However, it is possible to understand how this assumption is reached. If we take the derivative of (34.7) we obtain:

$$\frac{\partial w_i}{\partial t_i} = \frac{t_1 + t_2 - t_i \left(1 + \frac{dt_j}{dt_i} \right)}{(t_1 + t_2)^2}. \tag{34.9}$$

The key quantity is dt_j/dt_i . If this is equal to -1 , then (34.9) reduces to $1/(t_1 + t_2)$, which can be treated as a constant. dt_j/dt_i is typically known as a conjectural variation. Conjectural variations describe the expected response of one player to the choice of another. In the familiar textbook quantity-setting oligopoly model, a conjectural variation of zero corresponds to the Cournot model, a conjectural variation of -1 corresponds to the Bertrand model and a conjectural variation of $+1$ corresponds to the joint

profit-maximising model. Traditionally it has been argued that the use of different conjectural variations shows how different equilibria can be reached from the same modelling framework. This view, however, is not now widely accepted, since the logic of the textbook oligopoly model, and the contest model described here, is based on the assumption that each player makes a single choice, simultaneously and independently of the choices of others, and that once this choice is made the corresponding payoffs are distributed and the game ends. Hence there is no opportunity for any reaction by one player in the game to the choice of another, and hence the only conceivable conjectural variation is $dt_j/dt_i = 0$.

While this is true for the model stated here, there has been some confusion in the sports literature because a conjectural variation equal to -1 does in fact appear to be correct if the supply of talent is fixed, since any increase in the quantity of talent hired by one team necessarily implies that the other team must reduce the quantity it hires by the same amount, assuming talent is fully employed. This confusion is a consequence of the elision which equates budget choice with talent choice. The distribution of talent is the same if the choice variable is the budget B_i with $dB_i/dB_i = 0$, as it is when the choice variable is the quantity of talent t_i with $dt_j/dt_i = 0$. In the first case, presumably few would argue that budget choices are anything other than independent, while in the second case it seems tempting to think that talent choices are interdependent. Strictly, speaking, therefore, one should always conceive of the problem as one of choosing budgets, which also happens to be the more realistic assumption. The conjectural variation $dt_j/dt_i = 0$ is typically known as the Nash conjecture, and this is necessary to identify the Nash equilibrium of the model.

With Nash conjectures, the equilibrium condition (34.8) becomes:

$$\frac{\partial \pi_i}{\partial t_i} = \frac{\partial R_i}{\partial w_i} \frac{t_j}{(t_1 + t_2)^2} - c = 0 \quad (34.10)$$

so that, taking the ratio of the two first-order conditions we obtain the result:

$$\frac{\partial R_i}{\partial w_i} \bigg/ \frac{\partial R_j}{\partial w_j} = \frac{t_i}{t_j}. \quad (34.11)$$

This is the Nash equilibrium condition. The left-hand side of (34.11) is the ratio of marginal revenues of a win of team i and team j , and the right-hand side is the ratio of talent. The implication of (34.11) is that if, in equilibrium, team i is stronger than team j ($t_i > t_j$) then it is also the case that the marginal revenue of a win for team i exceeds the marginal revenue of team j (at equilibrium).

This is a rather striking result. Recall that the earlier work of Quirk and El-Hodiri, Fort and Quirk, and Vrooman claimed that the marginal revenue of a win would be equalised in equilibrium. This is exactly what you would expect in a Coasian world – otherwise it would be profitable to trade talent from a team where its marginal revenue is lower to one where it is higher (given that transferring talent increases win probability). The implication of (34.11) is that the Nash equilibrium is inefficient, in that talent is not allocated to its most valuable use. Generally speaking, it is often the case that Nash equilibria are inefficient. For example, the standard classroom example of a game, the prisoner's dilemma, involves identifying a dominant strategy equilibrium (that is also a Nash equilibrium) which is plainly inefficient for the players. The Cournot–Nash equilibrium of the standard quantity-setting oligopoly model is also plainly inefficient for the players of the

game (collusion increases profits). In either case, there are gains from trade which go unrealised – so that the competitive equilibrium is not Coasian. The same is true of the Nash equilibrium of the sports league model, but it is the direction in which talent must move to realise the gains from trade which is surprising for sports economists. Since the marginal revenue of a win is greater for the team with the greater share of talent, this necessarily implies that total profits for the league can be increased by moving talent *away from* the weaker team *to* the stronger team.

Conclusion

Overwhelmingly the balance of opinion in the sports literature is that unrestrained competition between teams in a league will lead to excessively unbalanced competition. Over and again sports leagues have used this rationale to impose restraints which in any other industry would be considered anti-competitive. Because competitive balance is generally considered to be in the interest of the fans, teams have escaped antitrust prosecution. The Coasian approach of Rottenberg, El-Hodiri, Quirk, Fort, Vrooman and others has tended to suggest that such restraints will have no impact on competitive balance, since under any circumstances talent will move to where it is most valuably employed. The competitive model described above suggests that this will not be the case, due to the competitive externality imposed by one team on another. The important feature of this competitive externality is that the externality imposed by the weak team on the strong team is greater than the externality imposed by the strong team on the weak team. This is because a unit increase in talent at the weak team imposes a greater absolute loss of income on the strong team than a unit increase in talent at the strong team imposes on the weak team. In other words, for any given win percentage, the loss of aggregate income when a weak team gets stronger is greater than the loss of income when a strong team gets stronger.

This result, while perfectly standard in the wider economics literature, calls for a serious re-examination of economic policy analysis for sports leagues. Szymanski and Késenne (2004) and Szymanski (2004a) show that revenue sharing (which moves the teams closer to the joint profit-maximising equilibrium is more likely to reduce competitive balance than increase it. Szymanski (2004b) provides econometric evidence that a less balanced distribution of results would have increased attendance at Major League Baseball over the last quarter of a century.

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35 Implications from the theory of contests for modelling and designing sports competitions

Gerd Muehlheusser

The purpose of this chapter is to outline some recent developments in the theory of contests and to discuss possible implications for the design of sporting contests. First, we present two common ways of how contests are modelled in the economic literature. Since these models are somewhat different from each other, we then discuss which of them seems a more appropriate description of how competition takes place in different sports disciplines.

Second, we present tools which a contest designer might want to use to increase the effort incentives of the contestants. Thereby, the focus will be on two very popular topics in the recent contest literature, namely whether more than one prize should be awarded and under which conditions some form of handicapping (like imposing upper bounds on the permissible effort outlays) should be applied.

Due to space constraints, the selection of topics is far from exhaustive and thus also highly subjective. A number of important aspects have therefore been omitted, including the determination of the optimal number of contestants and most issues which involve dynamic aspects such as match-play, seeding and dynamic contests (see Szymanski, 2003 for an overview of some of these issues).

Modelling a Contest

Two basic models

At a general level, contests are games in which several individuals compete with one another for prizes. Each individual has the possibility of sinking resources (that is, spending money or exerting costly effort) to increase the chance of winning one of them. The resources spent cannot be recovered independently of the outcome of the contest. One main feature of a contest model is the so-called ‘contest success function’ (CSF) which describes how each individual’s effort to secure a prize translates into his/her chances of being the winner. It suffices here to confine attention to the case with two individuals and one prize only.¹

Denote by $p_i(x_i, x_j)$ the probability that individual i is the winner of the contest as a function of his/her own and his/her rival’s effort, x_i and x_j , respectively. The following two variants have been most prominently analysed in the literature.

First, in a so-called ‘non-discriminatory’ (or ‘Logit’ or ‘Tullock’) contest (Tullock, 1980), the CSF takes the form:

$$p_i(x_i, x_j; m) = \frac{x_i^m}{x_i^m + x_j^m}, \quad (35.1)$$

where the parameter m is a measure of the discriminatory power of the contest, that is, how much one unit more effort by contestant i increases his/her chance of winning the

prize. Clearly, more own (rival) effort increases (decreases) the chances of winning. For all $0 < m < \infty$, this contest form has a Nash equilibrium in pure strategies. On the other hand, while resembling many realistic properties, on theoretical grounds this CSF has been criticised as a ‘black box’ for not explaining *how* effort translates in chances of winning.

Second, in the limit, when m approaches infinity, the Tullock contest becomes fully ‘discriminatory’ as the contestant with the highest effort wins with certainty. This leads to the following CSF:²

$$p_i(x_i, x_j) = \begin{cases} 1 & \text{if } x_i > x_j \\ \frac{1}{2} & \text{if } x_i = x_j \\ 0 & \text{if } x_i < x_j \end{cases} \quad (35.2)$$

Since each contestant forfeits his/her effort costs independent of whether or not he/she is the winner, this specification is strategically equivalent to the so-called ‘all-pay auction’ in which only the bidder with the highest bid wins the auction but all bidders have to pay their bids (Hillman and Riley, 1989; Baye et al., 1996). It is well known that in a framework of complete information, only Nash equilibria in mixed strategies exist.³

Which model is more appropriate?

While Tullock contest models have been widely used recently in the sports economics literature (Szymanski, 2003; Szymanski and Valletti, 2003) as well as in the rent-seeking literature (for a survey, see Nitzan, 1994), all-pay auctions have not yet been applied to a purely sports economics context. Presumably, one main reason for this is that the analysis of Tullock contests seems more convenient from an analytical point of view in a framework of complete information (which is typically used in the sports economics literature).

However, it seems that the all-pay model is a better description whenever contestants compete with each other against some objective standard according to which ‘success’ is measured like ‘time’ in a race such as a 100 metre dash: athlete i is the winner with probability one whenever he/she runs faster than his/her rival, where athletes typically differ with respect to the effort costs they face to reach a certain time. But there is no strategic choice to be made by the rival to prevent athlete i from winning except trying to be even faster.⁴

On the other hand, it is certainly true that team i wins a soccer match whenever it scores more goals than the rival. But scoring a goal is a strategically much more complex issue as it also directly depends on the actions of the rivals. Moreover, ‘scoring a goal’ is not the decision to be taken by a team, but rather it is ‘trying to score a goal’ or ‘trying to prevent the rival from scoring a goal’. This strongly increases the complexity because success is a more complex function of one’s own and the rival’s effort, and thus it makes much more sense to use a Tullock contest here, since there is a more ‘stochastic’ link between effort and success. In the race example, however, the link is much more direct and therefore the all-pay auction seems more appropriate.⁵ Although these examples might appear somewhat arbitrary, they do suggest a systematic difference in how competition takes place in different sports disciplines.

Furthermore, even the advantage of analytical tractability of the Tullock contest vanishes once the strong assumption of complete information is relaxed. For example, it seems plausible to assume that an athlete has private information concerning his/her

health or physical condition or whether he/she is doped on the day of a race. Also, club owners can be expected to have better information about relevant variables which determine the financial viability of that club. Last but not least, Formula One and sailing teams seem to have a great interest in keeping relevant technical information concerning their equipment as secret as possible. All these examples suggest that informational asymmetries do matter in sports and should be part of sports economics whenever they are considered relevant for a particular matter of interest.

In frameworks where contestants have some sort of private information (say, with respect to their effort costs or to the value of winning the prize), all-pay auctions also tend to exhibit pure strategy Bayesian Nash equilibria under quite general conditions (Amann and Leininger, 1996; Lizzeri and Persico, 2000; Moldovanu and Sela, 2001; Feess et al., 2004). Therefore, results for the optimal effort decision of the contestants would be readily available for applications in sports economics. The all-pay auction approach with incomplete information has the additional desirable feature that it is not subject to the above-mentioned 'black box' critique: as in the Tullock contest, exerting a certain level of effort translates into a probability of winning, but in the all-pay auction this process can be unambiguously attributed to the informational environment, while it is completely *ad hoc* in the Tullock contest.

Designing a Contest

When discussing design issues, our starting point is a profit-maximising, monopolistic contest designer whose aim is to extract as much effort by the contestants as possible. While this would be a proper objective for most contest environments, it is widely asserted that in sports, contrary to other areas, outcome uncertainty (competitive balance) is an additional important feature. Therefore when setting the rules, contest designers should also give some weight to this issue in their objective function.

Unfortunately, however, the contest literature focuses almost exclusively on the standard case, thereby neglecting the issue of competitive balance. Apart from the fact that the issue of competitive balance is a peculiarity arising in sports contests only, while most papers consider more general environments, there seems to be a second reason. It does not make sense to analyse competitive balance in a symmetric framework and complete information as there typically exists a symmetric equilibrium in which all contestants choose the same effort level so that the issue of competitive balance does not arise. Thus, to have different equilibrium effort levels by different contestants, one either needs a framework of incomplete information or, when keeping the assumption of complete information, a framework with asymmetric contestants (which is very realistic as athletes and soccer players generally have different abilities, soccer clubs have different drawing potentials and so on).

Both alternatives tend to increase the complexity of the analysis considerably. Nevertheless, in some cases, it will be possible to see how competitive balance would be affected by a change in the contest design.⁶

Several prizes

In frameworks with more than two contestants, traditional models have confined attention to the case where all contestants compete for only one prize. In the sports context, this would mean that only the winner gets a prize while all other contestants receive

nothing. This is clearly not consistent with reality: in soccer for example, the second-best team in a top league often also participates in the Champions League, the teams ranked third and fourth are allowed to participate in the UEFA Cup and even mediocre teams are allowed to compete in the UI Cup. The same is true for individual sports like tennis or golf: not only the winner of a tournament, but typically also players at lower ranks receive a prize. Several recent papers examine the conditions under which the award of more than one prize could increase total effort. Given that the total value of the purse is fixed, this is equivalent to shifting money from the first prize to a second prize, a third prize and so on.

A nice intuition why this might increase total expected effort is provided by Szymanski and Valletti (2003) who analyse an asymmetric Tullock contest with three contestants. When contestants are sufficiently heterogeneous in the sense that there is one strong contestant while the other two are relatively weak (and similar), then if only one prize is awarded, total effort incentives are relatively low since neither the strong contestant (who will most likely win anyway) nor the two weak contestants (who will receive nothing with high probability) have strong effort incentives. On the other hand, when the value of the first prize is reduced and a second prize is awarded, the two weak contestants have something to compete for, and this increases their effort incentives. As a second-order effect, since the runners-up now exert more effort, this may also increase the effort incentives of the strong contestant. For this reason, the effect on competitive balance tends to be ambiguous.⁷

A similar result is also obtained by Moldovanu and Sela (2001) in a different model using an all-pay auction where contestants have private information with respect to an ability parameter influencing the cost of exerting effort. Here, the desirability of a second prize to elicit more aggregate effort depends on the shape of the effort cost function: if it is concave, then only one prize should be awarded, while if it is convex, awarding a second prize might be optimal. The similar intuition here is that the second prize motivates middle- and low-ability contestants to exert more effort, while the effort incentive of high-ability contestants decreases through the reduction of the first prize. When exerting more effort becomes increasingly costly (which is certainly the case in many sports disciplines), then the first effect may dominate so that overall effort increases.

A similar mechanism is also at work in Moldovanu and Sela (2006) who analyse when it is desirable to have all contestants compete in one 'grand' contest for one prize, or whether to subgroup them and have them compete for smaller prizes within each group. Again, when the effort cost function is sufficiently convex, sub-grouping might elicit higher total effort. This result would be in line with the current practice in many tournaments such as the soccer World Cup and the European Cup of having teams compete in groups, where the prize for the winner is to remain in the tournament. Note that there are also situations in sports where the aim of the contest designer is not to maximise total expected effort but expected effort of the winner (for example, to establish a new world record in a 100 metre dash). Then, subgrouping would never be optimal and all contestants should be in one grand contest. Clark and Riis (1998b) obtain a similar result for a Tullock contest with identical contestants. A related issue is the optimal number of contestants (Fullerton and McAfee, 1999; Che and Gale, 2002).

Imposing handicaps

Going back to the case where only one prize is awarded, a further design dimension concerns the possibility of increasing total effort by imposing handicaps. The contest

literature has analysed handicaps which either affect in principle all contestants in the same way, or have a different impact on different contestants. In sports, both types of handicapping are observed: a classical example for the first case are salary caps in US team sports which impose an upper bound on the total amount of player quality which a single club can hire. The second type of handicapping is, for example, prevalent in alpine skiing where there are two rounds and where the starting order in the second round is such that the slowest athlete from the first round goes first, the second-slowest goes second and so on such that the best athlete from the first round starts last. Given that the snow quality often becomes considerably worse in the course of a race, this is indeed a (strong) handicap for successful athletes from the first round. Of course, the distinction between these two types of handicaps appears to be somewhat artificial. In reality, although the cap in the first case is in principle the same for all contestants, it tends to be binding only for some of them (the strongest ones).

The first type of handicap has so far been analysed only in all-pay auction models, but not yet in a Tullock contest. In the context of political lobbying, Che and Gale (1998) use a complete information framework to show that total effort (in their paper, contributions by lobbyists) can go up when a cap is imposed, thereby perverting the original purpose of reducing lobbying. Moreover, in a framework of incomplete information Gavius et al. (2002) show that overall effort may increase as a result of a cap when the effort cost function is sufficiently convex. Again, the intuition for these results is that the cap reduces the chances of winning for contestants with high ability or a high valuation for the prize, thereby increasing the effort incentives for other contestants such that, as a result, total effort may increase. Note that, while it is argued by league officials that the motivation for caps would arise from concerns about competitive balance, the cap may act as a means to increase total effort (and, presumably, profits), even if competitive balance motives are absent.

There is also a literature which analyses the second kind of handicapping in which some contestants are unilaterally advantaged or disadvantaged. This aim is accomplished by 'biasing' the CSF appropriately: Clark and Riis (2000) and Feess et al. (2004) analyse models with all-pay auctions in a framework of incomplete information where the winning probability for contestant i is given by:

$$p_i(x_i, x_j; t) = \begin{cases} 1 & \text{if } x_i > t \cdot x_j \\ \frac{1}{2} & \text{if } x_i = t \cdot x_j \\ 0 & \text{if } x_i < t \cdot x_j \end{cases} \quad (35.3)$$

were $t > 1$ so that contestant i (j) is disadvantaged (advantaged) compared to the unbiased CSF (35.2). When contestants are asymmetric, handicapping the stronger contestant by setting $t > 1$ might increase total effort since the contest becomes more even, and therefore competitive balance would also increase.⁸ Whether or not this is the case critically depends on the distribution of different types of contestants. In these models there are only two contestants and it is an open question how they extend to the case of more than two contestants. Moreover, in cases like alpine skiing where it is endogenously determined who will be handicapped and who will be favoured, presumably there is an additional negative effort incentive effect, since the handicapping will be anticipated.⁹ This issue awaits further research.

A particularly strong unilateral handicap is the exclusion of contestants from the contest altogether. Using an all-pay auction with complete information, Baye et al. (1993) show that it may be optimal to exclude even the strongest contestant. Although this contestant's effort is lost, it may increase the effort incentives of other contestants by so much that overall effort increases. There is, however, one underlying assumption which suggests that this result has limited applicability for the design of sporting contests: the valuation of each contestant for the prize is independent of who the competitors are. This assumption is likely to be violated in sports since the exclusion of a top team tends to reduce the value of the championship for other teams (for example, top clubs tend to induce full stadiums in away games, and also generate higher TV revenues which are frequently shared in some form with all clubs in the league).

Conclusion

This chapter presented two widely used models from the theory of contest thereby exploring their suitability for the modelling of competition in different sports disciplines. In a second step, it investigated some of a contest designer's options to increase overall effort incentives of the contestants. The basic lesson was that in some cases, it may be worthwhile to 'sacrifice' effort by strong contestants to increase the effort of weaker contestants by a greater margin. This aim can be accomplished, for example, by splitting the prize sum and awarding several prizes. This fact is clearly consistent with real-world observations. Furthermore, overall effort may also increase by imposing caps which effectively only hit strong contestants thereby reducing their effort incentives while increasing incentives mainly for intermediate contestants. Finally, direct handicaps may also either increase total effort or may at least help to keep the contest balanced.

Notes

1. See Skaperdas (1996) for a more detailed analysis of CSFs and their axiomatisation.
2. As is standard in this literature, it is assumed that a coin is flipped in the event of a tie.
3. From a purely theoretical point of view, the game induced is one with a discontinuous payoff structure, see Dasgupta and Maskin (1986a, 1986b).
4. A similar argument would hold in disciplines in which athletes compete against the clock in a sequential manner. In such situations, however, observing the result by a rival will tend to influence a contestant's optimal behaviour. More generally, the argument seems to become less valid, the more 'tactics' matter.
5. As further anecdotal evidence for this point, note that it frequently happens in soccer that one team loses in spite of performing much better than the rival team during the course of a match. In track and field races this does not seem to happen.
6. There are several ways of defining competitive balance in contests with $N > 2$ contestants (Szymanski, 2003), the implicit measure we have in mind here is simply the distribution of success probabilities.
7. Clark and Riis (1998a) analyse a multi (identical) prize all-pay auction comparing the simultaneous and the sequential awarding of the prizes. In the sequential game, winners at each stage of the contest are eliminated so that only losers compete for the remaining prizes.
8. A similar CSF is used by Konrad (2002) in an all-pay auction with complete information. As for Tullock contests and in a different context, Bernardo et al. (2000) consider a model where $P_i(x_i, x_j; t) = x_i/(x_i + t \cdot x_j)$.
9. This idea is related to the so-called 'ratchet effect', see Freixas et al. (1985).

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36 *Citius, altius, fortius*: the production of world records in the running and technical disciplines in track and field

Bernd Frick, Joachim Prinz and Frank Tolsdorf

People pay for what they want to see. That's harsh, but that's life. Merit doesn't matter. (Hollobaugh, 2003)

In September 2003, two of the world's best track and field athletes had the biggest payday in their careers, receiving quite considerable purses: while Justin Gatlin won \$500 000 for running 10.05 seconds in a 100 metre sprint in Moscow, Paul Tergat won the Berlin Marathon in a new world record (2:04:55) for which he was paid \$92 000.¹ In absolute terms these figures may indicate that even track and field (especially in the US still considered an 'amateur sport') has become a professional 'circus' and, therefore, 'big business'. However, compared to the top earners in other individual sports, such as golf and tennis, the world's best athletes in track and field seem to be underpaid. Table 36.1 reveals that the annual as well as the career earnings of golf and tennis players are about 10–20 times higher than those of long-distance runners who, in general, earn more than most other track and field athletes (with the notable exception of sprinters²). This finding holds irrespective of whether one looks at number one, number ten or number fifty of the respective earnings list.

It is, of course, possible that the figures presented in Table 36.1 underestimate the earnings of the top track and field athletes because their 'incomes . . . are generally a mysterious mix of shoe-contract money and appearance fees, which for the top performers can total far more than \$1 million a year. Yet in a marketplace in which celebrity is often measured by salary, these invisible niches have no promotional value' (Layden, 1998).³

Since the endorsement contracts signed by the top golf and tennis players (we just mention here the multi-million and multi-year contracts of Tiger Woods and the Williams sisters with Nike) are generally much higher than those granted to track and field athletes (the values of individual endorsement contracts and the amount of prize money earned are usually highly correlated) it is very likely that the figures presented below grossly underestimate the earnings differentials between the three groups of individual sports(women).

This chapter first, gives a short review of the historical development of professional athletics and then describes the current organisation of the 'track and field circus'. We go on to review the available economic literature on strategic behaviour and the incentive effects of tournament pay systems in athletic contests and then present some new evidence on the relationship between, first, consumer demand (measured by TV ratings) and athletes' earnings and, second, performance differences and performance levels in different track and field disciplines. Finally, we conclude and raise some of the more pertinent questions that should be dealt with in future research.

Table 36.1 *Top earners in selected individual sports*

Overall Money Rank	Sport / Gender			
	2003 earnings		Career earnings	
	Name	Amount*	Name	Amount*
Road running / women				
1	Paula Radcliffe	414 295	Paula Radcliffe	1 351 335
10	Coleen de Reuck	93 600	Lornah Kiplagat	523 880
50	Alevtina Ivanova	26 905	Francie Larrieu	234 825
Road running / men				
1	Evans Rutto	239 250	Haile Gebrselassie	2 207 758
10	Julio Rey	89 657	Keith Brantley	399 490
50	Boaz Kimayo	32 435	Tesfaye Jifar	237 786
Tennis / women				
1	Kim Clijsters	4 466 345	Steffi Graf	21 895 277
10	Anastasia Myskina	1 025 355	Conchita Martinez	10 613 659
50	Shinobu Asagoe	225 386	Irina Spirlea	2 652 068
Tennis / men				
1	Roger Federer	4 000 680	Pete Sampras**	42 057 490
10	Jonas Bjorkman	1 085 932	Gustavo Kuerten**	13 014 325
50	James Blake	475 914	n.a.	–
Golf / women				
1	Annika Sorenstam	2 029 506	Annika Sorenstam	13 199 874
10	Rosie Jones	808 785	Laura Davies	6 565 659
50	Donna Andrews	211 242	Barb Mucha	2 402 351
Golf / men				
1	Vijay Singh	7 573 907	Tiger Woods	39 777 265
10	Retief Goosen	3 166 373	David Duval	16 235 305
50	Peter Lonard	1 323 594	Duffy Waldorf	8 695 756

Notes

* Annual earnings in nominal US\$.

** Complete through December 2001; more recent figures not available.

Sources:www.rrm.com/rankings/money.htm;www.pgatour.com/stats/r_110.html;www.lpga.com/statistics/statscenter.cfm;www.tennis.bravehost.com/Career_Earnings.htm.**The Historical Development of (Professional) Track and Field**

The origins of track and field are to be found in ancient Greece: In 776 BC a number of Greek athletes came together for the first time in the stadium of Athens to determine the fastest runner on a 192.25 metre lap. The winner did not receive a medal, or any prize money or endorsement contract but was henceforth honoured by his fellow citizens for the rest of his life. This event, which took place nearly 3000 years ago, is considered the

fountainhead not only of track and field, but also one of the core disciplines of the Olympic Games.

After a long break, Baron Pierre de Coubertin renewed the idea of Olympia and in April 1896 the first modern 'Olympic Games' were celebrated in the Panhellenic Stadium in Athens. Some 245 participants competed for gold, silver and bronze medals in 43 different events, of which 11 belonged to what is now known as 'track and field'.⁴ As a result of the revival of the Olympic Games, popular enthusiasm for all types of physical exercise caused a boom in many sports by the end of the nineteenth century.⁵ Since most of the disciplines could be practised almost everywhere and required only a modest outlay (as opposed to sailing, rowing, fencing and so on) track and field was especially popular. In 1912, therefore, 17 national federations founded the International Amateur Athletic Federation (IAAF) as their governing authority to create a recognised athletic programme, to standardise the technical equipment and to acknowledge continental and world records. In 2001, the IAAF officially recognised the move towards professionalism by changing the organisation's name to the International Association of Athletics Federations. Up to 2003, the number of affiliated federations had grown to 211 and with it the administration of the IAAF: the council consists of 27 members and there are now six area group associations, six committees and eight commissions. The headquarters are located in Monaco and employ a staff of more than 60 full-time professionals.

Although since the late eighteenth century participants in athletics contests such as road-running events have been nothing but professional,⁶ IAAF officials tried to maintain the fiction of athletics as an 'amateur sport' (an ideology which the countries of the Eastern bloc later insisted on, although they kept violating it themselves by introducing the status of the 'state amateur', a professional in – usually military – disguise) for decades. Consequently, in 1913 the 'greatest athlete of all times' (in the words of King Gustav V of Sweden), decathlete Jim Thorpe, was stripped of the two medals he had won at the 1912 Stockholm Games, because he had been paid for playing baseball when younger (Kaiser, 1996). Moreover, doping was – and continues to be – an issue in virtually all athletics contests since the very beginning of the modern Olympic Games.⁷

When, in the 1960s, TV coverage of athletics increased rapidly and many companies started to discover commercial value in the sport, the IAAF began to abandon the amateur principle, to which it had (naively or purposefully) adhered for nearly a century. Since the resources required to train and to maintain a pool of elite athletes were steadily increasing and since athletes expected to be compensated for forgone earnings while training, travelling and competing, the IAAF slowly changed its attitudes. This, in turn, gave athletes from all over the world not only the opportunity to develop their talents, but also to make a living out of their sport. Finally, in 1982 the IAAF abandoned the traditional concept of amateurism altogether.

The Organisation of Professional Athletics

Until the late 1970s, track and field athletes had their glorious moments every four years, at the Olympic Games. In 1983, the 1st World Championships in Athletics were held in Helsinki, Finland. Initially envisaged as a four-yearly event, this cycle was soon changed to two yearly. In the meantime, the championships have become one of the most widely broadcast sports events (surpassed only by the football World Cup and the Olympic Games). Following a number of extensions, the official IAAF competition programme now includes

not only the world (junior) championships in athletics, but also, *inter alia*, the world half marathon and the cross-country championships, the world race walking cup and the mountain running cup (the latter being added in 2003 to the list of disciplines governed by the IAAF, thus further strengthening the position of running events).⁸ (Table 36.2.)

Although by the mid-1980s professional athletes were the rule rather than the exception, no prize money was paid to the successful ones during the first three world championships (1983–91). Complying with a demand formulated by most of the top athletes, the IAAF agreed to award a luxury car to the winners of the individual contests at the championships in 1993 and 1995. Since, however, for many of the winners transport costs, tolls and taxes were higher than the sale price of the car, the athletes kept asking for cash payments, a demand to which the IAAF finally surrendered in 1997. In Athens and, two years later, in Seville, the medal winners also received prize money (\$40 000 for first, \$20 000 for second and \$10 000 for third place).

In 2001, the amount of prize money increased considerably and the number of recipients was also enlarged. At the 9th IAAF World Championships in Athletics in Paris in summer 2003, an amount of \$7 044 000 was distributed among the eight finalists in each of 42 individual events plus the four relays.⁹ Table 36.3 displays the current prize money

Table 36.2 Venues and number of participants in the IAAF world championships (1983–2003)

Year	City	No. of athletes	No. of nations
1983	Helsinki	1572	153
1987	Rome	1741	157
1991	Tokyo	1551	164
1993	Stuttgart	1689	187
1995	Gothenburg	1804	191
1997	Athens	2266	200
1999	Seville	1944	203
2001	Edmonton	1766	206
2003	Paris	2008	203

Table 36.3 Prize money distribution in IAAF world championships (2001–2003) (US\$)

Place	Track and field		Half marathon		Cross-country	
	Individual	Relay	Individual	Team	Individual	Team
1	60 000	80 000	30 000	15 000	30 000	20 000
2	30 000	40 000	15 000	12 000	15 000	16 000
3	20 000	20 000	10 000	9 000	10 000	12 000
4	15 000	16 000	7 000	7 500	7 000	10 000
5	10 000	12 000	5 000	6 000	5 000	8 000
6	6 000	8 000	3 000	3 000	3 000	4 000
7	5 000	6 000	–	–	–	–
8	4 000	4 000	–	–	–	–

distributions for some selected IAAF events. It appears that even today prize money is rather low compared to the paychecks going to the winners of a major tennis or golf tournament. Moreover, the rewards for winning are identical across the disciplines, that is, a female discus thrower receives as much as a male sprinter.

In order to further promote track and field, in 1998 the IAAF created the 'Golden League/Grand Prix Circuit', a series of some 30 different elite meetings mostly in Europe¹⁰ (hence the often portrayed view that athletics is a 'eurocentric' sport) culminating in a two-day final, officially known as the World Athletics Final. The meetings are divided into four different categories, each of which has a mandated level of prize money. The Golden League (with seven meetings) is at the top end, followed by the Super Grand Prix, the Grand Prix and the Grand Prix II levels. Particularly in the Golden League, but also in the other meetings, the organisers do not distribute the prize money equally among the disciplines, but adjust their financial pools according to what they feel is in the worldwide interest and, therefore, most likely to foster the marketability of the sport (see Table 36.4).¹¹

The premium events include the attractive disciplines (such as sprints and distance races), the classic events include the jumps and throws selected for a particular meeting. Moreover, each organiser is obliged to stage up to six 'promotional' events, which shall not be the same in all seven meetings. Apart from the prize money paid to the first eight finishers, the athletes are also awarded a certain number of points¹² that are summed up at the end of the season. The athlete with the highest number of points receives a bonus of \$50 000 for winning his/her event. Athletes winning the same event in all seven meetings receive an equal share of the 'Golden League Jackpot' which now consists of 100 kg of gold ingots (up to 2002 it was 50 kg of gold). Moreover, the bonus that has to be paid to any athlete breaking a world record in any of the Golden League meetings has also been increased recently (from \$50 000 to \$100 000). (Table 36.5.)

In 2000, the IAAF paid out \$9 223 000 prize money to 515 different athletes, and in 2002 the amount had increased to \$13 538 860 which was paid to 1080 athletes. Thus, in 2002 the average amount received by a male (female) athlete was \$12 400 (\$12 700). Looking at the distribution across disciplines it appears that most of the money (32.5 per cent) went to the distance runners, followed by the sprinters (25.8 per cent) and the hurdle

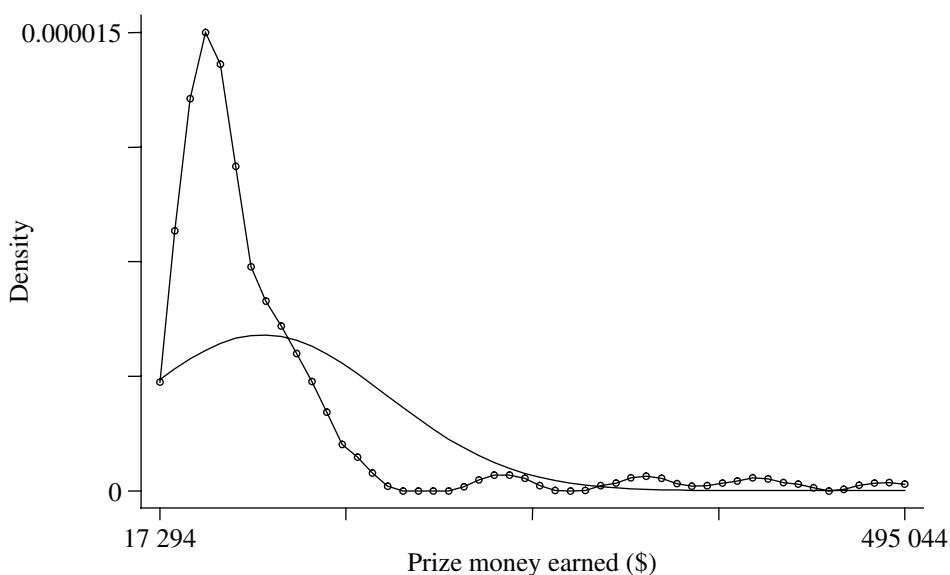
Table 36.4 Prize money distribution in the IAAF 'Golden League'

Place	Golden League	
	Premium events	Classic events
1	15 000	7500
2	12 000	6000
3	8 000	4000
4	5 000	2500
5	4 000	2000
6	2 500	1250
7	2 000	1000
8	1 500	750

Table 36.5 *Golden League winners*

Year	Athletes and disciplines*
1998	<i>Women:</i> M. Jones (100m) <i>Men:</i> H. El Guerrouj (1500m), H. Gebrselassie (5000/10 000m)
1999	<i>Women:</i> G. Szabo (3000m) <i>Men:</i> W. Kipkeeter (800m)
2000	<i>Women:</i> G. Devers (100m Hurdles), T. Hattestad (Javelin), T. Kotova (long jump) <i>Men:</i> –
2001	<i>Women:</i> M. Jones (100m), V. Beclea-Szekely (1500m), O. Yegorova (3000/5000m) <i>Men:</i> A. Bucher (800m), H. El Guerrouj (1500m), A. Johnson (110m hurdles)
2002	<i>Women:</i> M. Jones (100m), A. Guevara (400m) <i>Men:</i> H. El Guerrouj (1500m), F. Sanchez (400m hurdles)
2003	<i>Women:</i> M. Mutola (800m) <i>Men:</i> –

Note: *Winners receive an equal share of the jackpot (initially \$500 000, but since 2003 increased to \$1 000 000). While in 2001 the amount was divided by six, the whole jackpot was given to one person in 2003 (for example, 800m runner Maria Mutola).



Note: * Defined as the 100 best-paid male and female athletes in 2002.

Figure 36.1 *Distribution of prize money among the top athletes in 2002**

specialists (13.2 per cent), implying that more than 70 per cent of the prize money was allocated to the ‘pedestrians’ (distance runners). Nevertheless, even among the runners only a few can make a living out of their sporting activities (Figure 36.1, but see also Table 36.1, above).¹³

The Economics of Track and Field: Tournament Theory and Athletic Performance

Athletic contests as rank-order tournaments

Athletic contests, such as long-distance foot races, are invariably rank ordered because most of the social interest and value of these tournaments lies in ascertaining the 'best' contestant. The contests themselves represent a test of abilities and motivations among the individual participants; the common 'rules of the game' have the character of a fixed effect that allows relative evaluations. From an economic point of view the main problem as well as the intellectual challenge here is that contestants deliberately choose strategies and are not passive statistical objects (as in the case of quality control or in medical trials examples). Participants are assumed to choose actions to optimise against the efforts of opponents, given the rules of the game and the costs and rewards of winning.¹⁴

An athlete's output depends on deterministic as well as on random causes. Measured performance is a random variable in which the individual's choice of effort shifts the mean of the distribution of personal performances. Random components refer to a common 'event effect' due to weather and course conditions and to an independent and identically distributed error distribution representing pure luck and other random factors beyond one's control. That athletes' performances have irreducible random components implying that even among equally endowed athletes no contestant can be assured of winning at all costs. Moreover, athletes' preferences are represented by a strongly separable and concave utility function that is increasing in income and decreasing in effort (of course, marginal costs are increasing); athletes are assumed to be risk neutral. Finally, the reward structure of any given event is a predetermined list of prizes that is increasing in rank. It is stated in advance and adhered to after the race. Superior performance is always rewarded since otherwise contestants would have no incentive to expend effort to increase the perceived probability of winning.

Given the structure of rewards, contestants' strategies can be analysed as a non-cooperative Nash equilibrium. First, analysis of best-response strategies shows how the athletes' actions depend on preferences, costs and the structure of rewards. Second, the derived response functions can then be used to ascertain the optimal reward structure, that is, the one that maximises the expected utility of contestants given profit and/or utility expectations of event or meeting organisers.

The stability of the non-cooperative equilibrium requires a certain amount of uncertainty over outcomes. If the outcome is too deterministic, each athlete believes that winning the competition can be guaranteed by exerting slightly more effort than the opponents exert. Since the result is similar to an unstable arms race (where costs escalate to irrationally large levels) the only equilibrium is a solution in mixed strategies, where contestants randomly choose strategies from a probability distribution. More interesting, however, are pure strategy solutions where the underlying random elements are sufficiently large to support them.

When all contestants are equally talented and equally endowed, there exists a symmetric pure strategy equilibrium in which all athletes choose the same level of effort as a best response to the efforts of opponents and each has a perceived equal chance of winning in equilibrium. In this situation the equilibrium level of effort is an increasing function of the difference in rewards between winning and losing. For a given prize distribution the equilibrium effort level is decreasing in the variance of the random component of output,

because effort has a lower effect on the perceived win probability when the noise-to-signal ratio is larger.

When, on the other hand, contestants are heterogeneous, more able athletes have a greater chance of winning in equilibrium. In contests where athletes have no more information about their abilities than others do, the equilibrium remains symmetric. If, however, contestants know one another's abilities, heterogeneity reduces incentives to expend efforts: weaker athletes know that their win probabilities are below average, inducing them to put forth less effort. This, in turn, induces stronger athletes to put forth less effort too because their winning probabilities are larger. These performance-dilution effects can be overcome by adjusting the prize distribution either by increasing the prize spread between winning and losing prizes or by skewing the prize structure more heavily towards the top ranks. This deters weaker athletes from entering the event because their greater losing prospects reduce their expected income compared to the income from alternatives. However, while efficient on self-selection grounds, skewing rewards creates social costs in escalating the remaining athletes' incentives to win beyond their socially efficient levels.

The assumption that an optimum prize distribution exists for contests with homogeneous athletes as well as in cases where athletes are heterogeneous implies that there is a unique spread between winning and losing prizes that maximises the value of the competition in the sense that the utility and/or the profits of the organisers are maximised given the strategies and the participation constraints of the athletes or that expected utility of the contestants is maximised subject to their strategic behaviour and to an expected profit constraint on organisers.

The arguments so far assume that all contestants obey the rules of the game. Yet if athletes choose their strategies optimally, we should expect them to seek ways not within the rules to gain a winning edge. While this can have positive consequences, like developing new training methods, it is most likely that negative or even (self-) destructive aspects of competition will limit the incentive and selection properties of contests. When winning or losing is determined by relative performance, marathon athletes may have an incentive to improve their individual abilities by using illegal substances such as EPO which is said to increase endurance by 2–5 per cent. Such behaviour is privately productive but socially counterproductive. Although cheating is deterred by *ex post* penalties such as barring manipulators from further competition, doping was and continues to be a serious problem challenging the integrity of athletic contests.

Incentives and performance: a review of the evidence

Irrespective of its theoretical appeal and its practical relevance, the empirical evidence on the effectiveness of tournaments as incentive mechanisms is still rather limited. This is surprising in so far as athletic contests seem to be a particularly promising area for empirical analyses of financial incentives (Alchian, 1988).

Maloney and McCormick (2000) use data from 115 races ranging in distance from one mile to full marathon that were held in the south-eastern United States between 1987 and 1991. They find that both the average prize paid and the prize spread have the predicted negative and statistically significant influence on finish times: doubling the average prize leads to a fall in average times by about 2 per cent and doubling the prize spread leads to a fall in average times by about 4 per cent. Unfortunately, the data used cover mostly

provincial races that attract a small number of elite athletes only. With an average finishing time for 10k races of 34:40 and an average prize of at most \$450 (in the open class for men) the races covered seem to be of a rather low quality.¹⁵

Using data from 135 different races ranging in distance from 5k to full marathon (held in 1993–95) Lynch and Zax (2000) also confirm the hypothesis that times are faster in races offering higher prize money. However, they argue that this is not due to the incentive effects of financial rewards but to sorting. When runner ability is controlled through fixed effects or ranking points, the incentive effects diminish or disappear.

Frick and Klaeren (1997), Frick (1998) and Frick and Prinz (2002) use data from 57 different city marathons that had been held all over the world between 1983 and 2001 and show that the level of the prize money as well as its distribution influence the elite runners' performance in the way predicted by tournament theory (with similar findings Higgins and Tollison, 1990). A closer look at the findings reveals that women seem not to respond to bonus payments (that is, additional rewards for absolute performance). While at odds with the traditional tournament model at first sight, there is a rather simple explanation for the different behaviours of men and women: with regard to their performances, the male marathon elite is much more homogeneous than the female elite. In 1996, for example, the difference between the fastest runner of the year and no. 50 on that list was 2:39 minutes in the men's field and 4:37 in the women's. Given the same number of races for men and women, this implies that members of the female elite can (and indeed do) avoid competing against one another. Such behaviour is not possible for men, who (due to the homogeneity of the competition) will always face other runners of similar strength. Given these specific conditions it is hardly surprising that bonus payments do not induce higher effort levels in the women's races.

Due to the heterogeneity among the female elite, it was (and still is) quite possible for a woman to win a marathon with a suboptimal performance, while this is entirely impossible for a male runner. While this may sound strange to most people (sports fans as well as economists), the authors present ample evidence for this proposition: the female winners of the races in their sample were on average more than six minutes slower than the then actual world record (2:21:06) while the male winners were only about three minutes above the record (then 2:06:50). Moreover, in 1995 the fastest 50 times in the women's races have been clocked by 42 different runners while 48 different men were needed to deliver the 50 best performances of that year. Apparently, it is rational for female elite runners to participate in more than two marathons per year and to try to finish 'within the money' several times instead of running only two marathons per year (as most of the male athletes do) with the goal of winning prize money as well as a bonus for an especially notable performance.¹⁶

Studying videotapes of all middle- and long-distance races at the 1992 Olympic Games in Barcelona, Boyd and Boyd (1995) show that in the men's races (but not in the women's) the 'underdogs' moved first and the 'favourites' tended to wait: while the pre-race favourites (measured by prior performance) usually start out conservatively and then move up past other runners as the race develops, the underdogs tend to start quickly but see their performance and relative race position deteriorate as the event transpires. The fact that the men's races are considerably more strategic than the women's is apparently due to the fact that the talent pool is more concentrated for men than for women.¹⁷

Consumer demand, competition and performance

In this section we are particularly interested in the extent to which public interest influences the degree of competition within a discipline. Moreover, the degree of competition is likely to be influenced by the number as well as the 'attractiveness' of endorsement arrangements available to the athletes.

Since apart from some anecdotal evidence no reliable information is available on endorsement contracts, we measure public interest in each discipline by the number of people watching a specific event on TV. During the most recent Track and Field World Championships in Paris (23–31 August 2003), about 3.24 million people in Germany watched the running events while only 2.74 million followed the technical disciplines. This difference is statistically significant (t -value = 2.12, $p < 0.05$) and remains unchanged when we control for the stage of the event (qualification versus final) and the time of the day.¹⁸ If fans pay more attention to the running than to the field events, prize money should be higher in the running events and sponsors should offer higher endorsement contracts to athletes who seem to be preferred by sports fans. Again, the available data is restricted to the prize money paid to athletes in the different track and field disciplines. According to the most recent information (www.trackprofile.com) the participants in the distance running events were paid an aggregate amount of US\$314 000 in 2003, the sprinters earned US\$281 000 and those doing the hurdles received US\$209 000. The athletes appearing in the jumps and the throws, however, were paid, respectively, only US\$166 000 and US\$102 000. These differences in the individual athletes' incomes are likely to be much larger if we take into account the different endorsement contracts available to a distance runner or a sprinter on the one hand and a shot putter or a javelin thrower on the other.

Since the competition for the particularly lucrative endorsement contracts will be as fierce as the competition for prize money, we expect the respective world record to be improved more often in the running disciplines, which are (according to TV ratings) clearly preferred by the public as well as by sponsors. Hence, we want to investigate the extent to which the availability of prize money as well as lucrative endorsement arrangements affects the degree of competition (as measured by the turnover of the world record, the number of different world record holders in each discipline as well as the number of different athletes listed among the top 10, top 30 or top 100 in the world in a given year) in track and field.

- H₁: The higher the performance concentration of athletes in a given discipline, the larger the number of improvements in the world record.
- H₂: The higher the performance concentration of athletes in a given discipline, the larger the number of different world record holders.
- H₃: The higher the performance concentration of athletes in a given discipline, the larger the number of different athletes in the top 10, top 30 and top 100.

To test these three hypotheses empirically we have compiled a data set using two different sources, namely the homepages of the IAAF¹⁹ and the German track and field federation.²⁰ The former homepage includes comprehensive listings of the top performances in 2003 for both men and women in 16 different Olympic disciplines. The number of observations varies from discipline to discipline. For the men's 100 metre dash, for example, the world best list includes 333 entries while the respective list for the men's

hammer throw reports 260 entries only. The aggregate number of entries across the disciplines is 8594 by 4447 different athletes. Using the above-mentioned databases we first calculated discipline-specific Gini coefficients to measure the degree of competition: the higher the Gini, the more unequal the competition and vice versa. Moreover, another nice feature of the available data source is that we were able to compute the number of different athletes necessary for the top 10, top 30 and top 100 performances in each discipline. The second data source provides information on the improvement of the respective world record in each of the 16 disciplines over the last 100 years. We decided to look at the development of world records between 1990 and 2003 only because no credible efforts to combat doping have been made before especially in the Eastern European countries (Bernard and Busse, 2000; Szymanski, 2000). Based on this information we computed a figure, the ‘world record turnover’, for the past 13 years. Likewise, we calculated the number of different record holders²¹ and computed the number of years it took to break the world record 10 times in each of the track and field disciplines.

Our final data set consists of 32 cases (only), one for each athletic discipline for men and women and includes the following additional variables: the world record turnover in the past 13 years (WRT); the number of different athletes who broke the world record over these years (NWRH); the number of years it took to break the world record 10 times (TIME_10); the number of different athletes necessary to produce the top 10, top 30 and top 100 performances in 2003 (TOP_10, TOP_30 and TOP_100; for example, the top 30 performances in the men’s 100 metre dash have been delivered by 18 different athletes). Moreover, we included four different Gini coefficients in the final database: GINI_ALL is the Gini coefficient for each discipline when all individual entries are used for computation (for example, the 333 100 metre dash male entries from above). To test our hypotheses via mean comparison, a dummy variable reflecting a high- and a low-performance concentration is required.

The categorical variable of GINI_ALL equals one if the value of GINI_ALL is below its *mean* for the 32 disciplines and zero otherwise.²² The same logic applies to the GINI_30. In contrast, the GINI_TOP30 takes into account only the best individual performances of the top 30 athletes, indicating that each athlete is observed only once.²³ Again, a value of one for the respective dummy indicates a fierce competition, while a value of zero means less competition. Table 36.6 contains the summary statistics.

It appears from Table 36.7 that the running events are – on average – more competitive than the technical disciplines. The means test produced a statistically highly significant result in all cases, that is, for men and for women and irrespective of the specific measure used (GINI_ALL versus GINI_TOP30). In the latter case, this effect is even more pronounced.

In the next step we want to test our hypothesis, that in the more-competitive disciplines (these are not always and only the running events) the world record turnover is significantly higher than in the less-competitive events. We therefore assign each of the disciplines to one homogeneous group (very competitive versus not very competitive) depending on whether the respective Gini is above or below the mean). Simple *t*-Tests (see Table 36.8) produce inconsistent and partly surprising results.

Irrespective of the type of Gini used as a concentration measure, it appears that in the highly competitive disciplines world record turnover is lower and the number of different world record holders is smaller than in the disciplines characterised by a low degree of

Table 36.6 *Descriptive statistics of turnover and concentration variables*

Variable	No. of Cases	Min.	Max.	Mean	Std dev.
Turnover					
WRT	32	0	17	2.97	3.74
NWRH	32	0	8	1.80	1.98
TIME_10	32	7	89	35.9	18.77
TOP_10	32	3	10	5.66	2.15
TOP_30	32	6	28	12.40	5.14
TOP_100	32	18	83	40.34	19.66
Concentration					
GINI_ALL*	32	0.0057058	0.0383507	0.0155382	0.0086761
GINI_30	32	0.0017322	0.092582	0.0053112	0.0025536
GINI_TOP30	32	0.0025786	0.0192955	0.0088372	0.0049698
TV – Rating	32	560.000	5.610.000	3.044.587	1.346.158

Note: *The fiercest competition (0.0057058) is in the men's 400m, while the lowest degree of competition (0.0383507) is observed for the women's discus event.

Table 36.7 *Mean comparison of concentration among running and technical disciplines*

Type of event	All athletes	Male athletes	Female athletes
GINI_ALL			
Technical disciplines	0.0211903	0.0167903	0.0255903
Running disciplines	0.0098862	0.0076693	0.0121032
<i>t</i> -value	4.84***	3.89***	4.07***
GINI_TOP30			
Technical disciplines	0.0122756	0.0105352	0.0140161
Running disciplines	0.0053989	0.0042451	0.0065527
<i>t</i> -value	5.41***	3.87***	4.29***

Note: *** $p < 0.01$.

competition. Although these results are not statistically significant at any conventional level, they contradict our initial hypotheses. However, in one case – the number of different athletes required to produce the top 30 performances – the result of the *t*-test is as predicted.

A closer look at the data helps to explain the rather unexpected findings: some of the women's disciplines are characterised by a very high world record turnover and yet a low level of competition (marathon, hammer throw and pole vault). The women's world record in the hammer throw, for example, has been improved 11 times during the last 13 years yet competition was extremely low, because the 11 records in this young discipline have been set by only two different athletes. Accounting for such outliers gives a picture more in line with our expectations (see Table 36.8) but again, the difference remains statistically insignificant

Table 36.8 Degree of competition and record production

Type of event	World record turnover		No. of different world record holders	No. of different athletes among top 30	
	GINI_ALL				
Low concentration	4.27	(2.11)	2.18	(1.55)	9.72
High concentration	2.28	(2.28)	1.57	(1.57)	13.10
<i>t</i> -value	1.45+		0.82+		2.19**
	GINI_TOP30				
Low concentration	4.00	(2.18)	2.15	(1.63)	/
High Concentration	2.26	(2.26)	1.52	(1.52)	/
<i>t</i> -value	1.31+		0.87+		

*Notes**t*-values corrected for outliers are in brackets.** $p < 0.05$; + not significant.

Apart from some outliers our results might be biased by the problem of doping. Many of the existing world records in the most competitive disciplines were already set in the 1980s – a period outside our time frame. Many of these old records belong to female athletes from former Eastern bloc countries (that is, Marita Koch's 47.60 sec for the 400m in 1985 or Jarmila Kratochvilova's 1:53.23 for the 800m in 1983) or by Western athletes accused of massive doping too (for example, Florence Griffith-Joyner and her 10.49 sec for the 100m and her equally incredible 21.34 sec for the 200m, both raced in Seoul 1988).

Summary and Implications for Further Research

Summarising the available evidence it appears that many of the predictions of tournament theory are unequivocally supported by data from a variety of footraces (especially those emphasising a significantly positive influence of prize-money levels and spreads as well as a pronounced negative impact of heterogeneity on athletes' effort). At the same time, however, the degree of competition seems not to have the predicted impact on the effort levels of athletes.

Moreover, two important puzzles remain to be solved. First, a convincing separation of the incentive and the selection effects of tournaments has not been performed yet, but should be possible given the data that are available. Since the IAAF's Grand Prix Circuit consists of four different series of events with prize-money levels that differ between the series, but are more or less identical across the meetings in any one of the series, empirical tests of the relative contribution of incentive and (self-) selection effects to explain the observed patterns of performance could show the quasi-experimental quality of the data. Second, the introduction of prize money in 1993 (in the form of a car) and the subsequent changes in the level as well as the distribution of the prize money may be used as another quasi-experiment to study the impact of financial rewards on the behaviour of utility-maximising agents.

In his survey of tournament theory quoted above, Rosen (1988: 89) argues that ‘there is a large gap in formulating . . . testable empirical hypotheses. Much could be gained by studying the details of real organisations . . . where many of the forces suggested by theory can be observed and new observations that will enrich the theory can be discovered’. Future research should take up this challenge and add further evidence to the already existing body of literature. Given the availability of excellent data and the interests of many economists in professional sports in general and in track and field in particular this goal should be accomplished very soon.

Notes

1. The latter amount consists of the prize money for winning the race plus the bonus for the new world record. It does not include the appearance fee, which has presumably been paid by the organisers.
2. ‘Track and field pays a lot more for sprinters than it does for top distance runners. That’s not the injustice, though. If the top distance runners start griping about money . . . the women’s throwers would consider killing them and burying them in shallow graves near minor European villages. And if the women’s throwers start griping . . . the racewalkers would have a legitimate grudge’ (Hollobaugh, 2003).
3. According to various press reports, sprinter Carl Lewis was already able to command an appearance fee of \$100 000 in the mid-1980s. The average athlete, however, will be happy if the organisers pay his/her travel costs.
4. The remaining disciplines were weight lifting, wrestling, fencing, shooting, cycling, gymnastics, swimming and tennis. The rowing and sailing competitions had to be cancelled due to weather conditions. Moreover, the football and cricket competitions were cancelled because participation was too low.
5. Since then politicians have continuously emphasised the educational aspect of sport, declaring that ‘the important thing in life is not victory, but the fight; the main thing is not to have won, but to have fought well’ Baron Pierre de Coubertin, http://www.olympics.org.uk/athletes/olympians/index_uk.asp.
6. In these old days, contests between ‘pedestrians’ – mostly with money at stake – were hugely popular in England and, later on, also in continental Europe and the United States.
7. Especially in the marathon, participants did not hesitate to take performance-enhancing drugs or to use coaches or automobiles to reach the finishing line earlier than other competitors.
8. In terms of prestige and earnings opportunities, the annual national championships held all over the world (indoor during winter and outdoor in the summer) are of minor importance only (as, for example, reflected in the prize money distributed). Their importance, however, increases dramatically in years with either World Championships or Olympic Games, because then the national trials serve as either the only (as, for example, in the United States and in Kenya) or the most important qualification event (as, for example, in Germany).
9. Moreover, \$142 000 was paid to the winners of the marathon team world cup, increasing the total amount to \$7 186 000.
10. The venues are Oslo, Paris, Rome, Berlin, Zurich, Brussels and Monaco.
11. A similar approach has been adopted by the organisers of the ‘Goodwill Games’ who distinguish between ‘platinum’ events (paying \$40 000 for first place), ‘gold plus’ and ‘gold’ events (with \$6000 for the winner).
12. These decrease from 12 for first place, 10 for second, 9 for third and so on, down to 4 for those finishing in eighth position.
13. Since the distribution is virtually identical for men and women, we do not present separate figures (these are available upon request).
14. The following sections draw heavily from Rosen’s (1988) non-technical summary of tournament theory; see also Lazear (1998).
15. The authors have personal bests on the 10k distance ranging between 33:25 and 35:10. However, none of us was ever fortunate to win any money.
16. In 2001, exactly 88 men finished a marathon in less than 2:11 while an equal number of women were faster than 2:30. While a time of 2:10:59 is only 4.2 per cent slower than the existing world record of 2:05:44, a 2:29:59 is already 8.1 per cent slower than the 2001 world record of 2:18:47 (in 2003 it has been improved to 2:15:45). Also in 2001, only 19 female, but 135 male athletes finished a marathon within 105 per cent of the then current world record.
17. Munasinghe et al. (2001) compare the development of local (high school) and world records in track and field to separate the overlapping effects of technical change (better equipment, better training methods and so on) and globalisation (increased competition) and find that the former is more important than the latter to explain the observed pattern. Moreover, Scully (2000) documents the decreasing returns to training.

18. The sample consists of 121 different broadcasts that took place between 9 a.m. and 10 p.m. Figures on market shares (percentage of track and field on all other German programmes during the same time) are also available but not relevant here, because potential sponsors will only be interested in absolute TV ratings.
19. www.iaaf.org/statistic/toplist/index.htm.
20. www.leichtathletik.de/dokumente/ergebnisse.
21. In contrast to the number of world records since 1990, this measure controls for the 'dominance' of one particular athlete such as, for example, Sergei Bubka. During his career the Ukrainian pole vaulter broke the world record 10 times. His personal best (and world record) is 6.14m. In 2003, the best pole vaulter in the world achieved only 5.94m.
22. Here is an example: the Gini computed from the individual performance statistics of 333 men who made it into the world best list in the 100m in 2003 is 0.005714. In our database this is the value for GINI_ALL in that discipline. The mean value of GINI_ALL across disciplines is 0.0155382 (see Table 36.6). This implies that the Gini for the 100m is below the average, implying a high degree of competition among sprinters (thus the respective dummy takes a value of one).
23. Take Tim Montgomery as an example. The 100m sprinter is represented several times in the list of the top 30. The GINI_TOP30 uses only his best performance. Any remaining results that bring him into that list are ignored here.

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37 On the competitive structure in professional boxing, or why the best boxers very seldom fight each other

Rafael Tenorio

Could you imagine years – or even months – going by in the late 1970s and early 1980s without Jimmy Connors and John McEnroe facing each other on a tennis court? Or, more recently, months going by without Tiger Woods, Vijay Singh, Phil Mickelson or Ernie Els facing each other on a golf course? Of course not. Yet that is precisely what happens in professional boxing – the best fighters face each other with alarming infrequency. To illustrate this point, let us take the current (February 2005) status of the heavyweight division as an example. According to *The Ring Magazine's* independent rankings,¹ which include a champion and 10 contenders, champion Vitali Klitschko has fought only two of the top 10 contenders, and one of these fights, against number one Chris Byrd, took place five years ago. Continuing down the scale, the number one contender Chris Byrd has fought just four of the other ranked fighters; number two contender, John Ruiz, has fought three others; number three contender, Hasim Rahman, has fought two others; and number four contender, James Toney, has not fought any of the other contenders. In fact, out of 55 possible matches that could be made among these 11 fighters, only nine (16.4 per cent) have taken place. This feature is not exclusive to the heavyweight division. In the middleweight division only eight out of 55 (14.5 per cent) possible matches among top contenders have taken place, while in the lightweight division the figure is 10 out of 55 (18.2 per cent). The remaining divisions are similar.

Why is professional boxing so uncompetitive compared to other individual sports? Why do top fighters face each other so infrequently? This chapter will analyse this lack of competitiveness as it relates to the governance of the sport, which provides very little economic and non-economic incentive for the best fighters to enter into tournaments against each other. Moreover, those individuals in control of setting up and organising matches in professional boxing have little to no incentive to change the existing structure and make the sport more competitive. To illustrate this, I shall compare professional boxing to another major individual professional sport – men's tennis.

Governance and Competitiveness in Professional Boxing Compared to Professional Men's Tennis

Most popular individual professional sports, such as tennis, golf, motor-racing and bowling, are organised around central governing bodies which determine players' rankings based on a series of tournament-style competitions. Men's professional tennis represents a typical organisation.² In men's tennis, the central body controlling the structure of competition is the Association of Tennis Professionals (ATP). The ATP will sanction 64 tournaments in the year 2005. Of these 64 tournaments, four are considered Grand Slam tournaments, 10 are Masters Series, and the rest are International Series. Based on their

ATP rankings, professional players may enter any of these tournaments at their discretion.³ A player's ATP ranking is determined by earning points based on the results attained in each of the Grand Slam and Masters Series tournaments, and then adding the best five results obtained in the International Series. The ATP uses a mathematical formula, which assigns higher weight to more important tournaments, to determine the ranking for each player at any point in time. This ranking determines a player's standing in the INDESIT ATP tournament.⁴

Each tournament sanctioned by the ATP is organised independently and is usually sponsored by one or more private companies, who supply a fraction of the players' prize money. The rest of the money comes from broadcasting rights and gate receipts. Each tournament organiser is an event promoter, guaranteeing a certain amount of prize money based on sponsorship funds and expected revenues from the tournament. Therefore, the organisers must be able to assess revenues accurately and account for organisational costs in order to turn a profit.

Professional tennis players have various strengths and weaknesses when it comes to the different playing surface used in each tournament. Power players prefer fast surfaces such as grass, while players who rely more on finesse and conditioning prefer relatively slower surfaces such as clay. Hard courts and carpet surfaces, depending on their variety, show different degrees of firmness and associated ball speed. Because of this heterogeneity, tennis players could strategically select subsets of International Series tournaments that best fit their strength, and accumulate more points accordingly. However, because of the larger prestige, prize money, and number of points attached to Grand Slam and Masters Series, no player aspiring to be ranked among the best in the world could consistently avoid certain tournaments or surfaces altogether. In addition, highly ranked players are also most likely to receive private endorsements and earn appearance fees (independent of performance) in some tournaments or special events. Thus, the governance of professional men's tennis provides the best players with the right incentives to enter the most prestigious tournaments, and thus face each other consistently, even if the specific tournament surface may be less attractive to one player or another. Great power players like Boris Becker or Pete Sampras had little to no chance of winning a notoriously slow-surface tournament like the French Open, but they kept on trying – and failing – year after year. Similarly, great slower-surface players such as Ivan Lendl and Mats Wilander failed every time they tried to win on the fast Wimbledon grass courts.

The governance in professional boxing is markedly different from that of men's tennis. First, unlike tennis, there is no single body or association that sanctions matches or tournaments. Currently, there are four major sanctioning bodies, the World Boxing Council (WBC), the World Boxing Association (WBA), the International Boxing Federation (IBF) and the World Boxing Organization (WBO).⁵ Each of these organisations sanctions matches and ranks fighters in 17 different weight divisions. Because of this fragmented structure, it is possible to have four different 'world' boxing champions in a given weight division, which, of course, is highly illogical. To paraphrase boxing writer and historian Nigel Collins, the present editor of *The Ring Magazine*, 'there is only one world, thus there can only be one world champion' (Houser, 2004).

Each sanctioning body's world champion is required to defend his title against the fighters ranked by only that body. There are two types of title defences a champion can make, a mandatory defence (against the highest-ranked available contender), and a

voluntary defence (against a lower-ranked or unranked contender the champion chooses). Sanctioning bodies are very lax in enforcing their title defence rules, and often years can go by without having a champion defend his title against the No. 1 contender.⁶

To make matters worse, none of these organisations uses any kind of objective mathematical formula (based on wins, losses, quality of opposition and so on) to determine their rankings. In fact, rankings are only loosely based on performance, and sometimes on mandated 'elimination' matches among arbitrarily designated contenders. In addition, business interests, politics, and even bribery have been shown to be important determinants of fighter rankings in many cases. In 1999, IBF president Robert Lee was indicted for soliciting and taking bribes to rig rankings, and for explicitly excluding fighters from certain promotional companies from their rankings.⁷ The other major organisations have also been suspected of rigging rankings in similar ways, but they are immune to federal investigation or oversight because their headquarters are in foreign countries. The politics of boxing rankings also – arbitrarily – dictate that each organisation does not rank the other organisations' champions in their top 10. An anecdote pointing to the futility of these rankings is that, in 1999, super-middleweight fighter Darrin Morris actually climbed up in the WBO rankings after having been deceased for several months.

The fight organisers, or promoters, have a role similar to that of the tournament organisers in professional men's tennis. However, unlike tennis, there is no private sponsorship money being channelled to professional boxing at all. Thus boxing promoters must assume a much larger risk than tennis tournament organisers. Based on their *ex ante* assessment of revenues from television networks, as well as pay-per-view and live gate receipts, promoters offer guaranteed payments to the participating fighters. Since some of these revenues are uncertain at the time of contracting with each fighter, the risk a promoter assumes in each event could be significant (Tenorio, 2000). In fact some events have resulted in significant losses in the past.

Avoid Fighting the Best Opponents

One way in which boxing promoters are able to mitigate the risks they face is by signing the top fighters to multi-year or multi-fight contracts. This practice creates a big difference between promoting in tennis and promoting in boxing. Since the boxing promoter now has a vested interest in certain fighters, it may be to his advantage not to match his fighters against the best opponents so as to minimise the probability that they will lose and thus have their market value reduced. This is where the many sanctioning bodies become avenues to facilitate such promotional practice. A promoter can associate himself with a sanctioning body by having his good fighters enter their rankings in one way or another. Once a fighter becomes a champion, he will have to pay a fee to the sanctioning body every time he defends his title. This is the way in which promoters provide business to sanctioning bodies. In turn, sanctioning bodies will either provide a steady supply of unworthy mandatory challengers or allow their popular champions to make voluntary defences so as to minimise their risk of losing. This is the way in which sanctioning bodies reciprocate to promoters. The circle of poor competitiveness is closed by the fact that there are several such sanctioning bodies, which potentially accommodate several promotional interests, while selling themselves to the public as 'world' organisations. The incentive for the best fighters to fight each other is therefore very limited, because much of the time it would require two promoters to agree on all the details surrounding the organisation of

the fight, especially on how the two promoters – and their fighters – will split the estimated proceeds.

Big fight events, in which two high-profile fighters face each other, sometimes take place, but they are the exception rather than the norm. The most common scenario under which these fights come about is when both fighters are under contract with the same promoter. In this case, the promoter in question retains the right to organise the winner's – and the loser's – future fights, and may even profit from staging a rematch if the original fight was close or controversial. Alternatively, if the fighters fight for different promoters, the big fights are more likely to take place when the fighters enter the later stages in their career. In this case, promoters are less reluctant to risk their fighters' status because (a) they have already extracted a great deal of surplus having matched their top fighters with lower-quality or safe opponents for several years, and (b) the fighter's skill and drawing power stand to decline in the foreseeable future. A very good example of this is the much anticipated mega fight between heavyweights Lennox Lewis and Mike Tyson. Given the relative standing and profile of each of these fighters in the heavyweight division, this fight should have taken place back in 1996. Instead, each fighter went a different way for almost six years, before they finally faced each other in July 2002, by which time Tyson's skill level had deteriorated significantly. In fact, Tyson was stripped of his WBC belt at the end of 1996 for refusing to defend his title against Lewis, who was the No. 1 mandatory challenger at the time. Why risk fighting a formidable fighter like Lewis at that point if he could be matched against lesser opponents while collecting millions of dollars and even other title belts in the process?⁸ There are many such examples in the world of professional boxing, and in some cases the two top fighters in a division never get to face each other. Two notable examples of fights which never took place are Roy Jones, Jr against Dariusz Michalczewski (the two top light heavyweights of the late 1990s and early 2000s), and Christy Martin against Lucia Rijker (the two top female fighters of the last decade, who happened to fight in the same weight division). The promoters could never agree on the terms to hold these fights, and were happy to build up their fighters' records – and earnings – by matching them with a series of relatively low-risk contenders.

In sum, the fragmented governance of professional boxing allows promoters to consistently avoid matching their fighters against the best opponents while keeping the degree of legitimacy facilitated by the various 'world' titles awarded by the different sanctioning organisations. Unlike professional men's tennis, where the best players must face each other to maximise their earnings and prestige, the top professional boxers can avoid each other for a long time without major impact on their long-term earning potential while still holding high rankings or world championships.

Notes

1. *The Ring Magazine* rankings are as close as it gets to a consensus reflection of the true standing of fighters in each weight division.
2. I shall use men's tennis and the ATP for the purpose of comparing another major individual professional sport to professional boxing, but a similar parallel could be made by using golf (Professional Golf Association (PGA) and Ladies Professional Golf Association (LPGA)), stock car racing (National Association of Stock Car Auto Racing (NASCAR)), or bowling (Professional Bowlers Association (PBA)).
3. If the number of players intending to enter exceeds the number of available slots, higher-ranked players get priority, and sometimes a pre-tournament qualifying round may be held.
4. INDESIT is an ATP sponsor company. For details on tournaments and ranking calculations, refer to www.atptennis.com/en/players/faq.asp.

5. There are many more minor international and regional organisations, all sanctioning their own matches and awarding their own titles.
6. The WBO is notorious for providing their flagship champions with never-ending exemptions to make one voluntary defence after another.
7. A description of the indictment is in <http://espn.go.com/boxing/news/1999/1105/153016.html>.
8. Tyson's 'safe' strategy backfired when he selected seemingly old and overmatched former champion Evander Holyfield as an opponent in 1996 and lost by a stunning technical knockout.

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38 Golf

Chantelle Bramley

Golf is one of the most venerable of the modern sports, the rules having been established with the establishment of the first golf club in Scotland in 1754. Golf grew significantly as a popular sport for the leisure classes at the end of the nineteenth century when it took hold of the United States. The globalisation of business in the twentieth century and the advent of television has spread the sport to all corners of the globe.

The Governing Bodies of Golf and the British Open Championship

The reputation of St Andrews as the home of golf, and the stability and growth of the Royal and Ancient Golf Club of St Andrews (the Royal and Ancient) gradually led to a general acceptance that the small society formed by 22 golfers in 1754 had become the game's leading authority. This acceptance was formalised for the first time in 1897 when the senior clubs throughout Britain gave authority to the Royal and Ancient to formulate and administer a common code of rules.

With the exception of the United States, whose allegiance lies with the US Golf Association (USGA),¹ and Canada, which is self-governing but affiliated to the Royal and Ancient, all other countries accept the authority of the Royal and Ancient in governing the rules of play, and the regulations on amateur status.² There was informal and spasmodic liaison between the Royal and Ancient and the USGA through the early part of the twentieth century, but following an international conference in 1951, a uniform code was produced in 1952.

Representatives of the Royal and Ancient and the USGA meet twice a year to discuss the revision of clauses which are then examined in consultation with both amateur and professional golfing bodies worldwide. Any agreed changes to the rules of golf are made every four years.

Control of the British Open Championship

It was not until the winter of 1919–20, when the four clubs that were previously involved in managing the Open invited the Royal and Ancient to become the ruling authority for both the Open and Amateur. Since then the Boys, Mid-Amateur and Seniors championships have been taken under the Royal and Ancient umbrella and the club is also involved with the PGA European Tour in the organisation and running of the Senior British Open Championship.

The Royal and Ancient control the broadcast rights to the Open and sold live coverage to the BBC until at least 2006.³ They also have control over the location for the event. The Open is not always played at the St Andrews course, however, as might be expected. In fact, in the Open's 137-year history it has been played at St Andrews only 25 times.⁴

Distribution of revenue from the Open: developing golf

The success⁵ of the Open Championship has enabled the Royal and Ancient, since 1986, to contribute funding to a wide range of golf bodies for the overall benefit of the game.

In the initial 10-year period, £12.5 million was distributed in outright grants and more than a further £8 million in interest-free loans. None of the profits from the championship are used to support the Royal and Ancient as a private members' club.⁶

A major part of the funding goes towards coaching, with the Golf Foundation receiving extensive grants towards its work in promoting junior golf. In addition, a total of 28 countries affiliated to the Royal and Ancient receive grants for the coaching of amateur golfers.

Professional players also benefit from the Royal and Ancient's support. The Professional Golfers' Association (PGA) receives regular grants for its training programmes and the PGA European Tour has had support from the Royal and Ancient since the inception of its Challenge Tour, the training ground for the next generation. The Women's PGA European Tour has also been a beneficiary and golf bursaries for more than 100 places at 15 universities have been financed.⁷

Royal and Ancient funds also get to the grassroots of the game by helping golf clubs extend and improve their facilities. The underlying principle behind the granting of funds is to improve and extend the facilities available for golfers so that more members and more visitors can be accommodated in an ever-expanding game. The Royal and Ancient have a goal for 2004 to 2010 of directing 50 million pounds from operating profits back into the game.⁸

In addition to this direct input to individual clubs, the Royal and Ancient also makes contributions for training, research and development in greenkeeping and ecological and environmental issues.

The Royal and Ancient and the Old Course

The Royal and Ancient does not own the Old Course (the links at St Andrews). The linksland of St Andrews belongs to the people of the ancient city. The land was first granted in 1123 by King David I, to the bishops who ruled St Andrews. For many centuries the Town Council was responsible for administering the links on behalf of the local population. Since government reform abolished town councils in 1974 an Act of Parliament has entrusted the running and protection of the courses to the St Andrews Links Trust, to which the Royal and Ancient has the right to make nominations as a partner with the local authority.⁹

The British Professional Golfers' Association and the European Tour

At the end of the nineteenth century, England was producing great players. John Henry Taylor and Harry Vardon, together with James Braid, a Scotsman, among them won the Open Championship 16 times between 1894 and 1914. These three supreme golfers were known as 'the great triumvirate' and were primarily responsible for the formation of the PGA in 1901. This body is responsible for professional tournaments in Great Britain and for the biennial Ryder Cup match when it is played in the UK.¹⁰

The British PGA and the European Tour were joined but subsequently split in 1985.¹¹ The British PGA currently derives income from membership fees, some sponsors and the Ryder Cup joint venture with the European Tour. The PGA is a not-for-profit organisation.¹²

The European Tour started in 1971, and from 1972 prize money and points from the European tournaments were included in the 'Order of Merit' (the official ranking system). In 1980 the minimum number of tournaments to be played for inclusion in the Order of Merit was raised from five to seven.¹³ The 2005 schedule included 47 Tour events, of which players must play at least 11 events to be included in the ranking system.¹⁴

In 1992 the European Tour formed the PGA European Tour Courses PLC in a joint venture with the International Management Group, a sports promotion company.¹⁵ In doing so they aimed to acquire over 20 courses on which a million rounds of golf would be played by 2000. The company owns several courses in Europe, including the PGA Golf de Catalunya. In 2001 the company was sold and came under the private ownership of Irish millionaire, Dennis O'Brien.¹⁶

Broadcasting the European Tour

The European Tour has also undertaken a joint venture with Trans World International to form PGA European Tour Productions.¹⁷ This group supplies coverage of the events to the Tour broadcasters BSKyB and the BBC in the UK and to NBC in the United States. This production company provides coverage of over 30 events on the Tour.

Broadcast rights are held by the European Tour who have negotiated a deal with both the BBC and BSKyB which lasts until 2008. The BBC will provide live coverage of those events played in the UK while BSKyB will offer live coverage of 34 other events including the four World Golf championships.¹⁸

Success in the Ryder Cup

The Ryder Cup will celebrate its 80th birthday in 2007 and has long been considered one of the great international golf events.¹⁹ Teams from the United States and Europe play every two years to win the prestigious event. Up until 1979 the British PGA did not include any European players in its Ryder Cup teams. From 1935 to 1983 Britain won the Cup once, the Americans retaining the title 20 times. Since 1985, however, the European Ryder team has won the Cup seven times, with the US managing only three victories. This success has seen the number of golfers in Europe more than double from 1.3 million to 2.7 million in 1997.²⁰ Live broadcasting rights for the Ryder Cup in the UK are held exclusively by BSKyB until 2008.²¹

A History of the US PGA Tour

The US PGA was founded in 1916, and like its British counterpart, was concerned with promoting interest in professional golf and increasing playing standards.²² The US PGA Tour became more structured following the Second World War and began to expand rapidly in the late 1950s and early 1960s.²³

Distribution of money and control by touring professionals

Television had an early impact on US golf, and this exposure may have inspired millions to try the game. It certainly increased the value of selling the TV rights. The bulk of these rights fees, which are distributed by the PGA Tour to all co-sponsors, have gone back into the purses, accounting for the tripling of prize money in the last decade.²⁴

The touring professionals began to gain control of the Tour in late 1968 and from 1974 the value of tournament purses escalated. US PGA Tour assets grew from \$730 000 in

1974 to over \$200 million, and total revenues increased from \$3.9 million to \$229 million in 1993.²⁵

Since 1938, the US PGA has donated money from the events to charity. To date, over \$1 billion has been donated to charity.²⁶

The development of golf

The US PGA has overseen some major improvements to the US Tour and golf generally. From 1974 to 1993, the number of PGA Tour events rose 250 per cent from 43 to 116, with income rising 2331 per cent from \$9.9 million to \$230 million. In 1993, almost three-quarters (417 of 548 hours) of TV golf involved PGA events. In most seasons the PGA Tour TV tournaments have title sponsors who pre-purchase at least 50 per cent of the advertising space for the event.²⁷

This success is furthered by the growing number of golfers in the US. At a growth rate of 2.7 per cent/year, in 1995 the US had over 27 million golfers playing 519 million rounds of golf a year.²⁸

*Broadcasting rights for the US PGA*²⁹

In 1997 the US PGA, bolstered by the phenomenal popularity of players such as Tiger Woods, negotiated a record \$400 million, four-year TV contract. This contract more than doubled the previous estimated \$42 million/year PGA Tour broadcast and cable package.

Estimates project that the networks will pay an average of \$2 million per event, effectively nullifying the \$1 million/event profits they now generate. While over-the-air rights have doubled, cable rights have shot up fourfold to about \$900 000 per tournament. The increase in TV rights fees permitted tournament prize money to rise from about \$1.7 million per event in 1997 to \$3.5 million in 2002, and almost \$5 million in 2006.³⁰

A new deal signed in 2006 allows CBS to remain the dominant broadcasting partner until 2012 with coverage of 19 events. NBC becomes the second broadcaster with coverage of ten events. Previous broadcasting arrangements with ABC and USA have not been reviewed. From 2007, the Golf Channel will have exclusive cable rights.³¹

Beginning in 1999, the Tour's TV visibility increased by 20 per cent, with the six carriers adding 60 hours of coverage to 413.5 overall. Every event will have early-round cable coverage, increasing cable hours by 37 per cent.

The US PGA has clustered network carriage into scheduling blocks, giving added value by building network branding and selling advertisers a more lucrative golf package. CBS, for example, will air most US West Coast events, allowing for cross-promotion of its events. Golf is a consistent money maker for the broadcasters (est. \$1 million/event).

Notes

1. The USGA was instituted in 1894 and aims to organise the US Amateur and Open Championships as well as administer the rules of the game, see 'Major Team and Individual Sports: MAJOR INDIVIDUAL SPORTS: Golf: HISTORY: Development of golfers' associations', *Britannica Online*.
2. More than 100 countries, associations and unions are affiliated to the Royal and Ancient, see www.randa.org/menu3/rafuncts.htm.
3. www.news.bbc.co.uk/sport/1/hi/golf/1505902.stm.
4. 'PGA European Tour Media Guide', 1998 27th edition.
5. The final day at the Open Championship was the most watched golf event in the UK in 1997. *TV Sports Markets*, 16 January 1998.
6. See www.randa.org/menu3/rafuncts.htm.

7. Ibid.
8. See www.randa.org.
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10. 'Major Team and Individual Sports: MAJOR INDIVIDUAL SPORTS: Golf: HISTORY: players and tournaments', *Britannica Online*.
11. See www.pga.info/about.asp.
12. Ibid.
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18. See www.europeantour.com.
19. See <http://services.golfweb.com/linksmagazine/9709/moments.html>.
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21. See www.europeantour.com.
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23. See www.worldgolf.com.
24. Ibid.
25. Ibid.
26. See www.pgatour.com.
27. Ibid.
28. Ibid.
29. 'PGA hits TV motherlode: ad revenue by network, 1991–1996', 31 May 1997, *Media Sports Business* (msb) (no. 205).
30. See www.pgatour.com.
31. Ibid.

39 The economics of British horseracing

Wray Vamplew

Racing in Britain is a sizeable leisure industry whether measured by income or by employment. Annually the racing industry generates over £830 million of income including over £230 million from the five million or so visitors to race meetings each year (who also spend £70 million offsite). The tax yield from the industry was estimated in 1999 to be £150 million from the income tax and national insurance payments of those employed directly and indirectly as well as VAT, local taxes and fuel duty. Between them racing and breeding directly employ around 35 500 persons of whom over 12 000 are full-time employees. Racecourses need managers, officials, administrative and catering staff, gatemen, security stewards and many others. Training yards require stable staff – at least one for every three or four horses – and give ancillary employment to vets, farriers, blacksmiths and saddlers among others. Stud farms replicate the needs of the training stables. Many of those employed work in the rural economy. When indirect employment is also considered – and with due allowance for part-time work – the racing and breeding sector is responsible for about one-eighth of the agricultural labour force. It is a highly important employer in the local economies of Epsom, Lambourn, Malton, Middleham and especially Newmarket. Moreover, any consideration of the racing industry cannot avoid its links with the betting sector of the economy where some 28 000 jobs can be attributed to racing and an estimated £650 million of expenditure is generated from bookmakers' net receipts as well as significant government revenue through income tax, business rates and corporation tax.

Yet at no time has British horseracing ever been a viable industry. Its continuation has been dependent on implicit subsidies from those within the industry as well as a government-imposed redistribution of income via the betting levy. The sport exists on the scale that it does only because owners are prepared to regard their participation more as a hobby than a business; aspirant trainers are willing to replace those who withdraw from a sport that cannot provide them with a satisfactory living; and stable staff love working with horses more than they want a decent wage. Although individuals and even groups within the industry can do very well financially, owners compete for sums that cover only a quarter of the cost of keeping horses in training; the vast majority of jockeys fail to make a decent living out of the sport; many trainers run at a loss; racecourses are often underutilised; and even the perceived saviours, the bookmakers, claim that they cannot afford to give much more to the sport. Many find the economic struggle too much. Each year about 10 per cent of trainers and an even larger proportion of owners quit racing, though at the moment replacements continue to come forward. This is less the case with jockeys, especially in National Hunt where the numbers have almost halved in a decade.

Two groups in particular are vital to the continuation of racing: owners who are prepared to regard their participation as more a consumption than an investment activity and punters who try to outguess the bookmakers.

The odds are stacked against the racehorse owner in Britain. Not only does merely one horse in 10 ever win a race, but also aggregate prize money covers less than a quarter of

ownership costs (not including the purchase price of the horse which generally devalues about 70 per cent between purchase and later sale!). Although some owners can make money, in general they pay for their pleasure. Hence, though they might hanker after triumphs, the majority of owners regard the sport as a hobby not as a business activity, and are prepared to subsidise it. Winning races or making money is not the ultimate goal of most owners, but the icing on the cake of social cachet. Three other major motives appear to operate. There are those who own horses so that they can socialise by inviting friends to the track to see the racing or to Sunday brunch at the training stables. Others are horse lovers for whom the animal is a 'super pet'. Third there are the corporate owners who use racing as an impressive venue at which to entertain their clients. Additionally, many trainers own horses – usually more than they would like – so that they have something to sell when a prospective owner comes to their yard. They also often take shares in horses that they train to give confidence to their clients. What must not be forgotten is that for most owners racing is fun. Conjuring up an appropriate name for a newly-purchased yearling, deciding what colours to have, and feeding your horse an apple at the training stables are all part of the enjoyment. Added to this is the excitement of watching your animal perform on the track and, for some, the celebrity status however fleeting, of having all eyes focused on you in the winner's enclosure.

The bettor is now the other vital cog in the financial wheels of racing. However, it was not until the 1930s that the surplus from totalisator operations began to drop into racing's coffers and bookmakers and their clients did not contribute directly to the funding of racing until the introduction of the levy in 1961. Some saw this as a state subsidy but in reality it was a price paid for the racing product which brought betting tax revenue to the national exchequer. For the next 40 years or so disbursements from the Levy Board provided a substantial proportion of racecourse finance and an annual set of arguments and negotiations as both racing and bookmaking pleaded their respective cases of poverty! It has been a long-standing grievance in many sectors of racing that bookmakers did not make a larger contribution to the sport. Yet no one in power, either in racing or in politics, was prepared either to charge the bookmakers a more realistic fee or to give the Tote a monopoly. In many countries bookmaking is less significant than in Britain and most betting is via a totalisator system. This allowed racing to take a larger slice of betting turnover than was forthcoming through the betting levy. In turn this led to greater levels of prize money, cheaper attendance costs and better racecourse facilities than in the United Kingdom.

Most bettors are recreational punters, persons looking for a modicum of excitement as they watch their fancies race either on the betting shop television or at the course itself. The overwhelming amount of betting on horseracing takes place away from the course in betting shops, legalised in 1960 in a belated recognition by government of the public demand for off-course cash-betting facilities. It should be emphasised that off-course cash betting was not new: all that had happened was that it became legal and regulated. Racing has become dependent upon the betting shops, or, more precisely, upon their turnover. This dependence influenced the racing fixture list which was organised to provide a regular betting medium for the betting shop punter. In turn the levy obtained helped make mid-week race meetings more viable. Even though a commercially negotiated agreement between bookmakers and the British Horseracing Board has now replaced the levy, it is still the money spent in the betting shops that determines how much the bookies are prepared to pay.

Within the combined racing and betting industries different sectors look to varying revenue sources. Racecourses search for sponsorship, charge gate money, sell media rights and negotiate with the British Horseracing Board for part of the money raised from bookmakers and the Tote. Breeders sell their produce to owners at home and abroad. Owners seek sponsorship, anticipate that prize money will contribute towards covering their costs, and hope that their horses will peak when the money is on. Trainers rely on owners, a share of prize money won, and inside knowledge to assist their gambling. Stable staff dream of 'doing' a winning horse and supplementing their meagre incomes with a share of the prize money, a well-placed bet, and perhaps a present from a grateful owner or trainer. The bookmakers, at least those who are turf accountants rather than gamblers, count the cash.

Prize money is important to more than owners as trainers, jockeys and stable staff all receive a proportion to supplement their income. That offered in British flat and National Hunt racing in 1999 was a British record at £72 million and it has continued to rise to its current level of just above £80 million. Yet the Racehorse Owners Association has continued to complain vociferously that it is still insufficiently low compared to costs. In the late 1990s, Britain was ranked 36th of racing nations in the prize money recovered by owners as a percentage of keep and training costs: on average it was just under a quarter in the UK, compared to 47 per cent in the United States, 49 per cent in France, 83 per cent in Japan and 100 per cent in the United Arab Emirates. For every £1000 outlaid by owners racing in Britain they got back about £250. And this does not include the cost of buying the horse in the first place!

Although large owners receive most publicity and generally win the major races, as there are around 9000 active racehorse owners and only about 14 000 horses in training, it follows that most owners operate on a small scale. Ownership is also spreading down the socioeconomic scale. The Jockey Club sanctioned syndicates in 1969 and they have become a way of spreading the costs – and joys – of ownership. In 1985 around one-fifth of horses were owned by syndicates; today it is approaching one-third. In the last five years of the twentieth century, training costs rose faster than inflation and were expected to rise even faster as the effects of the minimum wage and more Sunday fixtures fed through to owners. This is likely to increase the dropout rate among owners, already high at around 30 per cent annually.

Trainers' yards come in all sizes from those with over 200 horses to those with scarcely a handful. Yet the problems facing their proprietors are similar. They have to get their horses fit, keep them fit and ensure that the animals peak for selected races. Knowing their horses, being able to cajole them, and appreciating the subtleties in their behaviour changes are key aspects of training. Yet horse sense is of little use without business sense. Trainers also have to plan the racing programme for their charges. What type of race will best suit them? What is their preferred distance? Which of Britain's different courses will help rather than hinder their performance? And where will rival trainers be sending their horses? Getting horses ready is one task; getting them in the right race is another.

Training is a stressful job with little security and sometimes scant reward. For many trainers the economics of the job is a delicate balance between profit and loss with the success of one horse often making the difference. As a rule of thumb, most trainers aim to break even on their training fees and make their money from either the bookmaker, or more commonly, from their 10 per cent share of prize money. Not all can do this. In a survey conducted by the *Racing Post* in 2000 almost one in five trainers reported making

a loss the previous year; others earned less than their own head lad; and around 40 per cent would not recommend their profession as a worthwhile career. On the other hand, the majority of trainers do make a profit and some 20 per cent reported net incomes of over £50 000. The losses lead to about 50 or so trainers quitting each year but the potential profits (and excitement) tempt others to make-up the numbers again.

In the past three decades, breeding at the top level has changed from being an expensive hobby for rich individuals to an equally expensive multinational business. Although for flat racers it is true that a small number of large breeding operations dominate the market, many of the 7000 thoroughbred breeders in the United Kingdom are working farmers with only one or two brood mares looking to sell their produce eventually into National Hunt racing. Few of the breeding businesses make significant profits unless they have a star stallion. The owners of such stud stallions can really make money and for them potential profits in the breeding sector of the racing industry dwarf earnings from prize money. Stud fees vary according to the racing reputation of the stallion and his offspring. Sadler's Wells, the current leading stallion, covers between 150 and 200 mares each season at a fee of £180 000 a time. Most contracts have a no foal–no fee clause. To ensure that the foals are of an appropriate age to compete in racing, the covering season is usually mid-February to mid-July. The number of coverings are limited to prevent the oversupply of one stallion's offspring in the market, but increasingly, thanks to improved air travel, some horses – labelled shuttle stallions – are now having a second covering season in the southern hemisphere.

Owners of mares make their money at the sales. Given the poor financial returns from racehorse ownership, the auction sales figures are surprising. The turnover of Tattersalls, the dominant company in thoroughbred sales, in 1999 was 121.9 million 'guineas' and in 2000 their annual three-day Houghton Sale produced an average of over £250 000: this for yearlings that had never seen a racecourse and could be judged solely on their conformation and breeding! Some of this spending has to be attributed to the fear of letting a rival owner or breeder secure the next wonder horse, though, of course, no one can predict which of the unraced animals will gain that accolade.

Recent events point to a revolution in the economics of British horseracing. After insistent lobbying from bookmaking interests and threats that they would shift their business to overseas tax havens, in 2001 the government opted to abandon the betting tax that had been introduced in 1966. Clearly the government itself was taking a gamble that the cheaper cost of betting would increase bookmaking revenue sufficiently for the consequent income and corporation tax yield to more than offset the loss of the betting tax revenue. So far the decision appears to have been justified.

A year later the government opted to divest itself of any responsibility for racing finance and forced the warring parties to negotiate a commercial settlement rather than rely on others to set the rate of redistribution from gambling to racing. The immediate result was a substantial increase in the amount of money received by the racing industry from the bookmakers and the Tote. In addition, new contracts for media rights have also brought significant sums into racing. It is generally acknowledged that pre-race information on runners and riders and actual races for telecast were sold far too cheaply in the past, perhaps because of the financial safety net provided by the levy money. Pre-race information is one of the few items of value owned by the British Horseracing Board. For many years it was virtually gifted to the betting industry. In the 1990s the Board received

only £350 000 for data covering 1200 fixtures, 7000 races and around 150 000 entries, information which it is estimated cost about £4 million to produce! The racecourses also failed to grasp the potentiality of the sale of live pictures when the first deal was made with Satellite Information Systems in the 1980s for transmission to the betting shops. Now, although there has been a split among the ranks of the Racecourse Association with separate deals being negotiated with different broadcasters, collectively the fees earned have more than doubled. After much acrimony, legal threats and personality clashes the British Horseracing Board secured an agreement for around £160 million, more than twice what it had obtained via the levy, to cover the copyright material and the signal sent into the betting shops. However, a recent legal decision has ruled against the Board's right to charge for pre-race data.

Two further developments are in train that could also have consequences for the economics of racing. First the Tote is to be privatised which is likely to affect the level of surplus to be ploughed back into the sport. Second, the Office of Fair Trading is considering whether to free up the market for race meetings so that the ordered programme devised by the British Horseracing Board will give way to a free-for-all competition in which some courses might not survive.

Currently racing is a minority sport striving to keep its economic balance on an inclined plane leading to sporting obscurity. Yet there are some indications that racing is better off than it has ever been. Attendances are the highest for several decades, prize money is at a record level, and the recent commercial deal on media rights has significantly increased the contribution to racing from the bookmaking sector. Nevertheless two major problems have to be faced if the sport is to survive: the increasing age profile of those who support racing by either attending meetings or placing bets and the growing competition for the gambling pound in which horseracing must preserve its integrity so as to keep the trust of the bettor.

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40 The economics of collegiate athletics

Karl W. Einolf

The Basic Purpose of the National Collegiate Athletic Association (NCAA) is as follows:

The competitive athletics programs of member institutions are designed to be a vital part of the educational system. A basic purpose of this Association is to maintain intercollegiate athletics as an integral part of the educational programme and the athlete as an integral part of the student body and, by so doing, retain a clear line of demarcation between intercollegiate athletics and professional sports. (2003–4 Division I NCAA Manual)

I – and many others – are concerned that all this college football money is turning college sports into nothing more than a minor league for pro football rather than a legitimate educational activity for student athletes. (Senator Orrin G. Hatch, Senate Committee on the Judiciary Hearing, Wednesday, 29 October 2003)

To examine the economics of collegiate sports in the United States, one must start with the dichotomous perception of the mission of the NCAA. On one hand, the governing body of intercollegiate athletics would like to be seen as the preserver of the amateur status of its athletes. On the other, the NCAA generates tremendous wealth (\$354 million in revenue in 2002) and keeping its principal labour force from being paid protects its interest in future revenue.

The NCAA is legally a non-profit organisation, and 65 per cent of NCAA Division I-A athletics programmes do not make a profit as a separate business unit and are subsidised by their educational institution. Of the programmes that do make a profit, half earn less than \$1.5 million dollars per year (Fulk, 2002). The few programmes that do make a significant profit use the excess funds to enhance the educational opportunities at their institutions.

The NCAA, in the spirit of maintaining the integrity of amateurism, requires that its athletes are not paid for playing sports. The NCAA has an extensive list of rules for its athletes. Athletes are allowed to make only a small sum of money (currently \$2000) in other employment throughout the year. Athletes must have attained a specific Grade Point Average (GPA) and SAT score in order to compete their first year. Athletes may not sign with an agent and still play collegiate sports. Once an athlete signs a letter of intent to attend a school, he or she must go to that school or forgo a year of eligibility. Athletes are only eligible for four consecutive years of collegiate play, although they are permitted to skip a year of competition (a ‘red shirt year’) and only practise with their team. Athletes are also not allowed to accept gifts, monetary or otherwise, in exchange for play.

Critics argue that the NCAA leads a cartel of colleges and universities that collectively underpays its primary labour force in revenue-producing sports. The money that is saved from not paying athletes is used to fund other sports, state-of-the-art athletic facilities, academic programmes, and expensive coaches’ salaries. While the NCAA is a non-profit organisation, it was able to distribute \$187 million to Division I institutions in 2002 while

an additional \$21.3 million paid for management expenses (including salaries paid to NCAA executives). Television rights revenue brought in \$237 million (NCAA, 2002). There is no doubt that there is a lot of money in collegiate athletics, but the question is – is the NCAA truly protecting the educational experience of the student-athlete or is it really protecting the economic interests of its member institutions? Walter Byers, Executive Director of the NCAA from 1951 to 1987, supervised the NCAA's boom in lucrative television contracts. He was not afraid to express the true meaning of amateurism: 'Collegiate amateurism is not a moral issue. It is an economic camouflage for monopoly practice' (Rushin, 1997, p. 73).

Should college athletes be paid? Athletes generate considerable revenue for their schools. More importantly, three programmes in particular have the potential to bring profit to their institutions: men's football, men's basketball and women's basketball. Of the 112 Division I-A football programmes detailed in Table 40.1, 62.5 per cent generated a profit from their programme. According to the NCAA, the men's basketball programme at 66 per cent of Division I-A programmes claimed a profit as a separate business unit in fiscal year 2001. Women's basketball programmes were not as successful, however, as only 5 per cent of Division I-A programmes generated a profit (Fulk, 2002).

Clearly, there is a great deal of competition for athletes coming out of high school. Coaches who can 'work the living room' and convince an athlete (and their family) to sign are a very valuable commodity for today's college and university. These coaches are very well paid. Paying the athletes outright – instead of convincing them that attending state university will benefit their future income – will seriously change the economic landscape of college athletics. Bidding wars for players would ensue, coaches would be paid less, and many of the spillover benefits of profitable athletics programmes would disappear.

The reality is that the market for undergraduate students, athlete *and* non-athlete, is quite competitive. Students select colleges and universities based on their academic and athletic resources. At many NCAA institutions, athletics programmes fund these resources. There is a lot at stake for the institutions that benefit the most from the NCAA. Certainly, these schools oppose paying players. While their current use of NCAA funds may be admirable, paying athletes in revenue-producing sports may cause many of the academic and athletic resources, their competitive advantage, to disappear.

What is the intent of NCAA member institutions? Are they really trying to enhance the educational experience of the student-athlete or are they more focused on trying to maximise profits in revenue-producing sports to help fund other academic and athletic

Table 40.1 Four-class graduation rates at Division I institutions

Male	Rate (%)	Female	Rate (%)
All male students	56	All female students	61
All male student-athletes	54	All female student-athletes	70
Men's basketball	43	Women's basketball	65
Baseball	47	Women's CC/track	66
Football	53	All other women's sports	72
Men's CC/track	57		
All other men's sports	60		

opportunities? To examine which objective is dominant, one may compare the graduation rates of athletes in revenue-producing sports with the graduation rates of a typical student at these institutions.

Table 40.1 exhibits the average graduation rates for students at 328 Division I institutions from the NCAA 2004 Graduation Rate Report. The average four-class graduation rate for all male students is 56 per cent, and for all female students it is 61 per cent. At this aggregate level, only three sports report a student-athlete graduation rate lower than the average student: men's basketball (43 per cent), baseball (47 per cent), and football (53 per cent).

While the overall difference in the football athletes' graduation rate is not significantly lower than the average student, graduation rates are much lower at profitable football institutions. Table 40.2 compares the graduation rates of all students and football players at 112 Division I-A football programmes. The table also displays the revenue and expenses of each of these programmes. Table 40.3 summarises Table 40.2 by comparing the average graduation rate at schools that generate more than \$10 million in football revenue with those schools that generate less than \$10 million. The difference is striking. Football players at the big revenue schools are less likely to graduate when compared to the regular student at their institutions. The difference is even more pronounced in Table 40.4 where the top 10 revenue-producing programmes are compared to the bottom 10 programmes. Table 40.5 (below) displays the average graduation rate for each Division I-A football conference. Again, the difference between graduation rates for regular students and football players is significant for the high-revenue conferences. It does make one wonder whether Senator Hatch's comment that collegiate athletics turning into a minor league for professional football is accurate.

It is necessary to point out that the graduation rates among football players are not significantly different in Tables 40.2 and 40.3. The revenue production of the football programme does not seem to have an effect on the average graduation rate of football players. However, one cannot ignore the fact that the higher football revenue schools do better at retaining and graduating all students. Unfortunately graduation rates only capture the percentage of incoming freshmen that actually end up graduating from that institution within a six-year period. If students transfer from one institution and graduate from another, they are not part of the statistic. Many of the lower football revenue schools may be admitting students who are not prepared for college and do not graduate. However, many students at lower football revenue schools may also be transferring to higher football revenue schools where greater resources exist for both academics and athletics. Thus, the stakes are even greater for a college or university to maintain the success of its revenue-producing football programme.

Member institutions that are on the short end of the NCAA's revenue distribution system are often very critical of the NCAA. Tulane University, for example, has traditionally been a model of the NCAA stated institutional mission to foster the athlete within the broader educational experience. Tulane has a relatively high graduation rate for both athletes and non-athletes. However, as a member of the Conference USA, Tulane traditionally receives a small share of NCAA revenue and is essentially shut out of an opportunity to play in a high-revenue Bowl Game. In 1998, Tulane went undefeated and yet was not invited to play in one of the top Bowls.

The NCAA's top conferences – Pacific 10, Big 10, South-eastern (SEC), Atlantic Coast (ACC), Big East and Big 12 – corner the market on the four largest revenue-producing

Table 40.2 Division I-A football revenue, expenses and graduation rates

Conference	School	Four-class graduation rates (%)		Revenue (\$)	Expenses (\$)	Football profit (\$)
		All students	Football Difference			
BIG TEN	Ohio State	56	41	47 205 648	11 963 812	35 241 836
SEC	Arkansas	46	26	40 209 410	8 256 377	31 953 033
SEC	Tennessee	58	41	40 192 245	11 443 844	28 748 401
SEC	Alabama	59	52	35 643 689	12 319 016	23 324 673
SEC	Florida	71	44	35 482 540	9 496 874	25 985 666
BIG 12	Nebraska	51	57	32 609 231	9 889 486	22 719 745
INDEPENDENT	Notre Dame	94	81	32 015 894	11 317 775	20 698 119
SEC	Georgia	67	62	31 369 803	6 335 701	25 034 102
SEC	Auburn	67	44	31 205 035	10 255 248	20 949 787
BIG TEN	Michigan	83	46	29 521 062	9 512 657	20 008 405
SEC	LSU	52	40	29 488 232	9 062 372	20 425 860
PAC 10	Washington	70	63	28 701 503	12 869 362	15 832 141
BIG TEN	Penn State	80	76	27 968 407	9 919 999	18 048 408
SEC	Vanderbilt	83	84	27 398 186	9 830 335	17 567 851
BIG 12	Texas	69	38	26 648 954	1 390 145	25 258 809
BIG 12	Texas A&M	72	49	23 169 186	11 164 106	12 005 080
BIG 12	Oklahoma	51	33	22 197 980	10 065 281	12 132 699
BIG TEN	Wisconsin	75	52	20 608 595	8 356 068	12 252 527
SEC	Kentucky	56	32	20 565 178	9 890 916	10 674 262
PAC 10	Arizona State	49	44	20 160 272	8 891 053	11 269 219
ACC	Clemson	71	53	20 003 978	9 608 373	10 395 605
PAC 10	USC	73	61	19 998 767	13 155 383	6 843 384
SEC	South Carolina	58	51	19 893 352	6 694 944	13 198 408
BIG EAST	Syracuse	75	83	18 568 164	15 243 968	3 324 196
BIG TEN	Illinois	77	52	18 203 842	8 752 769	9 451 073
BIG TEN	Michigan State	67	41	18 200 280	8 367 851	9 832 429
BIG TEN	Purdue	63	58	18 056 651	7 622 180	10 434 471

BIG EAST	Miami (Fla.)	63	49	-14	18 032 529	12 238 849	5 793 680
BIG 12	Colorado	65	43	-22	17 903 034	9 674 640	8 228 394
PAC 10	Stanford	92	82	-10	17 358 494	11 213 977	6 144 517
PAC 10	UCLA	81	63	-18	17 275 932	9 795 331	7 480 601
ACC	Florida State	62	49	-13	15 789 315	7 549 899	8 239 416
PAC 10	Oregon	58	64	6	15 731 803	10 927 608	4 804 195
PAC 10	Oregon State	57	35	-22	15 592 385	6 730 532	8 861 853
BIG TEN	Iowa	64	57	-7	15 274 107	9 032 124	6 241 983
ACC	North Carolina	80	53	-27	15 152 384	9 344 420	5 807 964
BIG EAST	Pittsburgh	62	35	-27	14 777 771	8 986 204	5 791 567
BIG 12	Kansas State	53	57	4	14 741 375	839 905	13 901 470
BIG EAST	Virginia Tech	72	49	-23	13 612 410	9 982 661	3 629 749
BIG EAST	Boston College	86	79	-7	13 527 693	10 624 368	2 903 325
BIG 12	Texas Tech	49	58	9	13 489 643	8 863 399	4 626 244
BIG TEN	Northwestern	92	83	-9	13 488 672	8 130 333	5 358 339
ACC	Virginia	92	76	-16	12 771 944	9 191 441	3 580 503
SEC	Mississippi	53	52	-1	12 301 431	6 182 081	6 119 350
PAC 10	Arizona	54	53	-1	12 032 837	7 825 904	4 206 933
BIG EAST	West Virginia	55	48	-7	11 817 016	5 482 208	6 334 808
BIG TEN	Minnesota	51	43	-8	11 749 294	7 601 810	4 147 484
SEC	Mississippi State	52	64	12	11 721 312	5 430 305	6 291 007
ACC	Georgia Tech	68	49	-19	11 497 843	5 750 640	5 747 203
BIG TEN	Indiana	68	72	4	10 878 353	7 569 800	3 308 553
BIG 12	Oklahoma State	51	38	-13	10 703 789	5 835 669	4 868 120
C-USA	Louisville	32	38	6	10 558 680	5 762 024	4 796 656
BIG 12	Iowa State	63	47	-16	10 286 407	6 181 991	4 104 416
PAC 10	Washington State	60	57	-3	9 934 200	7 098 260	2 835 940
ACC	North Carolina State	63	47	-16	9 922 777	4 307 041	5 615 736
MOUNTAIN WEST	Brigham Young	72	12	-60	9 880 942	10 377 378	-496 436
ACC	Maryland	65	50	-15	8 749 985	7 854 317	895 668
BIG 12	Missouri	63	38	-25	8 553 993	4 566 306	3 987 687
PAC 10	California	83	50	-33	8 521 041	8 381 239	139 802
BIG 12	Kansas	55	45	-10	7 981 027	5 872 633	2 108 394
BIG 12	Baylor	69	75	6	6 541 082	5 837 724	703 358

Table 40.2 (continued)

Conference	School	Four-class graduation rates (%)			Revenue (\$)	Expenses (\$)	Football profit (\$)
		All students	Football	Difference			
ACC	Duke	93	83	-10	6415098	6262777	152321
MOUNTAIN WEST	Colorado State	62	41	-21	6158980	6152816	6164
MOUNTAIN WEST	San Diego State	36	40	4	5928129	5167082	761047
WAC	SMU	71	64	-7	5904241	5904241	0
ACC	Wake Forest	87	76	-11	5662828	6114063	-451235
C-USA	East Carolina	52	59	7	5581993	5085087	496906
MOUNTAIN WEST	Utah	47	36	-11	5576687	4409886	1166801
MAC	Marshall	34	51	17	4803824	4317971	485853
BIG EAST	Rutgers	73	46	-27	4784613	6858793	-2074180
C-USA	Cincinnati	45	43	-2	4645283	5806336	-1161053
WAC	Hawaii	53	57	4	4292908	4345664	-52756
SUN BELT	Idaho	52	42	-10	4119446	3192068	927378
MOUNTAIN WEST	UNLV	35	23	-12	3939106	4652447	-713341
BIG EAST	Temple	44	30	-14	3701437	7028221	-3326784
WAC	Boise State	24	48	24	3614772	3235866	378906
C-USA	Southern Miss.	53	62	9	3514786	3804513	-289727
SUN BELT	Middle Tennessee State	37	27	-10	3356352	3356352	0
MAC	Miami (OH)	80	53	-27	3309493	3319440	-9947
C-USA	Memphis	33	46	13	3285398	5268787	-1983389
WAC	Tulsa	58	66	8	3195500	3919007	-723507
WAC	Nevada	47	39	-8	3194375	2858745	335630
C-USA	TCU	64	56	-8	3151875	4500392	-1348517
C-USA	Houston	36	34	-2	3110648	5196384	-2085736
WAC	San Jose State	36	27	-9	3023679	2888807	134872
MOUNTAIN WEST	New Mexico	41	37	-4	2693936	3724088	-1030152
C-USA	Tulane	73	76	3	2646743	6380668	-3733925
MAC	Eastern Michigan	35	47	12	2604452	2923630	-319178

MAC	Central Michigan	50	68	18	2 559 176	2 559 176	2 559 176	0
WAC	UTEP	25	34	9	2 536 889	2 536 889	2 985 365	-448 476
WAC	Louisiana Tech	50	54	4	2 453 750	2 453 750	3 241 726	-787 976
MOUNTAIN WEST	Wyoming	52	49	-3	2 363 639	2 363 639	2 812 292	-448 653
MAC	Central Florida	49	32	-17	2 298 277	2 298 277	3 298 425	-1 000 148
INDEPENDENT	Utah State	46	49	3	2 263 206	2 263 206	2 615 751	-352 545
WAC	Rice	90	82	-8	1 878 587	1 878 587	5 632 878	-3 754 291
SUN BELT	New Mexico State	45	49	4	1 869 463	1 869 463	2 817 086	-947 623
SUN BELT	North Texas	38	39	1	1 842 999	1 842 999	2 832 396	-989 397
MAC	Western Michigan	54	62	8	1 597 323	1 597 323	3 157 540	-1 560 217
INDEPENDENT	Connecticut	69	51	-18	1 321 682	1 321 682	4 808 344	-3 486 662
C-USA	UAB	35	53	18	1 274 079	1 274 079	4 428 803	-3 154 724
SUN BELT	Arkansas State	34	39	5	1 249 514	1 249 514	3 305 003	-2 055 489
INDEPENDENT	Troy State	50	48	-2	1 190 134	1 190 134	1 458 647	-268 513
SUN BELT	Louisiana-Monroe	29	57	28	1 185 775	1 185 775	1 870 340	-684 565
MAC	Bowling Green	59	49	-10	1 090 968	1 090 968	2 475 857	-1 384 889
MAC	Ball State	47	71	24	1 067 878	1 067 878	2 741 667	-1 673 789
MAC	Akron	36	38	2	996 919	996 919	2 735 649	-1 738 730
MAC	Kent State	44	51	7	989 368	989 368	2 704 058	-1 714 690
SUN BELT	Louisiana-Lafayette	28	34	6	973 195	973 195	2 466 986	-1 493 791
MAC	Toledo	38	59	21	970 672	970 672	2 704 078	-1 733 406
MAC	Northern Illinois	49	40	-9	923 810	923 810	2 650 592	-1 726 782
MAC	Ohio	70	55	-15	776 516	776 516	2 761 333	-1 984 817
MAC	Buffalo	55	52	-3	550 265	550 265	2 764 246	-2 213 981

Source: 2003 NCAA Report on Graduation Rates (www.ncaa.org) and Compiled Reports of Revenue and Expenses from each individual institution's 2002 EADA (Equity in Athletics Disclosure Act) NCAA Report.

Table 40.3 Comparison of graduation rates and football programme revenue

	Football revenue	
	Greater than \$10 m	Less than \$10 m
Number of schools	53	59
Percent that profit from football	100%	29%
Average graduation rate of all students	65.43%	52.08%
Average graduation rate of football players	53.58%	49.12%
Difference	-11.85%	-2.97%

Table 40.4 Comparison of graduation rates and top and bottom 10 football programmes (%)

	Football revenue	
	Top 10	Bottom 10
Percent that profit from football	100	0
Average graduation rate of all students	65.20	45.50
Average graduation rate of football players	49.40	50.60
Difference	-15.80	5.10

Table 40.5 Comparison of graduation rates by conference

Conference	Average graduation rate (%)			Average conference school (\$)		
	All students	Football	Difference	Revenue	Expenses	Profit
SEC	60.17	49.33	-11	27955 868	8 766 501	19 189 367
BIG TEN	70.55	56.45	-14	21 014 083	8 802 673	12 211 410
BIG 12	59.25	48.17	-11	16 235 475	6 681 774	9 553 701
PAC 10	67.70	57.20	-11	16 530 723	9 688 865	6 841 859
ACC	75.67	59.56	-16	11 774 017	7 331 441	4 442 576
INDEPENDENT	64.75	57.25	-8	9 197 729	5 050 129	4 147 600
BIG EAST	66.25	52.38	-14	12 352 704	9 555 659	2 797 045
MOUNTAIN WEST	49.29	34.00	-15	5 220 203	5 327 998	-107 796
WAC	50.44	52.33	2	3 343 856	3 890 255	-546 400
SUN BELT	37.57	41.00	3	2 085 249	2 834 319	-749 070
C-USA	47.00	51.89	5	4 196 609	5 136 999	-940 390
MAC	50.00	52.00	2	1 752 782	2 936 690	-1 183 909

Bowl Games. The current Bowl Championship Series (BCS) system places the conference champion from each of these six conferences into six of the eight available slots in the top Bowls. Any other Division I-A team may fill the remaining two spots, but, since the BCS system's inception in 1997, no team outside of the top six conferences has played in a BCS Bowl Game. Table 40.5 exhibits the distribution of BCS revenue for the 2002–03 season.

Table 40.6 BCS revenue distribution, 2002–2003

Revenue (\$)		Distribution (\$)	
Television and title sponsorships	72 000 000	Pacific 10	21 477 977
Revenue from:		Big 10	21 062 222
Fiesta Bowl	4 420 000	Southeastern	16 562 222
Sugar Bowl	4 400 000	Atlantic Coast	16 562 222
Orange Bowl	4 600 000	Big East	16 562 222
Rose Bowl	1 380 000	Big 12	16 977 977
Rose Bowl payout	27 924 842	Western Athletic	960 000
Total BCS revenue	114 724 842	Mountain West	960 000
		Conference USA	960 000
		Mid-American	960 000
		Big Sky	180 000
		Atlantic 10	180 000
		Mid-Eastern	180 000
		Gateway	180 000
		Ohio Valley	180 000
		Southwestern Athletic	180 000
		Southland	180 000
		Southern	180 000
		Sunbelt	240 000
		Total BCS distribution	114 724 842

The Pacific 10 and the Big 10 each received the greatest share because the two at-large selections came from these conferences. Tulane University could secure a greater share for Conference USA, but they would have to be chosen as one of the at-large teams. Yet without a single defeat in 1998, Tulane was not selected to play in a BCS Bowl Game.

In October 2003, the Senate Committee on the Judiciary held a hearing to examine the competitive and economic effects of the NCAA’s BCS system. The committee held the hearing to begin an investigation into whether the system violates antitrust laws. The financial distribution system, as shown in Table 40.6, clearly favours the top six conferences. It is no surprise that the schools in the top six conferences do not wish to share a greater piece of the BCS pie with the other Division I-A football conferences. These funds help to bring greater academic and athletic resources to their institutions and help to make these institutions more attractive to prospective students (their future customers). In his testimony before the committee, Myles Brand, President of the NCAA, stated: ‘Although there currently is some revenue sharing that takes place, the large majority goes to those who make the greatest commitment and whom the market rewards. In other words, the current revenue structure is a result of the free-market at work’.¹ One wonders whether the recruiting of athletes with the intent to graduate them at a lower rate than regular students is also part of the NCAA’s ‘free-market’ system.

During the senate hearing, University of Nebraska Chancellor, Harvey Pearlman, remarked that the BCS revenue-sharing system has little impact on the economics of college athletics. The net BCS distribution of about \$1.2 million to Nebraska in 2002

represented only 2 per cent of its entire athletics budget. He stated that the university collects more than twice as much during one home football game. Changing the BCS distribution to a completely even share would only net about \$750 000 to each Division I-A athletics programme.² The change would certainly not affect the balance of power; however, the additional funds would be a windfall for a school like Tulane University. The amount would be ten times as much as it currently receives from the BCS distribution.

While Chancellor Pearlman may claim that moving to equal sharing of NCAA and BCS moneys would not significantly change Division I-A athletics, he still opposes any change to the current system. The NCAA and the schools in the top six conferences are extremely protective of their current financial arrangement. A move by the NCAA to create equity across Division I-A schools will only hurt the University of Nebraska and most other schools in the top six conferences. The schools in these conferences banded together to protect their collective financial interests. The NCAA acts as the overseer of these protective units. The University of Nebraska can realise large paydays from its home football games, because it plays other 'powerhouse' schools in the Big 12 conference. If the NCAA were to somehow allow other Division I-A schools access to schools in the top six conferences, the NCAA's product would become watered down. Television revenue would decrease, attendance would drop, and the interest in Bowl games at the end of the season would wane. The NCAA is not going to do anything to disrupt its current system.

The NCAA, however, cannot have it both ways. They cannot advocate amateurism in collegiate sports while at the same time allowing their top revenue-producing programmes to be a minor league in both football and men's basketball. It is clear that most of the top programmes are more concerned about keeping their revenue and less concerned about graduating their student-athletes. In his 1999 book, *Unpaid Professionals*, Andrew Zimbalist recommends that the NCAA actually takes the drastic step to professionalise collegiate sports. The schools in the big six conferences would become a minor league, pay its players, and manage their football and basketball programmes as professional sports franchises. The schools that choose not to enter the minor leagues will be run in the true spirit of the NCAA's mission: 'to maintain intercollegiate athletics as an integral part of the educational program'. This way, the NCAA can have it both ways. The split personality of the NCAA ends and the true sense of amateurism is preserved.

Notes

1. Testimony of Dr Myles Brand, President, National Collegiate Athletic Association, Senate Committee on the Judiciary Hearing, October 29, 2003.
2. Testimony of Harvey Pearlman, Chancellor, University of Nebraska, Senate Committee on the Judiciary Hearing, October 29, 2003.

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41 The economics of US intercollegiate sports and the NCAA

Robert Sandy

Intercollegiate athletics is often described as promoting discipline, teamwork and physical fitness. While these are fine educational goals, they can hardly justify the intercollegiate athletics programme. University athletes make up a small fraction of the undergraduate student body, about 3 per cent. If discipline, teamwork and physical fitness were vital educational objectives, strenuous team sports ought to be required for all able-bodied students. Only a handful of colleges have such athletics requirements, for example, the US military academies such as West Point, and the state military institutes such as the Virginia Military Institute. Instead, intercollegiate athletics is used as a means of marketing the colleges to their alumni, to prospective students and to the general public.

The image that a college would like to convey is that it strives for excellence in every endeavour from the classroom to research to athletics. Consider a hypothetical example of an image benefit connected to athletics, an alumnus wins the Boston marathon while wearing a shirt with his college's logo. Any college president would be ecstatic not simply because of the free worldwide publicity but because of how it would support the college's image of excellence. At one level, outstanding athletes attending a college is a silly reason for most ordinary students to apply to a particular college. It is the association of an image of striving for excellence that attracts students and public support.

Another marketing effect of intercollegiate sports is the atmosphere such as traditional rivalries, homecomings for alumni, and parties centred on football weekends. It is very difficult to quantify either the costs or the benefits of atmosphere. There are also some simple enrolment effects of sports programmes. Big-time athletics programmes can add 350 student-athletes to a college's enrolment, some of whom pay their own way, and the athletes are thought to encourage their friends to go to the same college.

The most important and most debated question among economists is whether colleges make or lose money on intercollegiate sports. This question rests on the assumption that intercollegiate sports are an ancillary enterprise rather than a central part of the college's mission. In contrast, there are few public complaints about academic departments, such as the economics department, being run at a deficit. All US colleges are not-for-profit institutions that solicit donations to help them cover the losses of such mission-central programmes as economics. Intercollegiate athletics is more like a college's bookstore. Some colleges do not bother to have a bookstore, others offer it as a service to their students but try to break even on its operation, and some tolerate consistent losses as a service to students. The 'lose money' side of intercollegiate athletics debate sees college presidents as being controlled or manipulated by their athletics directors and/or sports-mad alumni or being quixotically optimistic about their prospects of athletic success and the payoffs from such success (Zimbalist, 1999b; Sperber, 2000). The 'make money' side describes college presidents as rational agents

who are reasonably intelligent and have to operate in a tight financial environment (Fort, 2003; Sandy and Sloane, 2004).

The National Collegiate Athletic Association (NCAA) is a non-governmental and not-for-profit association that governs the vast majority of intercollegiate athletics in the United States. The ability of colleges, on average, to make money on their intercollegiate programmes depends on the NCAA. The NCAA regulates what amounts to a large industry. About 375 000 athletes participate in sports in which the NCAA holds championships. A chapter of 5000 words cannot discuss many of the important issues raised by this large and complex enterprise. Some of the issues I shall ignore are: how the NCAA maintains competitive balance (Sutter and Winkler, 2003), how it has destroyed competing collegiate sports and amateur sports sanctioning organisations (Fort, 2003, p. 410), how it enforces its limits on payments to athletes (Fleischer et al., 1992), how it tries to prevent athletes from playing for professional teams, and the underlying objectives of the NCAA. This last topic will be addressed indirectly. The NCAA has been described as a surplus-maximising cartel run primarily for the financial benefit of a small coterie of senior NCAA employees, former employees, and prominent athletic directors and coaches (ibid.; Leeds and von Allmen, 2002). In this description, the NCAA is a regulatory body that has been captured by the industry it regulates. The opposing view is that the NCAA reflects the interests of its member institutions, the colleges, and is directly controlled by college presidents. This is certainly how the NCAA describes itself.

The NCAA enforces many cost-reducing or revenue-increasing measures. These include enforcing bans on payments to athletes beyond the authorised grants-in-aid, caps on the pay of assistant coaches (which was found to be in violation of US antitrust laws), capping the number of athletic grants-in-aid per sport, and restricting the broadcasts of football games (also found to be a violation of US antitrust laws). However, these actions do not help to distinguish between the capture versus servant-of-member college descriptions of the NCAA. Under both scenarios the NCAA would try to raise the revenues from and lower the costs of running intercollegiate athletics programmes. The best evidence for the capture hypothesis is the high salaries and perks of the NCAA officials. A related example of rent seeking is when current officials recommend that colleges hire former NCAA officials to help them self-investigate infractions of the often arcane NCAA rules. The colleges hope that these self-investigations will demonstrate their good faith and avoid or reduce NCAA sanctions (Fleischer et al., 1992). My view is that while the payments to the NCAA senior staff and its former officials are exorbitant, they are minuscule relative to overall collegiate athletics budgets or even the NCAA's own budget. There is little incentive for any single college president to tightly police these payments because the potential gains would be spread over the 1100 member colleges.

Here is how questions of NCAA objectives and the finances of individual colleges are connected. If intercollegiate sports programmes are structured to serve the interests of the colleges and the presidents are not 'under the thumb' of their athletic directors, then the colleges would generally try to make a 'profit' from their sports programmes. Profit in the context of a not-for-profit institution's ancillary enterprise means a net financial benefit considering all the costs and benefits of the programme. A corollary of effective academic control of intercollegiate sports is that the NCAA senior staff, former staff, and the prominent athletic directors and coaches would have a difficult time siphoning off most of the surplus from collegiate athletics. Currently, the NCAA requires that a college

field squads in at least 14 sports in order to be in its top division, Division I. It also requires a minimum number of grants-in-aid according to the sports the college chooses. The capture version of the NCAA sees these requirements as means of finding jobs for friends of the NCAA officials and building athletics empires to justify higher salaries for athletics directors. The servant version sees these requirements as helping colleges recruit students because it ensures that a college will have competitors in each sport it fields.

There have been two types of studies on the question of whether colleges make or lose money on their sports programmes. One type is an accounting analysis of the finances of an individual college or conference (a group of colleges that schedule matches and within-conference championships). The other type of study is to some form of regression analysis that relates a proxy for financial benefits to some measure of the athletics programme's success or level.

The accounting studies have been inconclusive. Even the studies with access to private data, such as the donations to colleges' foundations or the complete books of private colleges, have been problematic (Borland et al., 1989; Zimbalist, 1999a; Shulman and Bowen, 2001). One reason is that the assignment of costs and of revenues in non-profit institutions is arbitrary. Some colleges assign revenues from the sales of clothing and paraphernalia with college logos, game-day parking, concessions and so on, to their athletics programmes and others assign those revenues to other campus units. More importantly, the accounting studies generally treat the main cost of an athletics programme, the grants-in-aid to the athletes, as costing the colleges the full price of tuition and room and board. This treatment is absurd except in a handful of highly selective colleges such as Stanford University or the University of Notre Dame that have a queue of qualified applicants who would be willing to pay the list price for tuition and room and board. The vast majority of colleges have excess capacity and no such queue. Another difficult accounting issue is how to treat the land and capital invested in athletics facilities. If arenas or stadiums could be torn down and the land sold, then the opportunity cost of retaining athletics facilities used purely for intercollegiate athletics is the annualised value of the land. In high-value urban areas these opportunity costs could be immense. What is often unclear is whether the colleges could scrap the facilities and sell the land without incurring further costs. Many arenas and stadiums are on donated land and/or were built with donated funds. The rules governing such donations require the colleges to return the land or the money if it is no longer used for its donated purpose.

Goff (2000) makes an interesting point about accounting studies. He argues that many high-profile college athletics programmes generate total revenues across gate, broadcast and ancillaries that are equal to the revenues of mid-level major league teams. He cites the stadiums at the University of Michigan and the University of Tennessee, which hold 106 000 spectators. Comparisons of per seat ticket revenue among major league teams and college teams is complicated because the colleges require donations to obtain good seats or for the most popular teams, any seats. Nevertheless, the per seat ticket revenues are thought to be close. The second part of Goff's point is that colleges do not have to pay their athletes. Even at the fictitious book value of grants-in-aid, a college with a high level of tuition and room and board (say \$40 000) and a large pool of athletes receiving aid (say 300), would have a 'payroll' of only \$12 million. This figure is a small fraction of average team payrolls in the four US professional sports. No one is arguing that mid-level professional teams lose money on a long-term consistent basis. At the moment professional ice

hockey appears to be in financial trouble but that situation is unusual and will probably change with the next National Hockey League contract. Goff concludes that claims that even the highest-revenue college sports programmes lose money consistently are dubious. He argues that it requires creative accounting to make it appear that the high-profile college programmes lose money and that moreover, an accurate accounting would show that the vast majority of Division I programmes make money.

An accurate accounting seems unobtainable. There are two telling examples of the difficulties of accounting studies. One is an internal study done at the behest of the presidents of the Big Ten conference, the most prominent conference in terms of attendance and revenues (Duderstadt, 2000). The presidents wanted to constrain the within-Big Ten athletics spending 'arms race' and asked their financial officers to share data and come up with a common way of measuring their spending. Although the conference members are similar in that all but one of the 11 are large public institutions located in the Midwest, the financial officers found it impossible to reconcile their different accounting systems. The second was commissioned by the NCAA itself. The financial data from 17 colleges could not be reconciled (Litan et al., 2003).

The regression studies have been more promising, although not without problems. The reasoning behind these studies, either stated explicitly or left implicit, is that if measures of the athletics programme's extent or success cannot be connected to some financial benefit for the colleges then it is unlikely that colleges will make money overall. There is a consensus that the combined gate, broadcast and ancillary revenues cover the stated costs of these programmes in only a small fraction of them. To make these enterprises profitable, either there has to be some other financial benefits or the stated costs have to be inflated. Although the book value of the grants-in-aid generally overstates the real costs of admitting an athlete, determining what those real costs are is nearly impossible. It would require knowing marginal costs of feeding each athlete, the marginal cost of the dormitory space, and the marginal cost of class seats. That is why the regression studies have focused on other potential financial benefits. The other financial benefits could be more donations, or more students paying tuition and in public colleges raising the level of state support that is tied to increased enrolments, or a higher quality pool of applicants who are more likely to graduate and perhaps donate in the future and also need fewer remedial classes or tutoring services.

Most of the studies on donations distinguish between donations to the athletics programme and donations to the general college fund. This distinction seems empty to me because it is unlikely that the donations to the athletics funds would be so high that a college is forced to spend more on athletics than its preferred level. A college that receives large athletics donations can offset those donations by transferring revenues that had been arbitrarily assigned to the athletics programme to its general fund or by reducing the transfers from the general fund to athletics. Making such transfers shortly after a single large athletics donation would anger the donor but there are so many new revenue streams and cross-subsidies in college athletics that after a short while the large donor would be hard pressed to observe the transfer. Some of these new revenue streams are subsidies from shoe or clothing manufacturers to have the athletes wear their logos, payments by private companies for the right to name a college's stadium/arena or to put up signs inside of the athletics facility, or advertisement placements on a college's athletics internet site. For example, Box 41.1 reproduces the text on the University of Michigan's website.

BOX 41.1 UNIVERSITY OF MICHIGAN WEBSITE

Internet – Mgloblue.com

Michigan Athletics is pleased to offer the client the opportunity to display your message on one of the highest traffic sites in college athletics, mgoblue.com. The site was recognised by the Wall Street Journal as the #1 collegiate website in 1999–2000.

Michigan Athletics offers the following on-line opportunities:

- On-Line Partner – Logo exposure on every page within the site. Includes targeted promotional campaigns during the academic year.
- Traditional Banner Advertising – The message will be displayed on a rotation basis for a minimum of 250 000 page views over a six month time period (for example, August 15, 2002 – February 15, 2003).
- Hyper-link Accessibility – Provided from the mgoblue.com site to a site designated by the client.

The best study to date on donations is by Baade and Sundberg (1996). Their data set covers a large sample of colleges and a substantial time period. They found that winning big was more important than just increasing the win percentage. Most of the other studies on donations used just the win percentage and/or focus a narrow group of colleges. Baade and Sundberg's estimates are done with a pooled cross-section time-series framework that requires two assumptions: first, that the responsiveness of donations among all colleges of a given type (they had separate regressions for public and private Division I colleges and for small colleges in Divisions III and II) was the same; and second, that there were no omitted variables that were related to both athletic success and alumni giving. These assumptions are suspect. For example, a college with a record of athletic success may attract students who care more about athletics and who, as alumni, would be more responsive in terms of donations to bowl game appearances than the alumni of other colleges. This caveat aside, Baade and Sundberg found that there were substantial effects to going to a football bowl game (an additional \$2 million in the year of the bowl game for a private college, an additional \$500 000 for a medium-sized public college) and for public colleges appearances in the NCAA basketball tournament (\$400 000 in the year of the tournament). In a year that a college wins 'big' the extra donations are often enough to cover the stated athletics deficit. Given that 64 or 65 colleges among about 320 with Division I basketball programmes make it to the NCAA tournament each year and 56 play in Division IA bowl games each year among 120 eligible colleges, neither payoff is a rare event. Although there is not enough in added donations to wipe out the stated deficits at Division I schools with an average history of sports success, they do appear to cover a substantial share of these book deficits.

Switching to enrolment and student quality effects, some of the regression studies were cross-sectional, that is they compared the colleges at a point in time. The problem with a

cross-sectional study is that some unobserved characteristics of the colleges could be the cause of both the potential financial benefit such as higher quality students and of the large or successful athletics programme. For example, the main campuses of multi-campus public university systems in the United States tend to have the most students, the highest-quality students, and the most prominent athletics programmes. The cause of all three characteristics might be better state funding. Since any unobserved variable could be a cause, just adding more variables to a cross-sectional regression will not eliminate the possibility that some other unobserved variable drives both the athletics variables and the financial variables. In this context, cross-sectional studies are so fundamentally flawed that it is pointless to cite the results of individual studies.

A difference-in-difference model, provided that the changes are measured over the same period, estimates the contemporaneous response of some athletic success variable on some variables that proxies a financial benefit. A difference-in-difference model requires the assumption that the unobserved variables did not change. The initial paper in this literature, McCormick and Tinsley (1987), was followed by many similar papers. McCormick and Tinsley used SAT scores as their potential financial variable and the percentage of wins in football as their athletics variable. The SAT scores and the control variables were measured as changes over three years. Football wins measured by a 15-year trend included the three years covered by the other variables. They did not explain why the 15 years of athletic success should drive the changes in the last three years in SAT scores. Bremmer and Kesselring (1993) have a difference-in-difference model over a nine-year period. They measured athletic success by the number of appearances in a major football bowl game and the number of appearances in the NCAA basketball tournament over a 10-year period. Tucker and Amato (1993) had a difference-in-difference model over a 10-year period. Their measure of athletic success was end-of-season Associated Press (AP) top 20 rankings over a 10-year period for both football and basketball. The results across these difference-in-difference papers were that athletic success had little or no effect. McCormick and Tinsley found a modest and barely significant gain in SAT scores, Bremmer and Kesselring found that none of the measures of athletic success was statistically significant predictors of SAT scores or acceptance rates. Tucker and Amato's athletic success measure, AP end-of-season poll rankings, was not significant in predicting SAT scores.

A fixed-effects model also requires the assumption that unobserved variables did not change. Such a model utilises a panel data set, that is, repeated observations on the same set of colleges. When a data has more than two observations on each college the fixed-effects model provides more precise estimates of the effect of a change in the athletics variable on the change in the financial variable than a difference-in-difference model, provided the random variation for a particular college is serially uncorrelated (Woolridge, 2003, p. 467). In our context that means that shock to enrolment or SAT scores or acceptance rates at one college in one period is not associated with a shock in the next period. The papers that have used fixed-effects models include Murphy and Trandel (1994), Zimbalist (1999b), Litan et al. (2003) and Sandy and Sloane (2004).

Murphy and Trandel looked at the change in applications over nine years in response to changes in football success among Division IA major conference teams. There was a small but statistically significant positive association. Moving from 50 to 75 per cent wins raised applications by only 1.3 per cent. Zimbalist also found a modest gain in

applications in response to increases in the football win percentage over a 15-year period. However, there was no impact of athletics success on SAT scores for every measure he tried: win percentages in football and basketball, appearances in post-season tournaments or bowls, rankings in the end-of-season AP poll, and the number of All-American players at the school. This set includes every measure that has been used in this literature. When more applicants do not result in a higher average SAT score the added applicants must be worse than the pool of applicants that the college previously drew. Litan et al. also looked at three financial measures in a fixed-effects context – alumni giving, SAT scores and acceptance rates. Their colleges were in Division IA, the major football schools. They had two measures of the athletics programmes, percentage wins in football and stated spending on football. Their data spanned eight years. Neither of these athletics variables had a positive significant effect on any financial variable.

Zimbalist makes the point that relying on a higher percentage of wins is a precarious route for a college to recruit more or better students. Injuries to star athletes or premature departures due to felony convictions or entering a professional league can wreak havoc on a successful programme. Recruiting scandals and failures of key athletes to maintain academic eligibility are recurring threats. There is also a question of the staying power of any gains in recruiting students even if the higher level of athletic success were stable. It is possible that prospective applicants notice the change in athletic success, because colleges that are not traditional powers get much more publicity when they do well, but thereafter the impact decays. In addition to the unreliability and the possible decay in impact, the entire literature focuses on a small group of colleges. There is not that much variation among the football or basketball programmes among colleges in major conferences in Division IA. They have similar numbers of athletes on grants-in-aid in football and basketball, usually the NCAA maximum, similar athletics facilities, and with rare exceptions, similar long-term records. The individual conferences mainly dictate the level of a college's athletics programmes. For image purposes it would be counterproductive for a college to be perennially at the bottom of its conference in football and in basketball. Part of the marketing performed by the athletics programme is to associate the college's name with the virtues of competitiveness, perseverance and overall excellence. The last thing a college wants to convey is that it is a perennial loser.

The Sandy and Sloane paper shifts the focus to all baccalaureate-granting colleges in the United States (about 1100 colleges) over an eight-year period and asks if changes in the level of affiliation are associated with changes in enrolment, SAT scores and acceptance rates. There were 124 changes of affiliation across the levels of affiliation including no athletics programme, the National Intercollegiate Athletics Association, and NCAA Divisions III, II, IAAA, IAA and IA. The levels of affiliation represent much greater changes in the number of athletes and in other athletics spending than the variations across Division IA programmes. They found statistically significant gains in all three financial measures. The potential gains in tuition revenue and state support from moving to Division IA are large relative to the typical 'book' deficits of Division IA programmes.

The fixed-effects models, even when applied to the entire universe of baccalaureate colleges, are not an econometric panacea. The key assumption is that no important unobserved variable has changed over the same period. The level of affiliation is a choice

variable for the college that might be dictated by other variables. In the absence of either instrumental variables that identify potentially endogenous variables or a model that explains a college's choice of affiliation or acceptance rate, there remains some doubt over whether the higher-level athletics programmes really draw enough students to make the programmes profitable.

Many college presidents as well as the current head of the NCAA, Myles Brand, have bemoaned the 'arms race' in collegiate sports (see the Knight Commission, 2001). An arms race is an increase in spending in response to higher spending by another college. It is 'fought' on many fronts such as bigger stadiums and arenas (which at least have the potential to generate more revenue), bigger or plusher training facilities, private jets for travel between games, or on a guerrilla front such as cash payments to athletes or hiring strippers or prostitutes to entice recruits. The primary determinant of spending on athletics is the level of affiliation. The lowest level does not allow grants-in-aid and has minimal travel costs because the opponents are nearby. The top level requires a large football stadium and a large number of athletes on grants-in-aid. The ladder of affiliation runs from no programme to the National Association of Intercollegiate Athletics that serves mostly small colleges, to NCAA Divisions III, II, IAAA, IAA and IA. The major arms race is the current dash by colleges up the affiliation ladder.

What may be rational from the point of view of individual college presidents could be irrational from a collective perspective. Gains in enrolment by one college come largely at the expense of other colleges. From a collective perspective, 'disarmament' makes sense. Some spheres of collective action have been foreclosed by legal decisions. Colleges would be sued if they agreed to cut coaches' salaries. Other collective limits, such as limits on training facilities and the number of assistant coaches, are hard to police. That leaves the spending on grants-in-aid. For example, capping the number of grants-in-aid per college would be both legal and could yield a substantial savings. The potential collective payoffs to disarmament is one reason why so many prominent college presidents joined an *ad hoc* body, the Knight Commission, to lobby for reductions. These payoffs could also explain why the NCAA recently elected a college president to be the president of the association, a first since the office was created in 1951.

This chapter began with the image benefits of collegiate athletics. There is a long history of image problems as well. At the beginning of intercollegiate athletics some colleges recruited athletes who had no connection with the college, they simply wore the school's jersey for pay. In the 1950s there was a major point shaving scandal in college basketball. Even with the benefit of a long historical perspective the current image problems are exceptional. Giving examples is dangerous because something much worse may come along after this chapter is written. Still, a new low was set in 2003 when the Baylor basketball coach falsely accused a murdered player of having been a drug dealer in order to hide the coach's cash payments to his players and also tried to coerce the other players and assistant coaches into maintaining that lie. That the NCAA found it necessary to dragoon 300 plus Division I basketball coaches to a lecture on ethics, also a first, indicates the magnitude of the problem. If the colleges cannot police the behaviour of athletes and coaches, the next version of an essay on intercollegiate sports might include discussions of the econometrics of difference-in-difference versus fixed-effects estimators for the financial impact of major scandals.

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42 The economics of cycling

Michel Desbordes

The bicycle is special because its life cycle can be considered to be timeless in most European industrialised countries. A bike can be either an instrument of sport or a means of transport, therefore it is perennially fashionable and has no substitute. In France, for example, producers sell between 2 and 3 million machines each year. Most people ride their bikes (or mountain bikes) outside clubs or associations, which is why the French Cycling Federation (FFC) has only 100 000 members, whereas 30 per cent of the French population ride a bike occasionally (approximately 18 million people according to TNS Media Intelligence SIMM, 2002). Cycling is one of the most practised and watched sports in Europe (Table 42.1). In the table, cycling is mentioned six times out of a possible 10. The French situation shows that there is a strong link between watching cycling events and practising this sport (Box 42.1).

Cycling is one of the oldest professional sports and in the last 10 years this situation has not changed as much as it has in rugby, for example.¹ Sponsorship and media coverage are historically linked to cycling. In the 1930s, the Tour de France began appealing to private companies to finance the race and the teams: the Publicity Caravan was born. This tendency to look for private funds was increased by the fact that cycling is the only free professional sport: the audience does not buy tickets to watch the race. The organisation depends on TV rights, marketing rights and local community fees (mostly for the Tour de France) to balance the race budget. But since the 1980s, financial stakes have become more prominent, hence the sport economists' growing interest in cycling.

This chapter is deeply influenced by the work of Jacques Calvet who wrote the first book about the economics of cycling in 1981. The chapter will focus on the economics of professional road races (events, teams) but not on cycling for pleasure, and on products developed by the sports industry and sold in stores. We shall consider only a sports show perspective.

Although cycling competitions are increasingly international (both the United States and Eastern countries are becoming more involved, for example), this chapter is mostly concerned with the European market, which is the centre of gravity for cycling. Besides, the economic domination of the Tour de France requires a special focus.

The chapter is organised as follows. First, an overview of road cycling races in Europe will be presented, followed by an examination of the relationship between marketing and cycling. Finally the situation of the labour market in cycling – that is to say, riders and teams – will be discussed.

An Overview of Road Cycling Races in Europe

The cycling season is spread over nine months, from February to October. There are four different types of races:

- three big tours;
- ten world cup classics;

Table 42.1 Interest and sports practice of the top five sports in five European countries

	Great Britain		Spain		Germany		Italy		Poland	
	Most liked	Most practised	Most liked	Most practised	Most liked	Most practised	Most liked	Most practised	Most liked	Most practised
Football	Swimming	Swimming	Football	Swimming	Football	Cycling	Football	Swimming	Football	Swimming
Rugby	Football	Football	Basketball	Football	Formula One	Swimming	Tennis	Football	Figure skating	Football
Tennis	Golf	Hiking	Tennis	Hiking	Athletics	Hiking	Athletics	Gymnastics	Athletics	Gymnastics
Athletics	Tennis	Swimming	Swimming	Cycling	Tennis	Football	Formula One	Tennis	Volleyball	Tennis
Cricket	Cycling	Cycling	Swimming	Tennis	Ski	Gymnastics	Swimming	Cycling	Basketball	Cycling

Source: McCann Governance, Gaz de France, TNS Sport France (2002).

BOX 42.1 DATA ABOUT CYCLING IN FRANCE

30.8% cycle occasionally or regularly (2nd place)

8.8% cycle regularly (2nd place)

36% watch cycling on TV (4th place), with a 60% -male/40% -female audience

4.7% travel to see road cycling events (3rd place after football and rugby)

Source: TNS Media Intelligence SIMM (2002).

- seven big races by stages; and
- three championships.

Apart from the world championships, which take place in a different country every year, only seven European countries are involved in the cycling season. (Table 42.2.)

Note that there is a historical link between the organisation of the events and the press groups (Tour de France – Giro – Midi Libre – Dauphiné Libéré). Most of the big cycling races were created to enhance the substance and visibility of newspapers. Nowadays organisers belong to the private sector, which works in conjunction with their national federations and the Union Cycliste Internationale (UCI or International Cycling Union). In 2004, the French company ASO became the first organiser of road cycling races in the world (Figure 42.1 and Box 42.2).

The Tour de France holds a major position in the cycling events market, and therefore the next section will focus on this special case.

Table 42.2 Races of the 2003 season

Tours	World cup classics	Big races by stages	Championships
Giro (Italy)	Milan – San Remo (Italy)	Paris–Nice (France)	National championships
Tour de France	Tour des Flandres (Belgium)	Tirreno–Adriatico (Italy)	On track world championships
Vuelta (Spain)	Paris–Roubaix (France)	Tour du Pays Basque (Spain)	Road world championships
	Amstel Gold Race (Holland)	Tour de Romandie (Switzerland)	
	Liège–Bastogne–Liège (Belgium)	Critérium du Dauphiné Libéré (France)	
	Hew Cyclclassics Cup (Germany)	Tour de Catalogne (Spain)	
	Clasica San Sebastian (Spain)	Tour de Suisse (Switzerland)	
	Championnat de Zurich (Switzerland)		
	Paris–Tours (France)		
	Tour de Lombardie (Italy)		

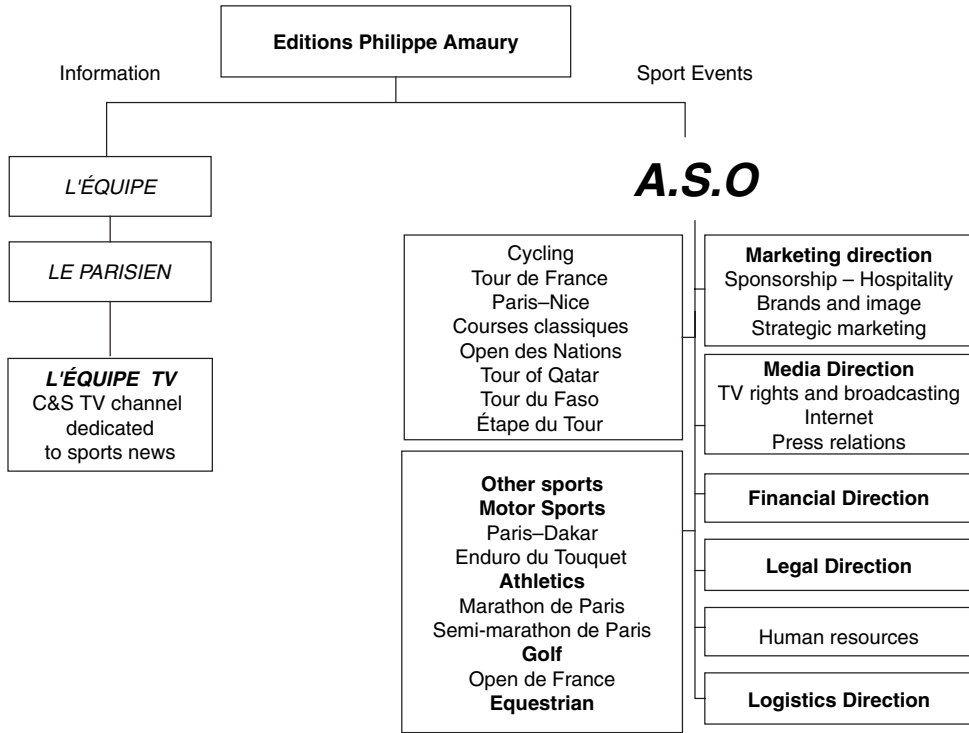


Figure 42.1 ASO company

BOX 42.2 DATA ABOUT ASO

- 180 permanent employees in 2003 (160 in 2002)
- 2003 turnover: €110 million (90 in 2002)
- 117 competition days organised by ASO in 2003 (99 in 2002):

Cycling	74 days representing 70% of the turnover
Motor sports	21 days representing 21% of the turnover
Athletics	2 days representing 4% of the turnover
Golf	16 days representing 4% of the turnover
Equestrian	4 days representing 1% of the turnover
- Distribution of financial income:

TV rights	44%
Marketing	39%
Competitors' rights	12%
Local communities	5%

Source: l'Équipe, 25 June 2003.

Marketing of Cycling

How are races financed? As mentioned above, cycling is a particular professional sport that has never been financed through ticketing because the show is free.² In contrast, ticketing represents between 20 and 35 per cent of soccer teams' turnover in Europe: this amount depends on the system and the importance of TV rights in the country (Deloitte & Touche). Nevertheless, Europeans' enthusiasm for important cycling races should be stressed.

The public profile is of great interest for brands because the Tour de France has a strong public appeal (Box 42.3):

- it is a popular sport;
- it is an individual sport that requires teamwork;
- it is a sport that is in sympathy with today's environmental issues; and
- the interest is shared by all main European countries.³

Nowadays, potential investors use precise surveys before signing a sponsorship deal. General directors need to be able to make rational decisions because of the importance of the investment and the sponsorship duration (usually between 4 and 8 years). In this type of survey,⁴ the image of cycling is quite ambivalent: on the one hand proximity, sportsmanship, festival atmosphere and heroism are the main items underlined by those interviewed, but on the other hand doping problems can discourage financial partners from investing in cycling. Table 42.3 lists the values associated with the main sporting activities.

Sponsoring a cycling team can have an important impact because:

- the season is long;
- the media coverage is important in Europe; and
- the team takes the main sponsor's name, which implies a high visibility and usually an increasing public awareness.

It is obvious that not only companies whose brandname has a strong semantic link with sport in general can become sponsors: some, such as Festina (watches) or Cofidis (credit), have considerably increased awareness thanks to the Tour de France.

BOX 42.3 DATA ABOUT THE TOUR DE FRANCE

The Tour de France is the 3rd most popular sporting event in the world after the Olympics and the soccer World Cup

12 to 15 million spectators line the side of the road

The Tour passes through over 500 cities

TV broadcasts are made by 75 channels to over 170 countries

The Tour evokes an awareness of more than 90% in the main European markets:

96% in France, 95% in Spain, 94% in Italy, 95% in UK, 96% in Germany, 96% in Belgium but only 56% in the USA

Source: BVA, 2000, Sofres, 2001.

Sponsoring undeniably involves risk taking in the case of doping problems. However, familiarity with the Festina name increased in 1998 after its doping scandal (+28 per cent after the 1998 Tour de France: TNS Sofres 2003) and commercial results were excellent that year. But Danone, Nestlé or a medical company – conscious of their healthy image – cannot afford to take such a risk by investing in a cycling team.⁵ At the same time, TV networks offer important media coverage to cycling which appeals to potential investors. (Table 42.4.)

In 2003, there were record audiences for the centenary (4.2 million French TV viewers every day: +16 per cent compared to the 2002 Tour). France Télévisions also obtained 6 million viewers thanks to the other TV programmes (France Télévisions, July 2003).

TV broadcasting is generally live in Europe but on other continents TV networks produce mostly programme highlights because of the time difference (Table 42.5).

How can companies reduce the risks due to doping or bad results for the team? Some companies prefer to sponsor a less risky event (but then the probability of making a profit is also lower). As Daniel Isaac, sponsorship director for Crédit Lyonnais, the French bank that sponsors the yellow jersey of the Tour de France, says: ‘Whatever happens, we are always first in Paris!’. The 2003 Tour de France data confirm this point: investing in the event is less risky but also less profitable than sponsoring a team (TNS Sofres, 2003) (Table 42.6).

In 2004, the context was moderately favourable for cycling, some companies preferring to develop a ‘mixed’ sponsorship policy: both as an official supplier of the event and as a sponsor of a cycling team (for example AG2R Prévoyance, Brioches La Boulangère or RAGT on the Tour de France).

Teams and Riders

Riders

The pack and its working conditions There were between 1200 and 1500 professional riders in the world in 2004. These riders are bound to their teams by an individual contract whose duration has to be determined (usually one to two years). Working conditions are governed by an agreement between the Cyclistes Professionnels Associés (CPA or Association of Professional Riders) and the Association Internationale des Groupes Cyclistes Professionnels (AIGCP or International Association of Professional Cycling Teams) under the UCI’s authority. Riders are paid in three different ways: a monthly salary (Table 42.7), a possible bonus and prize money.

The labour contract can include a very changeable bonus that depends on the sports results, and on individual and team services. Finally, prize money is paid by organisers according to the results. The US Postal Team, for example, received the most prize money (€444 667 in total or €50 000 per rider) after Lance Armstrong’s victory during the 2002 Tour de France, while the Euskaltel–Euskadi team received €12 078 only (€1342 per rider).

In spite of the UCI’s policy, the lack of job security is the most important problem. Some sponsors sometimes become insolvent and therefore riders can lose their employer (see, for example, Team Coast’s difficulties in 2003, when some riders were hired by Team Bianchi after the beginning of the season).

Retraining Since the 1990s there has been an increasing variety of retraining plans following the end of a rider’s racing career. Becoming a team cycling director is no longer the only path to follow. Many former professional riders use their know-how, their knowledge and their experience to work with media, sponsors or organisers.⁶

Table 42.3 *Values associated with main sports*

Sport	Conviviality	Elegance	Youth	Virility	Dynamism	Creativity	Surpassing oneself
Athletics	79	136	121	110	109	76	127
Basketball	127	93	128	126	112	106	98
Cycling	108	79	94	110	107	70	118
Climbing	63	123	106	80	90	138	127
Football	123	57	132	159	107	109	93
Formula One	44	78	103	146	100	117	114
Golf	83	184	16	49	45	78	43
Handball	128	72	116	132	112	105	94
Judo	101	84	117	162	105	105	121
Swimming	59	136	104	79	106	66	103
Figure skating	93	193	130	68	104	182	117
Bowling	135	59	33	42	39	59	32
Rally driving	81	44	81	135	104	104	111
Hiking	144	46	44	45	89	66	72
Roller-skating	102	120	126	66	109	157	97
Rugby	136	46	117	205	115	91	109
Skiing	86	125	107	71	111	102	113
Tennis	68	141	105	56	107	69	102
Sailing	97	136	87	92	109	136	121
Volleyball	135	105	109	73	110	96	85
Mountain biking	108	42	123	93	112	68	103

Source: Observatoire Sport et Valeurs (2002).

100 = average value for the item. Numbers in bold indicate the values most, and least, associated with a given sport.

Values > 100: overrepresented variables in a given sport.

Values < 100: underrepresented variables in a given sport.

Table 42.4 *Major sporting events on French TV*

Sporting event	Broadcasting duration live	Time consumed by TV viewers
Tour de France	83 hours	5 hours
Tennis French Open	77 hours	2 hours
Football Champions League	31 hours	3 hours
Formula One	28 hours	2 hours
Rugby 6 Nations Tournament	16 hours	2 hours

Source: France Télévisions (July 2003).

Transfers: the cycling exception compared to football A transfer first requires an agreement between two teams. The transfer period begins on 1 September but contracts are usually signed earlier than this. A rider can move to another team only at the end of his contract, in contrast to football where a player can be in three different teams within the same season. There is financial compensation only when the rider does not complete his contract.

Authenticity	Modernity	Originality	Audacity	Sensuality	Serenity	Clean (not affected by doping)	Healthy	Violent
107	100	83	96	115	99	50	110	65
93	96	89	93	62	80	79	115	93
86	83	67	102	77	81	27	107	98
126	83	134	145	139	157	128	117	32
90	83	79	87	73	60	44	103	198
77	170	98	142	61	67	121	20	218
90	69	83	56	96	155	150	95	5
85	81	84	92	64	80	94	112	138
134	76	93	120	71	135	102	113	150
96	57	58	49	189	117	59	119	34
118	149	203	125	324	125	121	103	35
88	36	93	45	47	127	126	103	4
89	146	120	143	45	68	124	27	210
123	50	64	44	90	153	143	121	7
80	188	183	114	120	58	140	97	124
121	79	90	140	73	63	69	96	276
101	125	99	134	98	93	108	104	115
83	74	71	54	125	72	90	102	65
132	138	136	142	115	137	131	106	91
88	69	77	73	71	80	96	115	29
91	147	95	102	46	93	97	117	116

Table 42.5 TV broadcasting in 170 countries

Continent	Duration (hours)
Europe	1330
Africa	350
America	450
Asia	310

Source: ASO (2003).

Deregulation An analysis of the situation shows that we cannot talk about deregulation of the transfer market since there are few possibilities of creating an actual market. Transfers are rare, first because the tradition is to respect contracts and second because there is only a handful of teams and riders on the market. Therefore, compared to football, the turnover generated by cycling teams is much less than that generated by the clubs.

There is no ‘mercato’ As there is no real transfer market, logically the concept of *mercato* cannot exist either. This situation leads to greater stability and competition also benefits. Therefore the selection of the teams by the organisers becomes easier. On the other hand, riders have fewer opportunities to earn money because of the lack of job security.

Table 42.6 *Tour de France marketing structure*

Type of sponsorship	Rights	Brands	Shirt or classification	Average budget
Club Tour de France (limited to 4 partners)	Communication rights Exclusive visibility at the arrival of each stage Hospitality programmes Vehicles in the Publicity Caravan	Nestlé Aquarel Champion Crédit Lyonnais Skoda	Stage winner Polkadot Jersey Yellow Jersey and Best team White Jersey	€ 3–4m
Official partners (limited to 8 partners)	Communication rights Visibility on the road Hospitality programmes Vehicles in the Publicity Caravan	AG2R, CG92, CSC, Festina, France Télécom, Nike, PMU	Green Jersey for PMU Most competitive rider for CG92	€ 1–2m
Official suppliers	Communication rights Hospitality programmes Vehicles in the Publicity Caravan	Antargaz, Brioches La Boulangère, Café Grand'Mère, Coca-Cola, Cochonou, Doublet, Haribo, Kawasaki, Konica, Mavic, Michelin, Norbert Dentressangle, Powerbar, RAGT Semences, Disneyland Resort Paris		€ 0.3–0.7m

Table 42.7 *Monthly salary for some riders*

Year	Recipient	Amount (€)
85–90s	Greg Lemond and Miguel Indurain	107 000
2000s	Lance Armstrong and Jan Uhlrich	150 000
	Laurent Jalabert	107 000
	Richard Virenque	76 000
2004	Guaranteed salary for a 'rookie'	1 566
	Guaranteed salary for another rider	1 916
	Average salary in France	1 500

Source: Survey on professional cycling, *L'Équipe*, 20 March 2004.

Table 42.8 Number of employees in the teams, 2004

	Top Club	GS1	GS2	GS3
Riders*	18	16	12	8
Managers	2	2	1	–
Others	8	5	2	–

Note: *25 riders maximum.

Teams

Professional teams are also ‘sports groups’. They include the riders (who register with the UCI), the financial director, the sponsors and all the people involved on a permanent basis. In 2004, 65 sports groups registered with the UCI and were split into three levels: GS1, GS2 and GS3 (Table 42.8) Thirty groups obtained the UCI label: these could take part in the most lucrative races for their sponsors (Tours, world cup races and classics). They represent only 11 countries, two-thirds of which belong to the four ‘traditional’ cycling countries: Italy (7 teams GS1), France (6), Belgium (4) and Spain (4).

The GS1 category includes:

- the first 26 sports groups ranked after the last world cup race of the previous season. The top 10 GS1 teams are called the ‘Top Club’;
- the top two groups of the GS2 category; and
- the top two teams ranked on 20 December of the previous season by adding the points obtained by their first 8 riders. The other groups are GS2 teams.

GS3 teams include riders under 23 years old who participate in these races. GS1 and GS2 teams have to hire riders for the whole year.

Various legal obligations have to be fulfilled by the financial director and the main team sponsors:

- a registration fee must be paid to the UCI (€25 000 for GS1 teams and €8500 for GS2 and GS3 teams); and
- a deposit must be paid equivalent to a quarter of the annual salary of the employees for the eventual debts contracted. In 2002, this represented a minimum of €650 000 for a Top Club team, €250 000 for a GS1 team and €100 000 for a GS2 team (€130 000 in 2003 and €150 000 in 2004). For GS3 teams the deposit represents 10 per cent of the annual salary (minimum 7500 Swiss Francs).

Some financial data In 2004, GS1 teams generated a turnover of €135 million, on a ratio of 1:8 – minimum: €1.5 million; maximum: €12 million; and average: €5.2 million. See Tables 42.9 and 42.10 for annual budgets.

A new trend: more power for cycling teams? Negotiations conducted under the AIGCP’s authority bore fruit. Teams could obtain some marketing rights that formerly belonged to the organisers (for example, the right to sell advertising space on their vehicles). More

Table 42.9 *Budget for GS1 teams, 2003 and 2004*

GS1 team	Budget (€m)	Source	2003 (€m)
AG2R Prévoyance	4	<i>L'Équipe</i>	3.4
Alessio–Bianchi	3	www.sports.fr	3
Bankgiroloterij	3	<i>L'Équipe</i>	2004 new team
Brioche La Boulangerie	6	<i>L'Équipe</i>	4.5
Chocolat Jacques Wincor–Nixdorf	3	<i>L'Équipe</i>	2004 new team
Cofidis	8	<i>L'Équipe</i>	6
Crédit Agricole	5.5	<i>L'Équipe</i>	5
De Nardi	n.a.		2004 new team
Euskaltel–Euskadi	6	<i>L'Équipe</i>	5.4
Fassa Bortolo	n.a.		7
FDJeux.com	5.5	<i>L'Équipe</i>	3.7
Gerolsteiner	8	<i>L'Équipe</i>	No data
Iles Baléares–Banesto	5.5	<i>L'Équipe</i>	6 (iBanesto)
Lampre	5	<i>L'Équipe</i>	No data
Landbouwkrediet–Colnago	2.5	<i>L'Équipe</i>	No data
Liberty Seguros	6	<i>L'Équipe</i>	8 (Once)
Lotto–Domo	6	<i>L'Équipe</i>	6
Milaneza Maia	1.5	www.sports.fr	1.5
Palmans–Collstrop	1.5	<i>L'Équipe</i>	2
Phonak	8	<i>L'Équipe</i>	6
Quick Step–Davitamon	8	<i>L'Équipe</i>	7.5
Rabobank	9	<i>L'Équipe</i>	6
RAGT Semences–MG Rover	3.2	<i>L'Équipe</i>	1.8 (Jean Delatour)
Relax–Bodysol	2.4	<i>L'Équipe</i>	2004 new team
Saeco	n.a.		No data
Saunier Duval–Prodir	3.5	<i>L'Équipe</i>	2004 new team
Team CSC	n.a.		3.7
Team T-Mobile	12	<i>L'Équipe</i>	7
US Postal–Berry Floor	6.5	<i>Figaro Économie</i> (estimation)	8
Vini Caldirola–Nobili Rubinetterie	2.7	www.sports.fr	2.7
Total	135.3		

offers could be made to potential partners; thus car manufacturers, for example, and Japanese brands in particular, could be attracted by road cycling, which hitherto has not been so popular in Japan.

Despite the prospect of bigger financial gains, several big names, regarded as 'historical' sponsors, pulled out of cycling sponsorship at the end of the 2004 season, for example, Jean Delatour (jewellery) and Big Mat (do-it-yourself) in France, and ONCE (Spanish association for the blind) and iBanesto (bank) who confirmed the withdrawal of their 15 year-long sponsorship.

Table 42.10 Average budget of a professional team

Income	Expenses
Sponsorship (almost 100% of the income)	Salaries of the riders = 70 to 75% of the global budget
Merchandising revenues (shirts, bikes etc.) are marginal	Other
	staff salaries
	frames
	tyres
	gears and rims
	other components
	overheads
	vehicles
	clothes
	insurance

Main difficulties for teams

Three main problems can be identified:

1. *Limited revenue sources* Teams are financed only by sponsors and merchandising is weakly developed. In soccer, clubs receive 82 per cent of the TV rights of the Champions League and in Formula One the Formula One Constructors Association (FOCA) distributes 53 per cent of them.
2. *The question of return on investment* Uncertainty is important for two reasons: the risk of bad results and the possibility of not being invited by organisers on big tours (and especially the Tour de France). This implies that sponsors have no guarantee of the visibility of their brand: being selected for the Tour de France (or not) can have very important financial consequences.
3. *The search for revenues* The absence of an indemnity transfer is highly revealing with regard to the dysfunctioning of the professional system, because the added value of the manager is not taken into account (training).

Thus the current system is uneven. Unipublic, Vuelta's organiser, attempted to give more stability to the system by inviting 44 teams (rather than the usual 22): the aim was to lend more visibility to sponsors of second-class teams. However, this project will not be implemented because of the UCI Pro-Tour reform for 2005.

Future Prospects

The UCI's project is to develop progressively a 'closed league' – the 'UCI Pro-Tour' – in order to promote a truly worldwide dimension to cycling. The best teams should compete with the best riders during the greatest races of the world. The aim is to open the market to new continents and this has already begun: Australia has created a Tour ('Down Under'); in the Middle East, Qatar appealed to the Amaury Sport Organisation (ASO) for help with the organisation of the Tour of Qatar; and in Asia the Tour of Malaysia is becoming more important. Although these competitions can be considered as emergent,

they nevertheless attract teams because of the pre-season factor. It is obvious that cycling cannot match the large audiences of football, tennis, Formula One or golf. The ultimate goal is to attract more international and financially healthy sponsors.

The first hypothesis is the creation of a competition which would involve all the biggest races (the legendary and most difficult ones). In this case, only European races would be selected and cycling would be confined to traditional West European countries (France, Spain, Italy, Belgium, Holland, Switzerland and Germany).

The possible alternative is to promote new races on new continents to the detriment of some of the more famous races. This could entail two main risks: the slowness of the process and the financial means to invest. Some legendary races could also disappear. If this suggestion were to become reality, it would not come about before 2008, the time required to fit in with professional cycling economics.

Three consequences emerge:

- a decrease in the number of first division teams (30 teams today, 20 teams from 2005 on) but an increase in long-term marketing contracts between the teams and some international brands;
- a higher-quality show, with the best riders and the best teams in the best races; and
- a more accessible calendar of events, with a unique individual ranking procedure.

Conclusion and Further Results

The UCI Pro-Tour is a strategic and beneficial reform for professional cycling teams (long-term contracts with sponsors, increased negotiating power), but it must be borne in mind that the economics of major races is still problematical (the marketing of 'moving' events is more difficult than those held in a stadium). The UCI Pro-Tour may reinforce the organisers' difficulties to find sponsors and to sell their TV rights.

Notes

1. The changes in rugby can be compared to a 'cultural revolution' in mentalities, see Chapter 60.
2. There are some exceptions: some mayors tried to sell tickets for mountain stages but this is unusual. The Tour de France is still a free event that gives gifts away to the spectators through the Publicity Caravan.
3. See Louis Harris, 'The 100 years of the Tour de France', April 2003.
4. In France, for example, the Observatoire Sport et Valeurs (sport and values), l'Image des Sports (image of sports), Carat Sport and the Sportimat.
5. In spite of this recommendation, some companies do.
6. For example, Laurent Jalabert (165 races won as a professional cyclist) works with French TV, radio and newspapers.

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43 Extreme sports (climbing and mountaineering)

Gilles Rotillon

Less than 20 years ago, a distinction was made between mass sports, which by definition involved most people, and top sports, which were practised only by the best. This was illustrated by the famous pyramid of participants, with an elite standing out from the mass and thus setting an example. Extreme sports could hardly be integrated into that scheme, as they are specific activities rather than one general kind of sporting activity. The term 'extreme sports' usually refers to outdoor activities such as climbing and mountaineering, offshore racing, free riding, solo desert crossing or ballooning, which generally take place in hostile environments (exposure to cold temperatures, great objective risks) justifying the word 'extreme'. This definition may be true, but it does not quite take into account the anthropocentric dimension of the adjective, since it is men who consider these sports extreme. Therefore, taking the phrase seriously, 'extreme sports' should be understood as physical activities where any mistake can mean a death sentence.

Are Climbing and Mountaineering Extreme Sports?

The past 20 years have witnessed a qualitative break between mountaineering as it has developed over the last two centuries and is still practised, and climbing as it is practised nowadays.

Two kinds of argument may be put forward to justify this viewpoint. On the one hand, although access to precise data is uncertain, some quantitative indicators highlight quick developments and important changes in the practice of these sports. On the other hand, when analysing the market of professional supervisory staff, it is evident that market segmentation has been increasing for several years, not only because of the emergence of new professionals, but also owing to the transformation of the products offered.

Quantitative development

The number of rock climbers has exploded over the last 20 years. While climbing does not appear in the 1982–83 US National Recreation Survey, the number of climbers aged 16 years or older was estimated in the 1997 Survey at around 7.5 million (Cordell et al., 1997). Of these, 2 million were 'enthusiasts' – those who went climbing six or more times in 12 months. The same situation occurs in France: climbing was for the first time differentiated from mountaineering in the national survey of French people's physical activities (Irlinger et al., 1987), accounting for 1 per cent of the contestants, compared to 0.33 per cent for mountaineering. Some years later, Pouquet (1994) estimated the number of climbers aged between 14 and 65 years to be around 1 million. Similar developments can be observed in every industrialised country. A Scottish study (HIE, 1996) estimated a total participation of between 82 836 and 153 400 climbers in Scotland per year.

Climbing, once an obscure activity with few participants, has become a mainstream form of outdoor recreation. Associated with this rise in popularity is a growing concern about impacts to the cliff environment from increased human use. The growing number

of academic studies which have been undertaken, exploring travel costs and economic impacts on communities where rock climbing is a significant recreation activity, seems to be an indirect reflection of the rising number of climbers (Shaw and Jakus, 1996; Vossler et al., 1997; Cordell, 1999; Cordell et al., 1999; Hanley et al., 2001; Grijalva et al., 2002).

Another striking phenomenon is the development of artificial climbing structures (ACS). These could be found in England as early as the 1960s and some localised activities on non-permanent structures were organised in France in the 1950s, though the dramatic expansion of ACS really began in France in the 1980s. Varlet (1989) listed 18 structures in 1984 and 168 in 1987; and according to the French Association of Mountaineering and Climbing (Fédération française de la montagne et de l'escalade), there were more than 360 structures in 1989. However, these estimates did not take into account school structures and ACS smaller than 20 square metres. Today, based on most figures, more than 1000 ACS can be found in France (school ACS excepted). Other industrialised countries still lag behind but have experienced similar developments. This led to the emergence of an ACS-related industry sector, with a growing 'industrial' production and an increasing number of indoor climbing facilities – more than 400 have opened in the United States and Canada, most of them between 1994 and 1997 – proving that the potential market is large enough.

The rise in specialised magazines also confirms the trend. Until the end of the 1970s, most such magazines were published by mountaineering associations. Today, dozens of commercial magazines are published, either about mountaineering or climbing. Advertising is also an indicator of this development. Without being invasive, climbing images have become more and more common in advertising, and several firms use them as a medium for corporate advertising (Ramanantsoa, 1989). The companies Ecco, Bel, AGF, Beghin Say, Heudebert and, more recently, Sector have been using this image since the 1980s. Among the reasons put forward to justify this use is the fact that climbing promotes adventure and safety at the same time. The same can hardly be said of mountaineering, which is known especially for the summer deaths it induces.

The growth of the equipment market is also a sign of the rising number of participants. Twenty-five years ago, the rather small global market of rock-climbing shoes was dominated by the French manufacturer EB, which had a virtual monopoly. In 1990, more than 25 different models were marketed by a dozen manufacturers, while today a hundred models are available in a monopolistic competition market. This trend towards growth can also be seen in the ropes market (which doubled between 1984 and 1988), with the introduction of specific equipment (such as single ropes of 70 metres and more, which are useless in mountaineering) and in the market for other equipment (15 to 20 per cent for climbing materials and 5 per cent for mountaineering).

Last but not least, new practise centres have emerged: cliffs that are protected exclusively with fixed protection. In France, there were 388 such sports sites in 1986, against 1320 in 1999, accounting for 437.7 kilometres against 1313.1. Bouldering has experienced a similar development, the number of sites having risen from 148 to 287 over the same period (Rotillon, 2002a, b). A similar trend is apparent not only in the other developed countries, but in many developing countries as well, where sports sites are expanding and attracting more and more climbers, such as in Madagascar, Brazil, Thailand, South Africa and so on. Surfing on the web gives an idea of the extent of this trend.

All these elements illustrate only one thing: the number of climbers has risen significantly over the last 20 years, most of them choosing sports sites, bouldering or artificial structures.

The professional market of supervisory staff

Until 1986, the only professionals were guides, who were trained differently according to the particular country, but whose qualifications were acknowledged by the International Mountaineering and Climbing Federation (UIAA). Most of their activities took place in high mountains, in free-access, non-equipped areas characterised by many unpredictable variables (meteorology, quality of snow, rockfalls and so on), which could only be mastered through experience due to long practice. Therefore, the asset traded in the market was the knowledgeable guide, who was a guarantee of safety and perceived as such by clients. The market was originally driven by demand, with clients choosing a guide to reach an objective and, during the 'golden age' of mountaineering, whose name was associated with a particular route. However, the market seems to be increasingly driven by supply as professionals become organised in associations that offer 'products' (Mont Blanc training course, *via ferrata*, canyoning and so on), which are theoretically available to all.

Yet, the most important change has been induced by the development of dedicated climbing training sites most often located outside mountain areas, freely accessible as well but which have been equipped according to increasingly specific standards. Following this expansion, the situation evolved rapidly, leading to the introduction in 1986 of a new professional degree in France, the *Brevet d'État Escalade* (BEE, Climbing State Certificate). As soon as these new professionals arrived on the market, they had to consider their position relative to the established body of high mountain guides, with whom they seemed to be in competition. The truth is that while a guide can supervise the same activities as a BEE graduate, the reverse is not possible, and the definition of their respective range of competence has given rise to fierce debate. As for the solution adopted – a BEE graduate is restricted from practising above 800 metres, later increased to 1500 metres, or when travel through snowy areas is required to access sites – although this creates two distinct territories, it does not do justice to the great difference in nature between the 'old' market of supervisory staff in mountaineering and the market targeted by the launch of the BEE.

Due to the new nature of practice grounds, where everything is done to eradicate any objective risks (walls are cleaned up, unstable holds are secured, close and solid anchors are set up to make falls less risky), the required know-how of supervisory staff is now very limited. In one session, beginners can learn how to rope up, to belay and to lead a route that is equipped according to current standards. Thanks to regular practice, they can improve quickly and satisfactorily without the help of an instructor. As a consequence, the climbing market increasingly suffers from the fact that cliffs are easily accessible, allowing 'wild' practice. Furthermore, know-how is included in modern equipment, as routes are opened after a preparation process requiring some previous consideration of moves to be done and thus enabling specific technical moves to be assimilated using the 'learning by doing' method. Supervisory staff in the climbing market now try to sell a 'cliff and know-how' package, and it is often unnecessary to turn to volunteer or professional specialised staff. The development of practice outside clubs and associations is conclusive proof of this assessment, which is also confirmed when evaluating the practice on artificial structures, as is mainly done on 'top-rope'.¹

As a consequence, BEE graduates cannot pretend to be able to guarantee safety as confidently as guides can, and that is why they emphasise sporting progress, which they claim is more rapid with them than without them. And although the potential range of their clients is far greater than that for the guides, they actually experience more difficulties in developing a private clientele. Their activity is thus concentrated within the framework of group supervision, where security is a legal priority.

However, these legal barriers are due to the assimilation of climbing into mountaineering, which the evolution of both activities tends to make obsolete.

Climbing is not an extreme sport

Thus, the fundamental difference between mountaineering and climbing, which are so closely related as far as body language and some basic techniques are concerned, can be identified from what was demonstrated above: mountaineering bears a relationship to danger (and the most definitive one, the one that threatens life), which climbing tries to eliminate at all costs. An unintentional confirmation of this can be found in *Les aventuriers de l'extrême* (Le Scanff, 2000). In the course of investigating the motivations of sportspeople who risk their lives, the author interviewed 15 people – sailors, mountaineers, ‘pole riders’ – all of whom risked their lives. Top climber Liv Sansoz’s testimony was out of step with the others. While the author often insisted on the relationship with death inherent in their passion, the fact that she still placed climbing among these risky activities, in spite of Liv Sansoz’s testimony to the contrary, is characteristic of the misunderstandings about this new practice.

In fact, ignoring the fact that mountaineering can be fatal leads to foolhardiness; awareness of the risks involved is the best way not to kill oneself, and the small number of mountaineers can be explained by the fact that the general public is well aware of this risk.

In climbing, on the contrary, everything is done to eliminate this deadly risk, and the fact that more and more participants have become aware of this objective absence of risks has contributed to the development of climbing. Furthermore, this development did not occur in the mountains, but through the emergence of new practice grounds, sports sites that often consist in small cliffs which had formerly been deemed unworthy of consideration by mountaineers.

As a consequence, only mountaineering should be regarded as an extreme sport, at least when practised at the top level. It is obvious that there are many levels of practice in mountaineering, and thus many situations where the risk of death is not clear cut. It is no doubt quite possible to climb with relative ease the normal route to the Aiguille du Tour (although this does require some vigilance), whereas it is quite impossible to climb up the north face of the Eiger without careful consideration of the potential tragedy in attempting to conquer it. However, the numerous situations, the endless variety of ascents and the change in objective conditions should not conceal the fact that the risk of death, which is inherent in this activity, still exists. What mountaineers call commitment is one of the essential dimensions of mountaineering: this feeling conveys the impossibility of putting an end to the activity at any time, whereas in climbing, on the contrary, it is always possible to stop. This commitment can even lead mountaineers to decide in all conscience to keep climbing although they are aware that any retreat from there on would be impossible. People who can take such a decision and return safely, thus demonstrating their self-control, are precisely the ones who are considered top mountaineers by their peers.

Extreme Sports in the Service of the Climbing Market

None the less, considering climbing as an extreme sport is not without a certain rationality. The sports system today is diffuse, and we must abandon the image of the sports pyramid, in which the masses at the base, through a selection process, nurture the champions at the top. This concept was quite well founded in 1948, when the Czech athlete, Emil Zatopek, was able to set records in the 10 000 metres owing to intensive training in addition to holding down a regular job. However this system is no longer viable, as top sports form a complex system made up of many components: training, economic and media influence, technological and medical research and so on. The aim is not so much setting records to demonstrate human potential, but rather producing a profitable sporting show and selling byproducts to a base reduced to the role of a potential market, in which sportspeople are at best sales representatives.

Mountaineering and climbing need to be set in the context of increasing global media coverage and marketing development in order to understand the specifics of the many forms in which they grow. The background to this is the double process of leisure industrialisation, which leads to a mass economy and thus implies some uniformity, and of differentiation through which the elite fight to stand out. The latter movement can be witnessed in the declarations of mountaineers themselves, as they denounce the current practice of climbing, suspected to be at best a variation of gymnastics, deprived of all the traditional values of mountaineering.

Without looking back too far, one may quote representative opinions from such distinguished mountaineers as Doug Scott or Yvon Chouinard: while one said that 'sports climbing should be limited to gymnasiums, leaving risks to cliffs, which are the true essence of climbing', the other took issue with the increasing number of people who 'think that climbing is not dangerous' (*Vertical*, No. 66, March 1994; *Vertical*, No. 68, May 1994).

Many examples can confirm that mountaineers are aware of the death risk inherent in their activity, and that the development of climbing in their opinion constitutes a break with and an undermining of their sport. This elitist conception of mountaineering, considered not as a sport but as something hard to define which refers to 'a graceful and poetic world' and a (good) way of life, is as old as mountaineering; but it does not seem to be the best way to enable the development of a mass market, as demand comes only from atypical individuals. Therefore the image portrayed by mountaineers only seems to strengthen the barrier to entry in an activity which is objectively risky.

Leisure industrialisation also affects mountaineering and climbing. Concerning these two activities, industrialisation can only take place if their specificities are taken into account. The first obstacle is an objective one: the mortality risk induced by mountaineering. The rise of modern climbing solves this problem by offering security. A second obstacle, though this time subjective, does remain: the image that mountaineers want to project by claiming their uniqueness. This obstacle can be overcome not by espousing a more humble attitude, but by exaggerating the participants' uniqueness: modern mountaineers are millions of atypical people keen on an extreme sport!

This positioning is necessary, owing to the situation of climbing in the sports field, which can largely be explained by its links with mountaineering and the way these links have progressively weakened, as sociological studies on climbing, especially by Corneloup (1993) and Pociello (1991, 1995) have shown. Thus, on a factorial plane representing the distribution of agents according to how and where they practise (including sports), made

up of four quadrants, climbers going to Fontainebleau forest are in an extreme position in the so-called 'adventure' quadrant. Generally speaking, they are 'hostile to established social and political order and tend to reject the system' (Pociello, 1995, p. 76). In the sports field (*ibid.*, p. 46), climbers and mountaineers have a high cultural and economic capital, are close to environmental values and have an adventurous nature, mountaineering having a stronger technological and informational dimension. Moreover, adventure is often experienced in opposition to social routine. Countless texts tell the story of mountaineers climbing up a mountain in pursuit of values that modern society can no longer give them. This holds true for the whole history of mountaineering.

Although climbing has managed to set itself apart from mountaineering, this autonomy is far from being perceived either by the general public or by climbers themselves. The climbing market can only develop if the objective barrier of deadly risk is eliminated, and if practice is subjectively experienced as an adventure, which allows strategies of differentiation from most physical activities. Climbing can only be marketed as an extreme sport substitute. This confirms the marketing and media origin of the term 'extreme', noted by Le Scanff (2000), when she pointed out that this sporting fashion dates from the first 'Raid Gauloise' in 1989 in New Zealand. Mountaineering, far from avoiding the mass market, serves as an experimental activity for this very market. Thanks to the imaginary world it creates, climbing can be sold to a specific demographic public. However, the positioning of the climbing market, which is still linked to mountaineering in the category of extreme sports for the reasons explained above, restrains its extension, as illustrated by the sociological composition of its participants, with an overrepresentation of the upper middle class with a strong cultural capital. Expected profits derived from its development can then only be limited and cannot match up to sports like tennis, football or golf, for which there are millions of participants. No wonder then that top climbers, who turn more and more into 'sales reps' (as do all top sportspeople), are getting paid according to their marginal productivity. Climbing is indeed able to drain money, to the great displeasure of its top participants who try to turn professional to live on their passion; but it only drains what it can.

None the less, an essential dimension of the complex relationship between mountaineering and society would be overlooked if it were only regarded from the point of view of marketing. While mountaineering is not quite 'profitable' in the strictly financial sense of the word, it becomes much more attractive when the 'symbolic rent' is taken into account. This rent comes precisely from this relationship with death which characterises mountaineering and some other physical activities. Mountaineers have been well aware of this risk from the very beginning of this activity. Horace Bénédict de Saussure is an early example of this symbolic value: after climbing Mont Blanc, he had the engraving which represented him sitting on the snow and supported by his guides altered so that he was shown standing upright, independent – and carrying less weight! By doing this, de Saussure revealed that mountaineers need to be admired, provided that they are looking at their best. Hoibian (2000) demonstrated how this rent, which first came from the positioning of mountaineering as a social and mundane form of tourism, later derived from a 'new definition of mountaineering excellence'; mountaineering followed the example of increasing sporting excellence while differentiating itself by the well-known phrase: 'mountaineering is a unique activity'. This movement ended after the Second World War with the development of the 'classic mountaineering' model, which could not open up to

the mass market in so far as its main promoters aimed at 'protecting their practice from increasing competition from middle and popular classes demanding leisure democratization' (ibid., 2000, p. 331). The bases of current climbing development are very different, and the appropriation, not to mention the emergence, of a symbolic rent comparable to that brought about by mountaineering will be much more difficult.

Note

1. Practice that consists in being belayed from the top by a rope placed at the top of the route, which eliminates any risk of falling and reduces technical manoeuvres to a minimum.

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44 The economics of tennis

Eric Barget

While many papers have been dedicated to the professional collective sports economy, particularly in the United States, little attention, if any, has been paid to individual sports from an economic point of view. This is damaging because of the fast-growing weight of these activities since the 1970s (in terms of added value and jobs creation), the level of development they have reached in the world (for participation as well as hallmark event attendance), and the private financing from which they are now benefiting (television rights, sponsorship, merchandising). This is the case for boxing, golf, skiing . . . and tennis, which is an individual sport but can also sustain team confrontation. A better analysis of tennis development until the 1990s is of particular interest in understanding the difficulties which have occurred during the last 10 years, what is at stake in view of recent changes that have occurred in professional tennis, and why such intense negotiations are taking place nowadays between the main tennis organisations.

As the academic literature is weak on the subject, this chapter will make a more general presentation of this economic sector, of key issues for its development, and of themes which would be of interest for research programmes, rather than just being a synthesis of previous academic investigations. In the following section, the way professional tennis is organised will be presented; it will be shown that it relies strongly on economic principles, and is clearly orientated towards economic objectives. Through TV broadcasting of tennis events, professional tennis has encouraged the practice of tennis as an amateur sport; consumption of tennis goods and services was induced, and a specific industry was created; this will be analysed in the next section. Tennis tournaments as well as participation in tennis clubs generate economic effects which are of a monetary or real nature, both positive and negative; these issues are of interest to public decision makers and will be discussed in the penultimate section. A final section concludes.

Tennis: A Professional Sports Activity

Professional tennis has become very important all around the world in political as well as economic terms. Interaction between sport and diplomacy often results in decisions made at the highest political level. This was illustrated, for example, by the case of the tennis player Hu Na who asked for asylum in the United States, which led to a deterioration in Sino-American relations (Pendleton, 1986). The economic significance of tennis is even more obvious, considering the characteristics of the professional tennis system, the way it is managed, and the amount of money exchanged.

A management in search of economic rationality?

The system of competitions obeys sportive and economic criteria. The fundamental changes of the ATP Tour bespeaks a will to enforce a regulation system based on economic rationality and profit maximising.

The functioning of professional tennis At the heart of tennis organisation is the International Tennis Federation (ITF), founded in 1913, which is one of the most powerful sporting institutions (regarding the number of national federations represented and the global number of members) and which has developed considerably since the 1970s. The ITF is responsible for all the youth international competitions, and oversees the most important tournaments ('Grand Slam' tournaments) through its national federations (US, Australian, British and French) which organise them, and through the Grand Slam Tournament Committee (consisting of the four Grand Slam Tournament presidents and the ITF President). Moreover, the ITF directly manages team competitions – for example, the Davis Cup for men, the Fed Cup (originally the Wightman Cup at its inception in 1923) for women, and the Galea Cup for players under 21 years (since 1950). This is very similar to the situation in collective sports such as football, where competitions between national teams depend on the international federation (Football World Cup).

What is different is the system that professional tennis relies on, with its powerful players' trade union, the Association of Tennis Professionals (ATP), which represents professional tennis players, to whom various services are available (Chombart and Thomas, 1990), including the presence of an ATP official and of a physiotherapist at every tournament, and a weekly journal. But at the same time, the ATP gathers together organisers of professional tournaments (except for the Grand Slam) and is de facto the decision maker of the World Professional Tennis Tour. The situation is similar for women, with their powerful trade union, the Women's Tennis Association created in 1971 in reaction against the discrimination in prize money allocated for women in comparison with that for men.

This ambiguity in the role of the ATP constitutes the main reason for the current difficulties: criticism of the fact that players' interests are not sufficiently safeguarded, the creation of a competing trade union (the International Men's Tennis Association or IMTA). But more generally the system does not work very well because of a conflict of interest among the ATP, the ITF, the Grand Slam Committee, and Tennis Properties Limited (a joint venture associated with the creation of the Masters series) concerning how to share the power and the economic rent engendered by professional tennis activity. This is not a new problem. In 1988, the ATP threatened to create its own tour to obtain the majority of votes in the management of professional tennis. Today, these tensions are more acute with the bankruptcy in 2001 of ISL (International Sport Leisure inc) which had guaranteed a huge amount of marketing receipts which are now lost. This led to the suppression of the bonus granted at the end of the year to the first 50 in the rankings of the Champions' Race. Various decisions are also instructive: the fact that the Davis Cup (controlled by the ITF) is not taken into account in the ATP Champion Race; the refusal by the Grand Slam Committee to increase tournament endowments as requested by the ATP; and the refusal of the organisation to sanction a 10-day tournament open to men and women on the same principal as for Grand Slam tournaments, which was desired by the ATP.

Recent changes: the ATP Champions' Race In 2000, the ATP Tour was completely modified so that tennis fans could understand it better and to obtain an increasing commercial return. Changes in tournament schedules aimed at clarifying the ATP Tour and increasing the public interest in tennis. There are still nine main professional tournaments constituting the ATP Tour (the Grand Slam Tournament is separate), but they have been

renamed the Tennis Masters Series rather than the Super 9, which is not a minor detail because the term 'Masters' should ensure cohesion of the professional tour. Indeed, the final event of the season is the Tennis Masters Cup. This was the original name of the competition created in 1970, which took place each year in a different town and a different country, spreading tennis practice around the world, and increasing the power of the institutions in charge of tennis. Munich's Grand Slam Cup, created by the International Tennis Federation in 1990, then in conflict with the ATP, was abolished: this gives more consistency to the professional season, and is at the same time intended to enhance the image of tennis, damaged by an event which was largely considered by the public as a way of enrichment for tennis players (\$2 million was allocated to the winner when it was created in 1990). The classification of tournaments has also been simplified: less important events than the Tennis Masters Series are called International Series and comprise the Championship Series and the World Series, once again simplifying matters for tennis fans.

The ranking of players has changed; it is now similar to the Formula One system in racing and is related to the ATP Champions' Race, which starts in January and finishes at the end of the year. The previous system (since 1973) was very difficult to understand, and based on the results of the previous 12 months, more precisely on the comparison of a given player's result in a tournament relative to the previous year (when a tournament is played, the points won are added while those won the previous year are cancelled). This led to what very often appeared to be incomprehensible situations: for example, Pete Sampras went down from the first to the third rank after winning at Wimbledon in 1999, while Andre Agassi, who lost in the final, took the first rank. Since 2000, the race has started in January with zero points for all the players, who accumulate points during the season, depending on their results and according to a scale taking into account the importance of the competitions played. The results of 18 tournaments are taken into account (19 for the players who also qualify for the Masters Cup), among them necessarily the four Grand Slam tournaments and the nine Masters Series for the admitted players, completed by the five best results in International Series tournaments (including the Olympic Games). The world number one is known only at the end of the season. This decision is intended to improve the quality of the main tennis events, by ensuring the participation of better players.

Rules have also evolved for a more attractive show, in the same way that a tie break was invented to avoid excessively long matches. The break after the first game of each set has been abolished and a break added at the end of the set, which accelerates the less interesting phases of the game, and makes possible the broadcasting of highlights when the concentration of the TV spectator is at its height. The scale of sanctions has been made flexible, disqualification has been replaced by a penalty game, and in the case of additional fault, the sanction is decided by the umpire. It avoids stopping the match, which would disappoint spectators and economic partners alike.

A series of measures intended to increase interest, and the associated economic rent, have been presented, but the question then is how to share these benefits between partners associated with production of the good and particularly how they should be allocated to players. Money prizes have reached a high level (Australian open: €10 257 million; Roland Garros: €13 044 million; US Open: €16 638 million; Wimbledon: €13 245 million) but began to decrease slightly for the first time in professional tennis history in 2003

with the diminution of private partners' support. The best tennis players are among the best-paid sportspeople according to the ranking established by *Forbes Magazine* (the top tennis player, Andre Agassi, held the 13th place in 2001, preceded by a few golfers, basketball players, boxers and Formula One drivers). Because of a lack of public interest, prize money for doubles is low (and decreasing) compared to singles; doubles competitions are considered to be too costly, and are rarely broadcast. Finally, what amount of prize money would be rational?

Tennis tournament endowments: what about tournament theory?

The rational distribution of benefits between players is central to the debate on the rent distribution, with the ATP constantly demanding an increase in tournament prize money. In individual sports as for professional team sports, the question of preserving a competitive balance will have to be carefully considered. The competition is all the more interesting for the spectators, and all the more profitable, since competitors are of equal strength. If for collective sports (Késenne, 1999), the preservation or improvement of the competitive balance is ensured by involving several measures aimed at sharing as equitably as possible the commercial revenues (drafting, salary cap, collective bargaining of television rights), then in individualistic sports, one way of reinforcing competition between players would be the reverse – that is, to maintain a huge inequality in prize money distribution. To make tennis more attractive and to improve the health of organisations in charge of tennis, the amount of money distributed has to be of prime importance and to decrease very quickly. This explains why the global endowment was increased for women, in the Grand Slam tournaments, to virtually the same amount as for men, as a means of motivating young players to train hard and, in the medium term, to make the competition more uncertain and attractive. Moreover, for men as for women, the prize money allocated is doubled from one round of the competition to the next, in order to motivate competitors. This is close to the idea of a bonus distributed to players of collective sports for a victory.

It is of interest to analyse the effect of the global amount distributed on the performance of the best players ranked in the first hundred at the ATP. In a study on foot races, Maloney and McCormick (2000) investigated econometrically whether the workers' effort responds to the wages paid to them for 115 races and 1426 runners. They concluded that higher prices are associated with faster times for individuals already in the race, and that higher prices attract a faster field. Similar results were obtained by Ehrenberg and Bognano (1990) for golf; they showed that there was a direct link between the global prize money of a tournament, concentration of earnings in the first places, and performances. Differences in the amounts of money allocated to players according to their ranking have to be big and increasing up to the final. A similar methodology should be applied to see whether these conclusions are true for tennis (the best players having better results in well-endowed tournaments, and participating more when prices are high, even if participation there is 'officially' compulsory because of the ATP rules). An observation of the strategies of tennis decision makers shows that they assume this to be true, even though it has to be proved for tennis. Nevertheless, factors other than money may affect players' motivation – prestige of the competition (Olympic tournament for example), ATP allocation points and so on – which could explain adverse performances of better players in the Grand Slam Cup in the 1980s.

Search for profitability as an explanation of deviations?

Private financing The game that Major Walter Clopton Wingfield had imagined as an amusement for members of the 'bourgeoisie', interested very early private entrepreneurs, so that private exhibitions were organised and the first professional contracts were signed in 1926; Jack Kramer is considered to be the father of professional tennis. While they did not recover the invested money at the beginning, in the 1960s professional tennis became a profitable activity, not only for players but also for private companies. For some decades, tennis competitions have been attractive for economic partners, who are sometimes owners of competitions, as we can see for the *Nec Davis Cup* which recently became the *BNP Paris Bas Davis Cup*. The question arises as to the influence that such companies can have on sporting rules, and the way the professional sector is managed. Some sponsors belong to tennis or more widely to the sports industry (Adidas, Lacoste, Intersport) which seems logical, but corporate financing may also come from other economic sectors (BNP-Paribas, Canon, Fujifilm, IBM, Peugeot, Perrier). Decision makers more generally want their firm to be associated with the tennis image.

Nevertheless, sponsorship is less easy at the beginning of the millennium, with the worldwide economic and political crisis following the September 11, 2001 terrorist attacks. In a difficult economic context, companies have chosen to concentrate their communication policy on the more profitable tennis events and players, leading to financing problems for the others. The WTA had difficulty finding a new partner after the decision by Sanex to reduce its financing, and not to support the Sanex WTA Tour. Many companies are reluctant to invest as much as Sanex did (\$40 million between 1999 and 2003), with an uncertain return, even if women's tennis is attracting increasing interest. A specific problem to tennis is that there is a risk of competition between local partners and the main sponsor because of the number of tournaments in the professional tour. The best return for sponsors is not always linked with results from a sporting point of view, that is, the highest amount of money allocated to players relies not only on success on the court: Nike always preferred to focus its communication strategy on Andre Agassy rather than on Pete Sampras, who holds the absolute record for Grand Slam Tournament victory but is less charismatic; indeed, the partnership with Sampras was not renewed for 2003, so he was dressed entirely in white during the 2003 Melbourne tournament. In contrast, while not ranked among the best women players, the Russian Anna Kournikova has won \$40 million each year since the beginning of her career.

The most successful companies are those with a long-term strategy in tennis; it appears that the best recognition rates benefit regular sponsors, and firms widely involved in tennis sponsorship (BNP-Paribas, for example, has been a partner of Roland Garros for 30 years, of the Davis Cup since 2001, of the BNP-Paribas Masters of Paris Bercy, and of several other less well-known tournaments). Annually, the bank invests €16 million in tennis (25 per cent of its communication budget), and the return of €1 spent on the Davis Cup is equivalent to a return of €2.5 dedicated to a traditional communication campaign. This explains why there is considerable fidelity from advertisers. On the other hand, tournament managers prefer a strong partnership in the long term, with companies which can enhance the reputation of tennis, rather than a multitude of occasional sponsors.

Television has played a very important role in the development of tennis as a professional activity. It sustained the development of tennis events by direct financing through television rights, and indirectly generated resources via TV partnership with tennis.

Broadcasting rights for Roland Garros amounted to €39 million, involving 170 countries, and the programmes were viewed by 3 billion spectators. In 2003, a new channel exclusively dedicated to tennis was launched on American TV, covering 1000 hours of competition each year. If we consider that there are also ticket sales (€20 million sales receipts in Roland Garros 2002), merchandising, that is, sales inside the stadium or on the internet of various items carrying the tournament logo, and museum receipts (the Tennisium was created in Roland Garros 2003 for €4.8 million, covering an area of 800m², enabling the stadium to be open all year round, with the objective of attracting 100 000 visitors), tennis events appear as private goods with financing being ensured mainly by the private sector. These goods have several characteristics: divisibility of consumption (the beneficiary can be easily identified), rivalry in consumption (for the main competitions, tickets are very rare), and with exclusion through the price system (access to the stadium may be costly). This is particularly the case when the broadcast is on a channel that spectators have to pay for.

Current debates on professional tennis? For a long time, discrimination has been of interest in sports economics, not only in collective sport but also in tennis. The question of discrimination between men and women is now less debated (money prizes are more equal), but the issue of racial discrimination has arisen with the success of two black tennis players, the Williams sisters, and the way they have been perceived by their rivals. Discrimination is also related to the sexual orientation of some players: for example, the comments made about the French tennis player Amélie Mauresmo, when she began to be successful on the WTA Tour. Such behaviour is contrary to the sporting ethic and equity in competitions.

Moreover, players sometimes have problems managing wealth and fame. Recently, there have been scandals concerning match fixing and gambling in England, or of players benefiting from 'wild cards' and accepting money to lose in the Grand Slam tournament qualifications. Some tennis players have also been convicted of tax evasion (Boris Becker in 2003, for example), because of their desire to avoid their national tax system, by declaring that they are living in Monaco or in Switzerland. Players also sometimes have problems in their personal life because of their lifestyle. Others have had marital problems, for example Bjorn Borg, and more recently Andreï Chesnokov.

Heavy competition schedules for male tennis players, with compulsory participation in the four Grand Slam tournaments and the nine Masters series (non-participation is sanctioned by zero points) may lead to injuries, sometimes so severe that they prevent participation (Martina Hingis for example). The number of withdrawals has not stopped growing (159 for the 2002 ATP Tour) which is a direct consequence of competition schedules, and while tennis was considered to be a clean sport until very recently, the Australian agency against doping, the Australian Sports Drug Agency (ASDA), revealed in 2002 that doping was common in women's tennis. Declarations of several male tennis players on the subject seem to indicate that doping concerns men as well. Tennis decision makers have considered the question very seriously because doping conveys a bad image and reduces the economic rent. For a long time, a law of silence was imposed by the ATP, which threatened sanctions if players spoke out (Yannick Noah in 1980, Arthur Ashe in 1982, Boris Becker in 1993, Nathalie Tauziat in 2001). When the facts could no longer be concealed, the ATP reinforced controls against doping which are now organised each year and the

results made public: 990 controls in 2002, on 334 different players, and 8.6 controls per year for players ranked in the top 10. Since Melbourne 2002, controls also govern EPO, a substance that has been very difficult to detect until now, chemists regularly being in advance of controls. Doping is not always voluntary, as revealed by the case of a Czech player, Bohdan Ulihrach, convicted of doping in October 2002, but cleared by the ATP in July 2003 because nandrolone had been incorporated in food complements given by the ATP physiotherapists. None the less, it is clear that the search for productivity underlies the misdemeanours penetrating professional sport. Strong constraints imposed by event organisers on sportspeople have led some researchers to speak of exploitation of sports labour in the framework of Marxist theory (Kidd, 1979).

Tennis: A Sports Industry

Tennis is an emblematic sporting activity because of its popularity, its wide diffusion in developed countries, and its participation in local sporting life. This is the result of a period of dramatic increase in the number of amateur tennis players and clubs from the beginning of the 1970s to the 1990s. In France the number of players multiplied by 4.4 between 1975 and 1990, and the number of clubs by 3.6. During the following decade, there was a significant decline in the number of tennis members and clubs, of 23 and 10 per cent respectively, before a stabilisation at the beginning of the millennium. The same phenomenon was observed in other Western countries, the United States Tennis Association (USTA) lost 13 million players between 1978 and 1994, and the German Federation 144 000. This section will analyse how the associated economic sector has evolved in this very uncertain context, the characteristics of the market, and the strategies of international firms at the production and commercialisation levels.

Tennis participation in crisis?

In the 1990s, the extent of the decrease in the number of tennis players in many developed countries raised fears of a real crisis in tennis. According to Di Ruzza and Gerbier (1977), a crisis concerning the practice of one sport is the end of a period of success characterised by the enforcement of a system in which high-level management is compatible with mass sport development, with the interest of capital invested in this activity, and with the objectives of the various social classes concerned by practice. Then, according to this definition, the statement that there was a crisis in tennis has to be moderated.

This crisis was real from a social and institutional point of view; Waser (1995) explained that on the one hand, democratisation of tennis (which became accessible to the middle classes), and on the other, the increase in the number of clubs (obliging them to compete to retain their members), led to a loss of club identity. The supply of tennis is then no longer characterised by complementarity but by competition; clubs are trying to retain members who consider themselves as customers rather than real members, and are constituting groups which are relatively autonomous. This institutional crisis was enhanced by competition between sporting activities: in particular, golf clubs began to attract upper-class people coming from tennis, which had become accessible to the middle classes (Renaud and Rollan, 1995).

But from an economic point of view, we cannot really speak of a crisis, even if clubs, which were faced with profound changes in their members' expectations and behaviour, experienced some difficulties. A reduction in the average number of players per club induced

a decrease in clubs' own resources, and the recruitment of partners and sponsors became less easy. The clubs' supply had to be partially transformed, mergers occurred as a way of maintaining a minimum size and of providing services necessary for their survival; but the most important changes took place in commercial tennis organisations which entered a restructuring phase, with closure for some of them, and buy-out by rivals for others.

Nevertheless, since the 1990s, a large gap has opened up between amateur tennis in clubs in the grip of a decrease in the amount of their own receipts, inducing economic difficulties, and professional tennis which is becoming evermore profitable. The TV audience for the US Open Tournament final was the highest in 2002 for men as well as for women (it is true that four Americans played in the final); similarly for the attendance, which amounted to 628 738 spectators. The other Grand Slam tournaments are also at their maximum capacity, 520 000 spectators at the Australian Open, 460 000 for Wimbledon and 380 000 for Roland Garros. According to a report on favourite sports on television (Sport und Markt, 2003), tennis is the favourite sport for 31 per cent of spectators in France, 30 per cent in Spain, and 15 per cent each in Germany and the UK. Professional tennis does not seem to suffer from a lack of public interest and thus of sponsors, even if the latter are more selective. The fact that there is still solidarity with professional tennis and mass tennis participation, denies the existence of an economic crisis of this sport globally. Redistribution of part of the benefits from major tournaments to regional and local tennis institutions, and to clubs, contributes to the health of amateur sport, and reaffirms the pyramidal structure that tennis relies on. In France, the Roland Garros Tournament is always more profitable (Bayle, 1999), and represents more than 80 per cent of federation receipts; moreover, the French federation budget was increased threefold between 1988 and 1998, which enables it to implement a voluntary policy¹ towards clubs, dedicated to preventing the loss of players. This support to the development of practice, contributes to the dynamisation of clubs, and more generally of tennis actors (both voluntary and professional). Key issues are here again very different in professional sport franchises in collective sports in the United States, or from Formula One, for example, compared to individualistic sports where the break with amateur sport is obvious. Because of strategies to revitalise tennis institutions, made possible by professional tournament profitability, and a renewed fidelity of members to their club, the number of players is stabilising in most developed countries or even increasing slightly. Moreover, in Asia, the situation is progressing quite rapidly and the tennis market with it.

What strategies should tennis firms adopt in the context of globalisation?

The tennis crisis concerns not only federations, but also manufacturers working in the tennis goods and services market. In 1994, because of common interests, the French Tennis Federation combined two professional federations of the sports industry, the FIFAS (French Federation of Sporting Goods Industry) comprising sporting goods manufacturers and trade marks, and the FNCASL (National Federation of Traders of Sporting and Leisure Goods) comprising distributors, in an Economic Council of Tennis. This initiative, intended to halt the decline in the number of players and of associated consumption, shows that a collaboration was necessary to reverse the negative trend. In France, after a huge progression of 15 per cent on average each year from 1970 to 1980, with a peak of 1.4 million units in 1981, the tennis racket market fell continuously during the 1990s, and since 1998 has stabilised at about 600 000 units.

In most countries, the market appears to be stable or declining, for example the German and the British markets both declined by about 15 per cent in 2002. Moreover, sales fluctuate according to the performance of national players, the uncertainty of tournaments taking place in the country, innovation in tennis materials, charismatic players on the ATP Tour, competing hallmark events (notably the football World Cup) and weather conditions. In such a difficult context, brandnames try to maintain their position, and market leaders are reinforced. The market is highly concentrated, the leader for tennis ball sales is Head-Penn (an Austrian Firm) with 34 per cent of the global turnover, the leader on the racket market is Wilson (an American firm) with 35 per cent of the global turnover. Firm policy relies heavily on a global market which allows them to balance bad results in racket sales by good results for the shoe, sportswear, gut and tennis ball markets; this is why Head bought Penn, a ball producer, a few years ago. At the heart of their strategies is the differentiation of their products through technological innovations (for example, the 'Metal liquid' concept for Head; the 'Triad' concept for Wilson). As for communication, partnership with professional players but also with intermediate players, clubs and tennis schools is enforced. In spite of associated risks (in 2002 Martina Hingis sued Sergio Tacchini for faulty shoes alleged to have caused her severe foot injuries), sponsorship of players is essential, and generally practised by international firms. Some companies, on a very competitive market, faced severe difficulties because of a lack of innovation; such was the case, for example, of Prince (a US company) which was bought by an American investment group, and of Dunlop which performs well in the ball market, but needs to boost its activity in the racket market.

Most of the firms, and among them leaders of the market, target regular (competitive or not) players to whom they furnish high-quality and expensive items. Because of changes in consumer behaviour – in many cases consumers are not looking for a racket used by a champion, but for one adapted to their own needs – companies furnish very specific products: for women, for the young, for old people, for competition or for leisure. Generally, the tendency is to increase prices, particularly for rackets, which allows firms to maintain or even increase their turnover (while sales were stable in 2002 relative to the previous year, the turnover increased by 11 per cent). Even on leisure models, prices are high in the United States, and going up in Europe where there is a tendency towards the Americanisation of tennis. Furthermore, with the use of high-technology rackets, players are less reluctant to buy more expensive gut. Concerning the distribution sector, such tastes are positive for sports specialists and especially for shops specialising in tennis equipment (a particularity in this sport) which have seen their position reinforced. Players who are looking for middle- and upmarket products increasingly seek advice, and prefer buying in specialised shops rather than in supermarkets. Thus, distributors are confident because of an additional demand, and because the number of suppliers is reduced by the global policy. Nevertheless, occasional players can buy less expensive equipment in newer companies (for example, Völkl, a new Austrian brand, 50 per cent owned by the ex-champion Boris Becker). They can also buy products developed by sports supermarkets, such as Decathlon, which sells classic equipment at an attractive price. This production strategy of distributors has been more or less successful according to the specific consumer behaviour of the country.

Tennis remains a big business, but the market is increasingly concentrated, and has become a specialist business. Moreover, several economic sectors whose activity is induced

by tennis practice and competition (specialised press, communication agencies, medicine, physiotherapy and so on) would also have to be considered.

Tennis: Net Social Benefit and Economic Impact for the Community

The effects of tennis on local and national economies can be assessed according to the real benefits and well-being they generate for inhabitants, or according to their effects on economic development and additional taxes for public authorities. In the first case, cost–benefit analysis will be used, and in the second case, an economic impact study. These questions are of interest not only for tennis events but also for mass participation, which can induce social welfare and economic impact, notably through job creation and employment.

Net social benefit or net social cost of the Davis Cup?

A PhD dissertation in economics (Barget, 2001; 2002), finished at the beginning of the millennium, gave a measure of the total economic value generated by the Davis Cup. Barget showed that the event had a use-value greater than the price the spectator had to pay, called the ‘consumer surplus’. This is the additional price that spectators would have been willing to pay, rather than not getting into the stadium at all. The amount was relatively high (€58 556), but it appeared that another source of value, or non-use value was by far superior.

Non-use value is a monetary valuation of benefits received by the inhabitants of the host region. Taxpayers were offered the opportunity² to estimate the amount of taxes they would be ready to pay to support the organisation of the Davis Cup. This amount, the ‘willingness to pay’, constitutes a monetary valuation of the welfare increase (if positive) or decrease (if negative) which resulted from the event. After summation on all the taxpayers of the region, the Davis Cup matches between France and Germany generated a non-use value of €322 696. The main motives of taxpayers were economic effects (tourism stimulation and economic impact), or were associated with the improvement of the region’s image abroad. Benefit can also be of a social nature, relying on the fight against delinquency, youth education, on participation to social cohesion, or less strongly on practice encouragement.

These benefits were overwhelmingly compensating costs, a net social benefit of €215 929 being created; thus, and in spite of a real loss of interest in tennis of some players and spectators, it seems that the public will always attend big tennis events and that specific values of sport, and tennis more precisely, are still widely recognised. Nevertheless, this was only a first attempt to apply cost–benefit analysis to sporting events, which should be tested and extended in future research. Moreover, if numerous studies of this kind are undertaken, it would never be possible to generalise the results obtained. The output depends on the size and characteristics of the considered event, and for the same event of the specificities of the host territory. Concerning costs, there are discrepancies from one tennis event to another (they are notified in a schedule of conditions), and from one town to another according to their level of equipment compared to the requirements. Relatively to benefits, they will fluctuate according to the interest shown by inhabitants in the event (modifying the use-value), and social benefits and costs affecting the population (determining the non-use values). A positive image of tennis, in spite of doping, gambling, or recent fiscal scandals, could make the difference compared with other sports, and

public pride engendered by the staging of a major tennis event could be greater. Thus the 'sympathy capital' largely expressed for tennis (regardless of whether there is any interest in tennis *per se*) could lead in many cases to a net social benefit; it would justify the allocation of public resources to the project and the choice of public decision makers to host the event (notably, in the case of the Davis Cup), or at least to support it (in particular, for an ATP tournament). This intuition should be tested in a recurrent manner.

Do major tennis tournaments generate an economic impact?

As in the case of the Volvo International Tennis Tournament (Sack and Johnson, 1996), a city bids to hold the tournament, and possibly builds a tennis stadium (or at least modifies it as we can see from the extension of the Roland Garros stadium in 2003 which was sanctioned by the sports ministry and Paris city council in spite of environmental problems), in order to promote growth and enhance its position relative to other cities. This theory is confirmed by Schaffer et al. (1993) who found that sport is playing an increasingly important role in economic development in American cities, for instance in Indianapolis where a number of huge sports facilities were built (including the Hoosier stadium). The same could be said of Europe, a good example being the case of Birmingham, a city which hosts major sporting competitions, among them a big tennis tournament. If the aim is economic development, the question arises whether this is a myth (Baade and Dye, 1988) or a reality. Some evidence will be presented for the French open of Roland Garros.

A synthesis of results of economic impact studies gives indications of spectator and TV viewer profiles, and to some extent, of effects on regional and national economic development. Two surveys were carried out by private offices (Cohérence Marketing and Statologie, 1999) on the Federation in charge of the tournament bid. The 8216 spectators who were interviewed had particular characteristics which will be presented here.

Even if they were less numerous than men, women were interested in tennis when important tournaments are concerned, representing 41 per cent of the attendance. Spectators were below the average age of the French population, with 51 per cent under 34 (34 per cent in the national population). Most of the spectators played tennis themselves, suggesting again that there is still a strong link between amateur and professional tennis. A majority of spectators (59 per cent) lived outside the Paris area and could make an economic impact on the territory through their expenditure. More precisely, 21 per cent came from abroad (63 nationalities were represented, with most visitors coming from Belgium, the Netherlands, the United States and Germany), which confirms the international dimension of the tournament, and 38 per cent lived in a French area other than Paris. The best represented social classes were students (24 per cent), then the middle class (23 per cent), followed by the upper class (18 per cent) and then the working class (16 per cent). This confirms the findings of some authors (Renaud and Rollan, 1995) of an incomplete democratisation of tennis: since the 1980s, it has become accessible from a financial point of view to the middle classes, and even to the lower classes; nevertheless social, cultural and sporting habits of the family are essential determinants to sports involvement, which is why there are few 'blue collar' children in tennis schools and inside tennis arenas. Foreigners are older (56 per cent are more than 34 years old) and tend to be more from the upper classes; this will have consequences on the amount spent during their stay in Paris.

Money is injected into the local economy by those coming from outside the area. The average number of persons in a group is 3.4, with 91 per cent of spectators being accompanied by other visitors. Foreigners stay longer (5.5 days against 3.4), spend more outside the stadium, and sleep at a hotel (77 per cent) whereas French visitors stay with friends (52 per cent). The average cost of the stay is €390 for a French person and €1062 for a foreigner. The extra average spending compensates for the lower number of foreigners and the economic impact generated is approximately the same for these two categories of tennis fans: €26 699 000 for French provincials and €26 798 000 for foreigners. In total, the economic (or tourism) impact is equal to €53 497 621.

The profile of TV viewers was also investigated, with the aim of qualifying the 'audience capital' for sponsors and commercial partners of the event. As for spectators, the TV-viewing audience tended to belong to the higher classes: tennis addicts have a higher rate of car possession as well as multimedia equipment, credit cards, and principal and secondary residences. Twenty per cent have a monthly salary of more than €3050 (the national average is 11 per cent), and spend more on holidays. But these data are not sufficient for valuation of the event's contribution to the image of the town, on French tennis fans abroad, until now no one has managed to carry out convincingly in the tennis field or anywhere else.

The study regarding spectators is interesting but raises questions from a methodological point of view. Was the spending destination analysed to ensure that it benefited the retail sales sector of the area, which is particularly important with regard to transport expenses? Have time transfers been taken into account for visitors simply changing the date of their visit? Does it really constitute an additional tourism activity, or was there an eviction effect on usual hotel guests? Moreover, the analysis was only about the impact of tourism and it would be interesting to know how much money would have been brought into the area by investments and operational outlay. Research on the economic impact of tennis has been limited and fragmentary, and much remains to be done.

What about welfare induced by amateur tennis?

This is a large question which will be treated under two headings which are particularly relevant in tennis: the effects on health on the one hand, and job creation on the other.

Tennis and health There have been many social studies on the effect of sport (for example Shephard, 1986), and especially tennis, on physical and mental health. It appears that although sport practices generally are perceived as a source of well-being and as good for health,³ participation of the elderly in some sports such as long-distance running, the triathlon, and especially tennis (particularly squash) may be damaging for the body, and in certain conditions could be considered suicidal because of the possibility of a heart attack. Even for younger people, some injuries are specific to tennis practice, and could be damaging in the medium and long terms, with ageing. Ailments that are frequently associated with tennis are: tennis elbow and other joint problems (hips, knees, ankles, shoulders), back problems and circulation. Tennis may contribute to social integration (although we know that it is practised more by the upper than the lower classes), but it could also divert young people from their studies, and create social relation problems because of the individualistic characteristic of the activity.

Beyond such physical and psychological approaches, there has never been a global valuation in monetary terms of the whole external effects of tennis participation. It would be of interest to determine the net social benefit or cost of amateur tennis for society – a controversial question.

Tennis and employment With regard to the economic impact, as a result of professionalisation, which has been promoted by tennis institutions, many jobs have been created. There are a small number of professional players (whose main resources are competitions and associated revenues), umpires and ATP Tour tournament staff; more widely, there are jobs inside national federations, at the regional and county levels, and also in clubs. In the various federation departments, about 50 professions can be distinguished in the fields of administration, management, law, communication, computer science, publishing, medicine, education, and professional and sports training (Pigeassou, 2002). In regional and local institutions, there are three types of occupation represented in quasi-identical proportions: administration (management, secretarial, staff management), technique (sports technicians) and development (project management, promotion, partnership). These can also be found in clubs, but with an overrepresentation of technical functions. Overall, tennis provides jobs, wages and satisfaction to many workers and their families. This is not incompatible but complementary with voluntary involvement in tennis training and management, which is a source of pleasure for thousands of people; tennis decision makers understood early the necessity of a cohabitation between salaried staff and volunteers and were leaders on this question.

Conclusion

In summary, many interesting issues essential for the future development of tennis have been touched on, and could benefit from a comprehensive research programme investigating:

- the economic impact and external effects generated by events, in the framework of welfare theory;
- the analysis of economic rent sharing between agents (players, organisers, firms), using principles of games theory;
- the effects of endowments on professional players' motivation, and on the result uncertainty, which could be analysed according to tournament theory principles;
- the link between amateur and professional tennis, and the question of solidarity between these two interdependant components of tennis system;
- the analysis of the tennis industry using concepts of industrial theory; and
- the measurement in monetary terms of the external effects of amateur tennis, from the social cost point of view and social security provision particularly.

Notes

1. In the French tennis federation booklet that presents its general policy, several measures are proposed for more dynamism at the club level: improvement of club organisation and more efficiency in detection on a regional scale to widen the base of the pyramid feeding the high level, better training of voluntary and professional coaches operating in clubs, reinforcement of links with schools and of teaching for young people according to programmes established by the federation and under its control, development of tennis training programmes and services for adults to satisfy various categories of player members of clubs, promotion of

associative and not only sportive life and so on. A general framework and orientation are established by the federation, but it also helps clubs by providing grants for the enforcement of the defined policy (see French Tennis Federation, *Sport Policy 2002–2004*, Paris, 2002).

2. For more details on the methodology, see Chapter 15.
3. For studies of sport, and in particular tennis, concerning the effects on physical and mental health, see references in Centre for Sports Science and History *Monthly Information Bulletin*.

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PART VI

TEAM SPORTS

45 The development of team sports before 1914

Wray Vamplew

Before the Industrial Revolution, there were only two team sports of note played in Britain – football and cricket – both of which were significantly transformed by 1914. Folk football, in which whole villages might participate, was at most an annual affair, predominantly a rural game played over vast territories, and closely linked to the festivals and holidays of the local community. An agricultural economy with its intermittent work patterns could afford days off for football but, even before the end of the eighteenth century, enclosure of common land was restricting the space available for such leisure activities. So too did urbanisation, a concomitant of a rising population and growing industrialisation. The factory system itself imposed a new work discipline with long, regular hours demanded of the labour force. Between them, industrialisation and urbanisation undermined the base of folk football and led to its eclipse, symbolically formalised in the Highways Act of 1835 which banned the playing of football on public highways. Despite resistance in some areas, notably by supporters of Derby's Shrovetide game, by 1850 folk football was generally confined to folk memory.

Another version of football was played in the public schools. Often as violent as the plebeian variety, it gained some semblance of rules particularly after the middle-class reform of the schools in the 1830s and 1840s. There is debate as to whether public school football shared its origins with folk football, but certainly codified football was developed by old boys of these schools who wished to play football together, but found that rules varied from institution to institution. The formation of the Football Association (FA) in 1863 was an attempt to unify the playing rules of the game. The first draft of the FA's rules allowed running with the ball and hacking – kicking the shins of – the player in possession, but these were voted out and the modern game of soccer was born, a game on defined pitches with prescribed time limits and hence suitable for an urban industrialised environment. This can be seen as an attempt to establish football on a new moral basis, separate from the old ways of playing and strictly under the control of the Victorian middle classes. By the 1880s, all local and regional football associations acknowledged the authority of the FA as the governing body of the sport.

Most early soccer matches were friendlies but local and regional cup competitions soon developed to give teams more than honour to play for. The premier trophy in England, the FA Cup, was inaugurated in 1871. For two decades after the formation of the FA, elite soccer was dominated by the old-boy teams, but gradually clubs of working-class origin came into prominence, as epitomised by the victory of Blackburn Olympic over Old Etonians in the 1883 Cup Final. Increasingly, such clubs were paying their players, illegally at first but with FA permission from 1885. Cup matches could be one-sided, especially in the early rounds, and not draw large crowds. Nor did teams always fulfil the friendly fixtures that they had promised if they became involved in the later stages of the various cup competitions. Both these factors caused problems for clubs with wage bills to pay. William McGregor, an Aston Villa committeeman, is credited with the idea of forming

what became the Football League, in which professional teams guaranteed to play each other on a home-and-away basis. Beginning in 1888 with 12 clubs, all from the North and the Midlands, by 1914 it had progressed to two divisions, each of 20 teams, with a greater geographical coverage. Average match attendance in the first year was around 4300. This had risen to 23 100 in the last full season before the First World War.

Rugby broke away from soccer over the issue of handling the ball and running with it. This became officially formalised with the foundation of the Rugby Football Union (RFU) in 1871. Rugby itself split in 1895 when 22 of the leading clubs in the north were forced to resign from the RFU. The immediate cause was the RFU's refusal to sanction 'broken-time' allowances to players who lost money by taking time off work to play. Underlying this was the RFU's fear that the working-class players and spectators in the north would swamp 'their' game. The Northern Union, as the new organisation was called until 1922 when it became the Rugby Football League, abolished the line-out in 1897, allowed open professionalism in 1898 and fundamentally changed the nature of the game in 1906 when it reduced the number of players to 13 per side and replaced rucking and mauling for the ball after a tackle with an orderly play-the-ball.

Patronage and gambling were the mainstays of cricket in Georgian England. Rich gentlemen and aristocrats used the sport as a means of conspicuous consumption, demonstrating that they were wealthy enough to maintain a cricket ground, finance a team, and risk large sums of money in challenge matches against each other. Cricket at that time took two major forms. First, there were the 'great matches' held in London, played mainly by gentry and involving gate-money and gambling. Second, there were matches between households of the landed gentry in rural England, particularly the southeast. These provided free entertainment for the local population, again involved gambling but also the use of professional players employed on the estates of their patrons. The most talented of these eventually became itinerant professionals as the two variants of elite cricket began to converge with teams from the rural areas beginning to play in the matches at London's premier venues.

Victorian cricket, however, witnessed changes. The game was purified of its Georgian link with gambling and an emphasis on team sports participation led to the emergence of elite cricket clubs (founded by the urban gentry) and the sport becoming important in the public schools. These last developments led to more jobs for the professional as coaches in the schools and as ground bowlers for the clubs. However, two other factors undermined the professional at the playing level. One was the emergence of country house cricket, which was the province of the amateur; the other was that amateur batsmen dominated first-class county cricket, organised and financed as it was by the provincial clubs. Help came from an idea of William Clark, developer of the Trent Bridge cricket ground, who promoted the idea of an All England XI, professionals to a man, who would tour the country playing local teams of varying numbers in gate-money matches. Such collective self-help proved popular with spectators and professional players alike, and between 1846 and 1882 there were 19 separate professional touring teams. This led to many professionals becoming virtual full-time cricketers during the summer months. For two to three decades these peripatetic teams dominated gate-money cricket but gradually, as new county teams were established and existing ones reorganised, spectators began to prefer to watch games where the result was less certain than the often one-sided contests of the wandering elevens. Especial public interest was created by the development of the county

championship, initially a loosely organised competition but officially recognised by the Marylebone Cricket Club (MCC), the governing body of the sport, from 1894. At the first-class county matches involving leading sides such as Kent, Surrey and Yorkshire, attendances of over 10 000 were common from the 1890s to 1914. That period also saw the rapid development of league cricket as a Saturday afternoon sport in the North and the Midlands, perhaps not coincidentally in the same areas of the country where the early Football League members flourished.

Gate-money team sport was one of the economic success stories of late Victorian and Edwardian Britain. Entrepreneurs, though not necessarily always profit-maximisers, responded to a demand fuelled by increased real wages and concentrated in the expanding towns and cities. Football and rugby in particular exploited the leisure slot made available by the widespread adoption of the Saturday half-day, but so too did competitive league cricket.

As the economic benefits of industrialisation were passed down the social scale, sports promoters realised that money could be made out of man at play. Almost all over the country, grounds were enclosed and stadiums built. Gate-money was charged to cover overheads and other costs and leagues were established to guarantee regular fixtures.

As other chapters will show, Britain was not alone in developing gate-money team sports in the nineteenth century, although, of course, the British experience was not replicated wholesale as conditions and cultures varied. Two examples will suffice for this brief overview: Australia, which as a British colony adopted several sports of the mother country, and the United States which created its own major team sports.

Cricket, the first team sport played in Australia, was recorded as early as 1803, and from the 1830s the cricket club and ground became essential adjuncts of most settlements. English coaches and touring teams assisted the development of the game at the elite level as did Lord Sheffield, who, in 1892, donated a shield for competition between sides initially representing only New South Wales, Victoria and South Australia, but later enlarged to include the other states. By the end of the nineteenth century, Australia could more than hold its own against the mother country.

Football began in Australia to keep cricketers fit during the winter, but it was a code of the country's own, not an imported variety. It was not a deliberate rejection of the game of the homeland as when Australian Rules was codified in 1859 there was little to draw on from Britain. Early pitches took advantage of the abundance of land and could be over 400 metres long. Even when limits were set in 1866 grounds could be up to 200 yards (c.180 metres) long and 150 yards (c.135 metres) wide. Such sizes encouraged a kicking game as did the fact that there was no offside rule. Players running with the ball had to bounce it and hand passes had to be punched rather than thrown. Initially called Victorian Rules football, it changed its name in 1883 to facilitate expansion of the game in the other colonies. A league competition, the Victorian Football Association, commenced in 1877, predating the English Football League by several years. By 1880 when the English FA Cup final attracted 6000 spectators, 15 000 had attended an Australian Rules match in Melbourne. Six years later a game between South Melbourne and Geelong was played in front of a crowd of 34 000. In 1897, the eight clubs with the largest followings broke away to set up the Victorian Football League, the premier competition in the sport for the next century.

Soccer, though played by British migrants especially the Scots, did not emerge as a major sport in Australia until after the mass European migration following the Second

World War. Australian Rules became the major winter sport in Victoria, South Australia, West Australia and Tasmania, but in the two other states rugby ruled. The sport began within the private school system but was extended to some state schools in 1889. The Southern Rugby Football Union was founded in 1874, three years after the English authority was established. Inter-colonial competition commenced in 1882 and international tours began two years later. By 1900, rugby union had become a mass spectator sport. Interest in the competition was sustained by imposing in that year a district, residential system on the sport to prevent players gravitating to the wealthier or more successful clubs. As in Britain there was also a split between union and league versions of the sport. This occurred in 1907 – the season in which a crowd of 52 000 (that is, a tenth of Sydney's population) watched New South Wales play New Zealand – over the issue of financial hardship imposed on players who, if injured, incurred both medical expenses and lost working time. After several high-profile cases where the Union authorities refused to compensate injured working-class players, a breakaway group formed – the New South Wales Rugby Football League. Within a decade the thirteen-man code had displaced rugby union as the spectator sport in that state and neighbouring Queensland.

American football is acknowledged to have had its roots in English rugby but it quickly transmogrified into a very different game. Both round-ball and rugby-style football were played on college campuses across America, but the latter gained ascendancy and was the basis on which an Intercollegiate Football Association was founded in 1876. Radical changes, however, soon turned a British game into an American one. Blocking to aid a teammate carrying the ball, the scrimmage line, a set number of plays in which to make progress and a new scoring system, created American football. It was a brutal but popular game with many injuries and deaths and in 1905, following a season in which 18 college players had died, an Intercollegiate Athletic Association (forerunner of the National Collegiate Athletic Association: NCAA) was formed to overhaul the rules, including the introduction of the forward pass. Football drew large crowds but remained predominantly college based. Before 1900 there was barely a hint of professionalism and not until the 1930s did the overtly professional game become a popular mass spectator sport.

Basketball too was the province of the colleges, but by 1914 had not taken off like football. Still a relatively low-scoring game, there was no NCAA competition until 1939. Yet it has a place in American sporting history as it was one of the few games deliberately invented from scratch. Unlike most sports, basketball had no tradition to draw upon and was created at a specific point in time (December 1891) as a means of keeping athletes in shape between the football and baseball seasons. The Director of the YMCA (Young Men's Christian Association) Training School in Springfield, Massachusetts charged one of his staff, James Naismith, a young Canadian, with the task of inventing a game that could be played indoors and that would be attractive to the participants. After several failures – too rough, too destructive, too boring – he came up with basketball, a game that brought competition into the gymnasium, previously the site of exercise and strength-building activities. Within a decade the original nine players on each side had been reduced to only five and dribbling became allowed. Intercollegiate leagues were set up in the first decade of the twentieth century, though there was no NCAA competition until 1939.

While the historical accuracy of the invention of basketball has remained unchallenged, Americans have perpetuated a myth that baseball too had a precise origin. Concerned that it might be attributed to rounders, not only a British game but also a

female one, vested interests set up a commission in the 1890s that declared that the game had been invented by Abner Doubleday at Cooperstown in 1839. In fact varieties of baseball were played in America from the late eighteenth century but organised clubs, playing under recognisable modern rules, did not feature on any scale until the 1840s. It began then as a form of gentlemanly competition but quickly became a game popular with the masses and, in turn, commercialised and professionalised. In 1858, the establishment of a National Association of Base Ball Players demonstrated that not only had the game spread from its New York origins but also it was no longer exclusively for gentlemen. Although the Association banned the paying of players and transfers between teams, these rules were disregarded as the sport gained spectator appeal. After the Civil War, baseball was the dominant summer sport throughout the states. At its pinnacle were fully professional clubs – the first is considered to be Cincinnati Red Stockings in 1869 – that formed the National League in 1876. Members protected their territorial rights by limiting each city to only one team and their economic viability with a ‘reserve clause’ that prevented the free movement of labour. Competition from a rival American League led to the establishment of a National Commission to promote the game commercially, one aspect of which was the end of season playoff – the so-called World Series – between the respective league champions. By 1910, aggregate attendance at major league baseball topped seven million.

This overview of the development of team sports in Britain, Australia and the United States has focused on the top level of sport but it should be emphasised that elite teams were at an apex of a pyramid of participation. Below them was a mass of players, only a few of whom were bidding to make the grade to first-class ranks. The majority simply enjoyed playing sport with their mates and representing their works, pub, club or residential area. Even more of the population gained pleasure from the less-physical excitement of watching commercialised team sports which enabled them to develop a sense of identity with their team and town and break the monotony of factory and other work. Put simply, team sports added to the quality of life in the increasingly industrial towns and cities.

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Section A

The Economics of Professional Sports and Leagues

46 Organisational models of professional team sports leagues

Andrew Zimbalist

US team sports leagues share a common heritage and structure which derives from baseball's National League. Moreover, while each league has adapted its rules and regulations to the specific needs of their particular sport, over time the leagues have tended to borrow heavily from each other and have developed a system that is distinctively American, and contrasts significantly with the structures that have emerged elsewhere in the world (for example, soccer, rugby, cricket).

Revenue Sharing and Competitive Balance

Revenue sharing and labour relations are intricately connected. Let me start with the National Football League (NFL). The NFL has had 60/40 sharing of gate revenue since its inception in the early 1920s. In 1961, under lobbying from the NFL, Congress passed the Sports Broadcasting Act which allowed the four major team sports leagues at the time to package their national broadcasting rights for over-the-air TV. That is, the individual teams in a league would be able to come together and behave as a cartel for the purpose of selling national TV rights. The rationale was twofold: one, it would enable the leagues to share equally the largest pot of media money, rather than having the teams from large markets earn several times as much as teams in small markets; two, it would encourage the broadcasting of games back to an away team's home market which was constrained by an early 1950s court decision.

Today, between the national television money and the DirecTV contract the NFL pays out approximately \$140 million to each team annually. National licensing money from NFL properties is also distributed equally to each team and amounts to around \$4 million per team. Ticket sales and club seat revenues are subject to the 60/40 distribution, after 15 per cent is deducted for day-of-game costs. All this sharing means that there is a very modest range from top to bottom team revenues, with the top-revenue team earning only 1.6 or 1.7 times more than the bottom-revenue team. In contrast, for pre-revenue sharing in baseball this ratio is almost 10 to 1, while post-sharing it is around 3.5 to 1. In the National Basketball Association (NBA), where there is a salary cap and sharing only out of national TV and licensing money (around \$30 million per team), the top-to-bottom revenue ratio is around 3 to 1. In the National Hockey League (NHL), where there is no salary cap and no sharing beyond the relatively diminutive national TV contracts (around \$3 million per team and falling), the top-to-bottom revenue ratio is approximately 2.5 to 1.

Although often overlooked, the more a league engages in revenue sharing, the less is an individual owner's financial incentive to win. Indeed, most statistical studies of the NFL reveal that team owners do not have any direct financial incentive to win – that is, to invest in a higher player payroll in order to win more games and raise their profits. The NFL

Players Association (NFLPA) realised this phenomenon back in the early 1980s when they actually proposed a salary cap to the owners. The players saw the cap primarily as a guaranteed floor, rather than a guaranteed ceiling, in a league where the owners were not willing to bid aggressively for players. It was for the same reason that the NFLPA was willing to go along with the present cap system after they won their antitrust litigation against the NFL's Plan B free agency in the early 1990s.

Similarly, it should come as no surprise that average baseball salaries have gone down in reaction to the increased revenue sharing from the 2002 collective bargaining agreement (CBA). This agreement, *inter alia*, imposes a marginal revenue tax of around 40 per cent on the top-revenue teams and around 47 per cent on the bottom-revenue teams. If George Steinbrenner believed that signing Pedro Martinez for the 2005 season would add \$20 million a year to the New York Yankees local revenues, he should have been willing to offer Martinez a salary up to \$20 million in a regime without revenue sharing. But if MLB taxes away 40 per cent of any local revenue generated by the Yankees, Martinez would no longer be worth up to \$20 million to Steinbrenner. He would now be worth 40 per cent less or only \$12 million, and Steinbrenner's pay offer would be scaled down accordingly.

Of course, traditional team sports leagues also need a certain level of competitive balance to thrive. If fans know which team is going to win each game (or which boxer will win each match), they will quickly lose interest. Revenue sharing can promote competitive balance if it is properly structured. The NFL shares over 70 per cent of its revenues and fans in most cities generally begin each season with faith and hope that their team has a chance to make it to the postseason.

Baseball's current sharing system is an example of a scheme that does little, if anything, to promote competitive balance. This is because (a) there is no minimum payroll that teams receiving revenue transfers must meet and (b) low-revenue teams perversely face higher marginal tax rates than high-revenue teams. A system that assessed a tax on owners based on a team's market size (and possibly other market characteristics) rather than on team revenue would create no disincentive on owners to improve team performance (which raises team revenues.)

Of course, apart from any impact on competitive balance, another consequence of revenue sharing is the levelling of team finances, and, hence, the possible improvement in league financial stability. No league can thrive if several of its teams teeter on the brink of bankruptcy.

Salary Caps

Despite NHL Commissioner Gary Bettman's insistence on 'cost certainty' for hockey team owners, there is no cost certainty in American industry, not even in the NFL or NBA with their salary caps. Rather, there is cost containment.

The NBA cap, introduced for the 1984–85 season, has a variety of loopholes, which until the 2001–02 season were rather significant. The most important of these exceptions is known as the 'Bird Exception,' named after former Celtics' star Larry Bird. This exception allows a team to re-sign one of its own players without regard to the salary cap. This promotes team roster stability and competitive balance generally, but it limits player mobility. During 2002–2005, the NBA cap (set at 48.03 per cent of defined revenue) was supplemented with an escrow tax and a very stiff luxury tax. The effective marginal rate

on the luxury tax rose to over 300 per cent for the highest payroll teams and seems to have successfully contained the player share in defined revenues below 60 per cent.

The NFL cap, in operation since the 1993 season, has been less porous than the NBA cap. The basic principle is to set a maximum team payroll at around 65 per cent of defined gross revenues (includes gate, national television and spillover). The principal loophole in the short run is that teams can sign a player to a long-term contract and offer him a signing bonus. The bonus gets prorated over the life of the contract and only the prorated portion counts towards the salary cap in any given year. This enables a team to pay out more than the cap in a particular year, but they then accrue obligations for future years that count towards future caps. Through contract restructuring, teams can postpone the cap reduction for many years, but eventually they pay for overage with reduced cap levels in the future. This system effectively provides for salary cost control while allowing for some management flexibility in the short run.

Single Entity Leagues

Beginning with Major League Soccer (MLS) in 1996, some team sports leagues have attempted to get around antitrust, restraint of trade complaints by organising the league as a single entity. The basic idea is to have all the teams commonly owned. If the teams have common ownership, then they cannot collude and any restriction they impose on the players' market or elsewhere is not subject to antitrust litigation.

MLS's single entity status was challenged in court, but the league won. In consequence, the league has been able to effectively control salary costs. The problem for the league, however, is twofold. First, few of the world's better players are willing to play in the United States for one-tenth or less the salary they can earn in Europe. Hence, the level of MLS play is akin to Triple-A baseball in the United States. It is high minor league ball and attendance at their games reflects this (averaging 13–14 000 per game).¹ Attendance is essentially at a similar level to where it was in 1996. While most expected MLS's popularity to grow gradually, there has been little evidence of growth – despite the fantastic expansion of youth and scholastic soccer participation in the United States over the last 10–15 years. Thus, it is reasonable to conclude that MLS has been too zealous in controlling salary costs and has ended up controlling the talent and fan interest level as well.

Second, US team sports fans have developed their own culture. Each sport is sustained by a core group of intense fans who follow and root for their teams year round. Once the playing season is over, they talk about the amateur draft, trade possibilities, free agents and coaching changes. These fans keep the team in the news and in local discussions throughout the year. They help to create anticipation for the next season and sustain fan interest and demand, and by extension, corporate advertising/sponsorship interest. MLS robs itself of this salutary dynamic by having its central office assign players to the teams. There is no active players' market and there is little for the fans to follow during the offseason.

The single entity model also undermines entrepreneurial initiative and reduces interest in team ownership. This, in turn, depresses franchise values. All of these factors led the women's basketball league (the WNBA) to convert its single-entity model into a traditional model two years ago. They may have also contributed to the suspension of the women's soccer league, WUSA.

In general, this review of the professional team sports leagues points to the importance of retaining a balance between centralised and decentralised control and incentives. There is no simple winning formula. By the same token, for any new league, it is important to start out with the best model, because once investors buy into a league under certain rules of the game, they are likely to resist change that goes against their self-interest.

Note

1. Median attendance in MLS's first year, 1996, was 15 093; in 2003, it was 13 719. Television ratings have also drifted lower.

47 Baseball economics

Stefan Szymanski

Early History

Baseball is the national pastime of the United States of America, and is also popular in Mexico, the Caribbean, Central America, Japan, Korea and a few other countries. The game of base-ball was played in England in 1700 and rules recognisably akin to the modern game were written in the *The Pretty Little Pocket Book*, published in London in 1744. The book was reprinted in the North American colonies in the 1750s and references to the game in America can be found from the 1790s onward. The modern version of the game dates back to the Knickerbocker Club of New York founded by Alexander Cartwright in 1842. Clubs adhering to the Knickerbocker rules mushroomed and by the 1850s their number rivalled those playing cricket. Cricket was England's national pastime, and many Americans looked to develop an 'indigenous' sport. This drive was aided by the creation of the National Association of BaseBall Players (NABBP) in 1858, modelled on the Marylebone Cricket Club, the governing body of cricket. Growing interest in the game as a spectator, rather than a participant sport created the opportunity to charge fans for admission, and soon enough this created competition to hire players. In England, gentlemen amateurs played alongside professionals, with the former firmly in charge. In America, professionals were not prepared to accept a subordinate role and the Association split in 1871. The National Association of Professional Base Ball Players (NAPBBP) established the first national championship but it was a disorganised affair, prone to match-fixing scandals and team failure. In 1876, William Hulbert took the revolutionary step of creating a closed league for a fixed number of teams granted exclusive territories. Not only is the National League the oldest in the world, it became the template for all American professional leagues and a model for leagues created elsewhere in the world.

Organised Baseball

The reliability of the National League schedule and the integrity of its competition quickly made the NL the dominant league in the United States. To preserve its profitability the league created the reserve clause in 1879, which effectively tied a player for life to his club as long as that club wanted to keep him. This served to hold down salaries and increase profitability. The NL also entered into agreements with other leagues not to poach players signed to the system, thus forming the basis of Organised Baseball. The distinction between major and minor league started to emerge, and minor leagues that wanted to challenge the NL's dominance faced difficulty finding players. Several rivals failed in the attempt, including a players' league, but between 1899 and 1903 the American League succeeded in creating a credible rival by offering players large salaries. In 1903, the NL sued for peace, and the two reached an agreement to form what is now known as Major League Baseball (MLB). As salaries fell again, a new league tried to enter the market in 1913, but by 1915 its teams had either been absorbed into MLB or were bankrupt. An antitrust lawsuit filed by one of the latter led to a landmark Supreme Court

decision in Federal Baseball that MLB was exempt from antitrust law, thereby legitimising the reserve clause and consolidating the basis of MLB.

Expansion and Relocation

Baseball's monopoly flourished in the first half of the twentieth century, generating large profits for its owners and free from competitive challenge. Between 1903 and 1953, MLB consisted of 16 franchises at fixed locations. The relocation of the Boston Braves to Milwaukee in 1953 signified a new era of competition. This was not competition *in the market*, for MLB has continued to retain its monopoly over baseball at the highest level, but competition *for the market*. This competition manifested itself either in the competition among municipalities to attract a major league franchise, or the threat of new entry by leagues, intended primarily not to provide competition in the market, but to gain admission to ranks of the major league. Much of this turmoil reflected the demographic shift of population and wealth away from the traditional homeland of MLB in the north-east towards the west and the south. To preserve its monopoly, MLB needed both to move teams into these new markets and to maintain coverage of their existing markets. Relocation was not enough to control the competitive threat – what was needed was a larger set of teams to pre-empt the 'product space'. The process of expansion started in 1961 with an increase of two to the 16 that had formed MLB since 1903, with further expansions in 1962 (2), 1969 (4), 1977 (2), 1993 (2) and 1998 (2).

Television

In the 1950s, TV also became a major force in the sports business. Once the resolution of the screen was good enough to capture the movement of a baseball in the air, a process of competition was sparked off among the national networks, and later among cable and satellite broadcasters to capture this most attractive programming. The reason why sports programming has proved so attractive to broadcasters is that it provides perpetual suspense with relatively low production costs. As a result the value of rights has escalated rapidly and has provided an increasing fraction of total income, reaching over one-third by the end of the century. Unlike other leagues which have tended to rely entirely on collectively negotiated national TV deals, MLB has permitted local TV deals that have helped to sustain larger income discrepancies than are found in the other major league sports, notably the NFL where income is almost completely equally divided. For example, according to MLB, the Yankees in 2001 generated local TV income of \$57 million, against a mere \$0.5 million for Montreal.

Unions

The growth of TV revenues also had a major impact on the relationship between the players and the employers. Until the 1950s, the reserve clause ruled and players had little power to control their destiny. Star players were able to negotiate better terms for themselves, on the grounds that they contributed more to the team. This situation was largely consistent with economic theory, as was shown in a famous article by Scully (1974), to the effect that a player's marginal revenue product (MRP) could be estimated by a two-equation model that related first player characteristics to win probabilities and then win probabilities to team income.¹ These calculations showed that players generally earned less than 20 per cent of their MRP. However, during the 1960s union militancy increased,

as baseball players were able to reach even larger audiences. Led by Marvin Miller, the union organised its first strike in 1972 and led repeated legal challenges against the reserve clause. Whereas in the past the union was able to pick off the best players by offering them pay rises at least proportionate to their MRP, TV revenues, which were not clearly attributable to wins and hence to the MRP of a player, made it clear to the players that they had a collective interest in the income of the league. In the end the owners buckled under the pressure and granted a limited form of free agency for seven-year veterans in 1976. This has provoked perhaps the largest stream of research in baseball economics, concerning the distribution of success before and after free agency. The owners had always claimed that free agency would reduce competitive balance (big city teams would buy all the best players). Rottenberg (1956) had conjectured that free agency would have no impact (talent would always migrate where it was most valued). Empirical results have been mixed, but the balance of evidence seems to suggest that competitive balance has in fact improved (see Szymanski, 2003, for a survey).

Stadiums

The 1980s and 1990s were a period of rapid growth for baseball. Notwithstanding the controversy surrounding two major strikes (one in 1981 and the other 1994/95) attendance rose from 43 million in 1980 to 68 million in 2003 (2 per cent per year), while income rose from \$320 million to \$3.9 billion over the same period (11 per cent per year). As well as TV income, baseball teams found new sources of income from luxury boxes and associated game-day revenue streams. However, to realise these clubs required substantial new investments in facilities. Between 1989 and 2001, over \$4.9 billion was invested in new MLB stadiums. Two-thirds of this money was paid by local government, largely thanks to the efficient use of the relocation threat.

Competitive Balance

In recent years the debate in baseball has been dominated by the issue of competitive balance, largely fuelled by the renewed dominance of the New York Yankees. The ability of this large market, large revenue team to finance the acquisition of the best players and hence World Series titles has led to complaints that MLB has become chronically unbalanced. MLB itself set up a Blue Ribbon Panel (Levin et al., 2000) which reported in 2000 that there was a need for significant additional revenue sharing. MLB currently operates a luxury tax scheme, which taxes all expenditures above a certain level for redistribution to the poorer teams. Critics, however, claim the sole purpose of such schemes has been to reduce salaries by limiting the ability of teams to compete in the labour market. Despite the alleged imbalances of MLB, it can still be said that baseball remains America's national pastime.

Further Reading

Most of the seminal articles in sports economics have concerned baseball, for example, Rottenberg (1956), Scully (1974) and Gwartney and Howarth (1974). On baseball history the best source is Seymour's classic three-volume analysis (1960). On expansion and relocation, see Quirk and Fort (1992). On TV issues, see Zimbalist (1992); on the MRP issue, see Scully (1989) and Zimbalist (1992). On the growth of the union, see Korr (2002). On the stadium issue, see Noll and Zimbalist (1997). On the competitive balance issue, see

Szymanski (2003) for a survey, and for a comparative analysis of baseball and soccer, see Szymanski and Zimbalist (2005).

Note

1. It is also important to mention that the Scully method has spawned a large literature on discrimination in baseball, since it is possible to estimate whether black players of equal ability (measured in terms of contribution to wins) are paid an equal proportion of their MRP. See Kahn (2000) for a review.

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48 The economics of soccer

John Goddard

This chapter presents an introduction to the literature on the economics of professional soccer. Most of the discussion refers to literature on English soccer, though some Scottish and European soccer literature is also considered. Sloane's (1969, 1971) analyses of the soccer players' labour market and the soccer team as a firm are widely acknowledged as the first contributions to the economics of soccer literature. Recently there has been a revival of interest in some of the issues originally raised by Sloane, concerning team objectives, resource allocation and competitive balance. This strand in the economics of soccer literature is the first subject of this chapter. Over the two decades following the publication of Sloane's research, however, the literature followed a predominantly empirical path, concentrating mainly on the estimation of spectator demand functions based on attendance data. Then the literature on this topic is described. More recently the research agenda for the economics of soccer has widened considerably. We present a selective review of empirical research published over the last 10 years on a variety of topics: namely, the determinants of players' employment mobility and transfer fees, racial discrimination in the players' labour market, team production functions, and the causes and consequences of managerial turnover.

Team Objectives, Resource Allocation and Competitive Balance

The structure of the players' labour market in English soccer under the retain-and-transfer system, which at the time imposed severe limitations on players' employment mobility, is described by Sloane (1969). Subsequently, in developing an economic model of the soccer team based on the economic theory of the firm, Sloane (1971) questions the appropriateness of a profit-maximising objective function for British soccer team owners. Profit maximisation might be a reasonable assumption in the case of North American major league sports, where many teams have an established track record of profitability. In Britain, however, profitable soccer teams have generally been the exception, not the rule. Most chairmen and directors have already been successful in other fields of business. Their motives for involvement in soccer seem likely to include the prestige or status gained through involvement with the local soccer team, or simple sporting enthusiasm, but not financial reward. Non-profit-maximising or managerial models of the firm received considerable attention in the 1950s and 1960s economics literature, and accordingly Sloane develops a model based on an objective function of utility maximisation subject to a financial solvency constraint. Arguments of the utility function include playing success, attendance or revenue, profit, security and, in recognition of teams' mutual interdependence, health of the league as a whole.

In a later contribution, Sloane (1976) discusses the implications for competition policy of some of the unique economic characteristics which distinguish professional team sports from other industries: in particular, the collective interest of a league's member teams in preserving some degree of competitive balance in order to maximise spectator

interest. Variation between teams in actual or potential market size is identified as the basic source of competitive imbalance. The impact of differences in market sizes can be mitigated to some extent through various types of regulatory intervention: either directly through controls on the distribution of playing talent, or indirectly through mechanisms for the redistribution of revenues. Sloane tends to favour the latter, partly because revenue sharing is likely to be easier to implement than direct controls on player mobility.

More recently, several researchers have examined the adaptation to English or European soccer of the theoretical models of resource allocation originally developed with reference to North American major league sports and reviewed elsewhere in this volume. For example, Késenne (1996) examines the properties of a model of this type using a team objective function of win maximisation subject to a zero profit (break-even) constraint. The distribution of playing talent between teams may turn out to be more unequal than in the case of profit maximisation. In contrast to the profit-maximising model, however, under win maximisation, revenue sharing arrangements may be effective in bringing about a more equal distribution of talent and improved competitive balance. Késenne (2000) explores the implications for competitive balance of the introduction of a north American-style salary cap, in the form of a limit on each team's total wage expenditure. Because large-market teams are forced to reduce their wage expenditure, the equilibrium wage tends to fall, and competition tends to become more balanced than it would be in the absence of the salary cap.

Hoehn and Szymanski (1999) consider the influence of the involvement of the most successful teams in European tournaments for competitive balance in their domestic leagues. The incentive for the strongest teams to recruit sufficient talent to compete effectively at European level causes competitive balance in the domestic league to deteriorate. The consequent decline in the revenues of the weaker teams in the domestic league may eventually threaten their survival, and hasten the arrival of regular league competition for the leading teams at the European rather than at the national level.

Questions concerning team objectives, resource allocation and competitive balance in English soccer have also motivated a number of empirical studies. In developing a model of the financial structure of English soccer clubs, Szymanski and Smith (1997) revisit some of the issues first raised by Sloane a quarter of a century previously. Rejection of profit maximisation as a suitable objective function for team owners is justified partly by the limited scope of the market for corporate control of soccer teams. The absence of a developed market in team ownership implies that owners are not subject to the usual profitability disciplines imposed on companies whose shares are actively traded on the stock market. The weakness of the market for corporate control may also explain the soccer sector's sluggish response to the problems posed by long-term decline in spectator demand during much of the post-war period, before the ever-strengthening relationship between soccer and television eventually provided an effective stimulus for improved coordination and modernisation of the soccer sector. Using company accounts data on a sample of English teams for the 1974–89 period, Szymanski and Smith estimate a team revenue function quantifying the relationship between performance measured by league position and revenue, and a production function identifying the relationship between wage expenditure and team performance. The latter relationship is also examined, using a more recent and extensive data set, by Hall et al. (2002).

Dobson and Goddard (1998) describe changing patterns in the distribution of aggregate attendance and revenue among English league member teams between the 1920s and 1990s. Between the late 1950s and early 1970s, a group of 14 large-market teams enjoyed an increase of about 10 percentage points in their combined share of aggregate league gate revenues, even though their performance as a group was almost unchanged. Moves towards the partial relaxation of restrictions on player mobility may have contributed to divergence between the revenue shares of the large- and small-market teams, as increased competition to secure the services of the most talented players, especially in the league's upper echelons, fuelled inflation in both players' wages and admission prices. However, several formal and informal mechanisms for the redistribution of revenues between league member teams, such as gate and television revenue sharing and the payment of transfer fees, have helped offset partially the tendency towards divergence.

English soccer's hierarchical divisional structure, within which several teams are promoted and relegated between divisions at the end of each season, presents problems for the measurement of competitive balance, since win ratios (normally used to measure competitive balance in north American major league sports) are dependent on each team's relative strength within its own division, but not within the league as a whole. Szymanski (2001) uses FA Cup match attendance data in an effort to quantify trends in competitive balance in English soccer. An analysis of cup attendance in matches where a corresponding league fixture (between the same teams in the same season) took place shows that cup attendance declined relative to league attendance. In the demand for sports literature, one version of the uncertainty of outcome hypothesis is that attendance depends on the level of competitive balance between all teams in the competition concerned. Accordingly, Szymanski infers that cup attendance declined due to increasing interdivisional competitive imbalance between league teams.

Noll (2002) considers other implications of the promotion and relegation system for wages, attendance and competitive balance in English soccer. Promotion naturally boosts attendance, and (for the teams concerned) the positive effect tends to outlast subsequent relegation. The implications of promotion and relegation for competitive balance may be ambiguous, because some promoted teams without a sufficiently large market to sustain a presence at the higher level may tend to spend less on players following promotion than they spent in achieving promotion. According to this interpretation the motivation for achieving promotion is not to survive in the higher division, but to take advantage of the positive longer-term effect of promotion on attendance.

Modelling Spectator Demand for Match Attendance

During the two decades or so following the publication of Sloane's original economic analysis of the soccer sector, the soccer economics literature followed a strongly empirical path. Between the mid-1970s and early 1990s, attention was concentrated almost exclusively on the estimation of regression models for soccer attendance, which were usually interpreted (in economic terms) as empirical spectator demand functions. Empirical attendance studies can usefully be subdivided into models of attendance at individual matches, and models of entire-season (annual) attendance either at league or at individual team level. The following discussion is structured around this distinction.

Hart et al. (1975) published the first econometric analysis of patterns of attendance at English soccer matches. Using match-level attendance data for four teams from the

seasons 1969–70 through to 1972–73, separate match attendance equations are estimated for four home teams. Among the explanatory variables are the home and away teams' current league positions; a local population measure for the away team's home town; the geographical distance between the grounds of the home and away teams; and a simple match uncertainty of outcome measure. The estimations are successful in identifying a number of systematic influences on match attendance.

Much of the subsequent match-level attendance literature offers refinements or extensions to the Hart et al. framework, by introducing additional covariates, estimating over more extensive data sets, or using attendance models to investigate specific policy issues. For example, Jennett (1984) uses dummy variables to indicate the degree of championship significance of each match for the home and away teams. While it remains possible for a team to achieve the points total required to win the championship, the dummy increases progressively, but for a team that drops out of contention, the dummy drops to zero. Peel and Thomas (1988, 1992) and Forrest and Simmons (2002) measure the effect of uncertainty of match outcome on attendance using probabilities calculated from bookmakers' quoted prices for fixed-odds betting. Cairns (1987) investigates the effects of league restructuring in Scotland in the 1975–76 season on attendance subsequently, by including dummy variables to test for changes in the coefficients of the attendance model after the restructuring took place. Using a survey data set which disaggregates attendance into a standing and seated component, Dobson and Goddard (1992) find some evidence that the attendance of standing spectators was more variable than that of their seated counterparts.

Baimbridge et al. (1996) investigate the effects of live television broadcasts, mostly on Sunday afternoons and Monday evenings, on match attendance. Live transmissions on Monday evenings had a negative effect, reducing attendance by about 15 per cent. Using survey data which provides information on the geographical distribution of ticket purchasers at Premier League clubs, Forrest et al. (2002) estimate price elasticities of demand for match attendance taking into account ticket prices, transport costs and time costs. The estimated price elasticities are significantly larger than those reported in earlier studies, which were based predominantly on time-series data. Operating on an inelastic section of the demand function is of course incompatible with profit-maximising behaviour, so the Forrest et al. estimates suggest that pricing policy may be more informed by profit considerations than is suggested in the earlier literature.

Annual attendance models estimated using time-series data have been used mainly to identify relationships between price, income and unemployment variables and attendance. In what is possibly still the best-known and most widely cited empirical attendance study, Bird (1982) reports equations for attendance aggregated across the entire league and by division for the 1949–80 period. The price variable combines the league minimum admission price data with a transport price index, while total consumer expenditure is used as an income measure. A negative income elasticity suggests that attending soccer is an inferior good: as incomes increase, spectators tend to abandon soccer, presumably in favour of more up-market leisure activities. This seems a reasonable description of reality for the immediate post-war era to which Bird's study applied, but is perhaps less plausible for the post-1980s period. In a set of team-specific time-series attendance equations, estimated using 1960s to early 1990s data which distinguishes between season ticket and match ticket sales, Simmons (1996) finds a negative price effect on attendance in the long term,

and some evidence of a long-term income effect which, where apparent, tends to be positive rather than negative.

Dobson and Goddard (1995) report a two-stage analysis using season-level attendance data for the 1925–92 period. At the first stage, a time-series attendance model yields team-level estimates of base attendance, and sensitivity of attendance to variations in league position and admission price. At the second stage, cross-sectional variation in these estimates is explained using socioeconomic, demographic and soccer-related characteristics of each team and its home town. Home-town population, the amount of competition from other local teams, and duration of league membership are significant determinants of base attendance, suggesting that teams which joined the league early continue to enjoy significant first-mover advantages.

New Directions for Research on the Economics of Soccer

During the last few years, the agenda for research on the economics of soccer has widened considerably. The extended scope of the literature is reflected in the recent publication of three monographs devoted specifically to the economics of English soccer (Morrow, 1999; Szymanski and Kuypers, 1999; Dobson and Goddard, 2001), as well as a professional team sports economics textbook containing a strong English soccer emphasis (Downward and Dawson, 2000). Since the mid-1990s, research papers have been published on a variety of topics, some of which were already familiar to readers of the North American professional team sports literature but new in the context of English or European sports. This section reviews selected contributions on the following empirical topics: the determinants of players' employment mobility and transfer fees, racial discrimination in the players' labour market, team production functions and the causes and consequences of managerial turnover.

Although data on English soccer players' remuneration is not published, information on the fees paid for transferred players is freely available. A number of researchers have used this data in an effort to model the determinants of transfer fees. In the first such analysis, Carmichael and Thomas (1993) assume that the transfer fee is determined by human capital characteristics of the player concerned and the relative bargaining power of the buying and selling teams. Using similar methodology, Reilly and Witt (1995) find no evidence of any racial influence on transfer fees. Speight and Thomas (1997) analyse the determination of transfer fees settled through the arbitration process for disputed fees for out-of-contract players, finding fees to be determined mainly by player and team characteristics, rather than by compromise between the final offers of the buying and selling teams.

Carmichael et al. (1999) report a two-equation model for the propensity of players to move, and the transfer fees of those who do so. Covariates in the propensity to move equation include age, first-team appearances, playing position dummies, previous employment spells and dummy variables for teams that recently experienced a change of manager. The inclusion of the propensity to move equation should eliminate a sample selection effect that would otherwise result in biased estimation of the transfer fees equation. In the model developed by Dobson and Gerrard (2000), the decision to be involved in the transfer of a player (either as seller or buyer) is interpreted as an attempt on the part of the team to move towards its optimal position on a performance–profit frontier. Teams that are net sellers of players need to raise revenue and reduce costs in order to increase profits

or reduce losses; teams that are net buyers seek to improve performance having already satisfied a profit requirement.

The issue of racial discrimination has motivated many empirical studies of North American professional team sports labour markets. Despite the lifting of the colour bar in major league sports in the late 1940s, there is extensive evidence that discriminatory practice continued for many years afterwards. Meanwhile, despite the existence of copious anecdotal evidence, empirical analysis of racial discrimination in professional team sports in England (and elsewhere in Europe) is relatively limited. Recently, however, Szymanski (2000) has tested for discrimination against non-white players in English soccer, using team-level wage expenditure and performance data. After controlling for wage expenditure, performance is found to be positively related to the proportion of non-white players employed, suggesting that some team owners are willing to tolerate underperformance in order to indulge a taste for discrimination. Preston and Szymanski (2000) fail to find a link between the presence of non-white players and match attendance, suggesting that customer discrimination is not responsible for the racial influence on the wage expenditure–performance relationship. However, the ethnic composition of the local population is a significant determinant of the team-level proportion of appearances made by non-white players.

The North American professional team sports literature includes a large number of production function studies, which attempt to quantify the relationship between inputs in the form of playing and managerial attributes, and outputs in the form of win ratios or other team performance indicators. Again perhaps due to a relative paucity of performance data at the level of individual players, studies of this kind for English soccer have only begun to appear quite recently. Using match-level data, Carmichael et al. (2000) attempt to quantify the relationship between a large number of team performance indicators such as number of shots (on-target, off-target and blocked), passes, tackles, clearances, dribbles, free kicks, yellow and red cards, and match outcomes in the form of the difference between the scores of the two teams. Many of the results are as expected, emphasising the obvious benefits of accurate shooting, passing and defensive attributes. There are, however, interesting ambiguities concerning the benefits to the perpetrators of foul play or other illegal tactics.

Dawson et al. (2000) and Dawson and Dobson (2002) estimate team production functions for English soccer using season-level data, with particular emphasis on distinguishing the managerial from the playing input to team performance. Managerial performance is assessed in relation to the playing and financial resources that were at the manager's disposal. Consequently the most successful managers (in terms of league position or trophies won) do not necessarily record the highest performance scores. Aspects of the manager's past record as a player are found to be significant in explaining variations in managerial performance.

Finally, the causes and consequences of a change in leadership have received widespread attention in the literature on organisational performance. Possibly in no other sector is the role of the manager more widely and openly debated than in professional sports, and numerous managers have often been publicly vilified when team performance has failed to live up to expectations. Audas et al. (1999, 2002) use match-level data to estimate involuntary and voluntary job departure hazard functions for managers, and to identify the effect of managerial departure on subsequent team performance. The involuntary departure hazard is heavily dependent on current and recent match results. Several

human capital attributes of managers have a significant effect on the voluntary departure hazard, but not on the involuntary departure hazard. The analysis of the effect of managerial change on team performance uses ordered probit regression on match results data, with dummy variables identifying matches immediately following a change of manager by either team. Teams that changed managers within-season are found to have performed worse subsequently (within the same season) than those that did not, although the detrimental effect on performance appears to be relatively small.

Conclusion

During the last 10 years in particular, the scope and volume of the economics of soccer literature has expanded rapidly. Until the early 1990s, much of this literature was concentrated on the estimation of spectator demand functions, but recently the research agenda has widened. In addition to a revival of interest in some of the issues raised in the early economics of soccer literature concerning team objectives, resource allocation and competitive balance, new empirical research has been published on various topics including the determinants of player mobility and transfer fees, racial discrimination in the players' labour market, team production functions, and the causes and consequences of managerial turnover. Judging from this recent expansion in the coverage of the literature, it seems likely that soccer in England (and elsewhere in Europe) will continue to offer fertile territory for interested researchers during the foreseeable future.

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49 Football in England

Stefan Szymanski

England's claim to be the founder of football, or soccer as is it more commonly known in North America, rests not with the fact that legal statutes record the prohibition of the game as far back as 1349. After all, the activity of kicking a ball towards a goal of some kind is a phenomenon to be found in almost all cultures throughout history. England's pre-eminence derives from the fact that the rules of the modern game were formalised in England, first at Cambridge University and then in London by the Football Association (FA) in 1863. Football was transformed in the early part of the nineteenth century by the adoption of the folk game by the leading English public schools such as Eton, Harrow, Shrewsbury and Rugby. The game was promoted among the upper classes as the embodiment of manly Christian virtues, a moulder of character for the future leaders of Empire and a noble pursuit. Association Football, to use its full name, was merely one version among many of this game that came to be settled upon, the other notable versions being Rugby Union, Rugby League, American Football and Australian Rules Football. The Association game was clearly established as a distinct sport by 1870, at which point two great innovations were made by Charles Alcock, the first Secretary of the FA. One was the creation of the FA Cup, a knock-out competition for which each member club of the FA is eligible; the other was international competition, first played between England and Scotland. These innovations had momentous implications. The first because it quickly generated spectator interest, which led inevitably to charging for admission and thence to the payment of players and professionalisation. The second because it established the principle that clubs were obliged to release their players to play for their country even before league football had been created.

The explosion in the popularity of football as a spectator sport in the 1870s and 1880s, especially in the industrial towns of Lancashire, led to the commercialisation of football in England. Open professionalism (payment for players) was recognised in 1885 and the creation of the Football League, modelled on baseball's National League, followed in 1888. At the same time, most English clubs adopted limited liability status in recognition that football as entertainment needed to be placed on a firm financial footing. However, unlike baseball, the new football businesses were constrained by the gentlemen of the FA to limit their commercial ambitions. The FA, in the name of preserving the sporting ethic, limited the ability of clubs to pay dividends to their shareholders, to pay their directors, and even to pay their players. During this period, between 1888 and 1914, the organisation of football could have taken many paths. As with baseball and rugby, amateur and professional might have split. Had the professionals dominated, football's structure would have become more like baseball, a closed commercial structure. Had the amateurs dominated, football would have become more like rugby union, mostly limited to an upper middle-class elite. The uneasy compromise between the FA and the Football League had profound consequences. Inside England it helped to create a sport which appealed to a wide social spectrum, even if some of the more snobbish elements of British society

drifted towards more elitist pastimes. Outside of England, the possibilities of international competition within a professional sport enabled football to symbolise and unite the nation in a way that few other activities can.

The structure of League football was copied around the world. The two key elements were the transfer system, closely akin to baseball's reserve clause, and fully established in England by 1899, the promotion and relegation system, whose format was established by 1898. Promotion and relegation is the feature which distinguishes the football model from the US model of sport (see Chapter 75, this volume).

During the First World War, football in England was largely subordinated to the needs of war, but in the early post-war years the Football League consolidated its hold over the national game, expanding to four divisions of 88 teams by 1924. The Football League remained more or less unchanged until the 1990s, expanding to 92 teams. The inter-war years were the heyday of League football: even during the depression years most clubs operated close to their attendance capacity even in the lower divisions and generated substantial surpluses. Internationally, the supremacy of English football was more or less unchallenged despite the refusal of England and the other 'home nations' (Scotland, Wales and Northern Ireland) to participate in FIFA, the world governing body (mostly because of a dispute over the definition of amateur and professional). Regular football was once again interrupted by the Second World War, and while the early post-war years were characterised by record attendance, from the mid-1950s a prolonged decline set in. As standards of living rose, consumers found an increasing range of attractive alternatives to standing on the terraces. Club finances deteriorated and investment was neglected. Poor facilities made football increasingly the preserve of young men on low incomes and the phenomenon of hooliganism developed. League clubs rejected potential new revenue streams from TV, fearing this would cause attendance to decline further. The nadir was reached in the mid-1980s when attendance fell to less than half its post-war peak and government even threatened the League with closure if the problems with violence could not be resolved.

In retrospect it seems that the refusal to embrace broadcasting from the beginning was a historic error of judgement. Almost as soon as live League football appeared on English TV, attendance started to increase, football became fashionable again, and the financial problems of the top clubs started to disappear. The Football League's unwieldy administrative structure, which gave a voice to all 92 member clubs, had been a significant obstacle to reform, and by the end of the 1980s the big clubs decided that they could run things better themselves. With the connivance of the FA, the League's long-standing rival for control of the English game, the top division recreated itself as the FA Premier League (FAPL), assuming the right to negotiate its own TV deals. While preserving the relationship of promotion and relegation with the remaining three divisions of the Football League, the FAPL was able to increase the annual income of the top division from around £200 million in 1991/92 (less than £10 million per team) to £1246 million in 2002/03 (over £60 million per team). A large part of this increasing income was the sale of live broadcast rights to Sky, the pay-TV satellite broadcaster, which used FAPL coverage to drive subscriptions. In 1992, Sky paid £167 million for exclusive live rights over four years, £670 million in 1996 for a further four years, then over £1 billion in 2000 for three years, and £1 billion in 2003 for a further three years. But the FAPL also succeeded because of improved marketing and merchandising, and growing international appeal due to participation in the UEFA (European) Champions League. Much of the money was devoted to

competition between the clubs to hire players, and the 1990s also saw a huge influx of foreign players. The top clubs also invested heavily in the refurbishment of decrepit stadiums, initially at the behest of government following the Hillsborough disaster, but more recently on their own account. Between 1992 and 2002, English clubs invested around £1500 million in facilities, of which only £200 million was funded directly by government. During this period the clubs increasingly became the playthings of the rich. In the mid-1990s, Sir Jack Walker of Blackburn Rovers set the trend by effectively buying the FAPL championship with a star team assembled using his fortune, and in 2003 the Russian oligarch Roman Abramovich bought Chelsea Football Club and has invested at least £500 million in assembling a team that can dominate both English and European competition.

The rapid pace of change, and the increasingly overt commercialism of the FAPL and English football in general led to protests from the traditionalists. In the mid-1990s 20 English clubs floated on the stock exchange, making explicit the obligation of directors to meet the needs of shareholders rather than fans. Despite this, few clubs succeeded in generating profits, and, given the extreme competition dictated by the promotion and relegation system, many of the clubs that misjudged their player investment fell into financial difficulties. Although there were no bankruptcies, many clubs underwent comprehensive financial restructuring and suffered a significant reversal of fortunes on the pitch. Fans feared that many of the smaller clubs with attractive city-centre locations would be taken over by asset strippers, and at the end of the 1990s a Supporter Trust movement emerged, with some limited help from the government, to encourage fans to become active shareholders through contributions to financial trusts. Fan power also made itself felt through the successful opposition of the takeover of Manchester United by Sky in 1999, but ultimately failed in the struggle to prevent the takeover of the club by Malcolm Glazer, owner of the Tampa Bay Buccaneers (US National Football League) in 2005.

Thus despite the enormous improvement in the health of English football over the last decade or so (judged by income, attendance, player quality, facilities and even the performance of the national team), there is still much uncertainty about the future direction of English football. Many of the issues are shared with the other European leagues. These include concerns about the dominance of wealthy teams and the power of money in the game, fears that new owners might seek to restructure competition (for example, the formation of a European Superleague) and fear that many of the smaller clubs will collapse. Challenges from the competition authorities, either in terms of player contracts (for example, the *Bosman* judgment) or collective selling of broadcast rights, have added to the sense of crisis.

Sadly, the contribution of economists to the policy debate has been quite limited. Most economic analysis has focused on purely empirical issues, and what theorising there has been has tended to rely on the American model. Little has been written about distinctive institutions such as the promotion and relegation system or the dual system whereby players represent both club and country on a regular basis. Moreover, economists have failed to explain why the supposedly less commercial English model has produced less interest in the various restrictive devices used to balance economic resources in the American major leagues.

It is likely that further major changes are afoot in English football. It is widely believed that the two dominant Scottish clubs, Celtic and Rangers, would like to join the Premier

League, and would bring a further significant income boost to the leading clubs. This move is currently opposed by the FA, probably on political grounds. The rules committee of FIFA, the world governing body, has eight members, including one from each of the four home nations, effectively giving the British a veto over changes to the rules of the game. This is an arrangement that many in FIFA would like to end, and movement of teams across the border between Scotland and England would provide a suitable pretext. Meanwhile, the Champions League format will come up for renegotiations in 2007, and many believe that this might be the trigger for a breakaway European Superleague. Finally, many fans continue to press government to introduce a regulator, to empower the fans and control ticket prices. These are significant issues, and it is to be hoped that economic analysis will be able to play a significant role in explaining and resolving them.

For the early history of English football the authoritative source is Mason (1980). For a comparison with the development of baseball, see Szymanski and Zimbalist (2005). Football in the inter-war years is analysed in Fishwick (1989). Empirical research is well surveyed by Dobson and Goddard (2001), while the business issues are explored by Szymanski and Kuypers (1999). For a radical analysis of English football's problems see Hamil et al. (2000).

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50 The state of the Italian football industry

Umberto Lago

In Italy, football is by far the most popular sport, with more than 44 million people interested in the game, 31 million who support a particular team, 8 million who regularly watch matches at stadiums, 20 million who read about football in newspapers and 25 million who follow football on television or radio. In Italy, the top 25 television programmes in terms of audience were all dedicated to football events. It has been estimated that football generates an aggregate revenue amounting to €4200 million. Notwithstanding these figures, in recent years Italian football has sunk into a deep financial crisis which has caused bankruptcy for one big club (Fiorentina) and strong downsizing for others (Parma, Lazio and more recently, Roma) in order to avoid bankruptcy.

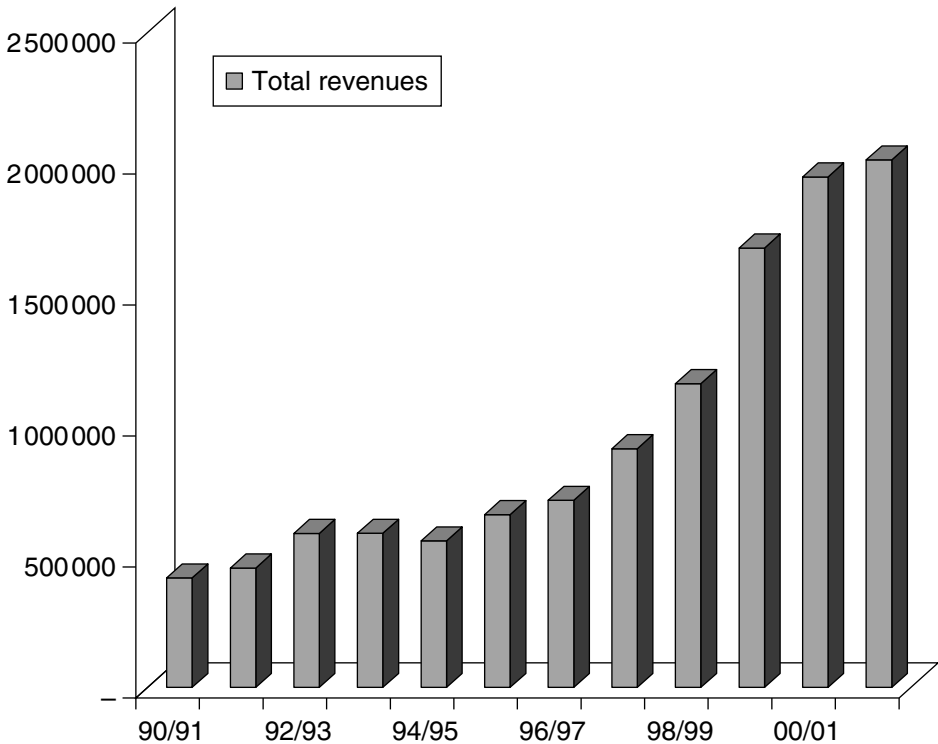
The crisis is even more difficult to understand if we consider that in the 1990–2000 decade, revenues have grown at a pace that was never experienced before, following the entry of pay-TV in the business (see Figure 50.1). Indeed, by the end of the 1990s, Italian football seemed on the verge of a golden era: clubs were performing in European cups, top players were eager to play in Italy, pay-TV channels were fighting to broadcast top clubs' television rights, clubs were courted by financial markets and foreign companies were considering buying Italian clubs.

Today, a few years later, the aggregate net loss for Serie A is larger than €400 million, more than one-third of total turnover. And without the so-called 'spread-the-losses decree',¹ it would reach €1318 million, more than the total turnover. Continuous allegations of tax evasion and lax book-keeping are perhaps the reasons why on 26 February 2004, more than 300 tax officers walked into the headquarters of 51 clubs which in the last four years have been enrolled in the Serie A or Serie B championship. This chapter reviews the evolution of the financial situation in professional Italian football by looking at the main items of the profit and loss accounts and then illustrates the main reasons for the current financial crisis.

Italian Football: An Industry in Trouble

Over the past decade there has been a relentless rise in the amount of money flowing into Italian football from television, larger numbers of spectators, sponsorship and a much more professional approach to merchandising. Milan AC, the richest club in Italy, has seen its turnover rise from €29.3 million in 1990 to €177.1 million in 2002. The average turnover of Italian Serie A clubs has risen by 216 per cent over the past decade according to figures based on official Co.vi.soc. data (Figure 50.1).

The problem is that salaries – the major cost for all football clubs – have risen by 453 per cent so despite soaring revenue, fewer and fewer clubs are making a profit. Big names such as Lazio and Roma have announced large losses (€121.8 million and €115.4 million, respectively, for the financial year 2002–03), while Empoli (a small club based close to Florence) and Juventus may in fact be the only Division A clubs which made a profit



Source: Compiled by the author on the basis of Co.vi.soc. data.

Figure 50.1 Revenues of Serie A football clubs, 1990/91 to 2001/02 (€000)

last year (€0.2 million and €2.1 million, respectively). Moreover, the profit declared by Juventus was actually generated through the sale of real estate that produced a capital gain of €39.8 million. The rest of the Division A clubs are in similar dire straits and have been constantly struggling to pay their players' salaries (Table 50.1).

What condition has thus developed in the football sector in such a short time? What dynamic has caused the business to enter such a severe state of crisis unlike any other experienced in the past?

Sources of revenue for Italian football clubs

Until the beginning of the 1990s, the revenue of football clubs grew slowly. Increases in revenue were mainly linked to the attendance of fans at matches and consequently to the number of tickets sold and their price. From this time onwards (see Figure 50.1) revenues began to grow at a dramatic rate, not necessarily owing to an unexpected increase in the interest of the fans but rather on account of the development of new significant sources of income. In the 2000–01 period, the largest proportion of revenues in main European leagues came from television rights, while income generated by the sale of tickets and by sponsorship varied in different European countries (Table 50.2).

Table 50.1 Profit and loss accounts for Serie A in 2003 (€m)

Club	Revenue (without extraordinary items)	Total costs	. . . of which, salaries amounted to:	Net result (including extraordinary items)	Total debt
Lazio	101	232	106	-122	472
Roma	139	228	94	-105	340
Inter	164	238	124	-17	281
Parma	76	105	34	-77	200
Milan	204	258	157	-30	174
Juventus	218	262	132	2	166
Sampdoria	13	48	25	-8	62
Brescia	27	34	15	-10	45
Lecce	15	35	14	-18	42
Reggina	22	35	13	0	39
Chievo	24	40	21	0	38
Ancona	10	17	7	0	29
Bologna	28	50	21	-18	26
Empoli	20	31	14	9	18
Modena	22	22	11	-2	12
Udinese	32	31	n.a.	-9	n.a.
Siena	14	23	8	-8	n.a.
Perugia	21	24	10	-2	n.a.
Total	1.148	1.713	807	-414	1.742

Source: Il Resto del Carlino, 27 February 2004.

Table 50.2 Breakdown of revenue in main European football leagues (% of total revenue)

League	Tickets	TV	Sponsorship	Miscellaneous
England	31	39	30	-
Italy	16	54	13	17
Spain	25	51	4	15
Germany	18	45	22	14
France	16	51	18	15

Source: La Repubblica, 22 August 2002.

Gate revenue As it became clear that the most important source of revenue was money paid by broadcasters for the right to televise football matches, no further attempts were made to use the price of tickets as a sophisticated marketing lever. In any case, traditionally, fans were considered as a captive market and little attention was paid to the way ticket price policies were determined.

The numbers of spectators decreased over time, with most of the clubs recording on average an actual attendance of 40 to 60 per cent of stadium capacity. It has not been until

quite recently that some clubs have begun to reconsider pricing policies with adjustments of ticket prices on the basis of the age of the purchaser, the importance of the matches and the team performance over the season. Between 1999 and 2002, total revenue from tickets (including the Italian championship, the Italian Cup and the European cups) decreased by 19 per cent, from €226.8 million to €183.5 million.

Management of stadiums In Italy, sports facilities are owned by the municipalities and the clubs have almost no power to decide how the sports facilities should be used. In many instances, they are even used in ways which can jeopardise the interests of the football clubs and endanger the quality of the grounds, as in the case of public concerts. A few years ago, major football clubs and also some of the minor ones realised that owning or renting a stadium for a long period is one of the main ways of increasing revenue. Nevertheless,

[F]or various reasons, the construction of new facilities by football clubs and the privatisation of existing facilities seem to be difficult goals to achieve, especially in the short/medium term. Facilities cost too much and there are too many town-planning obligations, and in many towns it would be difficult to gain public approval of such deals. (Tanzi, 1999, p. 365).

In times of economic crisis, as in the present period, ownership or long-term (30–90 years) management of a stadium are among the most highly debated topics in the business and can also become a source of tension and hostility between municipalities and clubs. Various football clubs, for example, Bologna, Juventus, Torino, Inter, Milan and Perugia, have leased their stadium from the local municipality and are now busy starting restructuring projects.

Ownership or long-term leasing of a stadium is not only an important opportunity to diversify sources of revenue but also an important asset capable of facilitating the quotation of football clubs on the stock exchange. In appraising clubs, financial institutions seem to appreciate relatively stable revenue and valuable assets implied by ownership or the leasing of stadiums. In fact, statements of assets and liabilities of football clubs include many ‘volatile and hazardous values’ such as rights related to the contracts with the players (*ibid.*, 1999, p. 367).

Merchandising If we compare the Italian experience with that of other countries and in particular with the business model of British football, we find that a very limited contribution of merchandising to total revenue is a factor peculiar to the Italian scenario.² One reason for this can be found in the different behaviour of Italian fans when compared to those in other countries. While large numbers of British fans go to the stadium wearing their team’s shirt, this is much less common in Italy. On the other hand, in Italy widespread black market activities make it difficult for the clubs to protect the goods sold under their trademark, and suing counterfeiters does not appear to be an effective deterrent.

From the point of view of marketing, merchandising should become a much more important source of revenue in Italian football. It is worth noting that few other industries have such strong trademarks as football clubs. Moreover, customers/fans, who tend to support their teams to a degree beyond a point one might consider as warranted by the results they may achieve, tend also to remain loyal to their clubs’ brands. Leveraging on the strength of such brands should thus be one of the main objectives of the clubs and a goal to be achieved through various individual and mass-marketing activities. Moreover,

when merchandising is successful, it contributes towards generating a 'sense of belonging' among customers/fans, thereby strengthening the brand name and making it more 'desirable' for sponsors and TV stations, while at the same time contributing towards an increase in total revenue.

Sponsorships In Italian football, revenue from sponsorships is increasing strongly and steadily, presenting a remarkable 30 per cent average increase over the period 1998–2001. Today, sponsorships represent a source of income comparable to revenue from match attendance. In 2001, sponsorships represented 13.4 per cent and match revenue 16.2 per cent of total revenue (Lega Calcio–Deloitte & Touche, 2002).

Wide television coverage of football events ensures far greater visibility for the sponsors' brands. Most of the official sponsors of Serie A and Serie B clubs are companies operating in the food and beverages sectors. However, more recently there has been a dramatic increase in the number of sponsors from the telecommunications and electronics sectors. Since 1998/99, Serie A and Serie B championships have been sponsored by Telecom Italia Mobile (TIM), which accounts for their having been labelled as 'Serie A and Serie B TIM'.

TV rights Until the beginning of the 1990s, revenues from the sale of television rights (once obtained exclusively from state-owned television companies) increased slowly but constantly and constituted a secondary source of income for the football clubs. The introduction of pay-TV in 1993 and, subsequently, the introduction of the 'pay-per-view' system in 1996 led to a major increase in revenue from TV companies, and since then television rights have become by far the most important source of revenue for football clubs.

Starting with the 1993/94 championship and up until the 1998/99 championship, the Lega Calcio negotiated television rights for public and pay-TV on behalf of the clubs. During this period, the television companies paid out great sums of money for the right to broadcast matches: sums earned by the clubs rose from about €93 million in the 1993/94 season to €231 million in the 1998/99 season. During the following championship, various events brought about a substantial change in the relationship between football and the TV companies and created a rift between an elite group of clubs at the top of the Serie A and the weaker clubs in both the A and B divisions. This change was in fact the reason behind the late start of the 2002/03 and 2003/04 football seasons.

The law passed on 30 January 1999 (Decree Law No. 15, dated 30 January 1999) allowed football clubs to directly negotiate TV rights with broadcasters. A measure introduced by the Italian Antitrust Authority³ thus obliged the Lega Calcio to modify its regulations. This meant that starting with the 1999/2000 football season, pay-TV and foreign television rights for the division A and B championships had to be negotiated directly and individually by the football clubs and no longer through the Lega Calcio. The Lega Calcio, however, continued to be entrusted with the task of negotiating rights for public television for football clubs in divisions A and B: a situation which has continued to exist until the present day.

These changes, combined with competition between the incumbent Tele + channel and the newly introduced second digital TV Stream channel determined an increase in the flow of income for clubs during the 1999–2000 and 2000–01 periods. In the 1999/2000 season, net income from the sale of TV and radio rights for the Serie A and Serie B championships

and the Italian Cup more than doubled with respect to the previous period (from approx. €231 million to approx. €511 million). The positive trend continued also in the following season, during which pay-TV channels paid out more than €550 million to obtain TV rights. TV rights thus became by far the most important source of revenue for Italian football, reaching almost 54 per cent of total revenue, while only a mere 16.2 per cent of the total came from actual match attendance.

When TV companies realised they could not meet the clubs' expectations for continuous growth with respect to the sums of money they were paying out to them for broadcasting rights, they negotiated a reduced total amount for contracts for the 2002/03 championship. This mainly hit small football clubs, which had fewer spectators (Chievo) or clubs just advanced to Serie A (for example, Como and Modena).

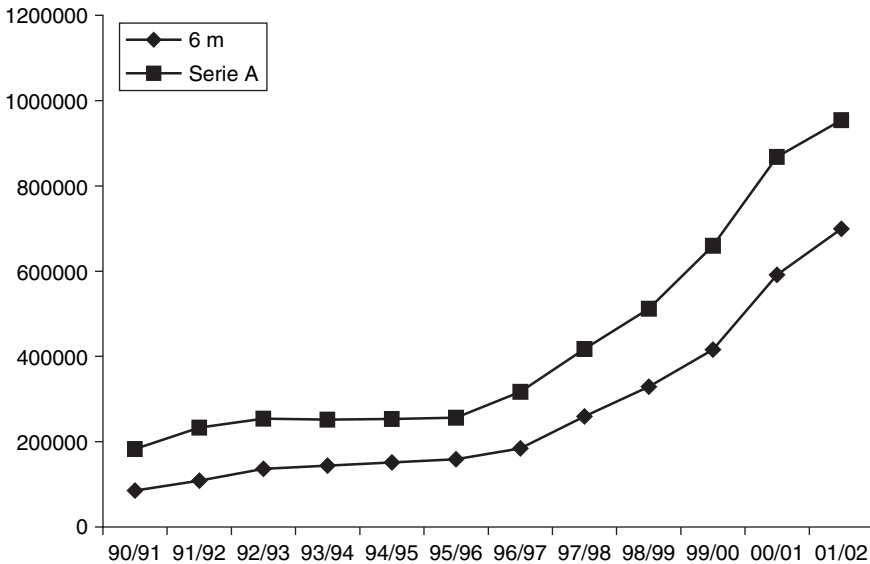
Since pay-TV companies started applying a strictly market-based system, the price paid to clubs became a function of subscriptions and other indicators. Although, it could certainly be considered as correct from a business point of view, this move resulted in a concentration of resources in the hands of a few big clubs, which contributed to further imbalance in Italian football. It also led to a controversy between the smaller clubs and the Lega Calcio, which eventually caused the start of the 2002/03 Serie A and Serie B championships to be delayed. The small clubs complained about the fact that the payments offered by the pay-TV companies were about one-tenth of the amount offered to bigger clubs such as Juventus and Milan. The problem was temporarily solved, as the major clubs agreed to pay out a modest sum to integrate the money offered by the pay-TV companies to the smaller clubs. However, the problem reappeared a year later, following the acquisition of Tele + and Stream by Sky, a company which owns the TV rights for most clubs, including the largest. A group of small clubs (Brescia, Perugia, Ancona and so on) launched an alternative television platform called *Gioco Calcio*, in which the Lega Calcio purchased a capital share. The experience suddenly failed at the beginning of March 2004 when all the Serie A clubs resolved to sell their TV rights to Sky.

Costs out of control

The analysis of the costs of football clubs reveals that even though revenue has been increasing dramatically over the last five years thanks to the flow of revenue from TV licences described above, costs have also risen over the same period at an even higher rate.

The greatest item among costs is that represented by the salaries and wages for players and coaches. The trend (Figure 50.2) shows that these costs are constantly rising, and, especially since the 1996/97 football season, this item has been increasing at a constant rate.

The figure shows salaries and wages for the Serie A clubs and for the six major clubs. The tendency shown by the curves is almost identical, even though the increase of this cost item is more accentuated in the case of the six major clubs with an increase of 719.7 per cent in comparison with a 452.9 per cent increment for the entire Serie A. These figures indicate a gradual distancing between the major clubs and other clubs in terms of resources available to pay for the best players. Furthermore, these six major clubs account for 63 per cent of the total value in Serie A, and differences in average expenses have become quite remarkable. In the last championship, the average expenses of the six major clubs were more than twice as high as the average expenses of the whole of Serie A, that is, €116.5 million and €56.1 million, respectively.



Source: Compiled by the author on the basis of Co.vi.soc. data.

Figure 50.2 Value of wages and salaries

Table 50.3 Ratio wages/turnover in major European leagues (€m, %)

	95–96	96–97	97–98	98–99	99–00	00–01
England	47	47	51	58	62	60
Italy	57	58	64	72	62	75
Spain	53	44	53	56	–	–
Germany	–	46	51	51	54	50
France	58	60	69	69	57	64

Source: La Repubblica, 22 August 2002.

In 1995, players receiving a salary of more than €1 million per year constituted a mere 7.4 per cent: a number which has now grown to 29.6 per cent (Lo Giudice, 2002). In the 2002/03 championship, the Serie A football clubs paid out as much as €752 million for the players’ salaries alone. This sum, which accounts for 88 per cent of total turnover, tends to ‘crack’ the clubs’ accounts. In 2002/03 financial year, operating losses of the Serie A and Serie B clubs were estimated at €1.5 billion as compared to a turnover level of €3 billion. In the meantime, debts for the clubs in Serie A alone were estimated at being in the region of €1.5 billion.

In the 2000/01 championship, the labour costs/turnover ratio of Italian clubs was already the highest among the major European leagues even though it was still 12 per cent lower than it is today (Table 50.3).

Reasons for Financial Problems

There is no doubt that in recent years leading Italian clubs have set their sights on raising profit thanks to the expansion of pay-per-view television, and have invested heavily in strengthening their teams in an attempt to trigger a virtuous circle between sporting results and economic gain. I believe that such tactics would be a valid proposition for only a few clubs.

First, in order to trigger the virtuous circle, huge financial resources are required. Strong profit growth caused by the transformation of football into a television phenomenon and the resulting euphoria have driven many clubs to anticipate future profits, obtaining funds in advance against contracts with the pay-TV companies and then investing heavily in strengthening their teams. However, due to the effect of the *Bosman* judgment, most of the invested resources are required to pay the salaries of the players and technical staff. This judgment, by transforming the player markets into a 'perfect market', gave players enormous contractual power. It is evident that players are able to command a sort of auction and extract all the possible value from clubs. At the same time, clubs not only pay enormous salaries to players, but also suffer the risk involved in maintaining their physical integrity.

Second, the creation of competitive teams does not necessarily lead to sporting success in the sense prevalent in our country (victory). Success depends on competitiveness; and the greater the competitiveness, the more difficult it is to be successful.

Moreover, sporting results are transformed into profit in so far as a club may depend on a vast potential group of spectators and is capable of exploiting all available commercial opportunities. As seen above, Italian clubs are in fact still quite 'backward' with respect to British clubs as far as the management of stadiums and the exploitation of their brandname through merchandising are concerned. This involves less profit with respect to potential profit, which might be generated by sports performance; that is, it involves a competitive disadvantage with respect to clubs (such as those in Britain) fully capable of cashing in on their sporting success. For the reasons we have put forward, the 'arms race' behaviour of many clubs which anticipate all their future income in an attempt to put together and develop a winning team can only lead to a situation such as the present one, in which only the leading and most solid clubs are capable of holding out, while those that are financially less solid would risk creating not a virtuous circle but rather an indebtedness from which it would subsequently be difficult to recover.

This model of investigation allows us to comprehend the financial difficulties of certain Italian clubs. In recent years, clubs such as Roma, Lazio, Fiorentina and Parma have invested in their teams almost as much as Milan, Juve and Inter and have also won the championship (Roma and Lazio) or other prestigious tournaments. A few years ago people spoke of the 'seven sisters' of Italian football.⁴ Now, only three of these 'sisters' have retained their leading positions: Fiorentina became bankrupt and was relegated to Serie C2, Lazio came close to bankruptcy and saved itself by selling all of its best players, Parma effected a substantial overhaul of its structure and started off again with a group of young players, and Roma made no important purchases for almost two years.

Clubs which form part of large industrial groups or are linked to leading politicians can afford to make financial investments which cannot be justified within the sphere of the football business but which would be perfectly understandable from a wider industrial, commercial or political point of view. Even when the virtuous circle described above is

not triggered, these clubs can afford to continue investing financial resources, the performance of which must be measured considering the positive externalities in terms of image, communication and public relations.

From the point of view of competitive strategy, we might say that there are strong synergies between the football business and other businesses and that the positive developments of football are such as to justify investments in a business which *per se* is operating at a loss. This situation might be valid at both the national level, for leading clubs, and at the local level for the so-called 'provincial' clubs. In fact, as we shall see, many of the 'provincial' teams now belong to football entrepreneurs who try to make a profit from their activity as if football were a business just like any other. From an economic-financial point of view, the activity of provincial teams differs considerably from that of the leading teams and their aims are also quite different. Above all, the definition of success for a provincial team is profoundly different with respect to a very high-ranking team. If, for the leading clubs, sporting results can be expressed in terms of victories (in the championship, Champions League, UEFA Cup), for the provincial teams they can be expressed in terms of their having managed to remain in Serie A and their promotion from Serie B.

The virtuous circle of a small football club begins with the selection of talented young players, who can be 'bought' from minor divisions all over the world, and paid very little. Putting together a team with a skilled trainer capable of bringing out and developing the talent of these players is the second stage. When this occurs, the club obtains the sporting results it had been aiming for, the guarantee of remaining in Serie A if this was its position, or promotion to Serie A if it is in the Serie B championship. On obtaining these results, the club is then capable of generating greater profit (mainly from sponsors, television and gate tickets) and, through the 'sale' of the most talented players, obtaining substantial capital gains. These financial resources can be used in part to start off the cycle again with the acquisition of new players and in part to payoff shareholders.

Sporting results are perhaps easier to obtain for the provincial teams than for the top clubs because maintaining their position and being promoted to a higher division are the prerogative of a large number of teams and thus competitiveness is not so strong as obtaining a victory. However, the cycle described above implies that the provincial teams are forced to replace a large number of their players every year. Teams that easily maintain their position in Serie A let two, three or even more talented players go each year, whom they replace with young players whose performance at the start of a season is uncertain.

The End of Serie A?

Judging from what we have said above, it is as if the big Italian football teams and the small provincial teams were playing in two different championships and had quite different objectives: not only in economic and financial terms but also in sporting terms. Although paradoxical, it is the small teams which have more clearly defined aims in terms of economic return. These are clubs that are often linked to entrepreneurs who have no desire or cannot afford to run a business at a loss, and they must thus make a profit from invested capital. Sporting results are a condition essential for the production of economic results, however they are not an end in themselves: the clubs invest what they can and if it is not enough, they are relegated to Serie B, hoping that they will not have to stay there

Table 50.4 *Points scored by three Italian Football tiers*

Season (on the 23rd matchday)	Points scored by the leading three teams	Points scored by 4th to 7th teams	Points scored by last 4 teams
1994–95	139	145	75
1999–2000	141	152	74
2000–01	149	142	78
2001–02	139	143	76
2002–03	146	152	68
2003–04	163	151	65

Source: *La Gazzetta dello Sport*, 2 March 2004.

very long. The provincial teams, just like enterprises in other sectors of business, aim at gaining a profit from their investments; and to obtain profit they are conditioned by sporting results. Fundamentally, the provincial teams conduct a selection of players for the big teams and act as talent scouts. When this activity is successful, it leads to economic and sporting (maintenance of division position / promotion) results. When it does not produce talented players, it leads to modest sporting results, followed by a fall in profit.

In contrast, the leading teams do not have a main objective in terms of profitability, despite stock-market quotations, but rather objectives connected with sporting results (on which the value of shares also depends). In other words, the reasoning presented for the provincial teams is reversed: the leading clubs have mainly sporting aims and economic and financial ties. In fact, on account of the synergies mentioned above, such ties act in a stringent manner for some teams (with the results we have already seen) but are virtually non-existent in the case of others. In fact, as already seen in the economic and financial analyses conducted by Deloitte & Touche and the Lega Calcio, the Italian Division A can be subdivided into three groups: the leading teams (of which only three remain: Milan, Juventus and Inter) which aim at obtaining sporting results with almost unlimited economic resources, the leading teams which aim at obtaining sporting results with limited resources (as in the case of the demoted leading teams: Lazio, Parma, Roma and the other teams at mid-level ranking) and the small clubs which aim at obtaining economic results with the constraint of their sporting results.

The differences between leading and provincial clubs are not only purely economic. As we have learned (Lago et al., 2004), important differences in terms of revenue translate into important differences in terms of potential for spending on players' salaries and, therefore, for building more competitive teams. Data relating to the Italian championship show that the three leading teams have never scored so high and the last four have never scored so low as in recent years (Table 50.4).

If this trend continues, it is clear that there are at least three 'virtual championships' within Serie A. Some analysts question whether it is more sensible to maintain the status quo, or whether it is more convenient to call for the end of the Serie A as we know it and split up the championship to create – as advocated by many club managers – a European Superleague.

Notes

1. A government decree which allows football clubs to spread losses originated by sale and purchase of players on a five-year basis rather than reporting them in the actual year when they were sustained.
2. During the 1999/2000 championship, the accountancy entry for 'Advertising/Royalties/Merchandising' represented 4 per cent of total revenue for Juventus and 3 per cent for Milan. In the same year, the item 'Merchandising' alone accounted for 20 per cent of total revenue for Manchester United (Lega Calcio–Deloitte & Touche, 2001).
3. Autorità Garante per la Concorrenza ed il Mercato: Decree No. 6869 dated 10 February 1999 and No. 7340 dated 1 July 1999, Proc. No. 1362 – Sale of TV rights.
4. 'The 'seven sisters', Juventus, Milan, Inter, Roma, Lazio, Fiorentina and Parma, were the seven leading teams of the Italian championship: the most exciting football tournament in the world, and the championship which receives the widest television coverage in the entire planet. These were the teams that dominated the football division classifications, dictated the terms of the football market and influenced the highly lucrative business deals with the sponsors' (Malaguti, 2002, 53).

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51 The economics of soccer in Spain

Jaume García and Plácido Rodríguez

The Initial Period

In the history of Spanish football, most clubs were created during two periods. The first was the late nineteenth century to the early twentieth, when, following the British example, the first teams were founded. The second was the 1920s, as a consequence of the success of the Spanish national team in the Olympic Games held in Antwerp. By then football had already become widespread throughout the country and there were representative clubs in all the Spanish regions, including the Balearic and Canary Islands and the Spanish provinces in North Africa.

At the beginning of the twentieth century, football teams were individual entities that started to organise their own football matches and competitions. Later, in 1902, a football competition was held to mark King Alfonso XIII's coming of age. Representatives from some of the most important teams met in Madrid where they put forward the first proposal to create a football federation. This competition gave rise to what is known, among many other names, as the *Campeonato de Copa* (the Championship Cup).

The attempt to organise Spanish football under a national federation experienced various difficulties in the beginning. In the 1910s, the leaders' personal ambition caused the teams to be split into two different organisations: the *Federación Española de Clubs de Fútbol* (Spanish Federation of Football Clubs) and the *Unión de Clubs* (Clubs' Union), which in 1910 and 1913 held two different championship cups.¹ Once the internal rivalries were overcome the Spanish Federation was accepted as a full member by FIFA, and on 29 September 1913, the *Real Federación Española de Fútbol* (RFEF)² (Royal Spanish Football Federation) was officially founded.

The success of the Olympic Games held in Antwerp in 1920 highlighted the issue of footballers' professionalism.³ After many discussions and delays, due to the differences in opinion between the International Olympic Committee (IOC) and the Fédération Internationale de Football Association (FIFA) concerning who could be considered an amateur sports person, the RFEF Assembly held in June 1926 endorsed the Professionalism Regulations,⁴ which meant the recognition of professional football in Spain.

Not only did the regulations aim to put an end to 'disguised amateurism',⁵ but they also sought new economic resources for the clubs. For this reason, one of the provisional regulations stipulated that: 'the professional football League would be established within the Spanish Football Federation in a minimum period of one year'.

Nevertheless, the competition did not start until the next season due to a division within Spanish football concerning the number of teams that would make up the first division. On the one hand were teams who wanted the League to be made up of only six teams, those who had already won the Cup (this group is known as the 'minimalists'). On the other were those teams not included in the first division but who wanted the League to consist of more teams (the 'maximalists'). They could not reach an agreement, so for the first and only time in the history of Spanish football, the 1927/28 season, two

League championships were held: one for the six Cup champions and the other for nine other teams.⁶

Both of the competitions were failures since not all the matches could be played for various reasons. This failure and the swapping of teams from the maximalist to the minimalist group made it possible for the RFEF to organise the first national Championship Football League for the 1928/29 season,⁷ which took place on 10 February 1929.

Footballers' Labour Market, Competitive Balance and Attendance

Historically, clubs have tried to guarantee the control of the footballers' labour market. Among the usual restrictions in the world of professional sports, the most significant in Spanish football has been the retain and transfer system.⁸ The 1926 Professionalism Regulations drew a distinction between professional and amateur footballers, which allowed the control of the withholding right for professional football players. Two lists were drawn up: one with the players that the clubs wanted to retain and another with the players that they wanted to transfer. Those who did not appear in either of the lists were free. The withholding agreement lasted for a minimum of one year. If a player did not sign an agreement with the club he would be free after 12 months from when the agreement was established.

The legislation on the retain and transfer system became increasingly tougher. In the 1970s it reached a point at which a club could exercise the withholding right for an unlimited period of time. The only consideration towards the player was that the club was obliged to increase his income by 10 per cent with respect to the previous season.

This fight against the retain and transfer system was the unifying force of the *Asociación de Futbolistas Españoles* (AFE) (Spanish Association of Footballers) which was founded in 1978. After several strikes,⁹ they managed to get the retain and transfer system abolished and obtained the recognition of football players as workers in 1981.

The special characteristic of Spanish football concerning this subject was regulated by Royal Decree 1006 of 1985. According to this decree, clubs and footballers could set an amount of money in the contract, the *cláusula de rescisión* (cancellation clause), which would allow the player to terminate a contract unilaterally when that amount was paid. Cancellation clauses are still in operation in Spain and have not been affected by either European Union or FIFA legislation.

Football clubs have defended restrictions in the footballers' labour market in order to achieve competitive balance. From the 1928/29 season until the 2002/03 season, 72 League championships have been held and the results of the best five teams in the competition are shown in Table 51.1. It shows the first four places in the first division because these are the teams that qualify for the Champions League.

From this data it can be seen that the five teams together have won a total of 67 League championships out of 72 (93.05 per cent).¹⁰ This suggests that the League has no competitive balance since only a few teams win the majority of the championships. In fact, Real Madrid and Barcelona enjoy an overwhelming supremacy since between them they have won more than half – 45 out of 72, or 62.5 per cent.

In order to test whether abolishing the retain and transfer system has favoured competitive balance in Spanish football we would have to take into account the results of the championships held from the 1981/82 to the 2002/03 season. Real Madrid and Barcelona have come first 16 times out of the 22 championships held during that period, which is 72.72 per cent, 10 per cent higher than the percentage of both teams in the history of the

Table 51.1 *Ranking of the best five clubs in the history of the Spanish Football League*

	Seasons in First Division	1st	2nd	3rd	4th	Total	1st or 2nd
Real Madrid	72	29	15	7	8	59	44
Barcelona	72	16	20	11	12	59	36
Atlético de Madrid	66	9	8	12	7	36	17
Athletic de Bilbao	72	8	7	10	4	29	15
Valencia	68	5	6	6	9	26	11
Total		67/72	56/72			209/288	123/144
RM and B		45/72	35/72				80/144
RM, B and AM		54/72	43/72				97/144

Source: Own compilation.

Table 51.2 *Composition of attendance, 1st Division (in %)*

Season	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	Average
Season-ticket holders	76	72	73	76	76	77	79	78	81	79	81	77
Paying spectators	20	22	21	18	17	14	14	14	12	14	12	16
Guests	4	6	6	6	7	9	7	8	7	7	7	7

Source: *Liga Nacional de Fútbol Profesional (LFP), Memorias.*

Spanish League. Thus, we may conclude that the abolition of the retain and transfer system has been detrimental to competitive balance.¹¹

The dominance of football in the Spanish sporting world is unquestionable. Football supporters have made this possible, especially those who attend matches or, more recently, those who watch them on television. Those who watch live football can be divided into three categories: members who buy a season ticket for either half or the whole season; paying spectators who buy a ticket for a particular match; and guests, who are those that benefit from the social policy carried out by the club and do not pay to see a match.

The overall attendance at first division matches in the last decade has been about 8.7 million people per season.¹² The two most important categories of people attending matches are season-ticket holders and paying spectators.¹³ The ticket price per match is on, average, approximately 50 per cent lower for season-ticket holders than for paying spectators.¹⁴ Season-ticket holders represent 77 per cent of the total number of spectators, paying spectators 16 per cent and guests 7 per cent as shown in Table 51.2.

The other important group of spectators are those who watch the match on television. Two types of channels show the matches free of charge: the national channels (regional channels grouped under the Federation of Autonomous Television – FORTA – and the channel TVE 2 of the Spanish national broadcaster TVE) who broadcast the match on Saturdays; and Antena 3, who transmitted a match every Monday for two incomplete seasons. Canal +, a pay channel, shows a Sunday match scrambled, that is, available only to subscribers.

Table 51.3 TV viewers (FORTA and TVE 2, Antena 3 and Canal +)

FORTA AND TVE 2 (in millions)

Seasons	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Total	212.344	223.660	229.266	203.834	176.616	177.322	161.273	154.931
Average	5.588	5.325	5.459	5.227	4.773	4.547	4.244	4.077

ANTENA 3 (in millions)

Seasons	1996/1997	1997/1998
Total	201.503	125.207*
Average	5.303	5.008

CANAL + (in millions)

Seasons	1994/1995	1999/00	2000/2001	2001/2002
Total	25.004	24.167	21.171	18.207
Average	0.658	0.636	0.557	0.479

Note: * Twenty-five matches only.

Source: Own compilation from LFP information.

Table 51.3 shows the development of the total and average number of viewers of the matches broadcast in recent years. We can clearly see that there is an average of 5 million viewers per match shown on the national television, which has been decreasing over time. The cause for this fall in the number of viewers is due to the extensive coverage of football in Spain. Since 1998, all the matches that have not been broadcast by either FORTA and TVE 2, or Canal + have been transmitted by pay-per-view (ppv),¹⁵ which substantially increases the number of matches shown on television at weekends. Furthermore, the new format of the Champions League, with four Spanish teams on Tuesdays and Wednesdays, plus the UEFA championship on Thursdays may have caused television viewers to reach saturation point, which would explain the average fall.¹⁶

The Financial Structure of Spanish Football

In this section we shall divide Spanish football history into three stages. The first one runs from 1928, when the first League championship was held, until 1984, when professional teams left the RFEF and became part of the *Liga Nacional de Fútbol Profesional* (LFP) (National League of Professional Football). The second runs from 1984 until the negotiation of TV rights in the 1995/96 season, while the third and final stage goes from the 1996/97 season until the present day.

Professionalism in football: clubs and the Real Federación Española de Fútbol (RFEF) (1928–1984)

The Spanish League competition was first held with professionals playing for clubs that were amateur sports entities, since the 1926 regulations did not allow clubs to be

professional. Therefore, at that time, it was impossible to consider football clubs as trading companies whose aim was to yield profits.

Two events marked the early years of the League competition: the declaration of the Second Republic in 1931, and the Spanish Civil War from July 1936 until April 1939.¹⁷ With the victory of General Francisco Franco in the Civil War, the political authorities exercised complete control over all kinds of activities. The *Delegación Nacional de Deportes* (DND) (National Sports Office) was created in 1941 and for over 30 years they had the right to choose the president of the RFEF.¹⁸

With a Federation under a political protectorate, the clubs' autonomy was somewhat limited. Nevertheless, we can consider the 1940s and 1950s as the decades when the development of football as a service market started to gain importance. In a country where the possibilities for leisure time were scarce, football became the safety valve for many Spaniards; consequently, match attendance increased substantially. Consequently, clubs started to improve their stadiums with regard to size and quality, financed by their own team.¹⁹

Stadium extension was the next logical step since the clubs were getting most of their income through ticket sales. Likewise, the largest expenditure was on transfer fees, signing-on fees, and wages and salaries of football players. In spite of having little data relating to this period, this information can be verified by examining the income and expenses budgets for Zaragoza for the season 1978/79. The income from season ticket holders and normal match tickets adds up to 87 per cent of the total income, and the expenditure on footballers was 49.6 per cent.²⁰

Income from television broadcasting and sponsorship was practically non-existent during most of that time, and the teams' only sources of income were the static publicity within the stadiums and from the service provided by the canteens, which generally gave concessions in return for one year's payment. As far as expenses were concerned, apart from those mentioned above the largest outlay was for the construction of the stadium itself. Whenever there was a loss at the end of a season, which occurred frequently, the board of directors would cover the deficit.

At the time, government support was scarce so that of the council was more significant, especially with regard to building or relocating the stadium. Two facts indicate the lack of government support. The first has to do with the introduction of the pools in the 1946/47 season. The DND gave hardly any of the money collected from the pools to the clubs for using their team names until the 1980/81 season, from when the clubs were given 1 per cent of the total collection.

The second fact refers to stadium refurbishment for the 1982 World Cup. The stadiums belonged either to the clubs or to the corresponding councils, and all the long-term refurbishing expenses incurred were paid for by the clubs themselves – or by the councils – who received none of the possible benefits from the World Cup.

Therefore, this period was characterised by a relatively small participation by the state, especially in relation to future periods. Clubs obtained most of their income through gate taking. With regard to expenses, we must bear in mind that the retain and transfer system had been abolished in the final years of the period in question, which provoked a great increase in footballer expenditure. Income did not grow as fast as expenses, and the financial situation of most of the teams by the end of the 1984 season was therefore serious.

The birth of the Liga Nacional de Fútbol Profesional (LFP): the early years (1984–1996)

During the mid-1980s, clubs were not financially solvent. A mediator was required to report to the administration and as a result, on 24 July 1984 the LFP was founded.²¹ In the beginning, the LFP was made up of divisions 1, 2 and 2B, which lasted until the 1986/87 season inclusive. Since the 1987/88 season it has been composed of only the first and second divisions.²²

The first main task of the LFP was the financial restructuring of professional football, which had incurred a debt of €124 569 270. The intervention of the state made possible the *Primer Plan de Saneamiento* (First Restructuring Plan), which acknowledged the aforementioned debt as stated in the agreement signed by the *Consejo Superior de Deportes* (CSD) (Spanish Sports Council) and the LFP, on 11 June 1985. In order to finance these debts the state would raise the percentage that the clubs were getting from the pools from 1 to 2.5 per cent of the total collection. This plan was a failure due to the clubs' irresponsible policies on the one hand, whereby they were unable to match expenses to income, and the introduction of other games of chance such as the *a Primitiva lottery* in 1986, which caused a considerable fall in pools collection on the other. This failure led the LFP to seek help from the state institutions once more, in order to solve the financial problems. The outcome of the negotiations between the LFP and the CSD resulted in a Second Restructuring Plan five years later.

The second plan was implemented in conjunction with the Sports Law of 1990, under which all the first and second division clubs (except four which, at the time, were not in debt: Athletic de Bilbao, Barcelona, Osasuna and Real Madrid), would have to become *sociedades anónimas deportivas* (SAD) (limited sports companies) by the end of the 1991/92 season.

Also, the CSD and the LFP signed a financial contract under which clubs would have their pools income increase from 2.5 to 7.5 per cent of the total collection. Thus they would be able to payoff their national debt, which amounted to €192 million.²³ And moreover, the CSD fixed a different equity capital for each club so that, along with all the procedures mentioned above, their debt was reduced to almost zero.

Income from season ticket holders and gate taking made up over 50 per cent of the income budget for almost the whole period, decreasing only towards the end, to 46.23 per cent, as shown in Table 51.4. TV revenues began to increase considerably although they were still less than 20 per cent of the total. Sponsorship (publicity on shirts and so on)

Table 51.4 First division income (€m)

	1995/96 season	%
Season ticket holders	107.7	29.20
Gate takings	62.8	17.03
TV	72.7	19.71
Sponsors	31.6	8.57
Others	94.0	25.49
Total	368.8	100.00

Sources: LFP and García and Rodríguez (2003).

increased greatly in the late 1980s, coming to a standstill at the end of the period in question. And the 'others' amount, which includes income from players' transfer fees, began to increase in importance, accounting for 25 per cent of the income.

Expenditure on players is shown under three different entries in Table 51.5. First, direct expenditure on signing-on fees, wages and salaries. Second, depreciation includes material depreciation (stadiums, training grounds, machinery, computers) and non-material depreciation (mainly players). It is estimated that the players' depreciation expenditure accounts for 90 per cent of the total amount. Third, 'others' includes expenditure on acquisition of players, along with travelling and accommodation expenses, and social security contributions. If we take all this into account, we can say that players' expenditure represents more than 65 per cent of the total at the end of this period.

In this period, the role of clubs and of the LFP in the negotiation of TV rights must be highlighted. The LFP's behaviour can be described as that of a cartel from the very beginning since all the teams handed over their individual TV rights to the LFP in exchange for the first and second restructuring plans. Table 51.6 shows the sums received by the first division clubs through the different television contracts.

During the 1986/87 season, the negotiations followed a bilateral monopoly model with a single supplier: the LFP, who limited the number of televised matches to a maximum of 12, and a single purchaser: TVE. During the 1987/88 and 1988/89 seasons, several TV channels (TVE and FORTA) agreed to share the broadcasting of the matches and increase their number to 30 League matches and 2 Cup matches for each year of the two-year contract.

Before the start of the 1989/90 season purchasers were more numerous, so the LFP put the professional football television rights into a national draw, relinquishing them for five years. The draw was won by *Dorna Promoción del Deporte SA*, which only handled the audio-visual rights during the 1989/90 season. Dorna's financial difficulties forced them

Table 51.5 *First division expenditure (€m)*

	1995/96 season	%
Signing-on fees, sports wages and salaries	154.2	41.44
Non-sports wages and salaries	21.6	5.80
Depreciation	63.7	17.12
Others	132.6	35.64
Total	372.1	100.00

Source: LFP and García and Rodríguez (2003).

Table 51.6 *TV revenues (1986/87–1995/96) (€m)*

Season	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96
Revenues	2.5	6.5	6.6	6.7	30.5	37.2	40.6	44.9	55.8	72.7

Source: Own compilation.

to transfer the sole rights of their TV contract to FORTA and Canal +. The agreements between Dorna, FORTA, Canal + and the LFP modified both the length and the amounts that the LFP would obtain from televised professional football. As for the duration, the new contracts signed in 1990 extended the agreement to eight seasons, that is, from the 1990/91 season until June 1998. FORTA could televise 38 matches free of charge and Canal + another 38, but they would be scrambled. As regards the amount, FORTA would pay €252 million for the eight years (starting with €23.5 million for the 1990/91 season and rising to €41.5 million for the 1997/98 season. Canal +, for its part, would pay €72 million for the whole period).

To summarise, this period was characterised by a different financial structure, but not very different from that of the previous period. The income percentage obtained through season-ticket holders and gate taking is still the highest. TV revenue and sponsorship are beginning to gain importance, and players' expenditure, transfer fees, signing-on fees, wages and salaries continue to increase significantly. But the main feature of this period has been the government's support through the restructuring plans, which have been the key for the survival and stability of many football clubs during the period in question.

The role of TV revenues (1996–)

During the 1995/96 season, more than two years before the television rights contract terminated in June 1998, two companies – *Sogecable* (of the Canal + group) and *Audiovisual Sport – Gestora de Medios Audiovisuales* (of the Antena 3 group) – competed for the football television rights in an unprecedented war. They tried to sign individual contracts with the majority of teams, starting in the 1998/99 season. In order to get the contracts the companies offered to pay for the 1996/97 and 1997/98 seasons as well as offering sizeable amounts of money, even though they did not televise a single match. At the same time, the LFP was negotiating with Antena 3 on the possibility of showing matches on Mondays, during the 1996/97 and 1997/98 seasons.

All this income from television had immediate consequences for the LFP and for the profit and loss accounts of the teams. As far as the LFP is concerned, the clubs broke up the cartel that had lasted for a decade. With respect to the accounts, the effects can be observed in Tables 51.7 and 51.8.

As we observed in Table 51.4, TV revenues represented 19.71 per cent of the total income for the 1995/96 season. However, during the 1996/97 season they represented

Table 51.7 First division income (€m)

	1996/97	%	2000/01	%
Season-ticket holders	117.2	20.22	131.5	11.20
Gate takings	63.6	10.98	84.9	7.23
TV	222.2	38.34	263.9	22.48
Sponsors	18.6	3.21	110.4	9.40
Others	157.9	27.25	583.5	49.69
Total	579.5	100.00	1174.2	100.00

Sources: LFP and García and Rodríguez (2003).

Table 51.8 First division expenses (€m)

	1996/97	%	2000/01	%
Signing-on fees, sports wages and salaries	210.6	36.46	472.8	40.85
Non-sports wages and salaries	30.4	5.26	42.1	3.64
Depreciation	121.6	21.05	314.6	27.19
Others	215.1	37.23	327.7	28.32
Total	577.7	100.00	1157.2	100.00

Source: LFP and García and Rodríguez (2003).

Table 51.9 TV revenues (1996/97–2000/01) (€m)

Seasons	1996/97	1997/98	1998/1999	1999/2000	2000/01
Revenues	222.2	248.0	245.8	296.4	263.9

Source: Own compilation.

38.34 per cent of the total, as can be seen in Table 51.7. For the first time, and ever since then, TV revenues have amounted to more than the income from season-ticket holders and gate taking combined, which reached only 31 per cent.

Since the 1996/97 season, income from television has surpassed €200 million, as shown in Table 51.9. The variations depend on various factors: the success of the television companies in the promotion of pay-per-view, of which the teams receive a percentage; the good or bad results of the Spanish teams in the Champions League, as was the case in the 1999/00 season with three Spanish teams in the semi-finals and two in the final; and which teams are in the first division, since, for example, Atlético de Madrid, who played in the second division during the 2000/01 season, do not have the same TV revenues as the team who took their place in the first division.

The TV revenues had been the main source of income used to cover the teams' expenses during the early years of this period, but they were found to be insufficient. For this reason the clubs increased sales of players in order to balance the budget, as demonstrated by the increase in the amount under the entry 'others' in the 2000/01 season, which represents almost 50 per cent. The accounting method used is as follows: when a player is sold, the selling team enters the total amount of the transfer into the accounts. However, the purchasing team can delay payment for various seasons and generally only enters the amount paid each year (season) into the accounts. This accounting method explains the large difference between the variable 'others' in the income account, and that in the expense account, amounting to a difference of more than €250 million, since Spain is also a country that imports footballers.

In the expenses detailed in Table 51.8, the players continue to be the main expense, and this percentage has also risen. If we add up the three components where expenditure on football players is outlined, this represents approximately 75 per cent of the total expenditure.

The accounting method for the transfers and depreciation of players, and the deferral of the high national debts not recognised in these accounts, hide the continuing debt problem of Spanish football.²⁴ At the end of the 2000/01 season, professional football had a global debt of €1645.9 million. This meant that the teams once again sought institutional help. Thus, Real Madrid has cancelled a debt of nearly €300 million, by managing to persuade Madrid City Council and the Autonomous Community of Madrid to value the *Ciudad Deportiva* ground, in order to sell it for €480 million. On a smaller scale, Sporting de Gijón sold its Mareo Football School and its brand name to the City Council for €12 million in 2001. This period, like the one before it, was also characterised by strong support from public institutions.

The Future

Public intervention will continue to play a vital role since the LFP and the clubs will carry on seeking it. Currently, the LFP has reached a preliminary agreement with the CSD to defer an important national debt in order to reduce VAT and to increase the percentage received from the pools. The big clubs will start to function as vertical corporations. Teams like Real Madrid and Barcelona have their own television channels on the Digital + platform, although they do not have good ratings yet. Global franchises have been established in order to utilise the brand image. Also the co-participation of sportswear companies and the tours at the start-of-season training, as well as the sponsorship by cinema giant Columbia of Atlético de Madrid. Although these are recent events, they are a hint of the future to come.

With respect to TV revenues, television rights cannot be sold exclusively since the government maintains the right to retransmit a weekly match free of charge, as a matter of public interest. This could change, but even with this restriction, in 1999 Real Madrid and Barcelona signed contracts for the 2003/04 season to the 2007/08 season for an amount of more than €50 million per year and per season (three times their current income). Other clubs have also signed individual contracts for three seasons for a similar (or higher) amount to that paid for earlier contracts. The rest of the teams have negotiated as a group through the LFP a contract to suit them. In total, this amounts to approximately €300 million per season. This asymmetric behaviour during the search for income will increase the gap between the large and the small teams.

These differences aside, the majority of teams are suffering from serious financial problems. It is not possible to doubt the clubs' ability to generate income, though we cannot say the same about their control of expenditure. The possible stock market flotation of Spanish teams is unlikely to be very far off. The serious task of balancing the books should be carried out without delay, or some teams may find themselves on the verge of disappearing.

Notes

1. For further information on the development of these parallel championships, see Martialay (2000) and Martínez (2001, 2002).
2. See www.rfef.es.
3. For more detailed information on this issue, see Martialay (1996).
4. The regulations had been passed in Spain in a previous Assembly of the RFEF held in June 1924, in which a committee was appointed to draw up a draft, which was then passed in 1926.
5. *Amateurismo marrón* (disguised amateurism) is a Spanish term to define the situation of footballers who were officially amateurs but who were being paid as professionals.

6. The minimalists League consisted of the six Cup winners: Arenas de Guecho, Athletic de Bilbao, Barcelona, Real Madrid, Real Sociedad de San Sebastián and Real Unión de Irún. The other League teams were: Atlético de Madrid, Celta de Vigo, Español de Barcelona, Iberia de Zaragoza, Murcia, Racing de Santander, Sevilla, Sporting de Gijón and Valencia.
7. The teams were split, not without difficulties, into three different categories. The first one consisted of 10 teams: the six Cup winners, the three finalists: Atlético de Madrid, Español de Barcelona, and Europa de Barcelona, as well as Racing de Santander, the winner of a mini-league played between the rest of the contenders in the second division (Martínez, 2002).
8. Other restrictions were: limitation or prohibition of foreign football players; the establishment of minimum and maximum wages at the beginning of professionalism in 1926 and minimum salaries in later years; and voluntary area restrictions in the case of Athletic de Bilbao, which did not want to have players born outside the Basque Country.
9. The first strike took place during the 1978/79 season, resulting in the suspension of the League from 25 February until 11 March.
10. The other champions have been Real Sociedad (twice), and Sevilla, Betis and Deportivo de la Coruña, once each. There have been nine league champions in total, in the history of Spanish football.
11. Competitive balance analysis must take into account other aspects such as the teams' budgets, which show significant differences. For example, the highest income budget for the 2003/04 season, that of Real Madrid, is €232 million, while smaller clubs have an income budget of around €20 million, which is more than 11 times smaller!
12. Except during the 1995/96 and 1996/97 seasons when there were 22 teams in the first division.
13. The quality of the match is the main explanation for the attendance of paying spectators, while the characteristics and development of the local team are more important for the season-ticket holders. For further analysis of the variables that influence the attendance of both types of spectators, see García and Rodríguez (2002a and b).
14. The price of an adult season ticket (luxury box excluded) for the 2003/04 season is between €270 and €720 on average for the 20 teams in first division (AS, 2003).
15. Unfortunately, we do not have the official number of viewers of every match broadcast by pay-per-view.
16. Although we use total and average values (calculated on 37, 38, 39 or 42 matches) in our tables, it may be worth giving some details about individual matches. For example, the match with the most viewers in the 1997/98 season was Real Madrid vs. Barcelona, with a total number of 9.326 million viewers on FORTA and TVE 2. Barcelona vs. Real Madrid had the most viewers, 9.723 million in the season 2000/01. In 2001/02, Barcelona vs. Real Madrid was watched by 8.106 million and Las Palmas vs. Deportivo had the least viewers with only 2.036 million.
17. The League competition was stopped for three years and the Championship Cup for two.
18. For further information on this period, see Cazorla (1979), Shaw (1987) and González Aja (2002).
19. Real Madrid's Chamartín inaugurated in 1947 and Barcelona's Camp Nou inaugurated in 1957 both have a capacity of over 100 000 people.
20. The total income and expenses budget for Zaragoza amounted to €1 574 620. Real Madrid had budgeted for an income of €2 933 842 and for expenses of €2 645 782. Atlético de Madrid budgeted for an income of €2 693 840 and for expenses of €2 890 810 (Cazorla, 1979, 34–35).
21. See www.lpf.es.
22. From the 1983/84 season until 1985/86: First Division, 18 teams; Second Division, 20 teams; and Second B, 40 teams divided into two groups. In the season 1986/87: First Division, 18; Second Division, 18 and Second B, 22 in a single group. From 1987/88 until 1994/95: First Division, 20; Second Division, 20. From the season 1995/96 until the season 1996/97: First Division, 22; and Second Division, 20. Since 1997/98: First Division, 20; and Second Division, 22.
23. Furthermore, clubs would be able to defer their private debt, which totalled €48 million, through a loan guaranteed by the LPF with TV rights.
24. For a more detailed analysis of the financial situation of Spanish teams, see García and Rodríguez (2002c).

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52 Football in Germany

Bernd Frick

The History of (Professional) Football

The development of active and passive club membership

After some initial difficulties in gaining public support, football in Germany quickly turned into a game that fascinates the majority of the male (and increasingly the female) population. Due to the historical predominance of the ‘gymnastic movement’, which, at the beginning of the twentieth century clearly outperformed any other sport with respect to individual membership, the football clubs had only about 14 000 members in 1905 and 82 000 in 1910. The respective figures in gymnastics were 800 000 (1905) and 1 080 000 (1910) (Eisenberg, 1997: 97). Apart from these significant differences in active players, football was not very attractive to ‘sports consumers’ either: in the years from 1903 to 1914, the number of spectators watching the final of the national championship was, on average, less than 5000. This figure, however, rapidly increased after the First World War to more than 50 000 (Kicker, 2000: 180). This development is also reflected in the membership figures of the football clubs which in 1952 had increased to about 1.45 million (in that year the gymnastics clubs had 900 000 members). Until 1980 these figures had increased further to 3.0 million (gymnastics) and 4.3 million (football) and, finally, in 2003 membership peaked at 5.0 million (gymnastics) and 6.3 million (football). Thus, today, football is clearly the most popular sport in the country: According to a recent opinion poll (UFA, 2000: 11–12) some 63 per cent of the German adult population is interested in sport either ‘very much’ or ‘pretty much’. Among them, more than 80 per cent are either exclusively or primarily interested in football.

The history of organised football in Germany

Although the first German football club was founded as early as 1874 (by Konrad Koch, a high-school teacher in Braunschweig, who was very much in favour of ‘English sports’), the foundation of the German Football Federation (DFB) on 28 January 1900 in Leipzig was not even mentioned in the daily newspapers. On that occasion the representatives of 86 different clubs voted in favour of a proposal developed by five pioneers (64:22), of whom one (Ferdinand Hueppe, a professor at the University of Prague) became the first president of the federation.

Beginning in 1903, the national champion was crowned at the end of an elimination tournament to which the eight regional champions were admitted. The first title was won by VfB Leipzig who defeated DFC Prague 7:0. In 1904, the final match between VfB Leipzig and Britannia Berlin was cancelled at short notice. Following a reorganisation of the league structure in 1932, 16 teams from the regional top divisions (including the actual as well as the defending champions) competed for the national title in a final elimination round over the 1933–44 period. During and immediately after the two world wars no championship round was played (1915–19 and 1945–47).¹

Soon after the Second World War (in 1946) eight regional divisions were formed in the Western zones. In 1949 the delegates of the regional associations decided to merge those eight divisions into five regional leagues consisting of 16 clubs each (with the exception of the 'city league' of Berlin which had only 12 teams) and to allow players to become 'semi-professionals' (with a maximum salary of DM 320 per month).² On 28 July 1962 the representatives of the 21 different regional associations agreed (by 103:26 votes) to introduce a single first division. Moreover, a minimum and a maximum salary was introduced (the former being DM 250 per month and the latter DM 1200 per month); moreover the maximum transfer fee was set at DM 50000, of which a maximum of DM 5000 could be paid to the player (all these caps were finally abandoned in 1972). On 24 August 1963 the 16 teams that had been admitted to the Bundesliga (out of 46 applicants) started their first season. The selection committee had based its decision primarily on the teams' sporting performance (a weighted average of the final league positions over the 10 previous seasons), but had also taken into consideration their economic performance and the capacity and quality of their stadiums. Two of the rejected teams (Alemania Aachen and Offenbacher Kickers) went to court in order to gain admission to the football's new elite, but did not succeed with their claims. The former regional divisions continued to exist as the highest amateur leagues, with the five champions and the three best performing vice-champions having the right to compete for promotion to the Bundesliga. It was not until 1974/75 that a second division (with a Northern and a Southern league) was introduced; the two leagues merged before the season 1981/82 to form the 2nd Bundesliga.

In 1991/92, following the reunification of East and West Germany, the 1st Bundesliga was expanded to 20 teams to integrate the two top teams from the former 1st division in East Germany (Dynamo Dresden and Hansa Rostock). In the same year the 2nd Bundesliga was once again divided into a Northern and a Southern division with 12 teams each to integrate six more top teams from the former GDR. While the 1st Bundesliga reduced its size again after only one season by relegating four teams and promoting only two, the 2nd Bundesliga played a second season with 24 teams, but this time in one division, that is, each team had to play 46 games instead of 22 in the season before.

On two different occasions, the integrity of the sport was severely threatened. After the second season (1964/65) Hertha BSC Berlin was relegated to its city league, not due to its poor sporting performance, but because the management had paid higher wages and signing bonuses than was permitted under the statutes of the DFB. The two weakest teams (Karlsruher SC and Schalke 04) were allowed to stay in the league and the champion of Berlin, Tasmania 1900, was admitted without further qualification (due to 'political' considerations a team from Berlin was considered indispensable).³ The second 'scandal' occurred in 1970/71 when officials of Kickers Offenbach and Arminia Bielefeld tried to avoid their teams' relegation by offering bribes to some of their opponents' players. Following an investigation that lasted for more than five years, 52 players (mostly from Eintracht Braunschweig, Hertha BSC Berlin and Schalke 04), two coaches and six officials were fined and disqualified for several years. Moreover, Offenbach and Bielefeld lost their licences as professional teams and had to pay high fines too. This event had a significantly negative impact on the attendance figures in the following two seasons (see Table 52.3, below): compared to 1970/71, ticket sales declined by 13 and 20 per cent in 1971/72 and 1972/73.

The Economics of the Bundesliga*The financial situation of professional football clubs*

Since German football clubs have generally not been required to publish their accounts in the past (until the late 1990s all clubs had the legal status of a non-profit organisation), information on their financial situation is rather limited. Although some teams have started to publish detailed accounts, longitudinal data on individual teams is still hard to find. It is, therefore, necessary to rely on aggregated figures provided by the German Football Federation (Table 52.1).

Distinguishing between the top six, middle six and bottom six teams at the end of the 2001/02 season, it appears that the revenues are highly concentrated among the most successful teams.⁴ While the revenues of the top six averaged €113 million (80 per cent above the league average), the middle six made €45 million (28 per cent below the league average) and the bottom six about €30 million (52 per cent below average). Comparing these figures to the expenses of the teams belonging to the three different groups it appears that the top six and the bottom six were equally profitable (€1.4 million and €1.2 million per team, respectively) whereas the clubs in the middle group, that is, the contenders, lost money (about €1.2 million per team) (Table 52.2).

The aggregate attendance figures (Table 52.3) show a steady upward trend that has been interrupted from time to time: in the two seasons following the 'bribery scandal' attendance declined while in the four seasons following the World Cup success of the German national team, these figures steadily increased. This positive development came to an end

Table 52.1 Annual revenues per team in the 1st and 2nd Bundesliga (1989/90–2001/02)

Season	Total revenues (DMm)		Revenue categories (%)*		
	1st Division	2nd Division	Tickets	Sponsoring	TV
1989/90	20.09	n.a.	34.6	13.8	13.2
1990/91	21.92	n.a.	30.8	15.4	12.5
1991/92	22.46	n.a.	36.8	16.4	11.8
1992/93	29.23	7.53	32.7	15.2	23.4
1993/94	33.56	8.97	33.6	15.5	24.0
1994/95	40.06	10.24	33.5	17.0	22.3
1995/96	45.78	10.94	30.7	17.8	23.2
1996/97	54.24	13.76	28.6	22.1	22.2
1997/98	62.28	14.46	26.9	19.7	24.9
1998/99	71.30	17.58	23.8	20.3	25.5
1999/00	78.94	19.43	26.5	20.9	29.2
2000/01	104.33	21.44	16.4	20.5	41.5
2001/02	122.19	20.14	16.0	23.8	36.8

Notes

* Figures refer to the 1st division only; detailed figures not available for 89/90–91/92; remaining revenues come from transfers and merchandising.

n.a. figure not available.

Sources: Ziebs (2002: 29); DFL (2003: 9).

Table 52.2 Average Expenses and Returns (1989/90–2001/02)

Season	Expenses (DMm)	Returns (DMm)	Win/loss (DMm)
1989/90	20.08	20.09	0.01
1990/91	22.45	21.92	-0.53
1991/92	23.32	22.46	-0.86
1992/93	28.18	29.23	1.05
1993/94	32.08	33.56	1.48
1994/95	38.60	40.06	1.46
1995/96	46.23	45.78	-0.45
1996/97	52.54	54.24	1.70
1997/98	62.56	62.28	-0.28
1998/99	68.20	71.30	3.10
1999/00	83.40	78.94	-4.46
2000/01	101.94	104.33	2.39
2001/02	121.29	122.19	0.90

Sources: DFB (1999); DFL (2003: 15–16); own calculations.

Table 52.3 Attendance, TV, advertising and ticket revenues, 1963/64–2002/03

Season	Attendance ¹	TV revenues ² (DMm)	Advertising revenues (DMm) ³	Ticket revenues (DMm) ⁴
1963/64	5 909 776	0	0	21.99
1964/65	6 492 539	0	0	24.74
1965/66	7 094 666	0.65	0	29.31
1966/67	7 129 485	0.81	0	32.86
1967/68	6 147 508	0.81	0	29.67
1968/69	6 550 497	1.68	0	33.02
1969/70	6 113 726	2.60	0	30.61
1970/71	6 322 114	3.00	0	33.85
1971/72	5 487 286	3.12	0	32.45
1972/73	5 014 332	3.12	0	31.99
1973/74	6 293 167	3.40	0	48.18
1974/75	6 738 303	4.40	1.50	56.26
1975/76	6 768 448	4.80	1.70	61.15
1976/77	7 401 686	4.80	4.50	76.86
1977/78	7 936 765	5.37	4.90	90.12
1978/79	7 351 341	6.72	5.70	86.98
1979/80	7 045 940	5.86	7.00	88.76
1980/81	6 895 851	6.30	7.50	90.47
1981/82	6 280 388	6.74	8.40	86.70
1982/83	6 180 704	7.23	8.10	87.18
1983/84	5 918 003	8.00	8.00	84.96
1984/85	5 765 284	10.00	8.50	83.01
1985/86	5 405 571	12.00	9.50	80.48

Table 52.3 (continued)

Season	Attendance ¹	TV revenues ² (DMm)	Advertising revenues (DMm) ³	Ticket revenues (DMm) ⁴
1986/87	5 937 044	16.00	9.80	90.05
1987/88	5 705 523	18.00	11.70	89.42
1988/89	5 394 943	40.00	11.60	84.74
1989/90	6 048 207	45.00	15.40	95.02
1990/91	6 275 437	50.00	19.10	103.72
1991/92	8 600 801	60.00	27.90	144.98
1992/93	7 396 857	145.00	31.50	134.62
1993/94	7 986 681	165.00	34.60	158.10
1994/95	8 476 885	165.00	40.60	171.89
1995/96	8 906 792	165.00	46.30	198.41
1996/97	8 776 265	195.00	51.20	210.68
1997/98	9 520 385	255.00	78.30	226.79
1998/99	9 455 582	255.00	112.50	239.36
1999/00	8 849 661	330.00	111.90	236.31
2000/01	8 696 712	695.00	143.40	238.76
2001/02	9 500 367	545.00	146.60	279.25
2002/03	9 764 735	567.20	187.60	284.85

Notes

1. In the first two seasons (1963/64 and 1964/65) the number of games played was 240, in all other seasons (except 1991/92 with 380 matches) the respective figure was 306.
2. From 1965/66 to 1987/88 ARD and ZDF (public TV stations); 1988/89–1991/92 Ufa and RTL (private station); 1992/93–1999/00 ISPR and Sat.1 (private station) and 2000/01–2002/03 Kirch media (private station).
3. Payments by main sponsor only (usually for advertisement on player shirts).
4. Revenues from Bundesliga matches only (cup and friendly matches excluded).

Sources: WGZ-Bank (1999: 67); DFL (2003: 15); Kicker (2003: 42, 205).

with the poor performance of the German national team in the World Cup in 1978, after which attendance decreased for about 10 years.

When, in 1988, the TV rights were sold to a private station for the first time in the history of German football, attendance started to rise again (although most commentators expected a further decline due to the more appealing presentation of the matches in a 'highlights show' on Saturday evenings). Moreover, the success in the 1990 World Cup final again boosted the fans' interest. Due to changes in the number of teams as well as the composition of the clubs in the league, aggregate attendance figures may be misleading. Closer inspection of the data reveals that, first, attendance per match has more than doubled (from a low of 16 387 in 1972/73 to a high of 33 221 in 2002/03) and that, second, capacity utilisation has also increased considerably: it started at about 55 per cent in 1963/64, went down gradually to 46 per cent in the 1972/73 season and finally peaked at 75 per cent in 2002/03.

Table 52.4 The dynamics of the labour market (1963/64–2002/03)

Number of matches played	Number of players	
	Absolute	%
1	286	6.9
2–100	2800	67.7
101–200	592	14.3
201–300	280	6.8
301–400	121	2.9
401–500	49	1.2
501+	9	0.2
Total	4137	100.0
Average no. matches	77	–

Source: Kicker (2003: 206); own calculations.

The player market

From the start of the inaugural season in August 1963 until the end of the 40th season in May 2003, exactly 4137 players appeared in at least one match in the 1st Bundesliga, among them 1046 foreigners (25 per cent; see Table 52.4). On average, these players have been active for 3.7 seasons. However, about 40 per cent of all player careers last for just one season and only about 20 per cent of the players manage to stay in the 1st Bundesliga for at least five seasons (Frick et al., 2003). Although the labour market for football players has been liberalised after the 'Bosman ruling' of the European Court of Justice in 1995 (with an ensuing increase in the percentage of foreign players, especially from Eastern Europe and Africa⁵), player careers tend to become longer. On the one hand, an increasing percentage of players experience rather short spells while on the other the successful players manage to extend their career. Thus, while in the early years career duration was more or less a normally distributed variable, we now observe a trend towards a bimodal distribution.

This simultaneous increase in short and long careers is most likely due to the rapid increase in player salaries during the 1990s (Table 52.5) which, in turn, makes a career in professional football a more attractive alternative and, at the same time, leads to an increase in the opportunity costs of quitting.

Prior to the publication of the *Bosman* ruling, average contract length was about 2.5 years, and since then it has increased to slightly more than three years. In order to motivate the more able players to sign long-term contracts, teams now pay a premium to their stars who, therefore, forfeit the opportunity to bargain for wage increases in the near future with either their current employer or any other team. These long-term contracts, however, may not be beneficial to the clubs, because the players' performance decreases considerably after having signed such a contract and returns to its previous level only in the last season before the contract expires (Feess et al., 2003).

The major determinants of player salaries as well as transfer fees (Tables 52.5 and 52.6) are player age and experience, number of international caps, number of goals scored in previous seasons and player position and nationality. While the first three variables have

Table 52.5 *Player salaries and player values*

Season	Annual salaries (DMm)			Player values (DMm)
	Ziebs (2002)	Huebl and Swieter (2002)	DFL (2003)	Kicker (1995–2003)
1990/91	0.71	–	–	–
1991/92	0.74	–	–	–
1992/93	0.83	–	–	–
1993/94	0.88	–	–	–
1994/95	0.96	0.61	–	–
1995/96	1.08	0.76	–	1.63
1996/97	1.10	1.09	–	1.68
1997/98	1.25	0.89	–	–
1998/99	1.34	0.83	1.23	1.91
1999/00	1.46	1.12	1.44	2.35
2000/01	–	–	1.68	2.55
2001/02	–	–	1.99	2.66
2002/03	–	–	–	3.36
2003/04	–	–	–	3.13

Sources: Ziebs (2002: 224); Huebl and Swieter (2002: 112); DFL (2003: 12); Kicker (1995: 172; 1996: 228; 1998: 220; 1999: 220; 2000: 222; 2001: 170; 2002: 208; 2003: 202); own calculations.

a significantly positive, but decreasing impact on transfer fees and salaries alike, this is not the case with regard to career goals, where a linear impact is to be observed in both cases (Lehmann and Weigand, 1999; Frick and Lehmann, 2001).

Although fans tend to discriminate specific groups of foreigners (that is, those from Eastern Europe⁶), these players neither earn less than otherwise similar Germans nor do they cost less in terms of transfer fees or signing bonuses. The latter finding is in accordance with the argument that on a highly competitive (labour) market discrimination is unlikely to persist.⁷

Player salaries in German football usually consist of an *ex ante* fixed base salary and a performance-related component. The size of this variable part, however, depends upon the team's – and not the individual's – performance and varies between less than 5 per cent and more than 30 per cent of a player's annual salary (Ziebs, 2002: 158–60). The percentage of performance-related pay is negatively correlated with total pay, indicating that the poorer teams tend to use bonuses more often than the teams that can afford to pay higher base salaries. Controlling for, *inter alia*, the teams' wage bill, the percentage of variable pay positively affects the performance of the teams. This finding, however, raises a question that cannot be dealt with in this chapter due to space constraints: if the teams that pay their players to a large extent via bonuses are more successful than those that prefer fixed payments, why do not all teams turn to performance-related pay? A tentative explanation suggests that while poor teams motivate their employees via bonuses, rich teams achieve this goal by paying high fixed salaries. The conditions under which such a separating equilibrium is likely to persist have yet to be identified.

Table 52.6 The development of transfer fees (1980/81–2002/03)

Season	Average nominal transfer fee (DM)		Number of transfers		
	All transfers	Transfer fee > 0	All transfers (1)	Transfer fee > 0 (2)	(2) in % of (1)
1980/81	329 800	329 800	59	59	100
1981/82	347 200	365 100	61	58	95.1
1982/83	313 100	330 500	57	54	94.7
1983/84	338 300	363 500	72	67	93.1
1984/85	201 500	215 100	63	59	93.7
1985/86	390 500	407 200	73	70	95.9
1986/87	468 600	479 400	89	87	97.8
1987/88	495 800	520 600	84	80	95.2
1988/89	644 900	670 700	78	75	96.2
1989/90	1 014 300	1 014 300	68	68	100
1990/91	688 100	710 500	95	92	96.8
1991/92	1 099 700	1 158 400	79	75	94.9
1992/93	1 035 500	1 094 600	74	70	94.6
1993/94	1 220 900	1 287 900	96	91	94.8
1994/95	1 175 500	1 198 300	105	103	98.1
1995/96	954 400	1 099 400	91	79	86.8
1996/97	1 332 000	1 850 000	100	72	72.0
1997/98	983 400	1 619 700	112	68	60.7
1998/99	1 890 900	2 941 400	112	72	64.3
1999/00	1 190 600	2 114 400	103	58	56.3
2000/01	2 551 100	3 616 400	129	91	70.5
2001/02	2 180 800	3 914 300	140	78	55.7
2002/03	806 000	2 573 100	83	26	31.3

Sources: *Welt am Sonntag* (1980–2003); own calculations.

Which teams survive? Who is promoted and who is relegated?

In the past 40 seasons, 48 different teams have played in the 1st Bundesliga for at least one season. Only one of the founding members, the three-time champion Hamburger SV, has always been a member of the German football elite. The most successful teams (Bayern Munich with 17 titles and Borussia Moenchengladbach with five titles) were promoted in 1965.⁸ The remaining champions (Borussia Dortmund and Werder Bremen with three titles each, FC Cologne, VfB Stuttgart and FC Kaiserslautern with two titles each and the onetime champions Eintracht Braunschweig, FC Nuremberg and 1860 Munich) have all been relegated at least once.⁹

A total of 47 different teams were promoted at least once while 44 different teams have been relegated at least once (Table 52.7). Apart from Hamburger SV only three teams making it into the Bundesliga later have never been relegated (Bayern Munich, Bayer Leverkusen and VfL Wolfsburg). On the other hand, multiple promotions and/or relegations of the same club (usually called ‘yoyo teams’) are not rare events at all

Table 52.7 Promotions and relegations in the 1st Bundesliga (1963/64–2002/03)

No. of promotions and relegations	Promotions		Relegations	
	No. of teams	No. of events	No. of teams	No. of events
1	21	21	20	20
2	11	22	8	16
3	5	15	4	12
4	5	20	8	32
5	4	20	2	10
6	1	6	2	12
Total	47	104	44	102

Source: Own compilation.

Table 52.8 Survival in the 1st Bundesliga (1963/64–2002/03)

Seasons in league	No. of teams	Cumulated number of seasons	
		Absolute	%
1	6	6	0.8
2–3	9	23	3.2
4–5	4	17	2.4
6–7	5	34	4.7
8–10	2	17	2.4
11–15	3	41	5.7
16–20	2	39	5.4
21–30	7	167	23.3
31+	10	374	52.1
Total	48	718	100

Source: Own compilation.

(Table 52.8): Arminia Bielefeld has been promoted six times during the last 40 years, VfL Bochum, Hannover 96, FC Nuremberg and KFC Uerdingen managed to reach the highest echelon in German football five times. Nuremberg and Bielefeld have also been relegated six times, Karlsruher SC and Uerdingen ‘only’ five times.

Apart from a few notable exceptions (such as Hertha BSC Berlin, Fortuna Duesseldorf and Hannover 96) the teams that survive in the Bundesliga longer are basically the ones with a huge fan base, that is, the ‘large market teams’ (however, they are not necessarily located in the cities with the most inhabitants; see Frick, 2003). These clubs are not only able to attract significantly larger crowds, but are also able to sign the most lucrative contracts with sponsors which, in turn, enables them to spend more money on recruiting and paying players (with the predictable effect on sporting performance). It is, therefore, not surprising that survival as well as sporting performance are pretty much concentrated among the top teams (the respective Gini coefficients are 0.55 and 0.58).

The Future of Professional Football

With the bankruptcy of the Kirch group in the spring of 2002, the financial crisis in European football also reached the Bundesliga: in the season 2001/02 the 36 teams received €30 million less than expected, in 2002/03 that amount increased to €70 million and in 2003/04 it will be €170 million less than expected. Thus, within three years the clubs will have received €270 million less than the amount guaranteed by the last TV contract.

Since about half of the teams' expenses (48 per cent in 1999/2000, 47 per cent in 2000/01 and in 2001/02) are for player salaries, club managers have started to pay significantly lower wages and signing bonuses when concluding new contracts and to reduce the number of players on their rosters. Given an average contract length of three years, about one-third of the players is up for renegotiation every season. It is the players whose contracts expired in 2002 who have to carry most of the burden – either in the form of reduced wages or in the form of unemployment.

Although some clubs, most notably Borussia Dortmund, are in severe financial difficulties it is unlikely that any team is threatened by bankruptcy. On the one hand, the clubs' managers have indeed been (partly) successful in cutting costs. On the other, they can (and eventually will) rely on 'benevolent' members of the political elite to rescue their teams by, *inter alia*, offering public guarantees and other covenants to lenders and by subsidising the (re-)construction of stadiums. Thus, the future of professional football may not be as bright as it seemed to be only about three years ago, but it is also less threatening than many observers tend to argue.

Notes

1. Moreover, in 1922 no championship title was awarded because the first final as well as the replay between Hamburger SV and FC Nuremberg ended in a tie.
2. Following a discussion started in 1924 (when football officials prohibited matches against professional teams), the delegates of the 1932 annual meeting of the German Football Federation decided to allow players to become professionals. This decision, however, was immediately revoked by the Nazi government in 1933.
3. The latter team proved to be the weakest one that ever belonged to German football's elite division: After just two wins and four ties (plus 28 losses) the team was relegated again. In 1973, its management filed for bankruptcy.
4. While the top six consist of the 'usual suspects' (that is, Borussia Dortmund, Bayer Leverkusen, Bayern Munich, Hertha BSC Berlin, Schalke 04 and Werder Bremen), the middle group comprises FC Kaiserslautern, VfB Stuttgart, 1860 Munich, VfL Wolfsburg, Hamburger SV and Borussia Moenchengladbach. Finally, the bottom six are not surprising either (Energie Cottbus, Hansa Rostock, FC Nuremberg, SC Freiburg, FC Cologne and FC St. Pauli).
5. The percentage of players from abroad increased from less than 2 per cent in 1963/64 to nearly 50 per cent in 2003/04 (Ziebs, 2002: 60; Kicker, 2003: 77–111).
6. Kalter (1999) shows that even after controlling for individual performance, replica shirts with the names of players from Eastern Europe sell less often than those with player names from South American and, to a lesser extent, from Western European countries.
7. It is worth noting, however, that average career duration is significantly shorter for players originating from Eastern Europe as well as for those from Western Europe and South America. While the latter players usually leave the Bundesliga voluntarily and sign more lucrative contracts in England, Spain, Italy or France, the former players often return to their home countries due to a lack of alternatives (Frick et al., 2003).
8. Moenchengladbach was relegated in 1999 and returned after two seasons in 2001.
9. Braunschweig was relegated in 1985 and never returned to the Bundesliga; 1860 Munich was relegated even further down the league hierarchy for a while, but managed to return to the Bundesliga after an absence of 12 years.

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53 Football in France

Frédéric Bolotny

At the dawn of the twenty-first century and after a decade of continual expansion that was characterised by an average growth rate in the order of 15–20 per cent in the main national markets, European football is approaching a critical phase in its development. Although the current period certainly resembles more a crisis of growth than a real structural depression, professional clubs must face up to a certain number of pressures:

- the uncertainty concerning the development of TV fees, which are the main source of regular receipts in the sector;
- the scissors effect, linked to the inflation of wage costs and player transfer fees, hence a sharp increase in club debt which limits the margin for financial manoeuvre, influences the capacity to invest and makes potential investors wary;
- the financial difficulties, even bankruptcies, of leading partners (sponsors, middle-people, TV channels and so on), like International Sport Leisure (ISL) or the Kirch Group; and
- the growing competitive imbalance in European competitions, which is affecting interest in the events, owing to the concentration of financial and human resources in certain leading clubs and countries, which are finding fewer and fewer opponents of their calibre and so on.

In this uncertain context, analysing the activity of French clubs is of real interest, for different reasons. On the strength of organising the 1998 World Cup and by the historic performances of the national team – World (1998) and European (2000) Champions – French football has, in just a few years, caught up on a little of the economic backwardness that it had, compared to its European competitors. Indeed, the very positive context at the end of the 1990s enabled it to make-up for a certain historical deficit of sporting supply, whether watching or practising, by the French population: with nearly 2.2 million federation members, the French Football Federation (FFF) is far and away the leading sports federation in France and, apart from Germany with its 6 million federation members, is one of the largest in European football. Attendance at the French Championship has grown by more than half in just a few years and, as in many other countries, the national team has made it possible for French television, taking all programmes together,¹ to beat historic audience records.

Nevertheless, French clubs are unquestionably among the main victims of the deregulation of European professional sport, which was initiated by the *Bosman* case in December 1995.² Indeed, in an open, but not homogeneous, economy – which is characterised by a global European player market – French football is still suffering from a certain development deficit compared to its four main competitors (England, Italy, Spain and Germany), which is increased even more by unfavourable distortions of competition. This double handicap caused the exile of its best players, which combined with

the different reforms of European competitions which were favourable to the wealthiest clubs, helped to reduce the sporting competitiveness of French clubs on the European scene. For a few years now, their disappointing performances have provoked an often-impassioned debate about the characteristics of the French model, which are judged to be too disabling by club managers who want to set up a more elitist and liberal organisation. Nevertheless, over the most recent period, the supervision of club activity by a more rigorous budgetary control than anywhere else and the interdependent way of distributing pooled commercial sources of funds have certainly meant that they have been less affected by the profound financial crisis afflicting European football than some of their foreign counterparts.

After presenting and diagnosing the activity of French professional clubs in their international setting, we wonder about the precise conditions needed for a return to their economic and sporting competitiveness on the European level.

Presentation and Diagnosis of the Market

The significant increase in the sources of funds of French clubs since the mid-1990s comes from virtually one television windfall, which, amplified by distortions of unfavourable competition, makes it impossible for them to reach a satisfactory level of European competitiveness – either economically or sporting.

An irregular growth, exclusively financed by the inflation of TV fees

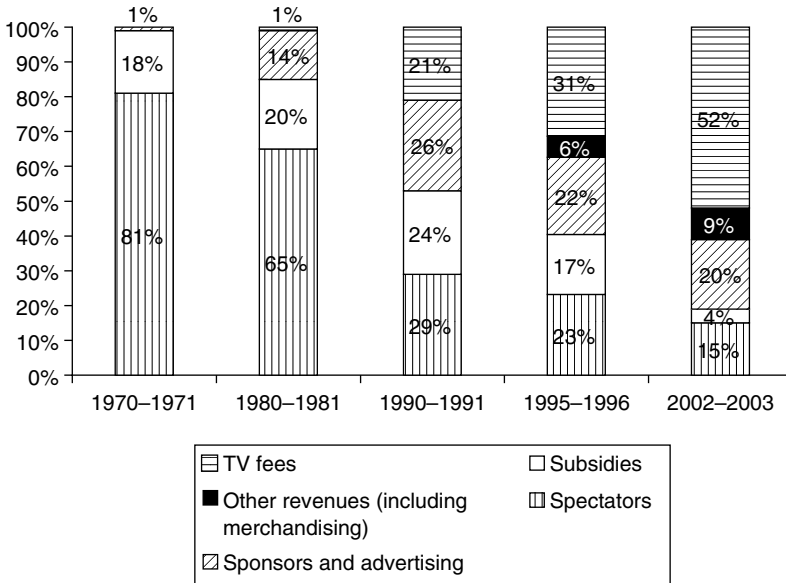
Development of the economic model of French football over a long period: from the real stadium to the virtual stadium Just like other national and international leading sports events, the economic model of French football has changed profoundly over the last three decades (Figure 53.1).

The very nature of the football event as an economic good has thus developed considerably, with the viewer having supplanted – indirectly, but very clearly – the spectator as the leading financier. Income derived mainly from television fees in the French case (and, to a lesser degree, from sponsorship), has progressively taken the place of the traditional sources of income of French football, obtained from spectators (ticket sales and season tickets) and public authorities (subsidies). In 1970–71, these last two sources represented 99 per cent of club receipts; in 2003–04, they saw it reduced to 19 per cent. At the same time, TV fees, which started to develop with the arrival on the market of Canal + – the leading French subscription channel – in 1984, from then on made up more than half of the budgets, excluding transfer fees.

Development of the model of financing of French professional clubs over the recent period: an 'overdependence on TV'

From a budgetary point of view, the most recent period can be characterised by a sharp increase in sources of funds for clubs. Indeed, with €34.5 million in 2002–03 (last assessment known to date), French professional clubs in Ligue 1 (ex-Division 1) showed a turnover, without transfer fees, which was nearly twice as much as it was five years earlier. This increase, limited to the 1997–2000 period, nevertheless remains very irregular, as is shown by the stagnation of the last three assessments, which finished with a slight decrease of club sources of funds in 2002–03 (Figure 53.2).

Studying the structure of the profits made by clubs makes it possible to understand the particular character of this development. Indeed, economic growth over the recent period



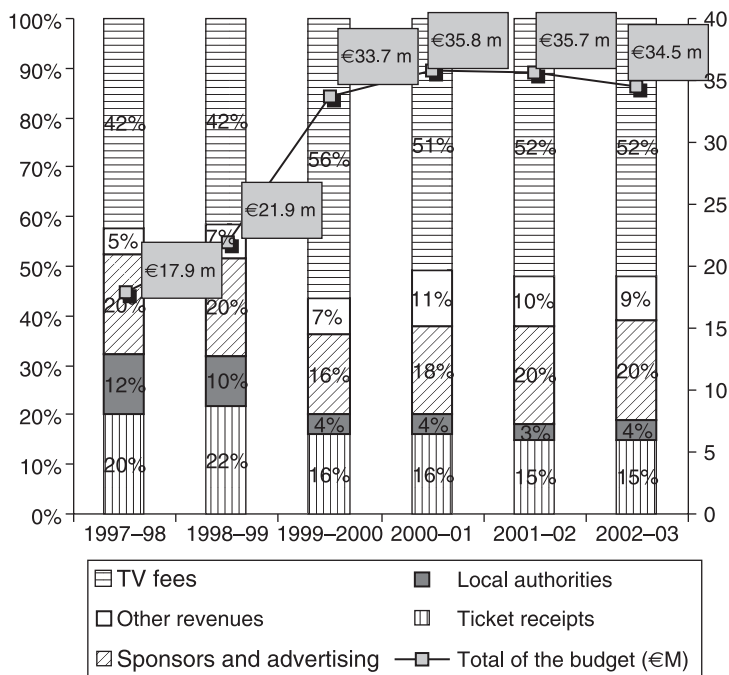
Source: F. Bolotny, 'Football clubs', *Eurostaff/Les Echos*, July 2002 (based on Andreff, 2000).

Figure 53.1 The development of the structure of sources of funds in French professional clubs since 1970 (Division I/ Ligue 1 clubs, receipts without transfer fees)

has been concentrated, mainly, into a single season, with the new TV agreements in 1999–2000 coming into force and having nothing in common with previous ones. The arrival of TPS – the rival satellite package to the Canal +/Canalsatellite group, owned by the terrestrial channels TF1 (66 per cent of the shares) and M6 (34 per cent) – on the market, made it possible, after the euphoria of the 98 World Cup, for the French league in 1999 to negotiate TV agreements totalling nearly €1.2 million for the 2001–04 period; that is, an average annual sum in the order of €400 million, which was three times higher than previous contracts. By a system of cash advances, French clubs started to receive this windfall from 1999 onwards, which made their average budget appreciate by nearly 54 per cent in a single season. At 56 per cent, the proportion of TV fees in club budgets reached a historic peak during the 1999–2000 season, reducing the relative share of other sources of funds by as much.

Apart from sponsorship, which, despite the hidden effect of the explosion of TV fees having seen a regular increase in absolute value and still representing 20 per cent of budgets in 2003–04, other forms of source of income have not developed enough (see below). French clubs have, indeed, had great difficulty in maximising their traditional receipts (15 per cent from ticket sales) or making new ones – merchandising, submerged in an 'other incomes' label, represented barely 5 per cent of the whole – hence the budgetary stagnation seen from the 2000–01 financial year onwards.

Profitability affected, despite cost efficiency This development deficit necessarily affected club profitability, with only one profitable period out of the last six seasons for all of



Source: Ligue de football professionnel (LFP).

Figure 53.2 Development of the amount and structure of the average budget by club, 1997–2003 (Division I/Ligue 1 clubs, receipts in €m, excluding transfer fees)

Ligue 1. The accumulated loss even reached €151 million in 2002–03, although it must be put into perspective for two reasons. First, it takes player transfers into account, which makes up two-thirds of the negative result with a deficit of €100 million for the ‘transfer taxes’. Admittedly, the balance of transfer fees in Ligue 1 has practically regained its balance over the last two seasons, particularly as a result of budgetary control (see below), but clubs are paying for the excess for the 1999–2000 period because of the linear redemption of transfer fees over all the term of player contracts. Second, the accounts presented here group together the activities of 18 different clubs. However, the main part of the deficit came from clubs involved in Europe, like Paris–Saint-Germain which – with nearly €65 million – by itself represented nearly 45 per cent of the overall loss of Ligue 1 in 2002–03.

This recurring lack of profitability remains a problem, even if it appears to be covered enough financially by shareholders, who often invest in football for other reasons than to make a direct financial profit. The strategy of vertical integration aimed at controlling, both upstream and downstream, all the stages of the professional football ‘production line’ – could thus be mentioned for Canal +, the main shareholder of Paris–Saint-Germain, which admitted to having €179 million in accumulated losses over six seasons. Other media use a comparable strategy; see, for example, M6 with the Girondins de Bordeaux or the Pathé Group with Olympique Lyonnais. Despite certain nuances connected to the fact that it is a question of personal investment, Robert-Louis Dreyfus – the

former boss of Adidas and buyer of a part of the assets of the Kirch Group, among which are the TV rights to the 2006 World Cup – very nearly fits into this scheme by being the major shareholder of Olympique de Marseille. The successive contributions of Dreyfus represent a lump sum comparable to the authorised investments by Canal + in Paris–Saint-Germain, since the Marseille shareholder will have invested €171 million in the club since his arrival.

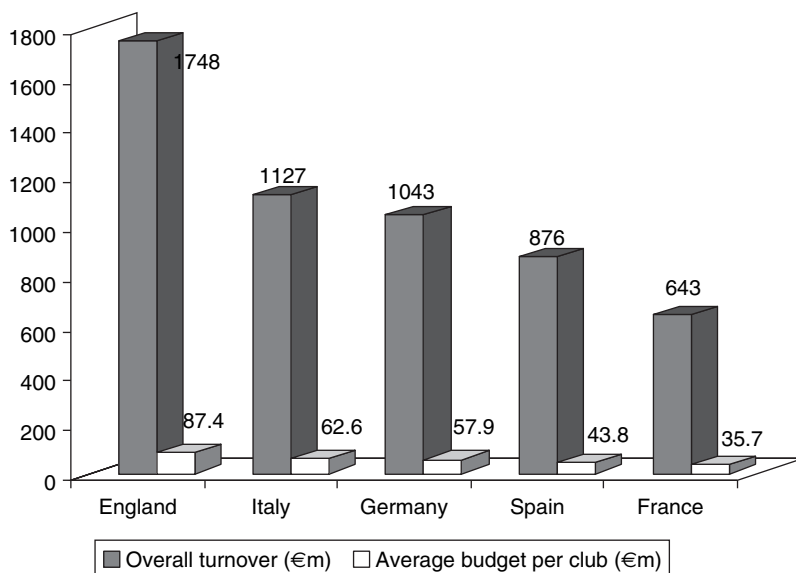
As elsewhere, it therefore seems that these shareholders accept ‘losing money’ in football clubs, in order to gain some peripherally. Despite the loss of control during the 1999–2001 period, club expenditure is rather relatively better controlled than in other countries. Thus, the average wage bill has been stable, even decreasing, for three seasons and in 2002–03 represented 62 per cent of costs, excluding transfer fees (€23.5 million per club). The cost of manpower remains excessive however, since it monopolised 82 per cent of club operating revenue in 2002–03, taking into account the salaries cost and the amortisation of the transfer fees (source: LFP).

Loss of competitiveness at the European level

An inadequate economic development Despite doubling their budgets in five seasons, French clubs have not completely caught up with their main rivals. Thus, compared to a Ligue 1 club, in 2001–02, a German club obtained on average 62 per cent in additional sources of revenue, an Italian club 74 per cent and an English club 144 per cent. Moreover, it seems that the gaps widened over the last financial years: with €87.4 million in 2001–02, the average club budget in the Premier League appreciated by nearly 50 per cent in two seasons, while that of a French club remained practically stable over the period (Figure 53.3).

The gap seems even higher if only those clubs involved in Europe are considered. As an example, the average turnover, excluding transfer fees, of French clubs involved in the Champions League in 2001–02 remained lower than €60 million, compared to nearly €140 million for the competition (Denis, 2003). Obviously, this differential on the level of sources of funds produces a comparable gap, which is increased even more by the distortions of competition in the tax and social fields, as far as the salaries given are concerned: the average annual gross salary of a professional player in the first division, including bonuses and allowances in kind, was thus estimated, in 2001–02, at €490 thousand for France, €620 thousand for Germany, €630 thousand for Spain, €1030 thousand for England and, even if it has gone down since, €1300 thousand for Italy (Bolotny, 2002b) – which helps, in passing, to understand better the origins of the financial crisis of the Calcio.

Disappointing sporting results In these conditions, it is therefore not surprising that French clubs have not managed to stop their best national players going abroad. Although the movement reversed a little during Euro 2004, with 10 players out of 22 playing in France, only two of the 23 European champions of 2000 (Christophe Dugarry in Bordeaux and Franck Leboeuf in Marseille) were still playing in France in 2001–02. In 2000, nearly 90 French players were members of a club in the four other major European championships, compared to barely 15 in 1995 (Primault, 2004). However, this exile has not been offset by the arrival of quality foreign players in sufficient numbers: among the participants of Euro 2000, 60 players played in England, 50 in Spain and Italy, about 40



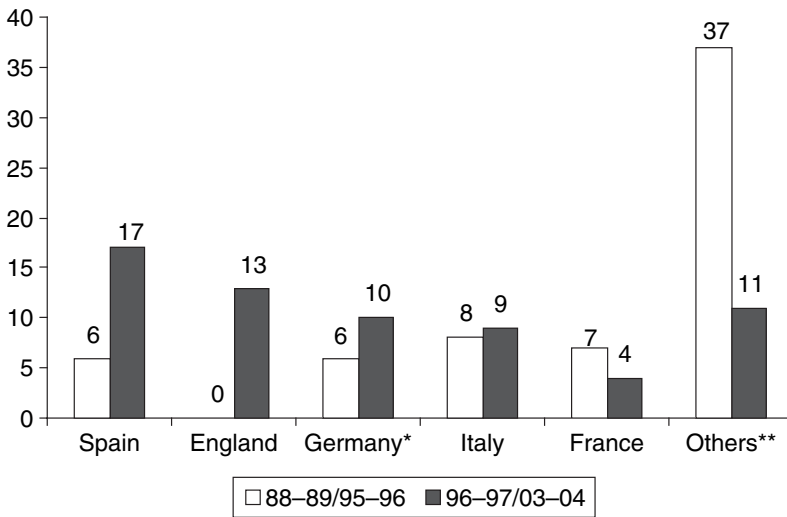
Source: Deloitte & Touche annual review of football, July 2003 (excluding Spain: Contabilidad y auditorio deporte, José Gary, Sportcongress EAE, May 2003).

Figure 53.3 Turnover and average budget by club in the major championships (season 2001–02) (€m transfer fees excluded)

in Germany and only a dozen in France (Denis, 2003). This ‘muscle drain’ has, understandably enough, caused the results of French clubs in the European Cup to deteriorate (Figure 53.4).

Although qualifying seven times for the quarter finals of the European Champion Clubs’ Cup – since renamed the Champions League – during the eight seasons preceding the *Bosman* case (with a title for Marseille in 1993), French clubs only reached this stage of the competition four times during the eight seasons following it. It was even necessary to wait for 2004 to see two French clubs as quarter-finalists in the same season, with Lyon and especially Monaco, which later qualified for the final.³ This limited return to a higher level of sporting performance, which needs to be confirmed over time, is certainly due in part to the modification of the format of the competition. Indeed, this again favours ‘surprises’ by replacing a ‘pool’ round with the last 16. Moreover, it will be noticed that the backward development of the 1997 format (opening to more than one representative per country), and then in 1999 (adopting a format which maximised the guaranteed number of matches, after pressure from the major clubs which were anxious to secure a return on their investments) explained the concentration of sporting power – at least as much as the *Bosman* case – in the hands of a few leading clubs and countries, to the detriment of interest in the competition and thus to its economic value.

Thus, more than the French case, clubs from four other European championships monopolised, by themselves, 49 out of 64 possible quarterfinal places (that is, 76.5 per cent) during the eight ‘post-*Bosman*’ seasons, as opposed to 20 in total (31 per cent) during



Notes

* Including ex-GDR (2).

** Other quarter finalist countries 1988–1996: The Netherlands (7), Portugal and the USSR/Russia (6), Belgium (4), Sweden (3), Yugoslavia and Turkey (2), Czechoslovakia, Scotland, Poland, Greece, Romania, Bulgaria and Croatia (1); 1997–2004 Portugal (3), Ukraine, Greece and the Netherlands (2), Turkey and Norway (1).

Source: Bolotny (2002a).

Figure 53.4 Champions League/European Cup for club champions: quarter finalists by country, before and after Bosman case

the preceding eight seasons. Meanwhile, the proportion of other countries has dropped from 37 quarter-finalists to 11. It is true that following the Heysel tragedy, English clubs were suspended from all international competition between 1985 and 1991. Nevertheless, it is worth noting that seven different countries (France, Italy, Germany, Spain, the Netherlands, Portugal and the USSR/Russia) managed to put a representative in the quarterfinals at least six times in eight seasons before the *Bosman* case, as opposed to only four since 1996.

Stakes and Prospects: How to Become Competitive Again at the European Level?

What is at stake for French professional football clubs in the coming years is, therefore, to regain economic and sporting competitiveness on the European scene. From this perspective, they will have to show a more balanced mix of revenues while obtaining, as far as possible, changes from public authorities as far as legislation is concerned. Nevertheless, is it the right moment to forget the fundamental values of the French model of economic and sporting regulation (training, solidarity and financial control) that could, in the middle of a financial crisis for European football, be the driving force behind a return to a reasonable and equal growth?

Identifying and overcoming obstacles to development

Distortions of competition: an unfavourable legal framework, but changing Like any economic activity of an international nature, football has to reach a compromise with the variety of national legal environments in a diverse European arena. However, French clubs consider themselves disadvantaged compared to foreign competition – which is more or less right, depending on the field – because of past and future legislation, which has somewhat changed the scheme of things:

Legal status of clubs Despite the persistence of distinctive local identities – maintaining a supporting association which generally manages the amateur section in French and German clubs, and the associative organisations which give political power to the ‘socios’ in several major Spanish clubs, such as Real Madrid or Barcelona – the legal form of professional clubs is getting closer to the commercial enterprise of common law, in France as elsewhere. Thus, the introduction of the *Société anonyme sportive professionnelle* (SASP) (Professional sporting limited company), by a law of 28 December 1999, enabled French clubs from then on to pay out profits and pay their directors; two possibilities which were forbidden until then. The blocking minority of the support association was also removed in SASPs, which henceforth had to hold a minimum of a third of the capital of the company managing the professional sector.

Listing on the stock exchange Although the possible paying out of profits is likely to attract new investors in French clubs, their listing on the stock exchange – which is the main demand of certain directors–shareholders who want to finance their development through an issue for general subscription – remains banned. Although open to professional clubs in most rival countries (England, Italy, Denmark, Portugal, Switzerland, Belgium, the Netherlands, Scotland, Austria, Turkey and Spain), the stock exchange little appreciates the uncertainty and volatility of the sector. Beyond the seeming success of a club like Manchester United, being quoted on the stock exchange very often involves ‘supporters–shareholders’ losing money while the club is being developed: out of the 40 European clubs quoted, including some in Denmark and England which have been listed since the middle of the 1980s, fewer than a dozen have seen their shares appreciate since their introduction. The few French clubs which could claim to do so – Lyon, for its organisational quality; Lens, for its popular support; Marseille, for the power of its brand; and Paris, for its economic potential – consider, however, that this ban, which could be lifted during the next legislative changes, as an obstacle to their development, particularly from the point of view of ownership of their stadiums.

Multi-ownership of clubs At the moment, French law forbids the same investor from holding stakes in several sports companies in the same discipline. It certainly has to become less restrictive on this point in the long term, just like the possibilities offered by most other countries.

Ownership of TV rights French sports federations and professional leagues have recently had the possibility of selling the ownership of licensable TV rights to sports companies formed by professional clubs. Unlike the solution adopted in Spain, the law has always envisaged a pooling of these rights, most of them (live and slightly deferred)

necessarily marketed by the Ligue. Contrary to the ideas which sometimes circulate, this single marketing centre is, in addition, necessarily an advantage for the seller of rights, who finds himself therefore in a monopoly situation. Although clubs do not sell their rights individually, they will have, however, the possibility of multiplying their assets and of directly marketing certain secondary rights (deferred broadcasts, which are not sold by the Ligue), without solidarity being called into question, for it is one of the pillars of the French model.

Other differences remain, including some which are, moreover, favourable to France – such as the limited possibility of receiving subsidies from local authorities.⁴ But none of the distortions mentioned above appears really decisive, unlike the fiscal and social costs based on players' pay which, in themselves, really handicap French clubs (Table 53.1).

While generally guaranteeing a good level of social protection and a quality public service, the French system is unquestionably unfavourable to the highest incomes. Therefore, even if it is not necessarily advantageous for a French national to go abroad for a monthly salary below €10 000,⁵ pressure in terms of tax and social costs becomes significantly higher as income increases. In a European market for players, where salaries are negotiated net of expenses and taxes, the competitive disadvantage of French clubs is undeniable, particularly in the first segment, that of the star players who enable their clubs not only to win titles, but also to develop an ambitious commercial policy – such as the strategy used by a club like Real Madrid around the image of players like Zinedine Zidane, David Beckham and Ronaldo. Indeed, for an annual salary of €1.8 million net of expenses and taxes, which is commonly seen for an international player in the European market, the overall cost weighing down an employer is on average 40 per cent less in Germany, Italy, Spain and England than it is in France. The subject is currently being discussed in France. By means of forthcoming legislation allowing fixed-rate and collective

Table 53.1 *Cost of players for French and foreign clubs*

	France	Germany	Spain	Italy	England
International player					
Annual net after deductions (€)	1 800 000	1 800 000	1 800 000	1 800 000	1 800 000
Gross annual salary	4 302 184	3 675 687	3 442 621	3 354 776	2 986 487
Total club cost	5 728 891	3 682 519	3 453 090	3 370 741	3 341 879
Ratio out of 100	100.0	64.3	60.3	58.8	58.3
Average player Division 1					
Annual net after deductions (€)	219 590	219 590	219 590	219 590	219 590
Gross annual salary	480 000	439 116	403 275	399 722	352 496
Total club cost	669 063	445 949	427 744	414 791	394 444
Ratio out of 100	100.0	66.7	67.8	62.0	59.0
Good player Division 2					
Annual net after deductions (€)	96 513	96 513	96 513	96 513	96 513
Gross annual salary	180 000	187 100	166 588	170 899	147 367
Total club cost	261 733	193 933	176 719	185 545	164 904
Ratio out of 100	100.0	74.1	67.5	70.5	63.0

Source: Deloitte & Touche.

payment of the fee, just like with players, it should lead to a decrease in the proportion of wages in their revenues by reducing both employee and employer social costs, therefore allowing French clubs to partly make-up for the gap with their competitors.

Diversifying sources of funds in order to show a more balanced revenue mix, enabling a return to sustainable growth Although unfavourable to France, 'legal competition' is certainly not the only explanation for the backwardness of French clubs these last few years. Indeed, just like Italian clubs in 2001–02 which were similarly financed by TV rights alone for over half their income (53 per cent of budgets, excluding transfer fees, among Deloitte & Touche, 2003), French clubs present a shaky economic model, which is far too dependent on the televisual windfall. The peak observed in 1999–2000 (56 per cent) should easily be exceeded during the coming seasons. Indeed, a new call for tender for the 2005–08 period by the French League saw Canal + win all the lots on offer, to the detriment of its challenger, TPS. In return, Canal + will contribute an average of €600 million per season over the 2005–08 period, for rights in the area of €375 million in 2004–05. By adding certain secondary rights, TV rights linked to national club competitions will even represent an average of €650 million per season – which, taking European rights into account, will come to nearly 70 per cent of the share of the TV windfall in club budgets, excluding transfer fees. This situation is particularly harmful, for it makes the development of French professional football mainly dependent on the competition between two private operators between whom a long-term rapprochement cannot be dismissed, in the light of developments seen everywhere in Europe in the subscription television market. Beyond that, uncertainty dominates and French clubs – just like the biggest European clubs which are fixed on the leisure (entertainment)⁶ industry model – have to work to diversify their sources of funds in order to show a more balanced revenue mix,⁷ which would make it possible to limit both the dependence on TV operators and to level out, at least in the short term, the financial consequences of risks in sport.

Beyond its stability in relative value due to the explosion of TV fees, 'sponsorship', which still accounts for 20 per cent of budgets, developed satisfactorily and regularly over the period, with a doubling of average receipts per club, which went from €3.6 million in 1997–98 to €7 million in 2002–03, with an annual growth rate in the order of 15–20 per cent. However, the decline of sponsorship over the most recent period, with revenues stagnating in 2002–03, would appear particularly worrying, if confirmed.

Despite a sharp increase in attendance between 1996–97 (14 211 spectators on average per match) and 1999–2000 (22 324 spectators on average per match) – linked, in particular, to a doubling of the average number of season ticket holders per club – receipts from ticket sales remain, on the other hand, underdeveloped (15 per cent of budget, excluding transfer fees in 2002–03). The average attendance per match, badly affected by the transition of clubs in League 1 from 18 to 20, has certainly since gone down (20 140 spectators on average in 2003–04) and remains significantly lower than that in England, Germany and Italy. But it appears, above all, that French spectators are the least willing to pay, with the average revenue per spectator in the order of €15, as opposed to €38 in the Premier League (Table 53.2).

Despite the increase in attendance, it seems that French football has not managed totally to make-up a historic demand deficit on its main competitors; which also shows how merchandising has stagnated, making it possible for only a very limited number of

Table 53.2 Ticket sales: average revenue per spectator in France and abroad

	Average spectators/match	Total spectators/season (m)	Total ticket sales/season (€m)	Average receipt/spectator (€)
France	21 241	6.5	96.5	14.8
Germany	31 047	9.5	177.0	18.6
Spain	21 717	8.3	175.2	21.1
Italy	25 945	7.9	180.3	22.8
England	34 324	13.0	489.0	37.6

Source: Bolotny (2002b).

clubs to show a significant turnover (Marseille, Lens, Paris and Lyon). The vast majority of French clubs are not owners of their stadiums (unlike Premier League clubs, which all are), and therefore they recognise that they have imperfect control of their production tools, which is all the more harmful since the exploitation of stadiums is undeniably a central element in the new economy of European football. Thus, they are deprived of an important source of profit and it is difficult for them to put in place ambitious marketing strategies, which are very often subject downstream to the local authorities, the owners of the stadiums. However, the return of French clubs to economic and sporting competitiveness on the European scene will mainly depend on the quality of the marketing strategies implemented by them, which are the only things (along with good sporting results) likely to 'boost' demand and make a diversification of sources of funds possible.

Knowing how to preserve the three pillars of the French model, from a perspective of regular growth

Poor results in Europe caused a certain gloom, which sometimes led to a complete calling into question of the organisation of French professional football. Nevertheless, in the light of the negative effects of the deregulation of the European model of sport and of the excesses seen in football especially, voices have increasingly been raised – both in France and abroad – praising the specificity of the French model, while recognising in it the limits set out in this chapter. Indeed, it could be considered that it is based on three pillars which, with a greater commercial dynamism, should make it possible to imagine a return to a lasting and sensible growth: an efficient and admired player training programme; a solidarity, which makes it possible to avoid widening the gap between clubs intending to confront one another; and a very rigorous financial control, which made it possible to limit the impact of the financial control in European football in France (Bolotny, 2003; Gouguet and Primault, 2004).

Training worth protecting Formerly disparaged, training *à la française* has won its spurs over the last decade, thanks to the good results obtained by French sportsmen on the international scene. Thus, as far as football is concerned, it was offered as the main explanation of the national team's success in the 1998 World Cup and Euro 2000. Based on a mixed investment, which is both public (the state and local authorities supporting the

federal policy of training) and private (professional and amateur clubs), it is sometimes threatened – as was shown by getting rid of the obligation, in 2003, for a professional club to set up a training centre. Indeed, although the reform of transfers instituted by FIFA in 2001 aims, in its general principles, to protect training clubs, its implementation has proved to be particularly complex. A multiplier rate (the player factor) taking into account the fact that it is necessary to train a certain number of players to ‘produce’ a professional footballer (about 1 in 7 in France, according to recent statistics) should initially be applied to the annual average unit cost of training a player. But, for various reasons – including firm opposition from the players’ unions, which consider that just a few players could bear the cost of the system – the calculation is, in fact, made differently. The so-called ‘training’ allowance, therefore, does not exceed €90 000 per year of training for a French club.⁸ However, it is added to a so-called ‘solidarity’ allowance, allowing all clubs having participated in training a player aged between 12 and 23 to share 5 per cent of the amount of any international transfer. Nevertheless, this sum is considered insufficient by French clubs, which invest an average of €2 million per season in their training centres, with qualified success, owing to a recruitment policy which is certainly too extensive: every year on average, only 1.7 players coming from a training centre in Ligue 1 sign a first professional contract with the club that trained them, as opposed to 2.91 in England and 3.5 in the Netherlands. In addition, the insufficient legal protection of training clubs is causing an increasingly early departure of young players to foreign championships. But for all that, training is undeniably one of the rare competitive advantages of French clubs in an open economy, as well as being the justification for the main part of the public subsidies which they receive.

Solidarity to be adapted Although it has been regularly called into question during the last few seasons, solidarity between the amateur and professional sectors, on the one hand, and between professional clubs, on the other, represents another of the pillars of the French model. Pooling the TV fees from national competitions, which favours the economic, and therefore sporting, balance between clubs is a special tool. One ought, first of all, to specify that various deductions are made upstream of their redistribution to the professional clubs of Ligue 1. Thus, French law provides for a tax of 5 per cent on TV receipts for the national funds for the development of French sport (*Fonds national pour le développement du sport français*: FNDS), which is a sort of ‘minor budget’ of the Ministry of Sport. The television windfall also makes it possible to finance repayments to amateur football up to about €15 million per season, provided for in a convention between the LFP and the FFF. Lastly, professional clubs in Ligue 2 receive 19 per cent of the remaining sum, that is, a far higher sum than their own contribution to the value of television revenue and corresponding to 45 per cent of sources of funds excluding transfer fees of the division in 2002–03.

This televisual cross-fertilisation between Ligue 1 clubs is then made according to the interdependent scales of apportionment, which stop the gap between clubs intended to confront one another from widening too much. Thus, the ratio between the best-endowed club and the least-endowed club is significantly lower in France than it is in rival championships. This regulatory tool, which makes it possible to optimise the uncertainty of the French championship, appears all the more effective since TV fees represent more than half of the sources of funds of Ligue 1, excluding transfer fees (Table 53.3).

Table 53.3 *The impact of the scales of apportionment between clubs of national TV fees (2001–02)*

2001–2002	Germany	England	Spain	Italy	France	Concurrence
Most-remunerated club	24.7	39.5	24.0	49.0	15.2	34.3
Least-remunerated club	9.4	16.6	4.6	7.5	9.1	9.5
Ratio	2.6	2.4	5.2	6.5	1.7	3.6

Source: Euromed Marseille, Deloitte & Touche, 2003.

Therefore, during the 2001–02 financial year, each French club received a solidarity allowance of €8.2 million, corresponding to 72.3 per cent of the sums redistributed to Ligue 1. The rest (27.7 per cent) was distributed according to sporting ranking, hence this ratio between the best-endowed and the least-endowed club.

However, as from 2002–03, the way of sharing out changed, under pressure from French clubs playing in Europe, which consider themselves ill-treated by this very egalitarian approach. They instituted a reputation criterion, concerning 20 per cent of the redistributed money: the proportion of the solidarity allowance was reduced to 50 per cent, and that linked to ranking to 30 per cent. After different versions, the respective reputation of every club was calculated according to the number of televised matches contested by each of them.

As long as it does not unduly increase the differences, the partial taking into account of each club's participation to the economic value of the French championship as a televisual product appears legitimate, and especially likely to play a part in the major French clubs' return to competitiveness. Besides, it could become increasingly important, following the example of the sharing out of the pooled fees from the Champions League, where the weight of the national televisual market amounts to 50 per cent of the sums redistributed by UEFA to the clubs (market pool).

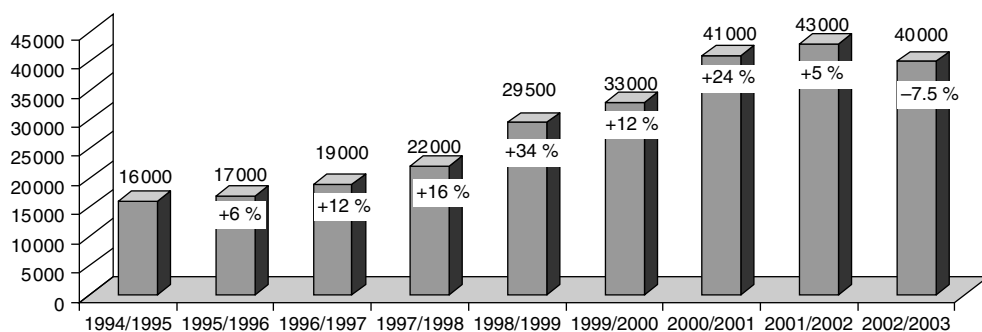
More than an egalitarian approach which is sometimes unjust,⁹ not only should a fair distribution of the TV windfall be encouraged (Bourg and Gougnet, 2001), but also the reality of the European system of interlocking competitions (national/European) be taken into account. Major French clubs playing in Europe, therefore, should benefit from higher sources of funds, without the difference with their national competitors necessarily assuming proportions that are likely to cause too great a deterioration of the competitive balance of the French championship – considered, quite rightly, as the most 'open' in Europe (Andreff and Bourg, 2006). By better taking into account the contribution of every club to the economic value of the championship, French football should be able to preserve this interdependent approach and avoid the individualisation of fees seen in Italy and Spain. Apart from the question of competitive balance, each club marketing its own rights should reduce their value, in the long term. Indeed, they would then find themselves in competition facing a demand from subscription television which is, moreover, shrinking (see Chapter 11).

A financial control to be spread The financial control of professional clubs was instituted in France during the 1970s and is one of the greatest successes of the French model, greatly inspiring the recent UEFA plan to license clubs. The Direction Nationale du

Contrôle de Gestion (DNCG) is the subject of a convention between the FFF and the LFP and is responsible for providing legal and financial control of professional (and amateur) clubs by checking that they respond to the conditions set by the regulations in order to take part in competitions. The DNCG receives all the accounting records of every club, which it examines at least once a season, and draws the main part of its power not only from French law, which provides for the existence of such a body in all disciplines where a professional league has been created, but also from the independence which it has been given by its joint composition, in which all the ‘families’ of French football take part (Federation, League, association of clubs, players’ union, trainers’ union and so on). This independence is indeed essential for a commission which could impose sanctions with serious consequences for the clubs concerned. Thus, the threat of being relegated to a lower division – which from now on is automatic in case of a petition for liquidation following a decision from the Conseil d’État (Council of State), the highest administrative court in France, concerning an affair relating to the Girondins de Bordeaux at the beginning of the 1990s – is a deterrent which makes it possible to maintain a certainly healthier general financial situation. Although it is uncommon for a season to pass without one or more administrative relegations being declared, at least in the first instance (the clubs or their shareholders often give the expected guarantees on appeal), the most common sanctions relate to controlling the wage bill and/or transfer allowances. A ban on recruiting, or a ban on recruiting for a fee, could also be passed.

After the increase in expenses over the 1999–2001 period, encouraged by the increase in the TV windfall from 1999 onwards, French clubs ‘redressed the balance’ under the effect of the DNCG. The increases in the wage bill, which is the main expenditure of clubs, is controlled; hence the stagnation of the professional players’ average salaries in the Ligue, which decreased in 2002–03 for the first time in a long while (Figure 53.5).

But it is certainly at the level of Ligue 1 transfer fees that the effect of the DNCG appears most effective. Indeed, contrary to generally accepted ideas relating to the presence of many French stars in foreign clubs, the balance of transfer fees of the French



Note: * Calculation made on the basis of professional contracts only, excluding players in training (apprentices, hopefuls, trainees and young players).

Source: Centre de Droit et d’Économie du Sport.

Figure 53.5 Increase in average monthly gross pay of players in Ligue 1 (euros, including bonuses)*

Ligue 1 has shown a structural deficit since the 1997–98 season. In two seasons, between 1999 and 2001, Ligue 1 clubs have even spent €240 million more than they cashed on the transfer market (Table 53.4).

This loss of control was even more detrimental to them afterwards. This was because transfer fees were staggered over the whole term of players' contracts, through costs to be distributed being written on the clubs' balance sheets. They moved forward most of the investments made during these 'years of folly' to the following period. However, this was characterised not only by a stagnation of sources of revenues for French clubs, but also by a major depression in the international transfer market which made it impossible for them to 'resell' players at a satisfactory price – hence, an alarming 'scissors effect', which could explain the financial crisis in European football even more than wage inflation. As far as France is concerned, the effect of financial control has nevertheless made it possible to limit the delayed effect of transfer fees. The balance was almost regained in 2001–02 and 2002–03, hence an automatic reduction of costs to be distributed which could be totally discharged at the end of the 2004–05 season, for the benefit of clubs that are once more able to invest.

In the end, it is therefore undeniable that French club football suffers from a real development deficit in relation to leading countries in the European market, as it has been too dependent on the single television windfall. Its inability to generate new sources of funds or to optimise the exploitation of certain traditional sources of funds such as ticket sales – along with the effects increased by the distortions of competition and by the deregulation of European sport – caused a deterioration of sporting competitiveness and financial profitability. After two seasons of 'overheating' in the transfer market, following the windfall received by clubs thanks to new TV agreements coming into force in the summer of 1999 (54 per cent plus increase in average turnover excluding transfer fees in a single season), it has, however, managed to control costs – particularly under the rigorous action of budgetary control – in order to return to a more stable and healthier, in any case, than most other major championships, financial situation. This example, in the same capacity as the quality of its training (which, however, is certainly in need of reform) or as its interdependent approach which is particularly adapted to the specificity to this very particular economic sector, shows the mature character of this model, within the context of the financial crisis of European football. Nevertheless, the severity of the budgetary control to which French clubs – described by Frédéric Thiriez, the president of the LFP, as 'the

Table 53.4 Adjustment of the balance of transfers of Ligue 1 (€000)

	1995–1996 20 clubs	1996–1997 20 clubs	1997–1998 18 clubs	1998–1999 18 clubs	1999–2000 18 clubs	2000–2001 17 clubs	2001–2002 18 clubs	2002–2003 20 clubs
Sales	60 271	75 611	141 308	223 978	228 162	277 900	229 983	105 430
Acquisitions	17 991	44 127	156 343	280 020	353 502	393 632	234 792	114 429
Balance	27 041	31 483	–15 035	–56 042	–125 340	–115 731	–4 809	–8 999
Deferred charges (assets side)	30 491	55 075	106 941	218 060	341 201	434 659	346 498	249 789

Source: Ligue de football professionnel (LFP).

good students of Europe' – are subject, could be considered, from a certain point of view, as an additional distortion of competition by clubs playing in Europe. Beyond a development of the national legal framework, as well as the use of more ambitious 'marketing' strategies in clubs, it is therefore unquestionably by setting up new regulatory tools on the European level – just like the club licence instituted by UEFA from 2004–05 onwards – that there will be a progressive return to a satisfactory level of economic, and therefore sporting, competitiveness of French professional football clubs.

Notes

1. On average, 23.5 million French viewers aged 4 or over (20.5 million on TF1 and 3 million on Canal +) followed the France–Brazil final in 1998. The leading European channel, TF1, doubled the stake during Euro 2000 with an average audience of 21.5 million for the France–Italy final, which is the historic record audience, taking all programmes together, for a French channel. (Sources: Médiamétrie; also see Chapter 11).
2. Following a complaint lodged in 1990 by Jean-Marc Bosman, a Belgian footballer at the end of his contract, against his former club, Liège, which demanded a transfer fee to let him join Dunkirk, the European Court of Justice declared the transfer fees demanded by clubs at the end of a contract to be illegal in its ruling on 15 December 1995 (excluding fees connected to training the player in question). Above all, it judged that limiting the quota of foreign players was contrary to Article 48 of the Treaty of Rome, concerning the free movement of community workers. The following year, UEFA widened this very same freedom of movement to all European countries, in order not to put nationals of countries not belonging to the European Union at a disadvantage. The European Union has since been enlarged from 15 to 25 members and the *Malaja* and *Kolpek* cases have extended this freedom to 115 extra countries which have concluded association and cooperation agreements with it (countries from Eastern Europe, the Maghreb, Black Africa, the Pacific and the Caribbean). Even beyond the European region, the term 'globalisation' appears nowadays particularly adapted to the labour markets for professional sportsmen.
3. In addition, it is worth specifying that the case of the Monaco club is special, owing to a particularly advantageous tax regime which enables it to remain competitive on both the national and European levels, despite a certain lack of popular support.
4. Each club can, indeed, receive subsidies from local authorities up to a limit of €2.3 million per sporting season for taking part in general interest missions which are restrictively listed by the texts (sport and school training, safety in the stadiums and participating in social cohesion via, in particular, organised activity in sensitive districts). In addition, they can conclude services supply contracts with these same authorities (sponsorship, ticket sales and public relations and so on) up to a limit of €1.6 million and 30 per cent of their budget per sporting season. Brussels endorsed the texts framing the financing of professional clubs by local authorities in 2002. The indirect participation of local authorities, which are the owners in the vast majority of cases of the stadiums which are often 'rented' to clubs in favourable conditions, is certainly higher. But public subsidies are not just a French specificity – witness the advantageous buyout of Real Madrid's facilities by the town of Madrid, which enabled the club to be rescued from debt; the *Salva Calcio* decrees adopted by the Italian government, which allowed the tax debts of clubs to be staggered and avoid general bankruptcy; the declared support of certain *Länder* for German clubs; or even the partial financing of certain English stadiums by subsidies from the national lottery.
5. Admittedly, costs remain higher in France below this level of income, but an expatriate player very often has to turn to private insurance in a foreign country to be guaranteed the same level of social services.
6. As an example, the bringing together of the development of the structure of the revenues of Walt Disney and Manchester United since the end of the 1980s is quite striking. In both cases, it can be seen that there has been a reduction in the share from the original activity (cinema and stadium admissions) to a more balanced revenue mix, favouring derived activities (in particular, merchandising).
7. Despite very lucrative contracts, TV fees represent only 42 per cent of resources, excluding transfer fees, of the English Premier League, as opposed to 28 per cent for ticket sales and 30 per cent for the sponsorship and derived product sectors taken overall. For German clubs, TV fees represent 40 per cent, sponsorship 26 per cent, ticket sales 17 per cent and other commercial revenues 17 per cent. (Jones and Boon, 2003.)
8. In the spirit of the FIFA reform, it should have been seven times higher because of the application of the 'player factor'. But it is true that this would have created difficulties for certain 'average' players, who would not then have found a club eager to invest such amounts to employ them.
9. An excessive egalitarianism could indeed encourage 'free-rider' strategies receiving a part of the windfall without contributing to its value. In addition, this contributes to the relative proportion of TV fees in the budget of small clubs being increased in a perhaps excessive way, with, for example, 64 per cent of sources of funds excluding transfer fees, for the five smallest budgets of Division 1 in 2001–02.

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54 American football

Michael Leeds

Football stands like a colossus across the landscape of American sports. It has long since displaced baseball as America's most popular professional sport. With a new \$20 billion television deal that took effect in 2006, the National Football League (NFL) is also more profitable than Major League Baseball (MLB), the National Basketball Association (NBA), or the National Hockey League (NHL), the other three major sports leagues in the United States. Professional football has not always been so dominant. Baseball, horse racing and boxing once were all more popular and profitable than professional football, which figured as an afterthought. Over the years, however, the NFL developed a series of institutions and attitudes that enabled it to surpass the other major leagues.

In this chapter, we see how and why professional football has become so prominent. After reviewing the historical origins of the sport, we examine the industrial organisation of football to uncover the sources of its profits and the impact of antitrust laws on the NFL. We then consider the growing importance of stadiums to teams and how that has affected their relationships with the cities that host them. Finally, we analyse the labour market facing the NFL and explain why this most profitable of American professional sports has the lowest salaries.

The Birth of American Football¹

The development of football in America closely parallels the development of the sport in England. Just as soccer developed in England's public schools, football took root in American colleges in the mid-nineteenth century as an intramural sport. The first intercollegiate competition took place in 1869 between Rutgers University and Princeton University.² The game bore a closer resemblance to soccer than to modern American football, as players were not allowed to use their hands to advance the ball and scored by kicking or heading the ball between two goalposts that were 25 yards apart.

Because each college played a different variant of the game (again like the early days of soccer), colleges had to negotiate a common set of rules for each game. The negotiations for a game between Harvard University and McGill University of Montreal in 1874 became a turning point in the sport. Unable to agree on a common set of rules, the teams played by Harvard's soccer-orientated rules for the first half and McGill's rugby-orientated rules for the second half. The rugby rules, new to US colleges, proved so popular that, when the Intercollegiate Football Association (IFA) formed in 1876 to establish a uniform set of rules for college matches, Harvard insisted that the other schools adopt the rugby rules as well.³ In 1880, the IFA developed the rule that created a truly American game when it replaced the rugby scrum with a demarcated 'line of scrummage' (later renamed the 'line of scrimmage'). This allowed a team to keep possession of the ball after its player had been downed and created a clear distinction between the offensive and defensive teams. This represented the break from rugby that allowed American football to evolve.

One unfortunate effect of this evolution was the extreme violence of the sport. The public outrage over 18 deaths and 159 serious injuries during the 1905 season led President Theodore Roosevelt to inform representatives of Harvard, Princeton and Yale, the major football powers of the time, that he would ban the sport if they did not reduce the level of violence. As a result, 13 schools met to formulate a new set of rules and to create a body to enforce them. This body, the Intercollegiate Athletic Association of the United States, later renamed the National Collegiate Athletic Association (NCAA), has grown to become the central coordinating body for all major college athletics in the United States. We shall explore its economic power in the last section of this chapter.

The Rise of Professional Football⁴

Similar to professional soccer in England, professional football in the United States grew out of amateur athletic clubs consisting of college alumni. In their rivalry with one another, clubs eventually turned to hiring outside players. At first, this consisted of informal payments, such as the provision of a ‘trophy’ in the form of a gold watch, which the player then sold at a local pawnshop and the team repurchased a few days later. Finally, in 1892, the Allegheny Athletic Association hired William (‘Pudge’) Heffelfinger, a Yale graduate, to play in a game against the rival Pittsburgh Athletic Club, making Heffelfinger the first openly professional football player.

Increasingly, teams began to hire professional players, often bidding them away from one another in midseason. The competition was particularly intense in Ohio, where an informal affiliation of professional teams arose. Tired of the escalating costs, the teams repeatedly tried to reach a formal agreement to limit player mobility. They were unable to do so until 1920, when, in a meeting in a car dealership in Canton, Ohio, 11 teams agreed to pay \$100 each (which none of them ever actually paid) to join the American Professional Football Association, which renamed itself the National Football League two years later. Today, the entry fee has grown to over \$700 million.⁵

While it took almost a generation for the NFL to become a stable enterprise and another generation for it to generate significant profits, key elements were set in place from the very beginning. Much of the NFL’s structure was borrowed from baseball, some of it copied verbatim from baseball’s bylaws. Like MLB, the NFL quickly attempted to establish monopoly and monopsony power. In an era when ticket sales determined a team’s revenue, the NFL created monopoly power by forbidding new or existing teams from locating in an established team’s territory. It created monopsony power by forbidding teams from bidding for one another’s players. Unlike baseball, which appointed a commissioner only after the ‘Black Sox’ gambling scandal of 1919, football had a commissioner from the very beginning. The individual teams’ acceptance of a strong central authority differentiated the NFL from MLB and led to reforms in the 1960s that helped spur football’s growth.

Profits

From the humble beginnings described above, football has grown into the most profitable major US sport. According to *Forbes Magazine*, the average operating income in the NFL was almost \$32.5 million in 2005. That is almost four times the average for the NBA. The NHL, which was on strike in 2004–05, and MLB reported operating losses on average. Moreover, in contrast to the other sports in which red ink has become common, no

football team had negative operating income in 2005.⁶ Professional football thus stands alone in both its profitability and its ability to spread that wealth among its members.

Like the other major professional sports in the United States, football draws most of its revenue from three sources: game attendance, TV broadcasting rights and 'venue revenue', which refers to revenue from facility-related sources such as signage, parking fees and especially luxury boxes. Football's ability to maximise and share revenue from the first two sources has set it apart from other sports. The growing disparity in the third source poses a major threat to the unity that the league has maintained since its inception.

Gate Revenue

Football has always shared more of its gate revenue, the money it receives from ticket sales, than any other major sport. The home team keeps only 60 per cent of the revenue from ticket sales, with the other 40 per cent shared equally by the other teams in the league.⁷

Ironically, the generous revenue sharing was born out of weakness. In the early years of the league, many teams were constantly on the verge of bankruptcy. It took 16 years for the NFL to field the same roster of teams in two consecutive seasons. The extreme instability led the more prosperous teams to recognise that their own long-term profitability depended on their rivals' economic viability. Nevertheless, if football had relied on ticket revenue, it would have remained a minor sport. The typical NFL team draws fewer fans than the typical NHL team and only about a quarter of the fans that the typical MLB team does.

Television Revenue

More than any other factor, television 'made' the NFL. With its confined action and frequent stoppages of play, football is the ideal sport for commercial-driven television networks. The NFL's \$20 billion contract with ABC, CBS, ESPN, Fox and NBC dwarfs the contracts of the other major sports. The NFL's new contract will pay each team about \$100 million per year, which is, on average, more than half of each team's total revenue. This revenue differentiates the NFL from other sports leagues. If, for example, the NFL had the same TV contract as the NHL, its teams would have lower revenue than most NHL teams. Again, this prosperity came from very humble beginnings, thanks largely to the efforts of one individual.

In the late 1940s and early 1950s, teams negotiated individually with local or regional broadcasters. The result was a patchwork of agreements in which teams sometimes competed with each other for viewers. Profits were very low, as one network executive said, 'Local stations made more money . . . by showing old movies than they did showing professional football games'.⁸ It also led to large income differentials. In 1959 the Green Bay Packers, playing in a small town in northern Wisconsin, received \$30 000 for the rights to broadcast their games, while the New York Giants received \$200 000 (Leifer, 1995, p. 130).

This was the situation that faced Alvin 'Pete' Rozelle when he became commissioner in 1960. One of his first goals was to transform the hodgepodge of broadcasting rights into a single product over which the league had monopoly power. Negotiating a single TV contract, the NFL would be able to exploit its monopoly to drive up the price of the broadcasting rights to the game. Moreover, sharing the fee equally among all teams would ensure that teams from small towns like Green Bay were not at a financial disadvantage

to teams from Chicago or New York. The only problem with such a policy was that it was illegal.

Enacted in 1890, the Sherman Antitrust Act remains the cornerstone of policy towards monopoly in the United States. The first clause of the Act outlaws any action by a firm that restrains trade in the free market. In effect, being a monopoly *per se* violates this portion of the law. The second clause makes it illegal for competing firms to join together to act like a monopoly. Shifting from a regime in which teams negotiated broadcasting rights individually to negotiating as a single entity clearly violated the second clause of the Sherman Act. Rozelle, who had previously worked in public relations, brought all his skills to bear on Congress and was rewarded with the Sports Antitrust Broadcast Act, which granted the NFL (and the NBA, NHL and NCAA) a *limited exemption*. Unlike baseball, which, thanks to a 1922 Supreme Court ruling, had a blanket exemption from the antitrust laws, the NFL's exemption was specifically limited to its ability to negotiate media contracts.

The impact of negotiating a league-wide contract was immediate and powerful. CBS bought the rights for the 1962 and 1963 seasons for \$4 650 000, or \$350 000 per team. This was over 50 per cent more than the Giants had made in 1959 and almost 12 times what the Packers had made. The next contract again went to CBS, this time for \$27.2 million or close to \$2 million per team.⁹

The importance of the TV contract cannot be overestimated. Unlike MLB and the NHL, which rely much more heavily on local broadcast revenue, football owners have not traditionally split into rich and poor franchises. While the Kansas City Royals of Major League Baseball consider themselves a 'small market' team, the Kansas City Chiefs do not. According to figures from *Forbes*, the five baseball teams with the greatest revenue in 2004 accounted for 23.5 per cent of all revenue in Major League Baseball, almost twice the amount of the five teams with the least revenue (12.3 per cent). In the NFL, the five teams with the greatest revenue accounted for less than 20 per cent of the total revenue, while the five teams with the least revenue accounted for about 13.4 per cent. The conflict over media revenue and claims of competitive imbalance that have plagued baseball has generally not been a factor in the NFL.

In the early 1960s, television was also responsible for the most successful challenge to the NFL's monopoly position. Over the previous four decades, a series of leagues had tried to compete with the NFL. Most had lasted only a year or two before collapsing.¹⁰ The only league that managed to force a fully-fledged merger was the American Football League (AFL) of the early 1960s. Thanks to the \$8.5 million five-year contract it signed in 1960 with the ABC network and a second five-year contract it signed for \$42 million with NBC, the AFL survived several years of small crowds in small cities. The continued viability of the AFL finally led the NFL to agree to a complete merger with the AFL, which required yet another limited exemption from Congress.¹¹

The NFL learned its lesson from the war with the AFL. Over the next several years it sought to turn television from a financier of competition into a barrier to entry. It spread broadcasts over the three major networks, leaving no room for rival leagues, cutting off a vital source of funds. The lack of TV exposure was a major factor in the demise of both the World Football League in the 1970s and the United States Football League in the 1980s.¹²

Two recent events have altered the relationship between the NFL and television. First, the growing popularity of cable television led the NFL to include cable networks in the

negotiations for broadcasting rights. Second, when TV revenues showed signs of stagnating in the late 1980s, Rupert Murdoch's attempt to make Fox-TV a major network sent revenues skyrocketing again. By bidding far more than any other network had previously offered, Fox knocked CBS out of the mix for the first time since the NFL began selling its broadcasting rights in 1962. Fox has lost hundreds of millions of dollars on its NFL broadcasts, but it still is happy with its deal. Fox's goal was never to profit directly from broadcasting NFL games. Instead, it sought the spillover of viewers to other shows in its line-up and the resulting credibility that NFL broadcasts would give it with potential affiliate stations.¹³

The Challenge Posed by Venue Revenue¹⁴

While no rival league has seriously challenged the NFL since the 1960s, its monopoly power has not gone untested. The most serious confrontation has not come with outside competitors but with NFL teams themselves. While TV had brought football stability unmatched in its history, the lure of stadium deals was about to undo that stability.

For much of their history, football teams had literally operated in the shadow of baseball, renting baseball facilities during baseball's off-season. Often they took the names of their landlords. For example, the New York Giants first played in the Polo Grounds, home of baseball's New York (now San Francisco) Giants. Other times, teams tried to identify themselves with baseball teams by taking variants of their hosts' names, as in Chicago, where the Bears once played in the Chicago Cubs' Wrigley Field.

By the 1960s, largely as a result of moves by baseball franchises in the 1950s, cities began to assume the financial burden of building facilities. The growing popularity of the NFL, however, led to the construction of multi-purpose facilities designed to meet the needs of both baseball and football teams.

Unfortunately, the needs of baseball and football teams are not easily reconciled in one stadium. Football is played on a rectangular field, with the most desirable seats located along the long sides of the rectangle. In baseball, most of the action takes place in the diamond that contains the basepaths, the pitcher's mound and home plate. The optimal seats are in a horseshoe-shaped pattern that encircles this diamond. Architects tried to satisfy these conflicting desires with circular facilities that were ill-suited for either sport.

In 1976, New Jersey lured the New York Giants from their home in the Bronx by building a football-only stadium for the team. The move was a short one – the Giants stayed in the same metropolitan area and were closer to mid-town Manhattan after the move than before it – but it touched off a series of moves that continue to bedevil the NFL. In 1980, the Los Angeles Rams moved from a decaying neighbourhood of Los Angeles to Anaheim, a suburb, an hour or so to the south. Anticipating greater revenues from both these moves, the other NFL owners approved them with little fuss.

NFL owners did object, however, when Al Davis, the owner of the Oakland Raiders, sought to move his franchise into the now-vacant Los Angeles market in 1980. Claiming that the move infringed on the Rams' territorial right to control the Los Angeles market, they forbade the move. Davis responded by suing the NFL for violating the Sherman Antitrust Act. After a series of trials that lasted almost a decade, the NFL reached a settlement by dropping its objection to the move (which had taken place anyway) and agreeing to pay the Raiders \$18 million in compensation. The Raiders' successful defiance of the NFL touched off a series of moves, summarised in Table 54.1.¹⁵ To put these moves

Table 54.1 Franchise moves after the Raiders' challenge

Team and old city	New city	Year of move
Baltimore Colts	Indianapolis	1984
St. Louis Cardinals	Phoenix	1988
Los Angeles (Anaheim) Rams	St. Louis	1995
Los Angeles Raiders	Oakland	1995
Houston Oilers	Nashville	1998
Cleveland Browns	Baltimore (Ravens)	1998

into perspective, between 1972, when the Washington Senators moved to Texas to become the Rangers, and 2005, when the Expos left Montreal to become the Washington Nationals, no MLB team changed cities.

There is a puzzling pattern to the moves in Table 54.1. Almost all of them were from larger cities to smaller cities. If teams were looking to maximise revenue from attendance or media markets, one would expect the moves to go in the other direction. The solution to the puzzle comes in the final form of revenue, the money that teams receive from the stadium itself. The moves were largely to facilities that were built with public money. The cities, however, granted teams much of the revenue that flowed from the stadium, including pouring rights, signage and parking. By far the most important source of revenue, however, are luxury boxes. The boxes can be rented for hundreds of thousands of dollars. Most importantly, while gate and TV revenue are shared with the other teams in the league, individual teams keep almost all the revenue they receive from renting luxury boxes. With venue revenue one of the few private sources of revenue available to team owners, they have jumped at the opportunity to establish a private source of revenue.

Cities have built facilities for sports franchises despite pressing needs in other areas. Seattle and the state of Washington paid 70 per cent of the construction costs of Seahawk Stadium for a team owned by Microsoft co-founder Paul Allen, one of the wealthiest men in America. A few years earlier, Cleveland, a city whose schools were about to go into default, paid a like percentage for Cleveland Browns stadium, to house a team owned by billionaire Alfred Lerner.¹⁶ Why should cities and states spend hundreds of millions of dollars on teams owned by such wealthy men?

Most politicians justify public expenditure on sports facilities by claiming that sports franchises bring jobs and tax revenue to a city. Unfortunately, economic studies over the last two decades have failed to show any positive impact on jobs, wages or municipal finances. This is hardly surprising, since a football team plays a maximum of 12 or so home games each year, including pre- and post-season games.

Labour Markets and Labour Relations¹⁷

While the NFL is now the most profitable sports league in the United States, the players do not share in the prosperity. Table 54.2 shows that, of the four major sports, football players are the lowest paid on average. Several factors have contributed to this paradoxical result.

One of the major reasons for forming a league was to keep salaries low by reducing the competition for players. Football found the template for doing so in baseball's reserve

Table 54.2 *Average salaries in the four major sports in 2004*

Sport	Average salary
Basketball	\$4.9 million
Baseball	\$2.5 million
Hockey	\$1.5 million
Football	\$1.4 million

Source: Jon Weinbach, 'Football's All-Star Team', *Wall Street Journal*, 9 September 2005, <http://online.wsj.com> and 'Bucks and Pucks', *The Hockey News.com*, 9 November 2005, <http://www.thn.com>.

clause. The reserve clause 'reserved' a player for a team. It was a clause in the basic player contract that bound a player to his team for the length of his contract plus one additional year. The catch was that owners would not allow players to play that extra year unless they first signed a new contract. This created an overlapping series of agreements that effectively tied a player to the team for as long as the team wanted him. This gave teams monopsony (meaning 'one buyer') power over players. With only one buyer for their services, players' salaries were kept below what they would be in a free market.

Unfortunately for the NFL, the reserve clause clearly relied on teams' joining together to restrict the free operation of the labour market, which violated the Sherman Antitrust Act. The Supreme Court's ruling in the *Radovich v. NFL* lawsuit in 1957 established that the NFL was not exempt from the Sherman Antitrust Act, which undermined its reserve clause. The NFL responded by eliminating the reserve clause and replacing it with an equally illegal (but more difficult to detect) 'gentleman's agreement' in which teams implicitly agreed not to pursue players who had been under contract with another team.

This informal arrangement began to break down after only a few years, forcing Commissioner Rozelle to impose the 'Rozelle Rule' in 1962. The rule recognised a player's right to change teams after the conclusion of his contract, but it required the team signing the player to compensate his old team by providing it with players of equal value. If the teams could not agree on compensation, the commissioner would impose a settlement. The Rozelle Rule effectively transformed the signing of a 'free agent' into a trade, the terms of which might not even be up to the teams involved. This effectively put an end to any movement by free agents.

The players quickly recognised the impact of the Rozelle Rule on their salaries and brought a series of lawsuits. In 1976 the courts struck down the Rozelle Rule, saying it had violated antitrust laws by being arbitrarily imposed on the players. At this point, the players' union, the NFL Players Association (NFLPA), stepped in and restored the Rozelle Rule. In exchange for the NFL's agreeing not to appeal the ruling (thereby sparing the NFLPA legal expenses it could no longer afford) and restoring a dues checkoff system that brought the union much-needed funds, the NFLPA agreed to make a slightly modified version of the Rozelle Rule a part of the collective bargaining agreement. With the Rozelle Rule now accepted by the NFLPA, players could no longer claim in court that the NFL was arbitrarily restricting a free market. Recognising its mistake, the union tried to remove the Rozelle Rule through collective bargaining. Two strikes, one in 1982 and another in 1987, failed to bring any change in the Rozelle Rule.

Unable to eliminate the Rozelle Rule in the courts or at the bargaining table, the NFLPA took the extreme step of decertifying itself in 1988. With no union, there could be no collective bargaining agreement, and with no agreement, the NFL could no longer justify the Rozelle Rule. Four years later, the courts agreed and once again struck down the Rozelle Rule. Almost immediately, the NFLPA got recertified and negotiated yet another restriction on the players. This time, the union agreed to a salary cap.

While fans think of salary caps as upper bounds on payments to players, caps actually establish relatively narrow bands within which teams must operate. They do so in three stages. First, the league and the union agree on the total amount of money going to salaries, defining the sources of revenue that are to be shared (for example, most media revenue is included, while much of the luxury box revenue is not) and then setting the percentage of the funds that goes to the players. This amount is divided equally among teams to set the target salary bill for each team. Because no team can hit this amount precisely, the teams have a 20 per cent band within which they must operate.

As a result of the limits placed on salaries by the cap, pay in the NFL has not experienced the large jump seen in baseball. While basketball has had a salary cap longer than football has, its cap did not have as great an impact until 1999 because it was a 'soft' cap with many more exceptions than football's 'hard' cap.

Challenges for the Future

Seemingly, the NFL has few worries. It has the highest revenues and lowest salaries of any of the four major sports. A few clouds do appear on the horizon. TV is the lifeblood of the NFL, separating it from the other sports and allowing it to keep teams in small markets afloat. A significant decline in TV revenue could cause several teams to sustain operating losses. The NFL's revenues have been sustained by the growth of cable television and the Fox Network. With no new network on the horizon and the existing broadcast partners absorbing significant losses, it is possible that the NFL will eventually see its TV revenues stagnate.

At the same time, the unity that allowed the NFL to implement the revenue sharing and TV strategies that have brought it such prosperity are now in danger of breaking down. The ability to capture unshared revenue with stadium deals threatens to divide teams in to 'haves' and 'have nots'. Teams with new, lucrative facilities have a revenue stream that teams in older facilities do not. In fact, operating income has become less equal over the last five years. The NFL must find a way to prevent teams from growing apart due to this new source of revenue.

These problems are not new. Twenty years ago, flat TV earnings and increasingly fractious owners led David Harris to predict the decline of the NFL in his otherwise outstanding study (Harris, 1986). The fact remains that, while its problems may prove serious, the other sports leagues in the United States would gladly switch places with the NFL.

Notes

1. For a history of college football, see Fleisher et al. (1992), Riffenburgh (1986), Ross (1999) and Smith (1998).
2. Perhaps ironically, the game also provided the first eligibility scandal, as four Rutgers players were failing maths at the time of the game.
3. The other schools in attendance were Yale, Princeton and Columbia.
4. For a history of professional football, see Leifer (1995), MacCambridge (2004), Riffenburgh (1986) and Ross (1999).

5. Paid by the Houston Texans, the most recent entry to the NFL, in 1999.
6. According to *Forbes*, 11 (of 30) basketball teams, 17 (of 30) hockey teams, and 5 (of 30) baseball teams lost money in 2005 (2004 for the NHL).
7. For many years, the split was just between the home and visiting teams.
8. Former president of CPS Sports Bill McPhail quoted in Harris (1986, p. 13).
9. There were 14 teams in the league at that time.
10. The most successful of the early entries came in the late 1940s when the All American Football Conference lasted for four years. The NFL later absorbed four teams.
11. For more on antitrust, see Leeds and von Allmen (2005), Quirk (1996) and Quirk and Fort (1992).
12. See Byrne (1986).
13. See, for example, Schmuckler (1998, pp. 26–32).
14. For more on the relationship between sports teams and cities see Cagan and de Mause (1998), Leeds and von Allmen (2005), Noll and Zimbalist (1997), Quirk and Fort (1992) and Siegfried and Zimbalist (2000).
15. The moves in Table 54.1 do not include moves within a given metropolitan area, such as the move of the Detroit Lions to Pontiac, MI and then back to Detroit.
16. In 2002, Paul Allen was worth \$28.2 billion, while Alfred Lerner, since deceased, was worth \$4.9 billion.
17. For more on labour relations in professional football see Harris (1986), Leeds and von Allmen (2005), MacCambridge (2004), Quirk and Fort (1992) and Staudohar (1996).

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55 Labour economics on the hardwood: the NBA

David J. Berri

The study of labour in economics has been hampered by a lack of worker productivity data. For example, our inability to quantify productivity makes it quite difficult to assess the productivity of workers such as college professors or financial analysts. Consequently, researchers have turned to the world of professional team sports. Most studies in this arena have focused upon baseball, a sport with over 100 years of worker productivity measures. More recently, researchers have examined the economics of labour via the data generated on the hardwood. Such research has shed light upon two basic issues: the allocation and compensation of workers in the National Basketball Association (NBA).

Allocation of Labour in the NBA

The NBA in the last decade of the twentieth century was dominated by Michael Jordan and the Chicago Bulls. In 1991 the Bulls won the NBA title, an accomplishment repeated in 1992 and 1993. A few months after winning the 1993 title, Jordan decided to give baseball a try. After two years of chasing unsuccessfully after curve balls, Jordan returned to the Chicago Bulls. The Bulls proceeded to win NBA titles again in 1996, 1997 and 1998. In 1998 Jordan again retired, once again allowing another city to experience the joy and tribulations of a championship parade.

Unfortunately every team in the NBA does not appear to have equal access to such festivities. Of the current 29 cities playing host to a NBA franchise, 14 have never hosted the NBA champion. In other words, the 1990s was hardly unique in the history of the NBA. In the 1980s five championships went to the Los Angeles Lakers while three went to the Boston Celtics. The 1970s was a veritable socialist dream, with eight different teams winning a NBA title. The 1970s, though, were the exception to the rule. In the 1960s one team, the Boston Celtics, won nine out of ten possible titles.

The allocation of championships suggests that talent in the NBA is not evenly distributed. The seminal theoretical work of Rottenberg (1956) and El-Hodiri and Quirk (1971) suggest that this may not actually be a problem. Specifically, we would expect talent to migrate to the market where it generates the highest return. If players generate higher returns in Chicago, Los Angeles, Boston and New York then we would expect these teams to employ better talent and more often host the championship parade. The empirical study of Berri et al. (2004) supports the aforementioned theoretical work, offering evidence that the value of a win varies from team to team in the NBA.

Given this work, we would not expect a league of profit-maximising owners to distribute talent equally. The distribution of championships faintly suggests a most unequal distribution. The word 'faint' is appropriate, since play-offs in professional sports are not a scientifically designed experiment. A sample of seven games, the length of the NBA championship series, is hardly enough to tell us the identity of the superior team. A better measure of the distribution of talent, often called the level of competitive balance, is the dispersion of regular season wins.

A simple measure of dispersion is standard deviation. Because professional sports leagues play schedules of various lengths, researchers have followed the lead of Noll (1988) and Scully (1989) and employed the ratio of a league's actual standard deviation to the idealised standard deviation that would exist if wins were normally distributed. The work of Quirk and Fort (1992), Vrooman (1995), Schmidt and Berri (2003) and Berri et al. (forthcoming) all indicate, via the measure introduced by Noll and Scully, that the NBA's level of competitive balance lags behind the level observed in the sports of baseball, hockey, American football and soccer. Furthermore, where sports like baseball clearly became more competitive in the latter half of the twentieth century, the NBA has shown very little improvement over time. In fact, the league offered its least competitive decade in the 1990s.

The work of Schmidt and Berri (2003) and Berri et al. (2005) argue that the driving force behind competitive balance is the underlying population of talent a sport can draw upon.¹ Soccer, the most competitive sport according to the Noll–Scully measure, is played around the world and has very few physical restrictions to participation. Consequently each soccer team has an ample supply of extremely qualified athletes. In contrast, as Berri et al. note, basketball suffers from 'a short supply of tall people'. Nearly 98 per cent of American males are 6'3" or smaller. Yet over 80 per cent of the athletes the NBA employs are taller than 6'3". In fact, more than 15 per cent of the league is taller than 6'11", a very uncommon height in the general population. Such a small population of athletes forces NBA teams to employ tall players of very different levels of ability. For example, a player who cannot approach his level of athleticism often guards Shaquille O'Neal, the 7'1" centre who has dominated the NBA for more than a decade. The result, as fans of the NBA have learned, is often quite predictable and embarrassing to the man charged with trying to stop O'Neal.

One should note that the NBA has created institutions to overcome the league's competitive balance problem. In 1983 the league was the first to institute a cap on team payrolls, incorrectly labelled a 'salary cap'. The cap guaranteed that the players would receive 53 per cent of league revenue, but limited the amount of money large market teams could expend on players.² As Scully (2001) notes, a binding or hard salary cap will result in an equalisation of payrolls across all members of the league. If we assume that all league members have the same information and the quality of other inputs like coaching do not differ, wins will be distributed equally across all teams. In other words, a binding salary cap could theoretically solve the competitive balance problem.

One must note that the cap on payrolls in the NBA is not binding. For example, under the Larry Bird exemption a team could re-sign its own players for any salary the team and the player agreed, even if the salary took the team over the cap on payrolls. As a result, most teams in the NBA have payrolls in excess of the official cap. To combat the soft-nature of the cap on payrolls, the 1999 collective bargaining agreement (CBA) instituted the first cap in professional North American team sports on individual player salaries. Both the cap on payrolls and individual salaries are designed to reduce the ability of large market teams to sign a level of talent consistent with the maximisation of individual team profits. If large market organisations field teams of lesser ability, and smaller market teams offer a more competitive product, competitive balance should improve. Yet, when one examines the data after the 1999 CBA, there is little evidence that competitive balance has improved in the NBA.

The difficulty lies in what Walter Neale (1964:12) labelled the ‘Bobby Layne Rigidity’, or the idea that one cannot replace a superior player with two average performers. A similar rigidity exists in the NBA. The NBA can take whatever steps it wishes to allocate its talent in a more equitable fashion, but the short supply of superior talent will still result in disparities on the field of play.

The relatively large dispersion of talent in the NBA highlights the value of finding the one special player that can turn a losing team into a winner. Most of the aforementioned championship teams employed one player, such as Bill Russell, Kareem Abdul-Jabbar, Larry Bird, Magic Johnson, or Jordan, who reportedly turned the fortunes of the organisation from loser into title contender. Each year, a short time after the league crowns a champion, the losing franchises turn to the NBA amateur draft. In an effort to promote competitive balance, like each of the other North American professional team sports, the NBA allows the worst teams to pick first.

Unfortunately, the difference among the top picks can be quite large. In 1997 the San Antonio Spurs chose Tim Duncan with the first pick in the draft. In 1999 and 2003 the Spurs, led by Duncan, won the NBA title. The second choice in the 1997 draft was Keith Van Horn. Van Horn was traded on draft day from Philadelphia to New Jersey. In Van Horn’s first four seasons the Nets played three play-off games, winning none. In his fifth season, the Nets reached the NBA finals against the Los Angeles Lakers. The team thought so much of Van Horn’s contribution to the Nets’ new success that they traded him back to Philadelphia after the 2002 season. After one season in Philadelphia, the 76ers traded him to New York. Midway through the 2003–04 campaign, Van Horn was again traded to Milwaukee. Although Van Horn is clearly thought of as valuable by many teams, the willingness of teams to part with his services indicates his value is not quite equal to Tim Duncan.

Such anecdotal evidence is not unique to the 1997 draft. There is often a significant drop-off as one moves from the very top choice. Hence a team can have a very poor season, yet not acquire a talent capable of changing the team’s fortunes for the next season. Given this reality, the poor teams have an incentive to lose as many games as possible in an effort to improve the team’s draft position and acquire the one player that can raise the team from bottom of the league. In other words, teams towards the end of a NBA season have an incentive to try and lose the games the team plays.

Certainly playing to lose violates the essence of the sporting contest. Incidents such as the Black Sox scandal in baseball live in infamy in the minds of sporting fans. To remove such an incentive, the NBA in 1985 introduced a draft lottery. For the 1985 draft, where the top prize was Georgetown centre and future Hall of Fame centre Patrick Ewing, the seven non-play-off teams were placed in a lottery with each team having an equal chance to secure the top choice. The lottery in 1985 was employed to fix the order of all seven choices, so theoretically the worst team could pick seventh in the draft. In 1986 the lottery was changed so that only the top three choices were chosen by lottery.

Throughout the 1980s the worst team in the NBA was never lucky enough to win the top pick in the draft. Consequently, in 1990 the NBA introduced a weighted lottery that gave the worst teams a better chance at the top pick. These changes give us three time periods where the worst NBA teams had different incentives to lose towards the end of the season. Taylor and Trogon (2002) investigated how the incentive to lose had an impact on the actions of NBA teams. The presented evidence suggested that prior to the

draft lottery in 1985, non-play-off teams were 2.5 times more likely to lose than play-off teams, even after the authors controlled for team quality. After the lottery was introduced, the behaviour of play-off and non-play-off teams was essentially the same. The introduction of the weighted lottery once again gave teams an incentive to lose. Again these authors find non-play-off teams in the 1990s more likely to lose, although the likelihood dropped to 1.7. Hence, as incentives change, we see evidence that NBA teams responded accordingly.

Compensation of Labour in the NBA

So we see in the NBA that the allocation of talent is unequal. Evidence has been presented that teams go to some lengths to acquire the unique talent that is in scarce supply. Such talent is acquired in an effort to win additional games, and as Berri et al. (2004) note, it is winning games that drives the revenue teams earn. In the standard labour market discussed in economics, we assume adequate competition between decision makers possessing and correctly interpreting complete information. Given such assumptions, we expect the salary paid to workers to equal the revenue the workers generate. The research into the NBA, though, indicates that the labour market in the NBA is far from standard.

We begin this portion of our tale with the work of Hausman and Leonard (1997). These authors presented evidence of a 'Superstar Externality'. Via an examination of television broadcasts, gate revenue and the sale of NBA properties, the evidence offered suggested that Michael Jordan generated \$53 million in revenue in the 1991–92 season for teams in the NBA other than Jordan's employer, the Chicago Bulls. For this season Jordan earned a bit more than \$3 million,³ hence by the definition of exploitation offered by Joan Robinson (1972), Jordan was exploited. The work of Berri and Schmidt (2006) supported the work of Hausman and Leonard. In a study of each team's road attendance, these authors found evidence that a player's star appeal mattered more to the player's opponent than it did to the team paying the player's wage. We should note that the NBA does not split gate revenue between the two opponents. Hence any revenue a player generates for a team's opponent is not given to the player's employer.

The existence of Superstar Externality suggests that there are players in the NBA whose salary is less than their marginal revenue product. As noted in the earlier theoretical work of Walter Neale (1964), the existence of Superstar Externality is not surprising. Due to the unique nature of professional sports, workers actually generate uncompensated revenues for their employer's competitors.

Of course, one might expect that players be at least compensated for the revenues created for their teams. The studies into the prevalence of racial discrimination hint at a different story.

Much of the work by sports economists employing data from the NBA has examined the issue of race. Specifically, researchers wished to know if racial discrimination exists in a game where roughly 80 per cent of the participants are of African descent. Although a plethora of studies have been offered, the results have been quite mixed. Studies employing data from the 1980s (see Kahn and Sherer, 1988; Koch and Vander Hill, 1988; Wallace, 1988; Brown et al., 1991) found evidence that blacks were paid a lower wage for equivalent productivity. Jenkins (1996) examined the 1980s and 1990s with a data set composed entirely of free agents. Jenkins reasoned that the link between productivity and pay would be strongest at the time the salary was determined. With Jenkins's restricted data set, no

evidence of salary discrimination was uncovered. Later studies (see Dey, 1997; Hamilton, 1997; Bodvarsson and Brastow, 1998, 1999; Gius and Johnson, 1998; Bodvarsson and Partridge, 2001; Eschker et al., 2004), also found little evidence of discrimination. The exceptions were Hamilton, who reported a premium paid to white players in the upper end of the NBA's income distribution; and Eschker et al., who found evidence of discrimination for the 1998–99 season. One should note that Jenkins is still the only published writer to restrict the data to recently signed free agents.

The difficulty with the work on racial discrimination is that each new study, in an effort to maximise the likelihood of publication, will tend to both look at new data and employ new methods of analysis. Consequently it becomes very difficult to compare the results derived from such diverse studies. Perhaps the true value of these studies does not lie in the unclear message delivered on the role race plays in worker compensation, but in the clearer picture painted on the role player productivity plays in determining salary.

To study the connection between race and wages, researchers must control for player productivity. Consequently, these studies allow us to see which aspects of player productivity are valued by NBA decision makers. The results point to the importance of how many points a player scores per game. In the aforementioned listing of racial discrimination studies, 12 salary regressions were estimated. In all but one model, points scored were found to have a statistical impact on player salary. The other aspects of player productivity, including rebounding, blocked shots, steals and shooting efficiency, were not consistently found to be significant.⁴ Such a finding is supported by the work of Hoang and Rascher (1999). In a study of the determinants of employment in the NBA, which uncovered evidence of racial bias against blacks, these authors also found points scored to be the only player productivity factor to have a statistical impact on the likelihood that a player would lose his job.

The work of Berri (1999), and a recent working paper by Berri (2004), indicates that points scored per game do not solely determine wins. Intuitively this should be clear. Increasing the number of shots taken will increase points scored, even if shooting efficiency suffers. Hence, lofty point totals attained inefficiently should actually diminish the ability of a team to win. Furthermore, factors such as rebounds, steals, and turnovers are crucial in determining the successful or unsuccessful outcome of each possession. As noted by Hollinger (2003) and Oliver (2003), wins are ultimately determined by how successfully a team converts its possessions into points relative to the team's opponent. Consequently, rebounds, turnovers, steals and shooting efficiency do impact the outcomes we observe.

The evidence suggests that teams do not pay for many of the factors key to winning games. Consequently it is not surprising to see, in both the work of Berri and Jewell (2004) and Syzanski (2003), team payroll and team wins are not found to be highly correlated. Hence we appear to have a league where the factors that drive salary are not consistent with the factor, team wins, that drive the firm's revenue.

The inconsistency between what drives salary and what drives revenue suggests that NBA decision makers do not process worker productivity information efficiently. Such a suggestion echoes the work of Staw and Hoang (1995) and Camerer and Weber (1999). These authors investigated the role that draft position played in allocating playing time. As noted, not all high draft picks offer equal levels of productivity. After a team has observed that a former draft choice is not able to offer the forecast level of output, one would expect teams to bench the player. These authors found, though, that after the first

two seasons of a player's career, draft position still affected the minutes allocated to a player, even after one controls for player productivity.

What does this work indicate? As noted by Camerer and Weber, a researcher must seek alternative explanations before suggesting that economic actors behave irrationally. Hence, the aforementioned work primarily suggests the need for more research.

The link between marginal revenue product and salary, a key issue in the study of worker compensation, also bears further research. The work of Scott et al. (1985), which examined data from the 1970s before the NBA's salary cap was implemented, is still the only study of MRP and salary offered employing NBA data. Clearly work based upon more recent data is needed. We should note that the published work to date does inform our understanding on the allocation and compensation of NBA labour. More than anything, though, what we know today about the NBA's labour market primarily indicates that there is more for us to know.

Notes

1. Such an argument builds upon the work of Gould (1986, 1996) and Zimbalist (1992). With respect to the sport of basketball Chatterjee and Yilmaz (1999, 2000) previously examined the implication of Gould's work. Gould's work has also inspired examinations of competitive balance in baseball by Chatterjee and Yilmaz (1991).
2. For further details regarding labour relations in the NBA, see Staudohar (1999) and working papers by Rosenbaum and Stein (2003) and Rosenbaum (2004).
3. The source of Jordan's 1991–92 salary, and a very good source of all NBA player salary data, is the website of Patricia Bender (Bender, n.d.).
4. For a full comparison of these various racial discrimination studies, see Berri (2005).

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56 European professional basketball in crisis: 1992–2002

Didier Primault

In a sponsored study at the end of the 1990s – and which remains confidential – the National Basketball Association (NBA) diagnosed a great fragility in European basketball, due in particular to a deficit of demand, shortcomings in adapted facilities and a problem of governance. There has indeed been a crisis in European basketball over the last 10 years: an institutional crisis, financial crises, a sporting crisis and an identity crisis.

Basketball in Europe had a very turbulent history between 1992 and 2002 and it is this period that will be analysed first, in order to understand the economy of basketball today, as well as to understand the economy of professional sport in Europe. For basketball possesses not only all the potential but also, above all, all the weaknesses and it presents a condensed history of this period which from which much can be learned. It is, in a way, a laboratory for European sport. The study will be limited to men's basketball. During this period, France was in an intermediate position and at the heart of all contradictions, which, in the end, contributed to its failure to make the main changes.

Therefore, after studying the characteristics of the crisis in Europe, we then set out to understand its mechanisms, using the example of France.

The Elements of the Crisis in Europe

An identity and cultural crisis facing the NBA

1992: the basis of the great misunderstanding? During the Barcelona Olympics, Europe discovered the magic of basketball at the highest level, with the Dream Team led by Michael Jordan and Magic Johnson – the keen public interest was extraordinary for basketball, but was it not rather enthusiasm for the NBA itself? Indeed, the NBA soon extended its influence and its audiences and European basketball surfed on this wave; people played street basketball and basketball culture spread very quickly, but clubs and federations were late in reaping the fruits. In the main European championships, managers anticipated an economic explosion of basketball: budgets and salaries spiralled in Greece, Italy, Spain, Turkey and, to a lesser extent, France. But the basis was weak for a sport that was only just beginning to find its feet as a professional sport.

Looking for its identity European basketball suffers from a difficulty of positioning in relation to American basketball, which is both very close, and very far, from European basketball. Very close, because many players originate from or dream of going there; and very far, because it is based on very different resources, culture and organisation. This complex, sometimes confrontational, relationship contributes to the blurred image of basketball in Europe, which is already strongly Americanised.

An appendix of the American labour market At the end of the 1960s (Robert, 1997; Bosc, 2002a) the first significant contingents of American players set foot on the European courts. After that, the flow rapidly increased to such a point that, from the 1980s onwards in the most important European championships, all teams systematically included their two players from across the Atlantic. Their impact, on the cultural level as much as on the sporting level, was considerable. They were, at the time, often conditioned to succeed in sport; but they equally often ‘imposed’ their language and their way of life.

More recently, the NBA has become the eldorado for European basketball players, on whom clubs have been calling in increasingly greater numbers (30 in 2003/4, whereas at the beginning of the 1990s, only a few pioneers were able to push open the door: Volkov, Marciulionis, Petrovic, Sabonis and Shrempf). Their pay has nothing in common with what they could hope for in Europe. Thus, in 2003/04, Nowitzki (Germany) earned \$11.3 million per annum, Ilgauskas (Lithuania) \$13.5 million, Stojakovic (Serbia Montenegro) \$6.2 million and Abdul Wahad (France) \$6.1 million. But the NBA has also become a ‘headache’ for European managers of clubs and federations. For the former, it is difficult to keep players sought by American clubs; for the latter, making up national teams is a headache in terms of the calendar and finance, owing to the exorbitant insurance costs.

The temptation of the closed league Closed competitions in the American style have loomed over European basketball since it first turned professional. The first attempt to introduce such a system dates back to the 1970s but since the beginning of the 1990s, the pressure has increased. It seems that the initiative started in Spain, after a feasibility study supported by the Dorna Company in 1991. Italy suggested the creation of a European Basketball Association (EBA) in 1997, but it was finally Téléfonica which, in 2000, offered the resources to realise these ambitions for a European league, the Union des Ligues Européennes de Basket (ULEB), to be directed by the President of the Spanish League, Eduardo Portella.

An economic crisis following the Bosman case

In this still fragile sector, looking for its identity and with a largely underground economy – particularly in Greece and Turkey – the *Bosman* case played a more destabilising role than in football, for structural as much as cultural reasons.

A structural fragility The impact of the *Bosman* (1995), *Malaja* (2000), *Mills* (2000) and then *Kolpak* (2004)¹ cases is considerable, owing to structural reasons specific to basketball and to the great flexibility of the labour market.² The reduced numbers in the teams make basketball particularly sensitive (five players on the court), compared to football (11) or to rugby (15). Whereas the contribution of an extra European player represents about 1/20th in football, it is 1/10th in basketball.

In addition, the labour market is more fluid. At the time of the *Bosman* case, each club could line up 40 per cent of foreign players on the court (2 out of 5) as opposed to only 27.3 per cent (3 out of 11) in football. Agents are already very well positioned in the international market by exploiting the lucrative market of American players in Europe. The employees are frequently employed on short-term contracts and can be changed during the season. This gives it a level of flexibility unseen in other sports. Analyses (Andreff,

2000; Lavoie, 2000) show that such a liberalisation tends to concentrate talent in the richest clubs and to increase the segmentation of the market.

A cultural fragility Even by the time of the *Bosman* case, there were many American players and it was not unusual for the coach to speak to the team in English, rather than in the national language. Indeed, apart from the two ‘obligatory’ American players, there were often one or more naturalised Americans. The *Bosman* case created new opportunities for naturalisation, strengthening this presence on the market. The decision of the Court of Justice of the European Communities effectively led to a very rapid liberalisation of the labour market: the rules in force and the culture of the environment made it possible for the market to become extremely fluid very quickly. Extended transfer times and the possibility of changing the players in the team at practically any moment were gradually introduced throughout Europe. The result was a certain loss of identity, which could explain the difficulty in which basketball now finds itself, practically everywhere in Europe.

The impact on the market The *Bosman* case was, therefore, a traumatic exogenous shock for an economy which was still fragile and relatively unstructured. The result was an increased movement of players in favour of the economically strongest championships, that is, Italy, Greece and Spain, in the first instance, and then very quickly, Turkey, thanks to the creation of a second free movement zone in Eastern Europe. Most Western European championships, the lands of immigration, saw the proportion of available players diminish significantly (less than 50 per cent in several countries).

This deregulation strengthened the segmentation of the labour market (Bourg and Gougnet, 1998, 2001). Stars’ salaries skyrocketed. Thus, A. Rigau, the leading French player, saw his net annual salary rise from about €38 000 in Pau, to €114 000 in Bologna. That, however, was far from the largest contracts, which amounted to millions of dollars annually (Table 56.1). Italy, Greece, Turkey and Spain, in that order, were offering the most lucrative contracts in the second half of the 1990s.

Table 56.1 *Highest-paid basketball players in Europe (98/99 season)*

Player	Club	Ranking of salaries	Annual salary in dollars	Country
Dino Radja	Panathinaikos	1	2 300 000	Greece
Predag Danilovic	Kinder Bologna	2	2 000 000	Italy
Dominique Wikins	Teamsystem	3	1 800 000	Italy
Arturas Karnishovas	Olympiakos	4	1 700 000	Greece
Byron Scott	Panathinaikos	5	1 600 000	Greece
David Rivers	Teamsystem	6	1 500 000	Italy
Petar Naumoski	Efes Pilsen	7	1 400 000	Turkey
Sasha Djordjevic	Barcelona	8	1 300 000	Spain
Zoran Savic	Kinder Bologna	9	1 000 000	Italy
Joe Arlauckas	Real	10	1 000 000	Spain

Source: Basket Hebdo (1998) www.baskethebdo.ifrance.com.

On the other hand, the situation for players on a national level worsened. The contract term shortened significantly, player mobility increased, unemployment grew, pressure increased and careers were limited. From then on, competition in the labour market was fierce between all the clubs in Europe. But the level of structuring and control of the very mixed different championships and a very large underground economy did not allow it to be really marketable. On top of the economic and identity crises, there was soon a crisis in sport.

The FIBA/ULEB split: an institutional and sporting crisis

While the idea of a 'private' (that is, outside federal movement), closed league had been floated for some time, basketball partly took the plunge during the summer of 2000 – thereby creating an unfortunate precedent, which significantly damaged the credibility of its European competitions.³

An unfortunate precedent During the summer, the ULEB officially announced the launch of a rival competition to the leading competition of FIBA (Fédération Internationale de Basketball Association) and was given the not insignificant sum of €39.18 million over five years by its sponsor, Telefonica. The latter was testing the waters, 'We can use Euroleague as an experiment for organising a new football league'.⁴ It concerned a semi-closed competition in which clubs were entered according to sporting considerations, their ability to respect the general conditions and to pay an entry fee (€1.2 million at the time of its creation in 2000). ULEB and its service provider, ISL (International Sports Leisure), undertook to share out the bulk of marketing and television products, that is, \$35 million, among the participants. Previous discussions with FIBA, which had offered to share out 'only' \$19 million among the clubs, had hit a very big stumbling block over this point. Euroleague (ULEB) and Suproleague (FIBA) then coexisted, with both claiming to be the leading competition on the continent. ISL's difficulties⁵ soon brought about a rapprochement and in 2001/02 all the best clubs got together in the Euroleague. But hostilities broke out again in the spring of 2002, with FIBA benefiting from ULEB's inability to collect its predicted revenue – said to be \$27 million in losses during the first year – and from the difficulties being experienced by its main support, Telefonica. It renegotiated its commitments for three additional years for the same amount, before throwing in the sponge. Sogecable (a subsidiary of Canal + in Spain) then took over.

An attack on sporting credibility The creation of this breakaway competition stirred up a real hornets' nest, since it was the first example of a private competition in a major sport in Europe that brought together all the best continental clubs.⁶ This division brought considerable discredit to basketball and tarnished its image for a long time. Basketball thus added a fragmented and totally illogical sporting model to the difficulty of defining an integrated economic model which would also recognise football.

Analysing the development of professional sport in Europe shows that developments are often made at the clubs' instigation and against the advice of national and international federations, which are the conservative elements of the system (Gougnet and Primault, 2002). Similarly, in basketball, it was the ULEB, created in 1991, which catered for the interests of the major clubs, although it had sought a compromise with FIBA.

However, this organisation is responsible for failing to arrange a historic compromise between the interests of the clubs and the federations, which would have enabled basketball to develop harmoniously in Europe.

Emerging from the crisis with the new century?

The Spanish and German leagues best illustrate this interesting development in European basketball.⁷ After years of all sorts of excess, European basketball was obliged to return to a more rational economic approach. Spain then took the leadership and Germany succeeded, thanks to an integrated plan, in mediating with the European partners.

Spain, the leader Both from a sporting and an economic point of view, Spain has managed to establish itself as the championship leader in Europe. The *Balloncesto Clubs Association* is an association bringing together the 18 clubs of the *Liga*. It has managed to develop an integrated plan and establish it, in spite of the domination of the Spanish federation and the major clubs – Real and Barça. These two clubs monopolised all titles, at the same time developing a contestable economic model, dependent on the powerful football section.⁸ *ACB Liga* has managed to re-establish a competitive balance damaged by the domination of these two heavyweights and has created a profitable product – at the cost, it is true, of an inevitable relative fall in competitiveness on the European level: no major European title between 1995 (Real) and 2003 (Barcelona).

It establishes, within the framework of a strategic plan adopted in May 2003 for the next four years, general conditions demanding a minimum projected budget of €3 005 060 for the 2003/04 season and a 7000-seat minimum sports centre (5000 in 2003/04). To do that, the *Liga* bases itself on a real popular success: an average of 9000 spectators for the first round of the play-offs in 2004, with, for example, a record 15 200 spectators for the *Estudiantes–Real* match. It is true that the clubs can count on excellent facilities by European standards, with an average capacity of more than 7000. Although there is no comparison with football, the television audiences are also significant, compared with other European countries today. In 2002/03, the *Liga* generated an overall turnover of more than €103 million, with an average planning budget of €5.74 million for its 18 clubs; the average annual salary of the players amounts to €280 000.

However, there is a downside to this positive picture; difficult negotiations with TV companies were conducted during the second half of 2003 and led to the signing of a contract which was decidedly worse than the previous one. In the end, an agreement with TVE for €1.5 million per annum and another agreement with a regional TV conglomerate for €3 million meant a total of about €4.5 per annum. The previous contract with Canal + gave €18 million per annum!

Germany, the growing force The *Bundes Basketball league (BBL)* is the current European league to be on the up, because of an extremely structured and integrated plan. In 1999, the clubs and federation created a commercial-type structure. In the summer of 2003, it had seven permanent staff and an operating budget of €700 000. For the 2002/03 season, it generated €2.5 million in advertising profits, of which €1.8 million was distributed to the 14 clubs of the league. The 2003/04 season saw the league extended, with two extra teams chosen according to sporting and economic criteria. It can draw on a TV contract, which is original since it produces no profit for the league, but is used as a lever for

development. We have assessed the turbulence experienced by European basketball over the last 12 years. French basketball perfectly illustrates the contradictions during this period and much can be learned from its analysis.

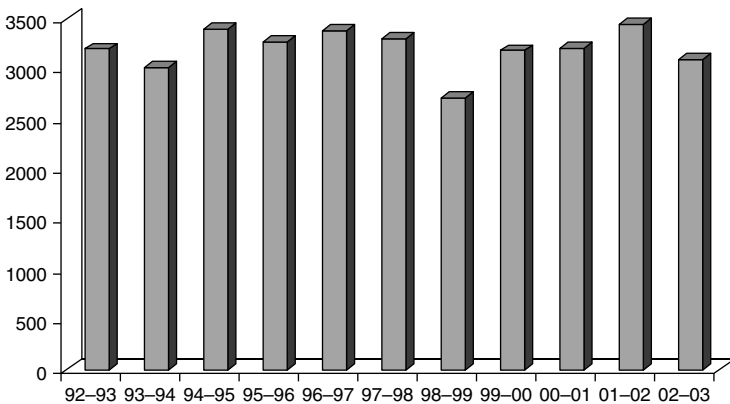
France at the Heart of All Contradictions

French basketball suffers from a problem of development, from a lack of demand and facilities, and from a problem of governance, which has led to it making the wrong choices over the last 10 years.

The economics of French basketball, an attempt at appraisal

A fragile economic model French basketball, like all European basketball, has been living partly on an artificial basis for several years; in the French case, the support of local authorities, the question of sponsorship, low deductions or failure to comply with contracts. The total turnover of Pro A in 2002/03 was set at €55.5 million. In 10 years, the average budget per club has stagnated; it was set at €3085 million in 2002/03, after peaking during the 1994–98 period (Figure 56.1). The prosperous period corresponded to when French basketball combined, in particular, a TV contract with Canal + and strong support from local authorities – which declined appreciably after 1996.⁹

In 2002/03, the results of the clubs have declined compared with the previous season, owing to stagnating profits combined with an increase in the wage bill. Over a longer period, after having experienced major difficulties at the end of the 1980s and the very beginning of the 1990s (Primault, 2003), the auditing action by the financial control commission (Commission de Contrôle de Gestion) nevertheless allowed French basketball to get back on its financial feet, as the development of the net worth shows (around €10 million in June 1996; less than €1.7 million in June 2004). However, serious weaknesses remain; thus, subsidies still represent 28 per cent of club profits, showing a still considerable dependence on local authorities (Table 56.2), which also share in sponsorship profits and provide, with few exceptions, the sports centres. A more subtle analysis shows that outside difficult periods – the 1998–99 and the 1999–2000 seasons, for example – clubs still



Source: LNB (Ligue Nationale de Basket).

Figure 56.1 Average budget by club (Pro A, €000)

Table 56.2 *Financial audit of 30 June 2003*

Income	Total PRO A (€000)	Total PRO A (%)
Receipts from championship matches	3 389	6
Other match receipts	5 077	9
TV, advertising and other fees	2 396	4
Sponsors	23 993	43
Local authority subsidies	15 703	28
Transfer fees received	1 197	2
Increase in amortisation / transfer costs	1 137	2
Other products	2 630	5
Total	55 522	

Source: LNB.

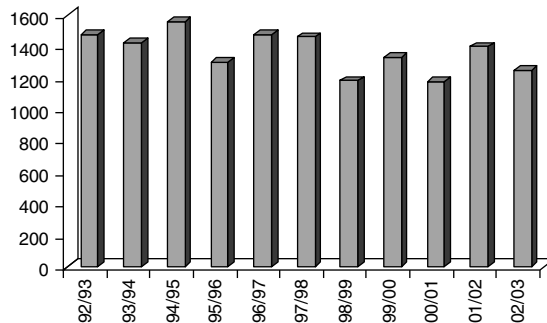
Table 56.3 *EB Pau-Orthez: income 2002/2003 season*

Income	%
Receipts from championship matches	7
Other match receipts	18
TV, advertising and other fees	6
Sponsors	40
Local authority subsidies	13
Transfer fees received	13
Increase in amortisation / transfer costs	2

Source: LNB.

turn to local representatives. Nevertheless, some clubs generate very large private financing; EB Pau-Orthez, which is more than 65 per cent self-financing with gate receipts and sponsors, is the best example (Table 56.3).

Unsurprisingly, the expenditure is dominated by salaries, which represent 40–47 per cent, without costs, and 65–75 per cent, including costs. Their average development is relatively erratic (Figure 56.2). This instability is explained by the great fluidity of the labour market and is the result of the fact that clubs use changes in personnel as a variable to be adjusted. The average annual salary for players in Pro A amounted to €91 000 in 2002/03. In 1998/99, this salary was €98 000, given that this average is less and less significant as segmentation increases. Thus, it conveys very inadequately the distortion undergone by the wage pyramid during this period – even more so as six years ago, the gap between the highest-paid players in France and the top European salaries widened, leading to the emigration of the best French players, as well as foreign players on the European level. This trend had already appeared between the two seasons for which we have exhaustive data about the Pro A championship. Indeed, the 10 best-paid players in 1997/98 received 20.05 per cent of the total wage bill, whereas in 1998/99, they received 22.34 per cent.



Source: LNB.

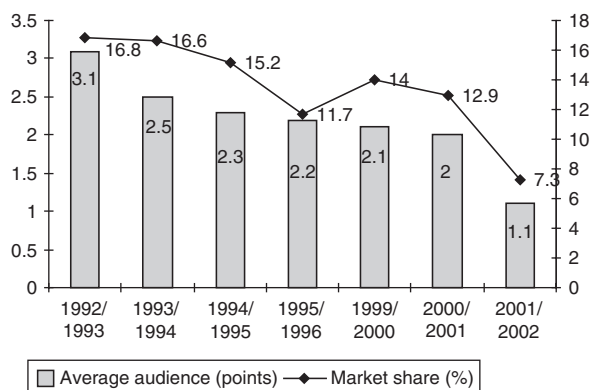
Figure 56.2 Average salaries by club out of social charges (€000)

A deficit of demand, illustrated by the missed link-up with television In the economic model of sporting events which emerged some 20 years ago, television has become the main lever; not only because of the revenue it directly generates, but also for the effect it has on other receipts (sponsorship and possibly derived products). Model SSSL has replaced financing model MMMMG (Andreff, 2000). While at the end of the 1980s basketball was broadcast on the terrestrial channels, it was subsequently excluded and then, because of low viewing figures, it was relegated to increasingly minority packages.

‘The first contract with the public service predicted, unimaginably today, in 1987, some 15 live championship matches on France 2 on Saturday afternoons. . . . With 1.5–2 million viewers (and a 20 per cent share of the market) . . . the audiences seemed however reasonable, particularly compared to those observed more recently’ (Bolotny, 2003). Basketball even had the honour of prime-time television with the live broadcast of the Limoges victory in the European final in 1993. Interest was manifest: five million viewers for about a 30 per cent market share. But audiences slowly declined and the public service gradually lost interest in basketball (Figure 56.3). Already in 1994/95, it accepted sharing broadcasts with Canal + and Eurosport for a record 74 matches broadcast live, and for a total amount of broadcasting fees of about €1.83 million. Canal + soon became the only broadcaster and, in its turn, neglected basketball in order to back the development of newly-professional rugby – basketball had lost its chance, and the number of matches broadcast decreased inexorably.

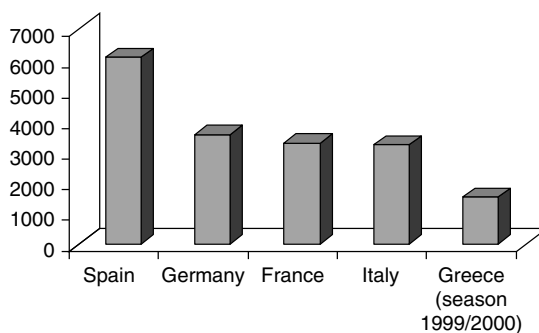
Today, basketball is broadcast by TPS Star and is received by only 1.2–1.3 million households, as part of a three-year contract and for an annual amount of €1 million in 2003/04, which also includes the matches of the French team and the Women’s League. Audience figures for this first season have been a matter of debate recently, with the average audience for the first 19 matches of the season being established at 23 558 people, for a market share of 2.8 per cent. This audience deficit shows that basketball has never even been able to bring together all its followers¹⁰ – there are more than 436 000 members of the federation in France.

European basketball as a whole is suffering from this deficit of demand and is struggling to find its place. TV audiences are often limited, even in countries with a grand tradition of watching basketball (Italy) and sports halls, except in Spain, are rarely full (Greece) (Figure 56.4).¹¹ In France, the crowds are satisfactory. A substantial effort was



Source: Bolotny (2003).

Figure 56.3 *Basketball audiences on French television*



Source: INEUM/CETAPS, Study for LNB.

Figure 56.4 *Average number of spectators per championship match*

made during the 1990s concerning facilities (new sports halls in Pau, Antibes, Le Mans, Villeurbanne and so on) to acquire more effective tools, even if it was partly cancelled out by the lack of requirement towards clubs attaining Pro A. The fact remains that the crowds have grown significantly over the last 10 years, with an average of 3400 in 2002/03, and the occupancy rate can still be improved. The reasons put forward for a certain deficit of demand – a lack of stars, a lack of major events, an image problem between ‘home-grown’ basketball (*basket des terroirs*) and American basketball – doubtless form part of the explanation, but not all. Shortcomings in the general governance of the sector in France and in Europe cannot be ruled out.

A problem of governance

At the end of the 1980s, professional basketball had the ideal opportunity to become *the* sport in France by the year 2000, but it failed to grasp the nettle and has to accept the responsibility. Indeed, on the sporting level, the LNB did not manage to impose basket-

Table 56.4 Titles won from 1990–1991 to 2002–2003 by Pro A teams still competing in 2003–2004 season

Club	Pro A Champion of France	French Cup	Week of AS	Total of titles won
Pau Orthez	2003, 2001, 1999, 1998, 1996, 1992	2003, 2002	2003, 1992, 1991	11
Limoges	2000, 1994, 1993	2000	-----	4
ASVEL	2002	2001, 1997, 1996,	-----	4
Cholet	-----	1999, 1998	-----	2
Paris	1997	-----	-----	1
Other clubs	-----	-----	-----	0

Source: MaxiBasket and interpretation by CDES, 2004.

ball as a spectator sport on the French scene (just as FIBA failed at its level). It could no longer manage to guarantee respect for the glorious uncertainty of sport. Whereas the competitive balance is not really damaged (Table 56.4), it is still the case that titles are shared out among only a few teams (Bourg, 2004). In this respect, the table is very illuminating. With its 2004 title, Pau Orthez alone has won four out of the last seven titles and has been a finalist six times! In 50 years, Limoges, Pau and ASVEL have claimed 66 per cent of the titles!

The constantly changing sporting formula has also confused spectators, and especially viewers, since it did not re-establish the exciting uncertainties, which had obviously been lacking.

Unlike its counterpart in football,¹² the LNB has not followed financial control to its logical conclusion. For several years, it allowed certain clubs – Limoges and Antibes – to live on credit, which lessened the credibility of the good work done elsewhere and actually created unfair competition within the French championship. There are indications that the LNB has not been able to establish itself with the most powerful clubs with a view to building an integrated professional sector. It should be remembered that even if clubs are bitter rivals from the sporting point of view, they are, above all, partners from the economic point of view. Even more, the economic value of sports events is very largely due to the uncertainty of sports results and therefore to the balance of power between different clubs. Consequently, leaving power in the hands of the most powerful clubs, which is basically what the LNB did, is counterproductive. Similarly, because this industry intrinsically fosters many uncertainties for all the actors (Zimbalist, 2001) – the rigidity of the production process, the difficulty in measuring the productivity of actors, the impossibility of profiting from technical progress and so on – it is extremely important to counteract these destabilising factors with clear, consistent and long-term policies. Essentially, the LNB has not managed to implement them or make them last.

Nor has the league managed to acquire the human (it has only five employees) and material resources to conduct an ambitious policy. Although basketball has significant resources at its disposal, the pressure of clubs has ensured that they have received the bulk of the profits generated by the league, to the detriment of implementing a development policy.

Finally, there has been a catalogue of missed opportunities by the LNB – for example, on the international level FIBA has never succeeded in finding an acceptable compromise between the richest clubs, which employ the bulk of the star players, and its electors, the national federations, which rely on their monopoly.

Some grounds for hope

Nevertheless, there remain real grounds for hope for basketball in France linked, in particular, to the dynamism of playing basketball, and to the overall consistency of the system of professional sport, which is based on three mainstays – training, control and solidarity.

French basketball has 436 000 federation members, of whom 39.1 per cent are women, which makes it the leading women's team sport. But, according to a recent study by Carat Sport, it could also rely on a total population of 4 367 000 regular players, of which 54 per cent are under 15.

The quality of top-level player training provides more grounds for hope. The fact that France has, along with Serbia, the greatest number of maturing players in 2003/04 in the NBA, impresses people on both sides of the Atlantic and attests to that quality. This is an asset of French professional sport, which was developed from the 1970s onwards thanks to the government (Gouguet and Primault, 2005b). In order to continue to offer this comparative advantage, the system must adapt to an economic and legal context which has been undergoing profound change since the *Bosman* case.

Finally, and even if it is less effective than that of football, the financial control of the clubs guarantees fair competition.¹³ Thanks to the decline of the wave of madness that dominated the 1990s and the difficulties encountered even today in Spain to obtain very lucrative TV contracts, basketball in France can regain the competitiveness which it has very largely lost, as long as a sound medium-term plan can be defined. This would mean that European basketball has adopted a more rational and demanding attitude – just as the Spanish league is currently doing – which demonstrates solidarity, rather than the economic liberalisation that is known to be ill-suited to the economics of professional sport (Gouguet and Primault, 2005a).

Conclusion

We have seen that French basketball provides a good illustration of the contradictions of basketball in Europe. Economically, a whisker away from rivalling the Spanish and Italians at the beginning of the 1990s, it could not fill the remaining gap and was then relegated to the second level. A producer of talent, its national teams have profited from it, but not its clubs. Politically, it hesitated between legalism and revolt, without succeeding in putting itself in a position to wield a decisive influence. Similarly, European basketball has been experiencing a deep crisis for 10 years, which has produced an organisation with neither sporting nor economic consistency. It must regain the unity of the sporting movement which still characterises most other disciplines.

But basketball has also emerged as a laboratory for professional sport in Europe:

- it must find its way, in the face of the American model, which imposes here – more than elsewhere – the pressure of its economic and cultural power; and
- in order to do that, it must redefine an integrated sports plan.

But above all, it must develop a viable economic model, which respects the history and culture of basketball in Europe, while at the same time ensuring the necessary solidarity between the different actors.

Notes

1. For further information, see Chapter 80.
2. During its conference on 23 May 1998, FIBA set 1 July 2000 as the date for the totally free movement of players; however, Europe wanted to retain the possibility of limiting the number of non-Community players.
3. They reached an agreement to cooperate in November 2004.
4. José Manuel Deus, Director of Telefonica Sport, *L'Équipe*, 17 October 2000.
5. Declared bankrupt by May 2001.
6. Basketball had already opened the door through the creation in 1998 of the Northern Basketball League, by the former Lithuanian player, Sarunas Marciulionis.
7. Greece, Turkey and, to a lesser degree, Italy experienced an economic depression after the mid 1990s.
8. Thus, for the 2002–03 season, Barça, according to former President E. Reyna, generated a deficit of €9.2 million with €4 million profit and more than €13 million expenditure!
9. Local authority subsidies to professional sports clubs have to be called into question, since the law of 6 July 2000 (no. 2000-627) authorises them, but severely limits resorting to them.
10. It is not the prerogative of France, since Italy had to content itself, during the 2002/03 season, with broadcasting half a match per week on Saturday afternoons on RAI 3; average audiences amounted to 7.04 million for the 31 matches shown in 2000/01, *Maxi-Basket*, February 2002.
11. On the other hand, ESAKE, the Greek league, could count on lucrative contracts: the Supersport channel offered €24.39 million for the 2001/02 season.
12. See the Girondins de Bordeaux affair, which although at the top in sporting terms, was relegated in 1985 for having failed the management control rule (*Conseil d'Etat*, 10 May 1991).
13. However, the damaging procrastinations with regard to Limoges should not be overlooked.

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57 Ice hockey

Marc Lavoie

Ice hockey is the fourth major league sport in North America in terms of revenues. It is well behind baseball, football and basketball, but far ahead of soccer. No hockey team appears on the top 20 list of sports teams generating the highest revenues in the world. While Manchester United and the New York Yankees topped the list at or slightly below \$250 million for 2002–03, the richest hockey team, the New York Rangers, collected only \$113 million in revenues, way below the number 20 team, Chelsea soccer club, which gathered \$134 million.

The National Hockey League (NHL), created in 1917, is *the* major league in ice hockey today. In its first seven years of operations it included only Canadian teams (hence its name). By 1926, there were two divisions, with six teams from the United States and four Canadian teams. The league was then subject to a gradual shrinkage, until it reached a six-team size (Montreal, Toronto, New York, Boston, Chicago, Detroit) in 1942. This format remained for 25 years, known as the ‘golden years’, until expansion, under threat of a rival league, doubled the number of NHL teams in 1967. By 1972, when the league was confronted with a rival major league, the World Hockey Association (WHA), the numbers had grown to 16. When the WHA folded in 1979, five of its teams were added to the NHL, making a total of 21 teams. Canadian membership reached a peak in 1981, with seven Canadian teams out of 21. Further expansion, in particular in the southern United States where ice hockey was not part of local culture, took place throughout the entire 1990s, with the NHL reaching its current (as of 2006) size of 30 teams, six of which are in Canada. Many of the current problems of the NHL are said to be caused by these more recent expansions.

As is the case of the other major league sports in North America, the NHL is a *closed* league, with no system of promotion and relegation. Professional hockey in North America is organised under the ‘farm’ system, similar to that of baseball. The main professional minor league is the American Hockey League (AHL), with 28 teams, which are the farm teams of 28 NHL teams. The major league owners help operate these teams, subsidising the salaries of coaches and players. Most players of the AHL belong to their respective NHL organisations: they were either drafted and signed when they were juniors, or they signed a contract when they were invited to a training camp, on the recommendation of a scout. There are other, lower-level minor leagues, with teams usually holding some ties with one or two NHL teams. Young players making neither the NHL nor the AHL are confronted with difficult choices: either they play in these lower-ranked North American leagues, in the hope of attracting the interest of NHL scouts; or they play in more glamorous European leagues, with many side benefits, but with the danger of being entirely forgotten.

For a long time, until the late 1970s, all players of the NHL were Canadians. In the 1980s, American players, trained in American high schools and colleges, seemed to be on their way to becoming serious rivals. It was even claimed that on-line hockey players, so popular in the American sunbelt, could become a dominant factor in the NHL by

switching over to ice hockey. However, American players now represent just over 10 per cent of all NHL players. Europeans, who were first brought in from Sweden by the rival WHA in the 1970s, come in significant numbers from Sweden and Finland, and now from the Czech Republic, Slovakia and Russia. They will soon represent nearly 40 per cent of the players. The rest are Canadian players, who still remain over the 50 per cent mark. All in all, including French Canadians, nearly half of the NHL players do not have English as their mother tongue. Today, while NHL hockey is clearly a North American business, it is run with a multi-language labour force and a strong European contingent.

NHL teams play a regular season of over 80 games, from early October to early April. In addition they play a dozen exhibition games, before the regular season starts. The main purpose of the regular season is to qualify for the play-offs. Slightly more than half qualify, 16 out of 30 teams. The play-offs are a 4-out-of-7 affair, as in basketball or baseball, with teams paired until, in the fourth round, they reach the Stanley Cup finals. This event can last until the early days of June. On average, the finalists will play about 22.5 games (Wakeford, 2003). These series are highly profitable for the participating teams, since each club finalist will play 11 or 12 additional full-capacity home games, with most of the proceeds going to the home team, while players hardly get paid, mainly earning bonuses from the league depending on how far their team gets. Each home game can bring in nearly a million dollars. Since most teams now hover around plus or minus \$10 million of operating profit, it is obvious that a successful play-off run can transform an operating loss into an operating profit for its owner.

NHL hockey has been plagued with recurrent financial problems. For a long time, until 1989, these problems seemed to affect American teams only, so much that J.C.H. Jones, who wrote the very first paper on ice hockey economics (1969), claimed that ‘the one pervasive element in the empirical analysis is the significance of the Canadian location. [This variable] is simultaneously a proxy for Canadian sporting culture and a talisman for franchise survival’ (Jones and Ferguson, 1988, p. 456). However, just a few years after Jones made this statement, two Canadian teams, from Quebec City and Winnipeg, had to be relocated in American cities. Until the rise of the Canadian dollar (relative to the US currency, from 62 to 75 cents), in 2003–04, it was widely believed that all Canadian teams, save Toronto, were in danger of being purchased by American tycoons, and relocated south. Indeed, during 2000, no Canadian entrepreneur dared to purchase the 23-time Stanley Cup winner, the Montreal Canadiens, when its owner – Molson, the Canadian brewery – decided to get rid of most of its shares in the team; in 2001 the team and its arena were eventually bought, ironically with the help of loans from Canadian financial institutions, by an American ski entrepreneur who kept the team in Montreal. But now it is clear that the situation of American small-market teams is no better, if not worse, than that of Canadian teams, as we shall see below.

Like the salaries of other North American major league sports, those in the NHL have grown to astronomical levels. Over a 45-year period, they have been multiplied by a factor of about 230; since prices rose by a factor of less than 10, *real* hockey salaries have been multiplied by a factor greater than 23 over that time span. In addition, salaries in hockey have escalated at a nearly unprecedented pace since 1989 (Table 57.1). The other episode of fast-growing salaries was experienced between 1972 and 1979, when the NHL was competing with the rival WHA for the best players. Once the WHA folded, growth rates in salaries were moderate between 1979 and 1990, especially when considered in real

Table 57.1 *Evolution of average player salary, NHL, US dollars, selected years*

Season	Average salary (\$) (a)	Season	Average salary (\$) (b)
1970–1971	25 000	1994–1995*	730 000
1977–1978	90 000	1999–2000	1 360 000
1982–1983	120 000	2002–2003	1 790 000
1988–1989	180 000	2003–2004*	1 810 000

Note: *Median salary was, respectively, \$373 000 and \$952 000.

Sources: Column (a): Lavoie (1997, p. 86); column (b): NHL data, released in 2004, except for the 2003–04 season, which comes from Simon Drouin, *La Presse*, 23 October 2003, p. S7.

terms, as inflation rates were relatively high in the 1980s. In December 1989, however, players decided to make their salaries public information, and this, with a new and more aggressive leadership in the National Hockey League Players Association (NHLPA), set off a new round of salary inflation. Also helping to drive salaries upwards were the 1988 trade that sent off superstar Wayne Gretzky to Los Angeles at double his previous salary, and an unprecedented \$3 million deal obtained by a rookie, Eric Lindros, in 1992. Salaries quadrupled within a period of six years! The collective agreement, which was signed in 1995 and renewed in 1997, did not appear to have much success in slowing down salary increases, except perhaps for the 2003–04 season. On average, over the last 15 years (as of 2004), salaries rose by about 16.5 per cent per year, whereas the consumer price index increases have been kept below a 3 per cent rate.

As theory would have it, salary inflation was fuelled by the increased ability of teams to extort larger revenues, through increases in ticket prices, new arenas, and corporate sponsorship. Another factor was the additional funds, \$570 million altogether, that existing teams collected in the form of expansion fees in the 1990s, from the nine new teams that were added to the league. None the less, it is clear that player costs in ice hockey have risen much faster than revenues, as shown in Table 57.2. Numbers gathered by the financial press show that the share of payroll expenditures relative to revenues rose from 30 per cent in 1989–90 to 41 per cent in just four years, then to 67 per cent in 2002–03. Numbers recently provided by the NHL are different: reported revenues are lower than those assessed by the media (by about 10 per cent), and the expenditure associated with players seems more comprehensive, incorporating signing bonuses, performance bonuses and all benefits such as pension plans, medical insurance and payroll taxes. But the trend is the same: according to the NHL, the player costs to revenues ratio, computed in a way which it claims is similar to the definitions of the NBA, rose from 56 to 75 per cent over the period covered by the last collective agreement.

As in European soccer, it would seem that most teams in the NHL are no longer money-making businesses. While NHL teams were still having operating surpluses (before interest payments and depreciation) during the 1989–90 season, these surpluses have gradually been eroded, falling to zero in 2001–02, and –\$4 million per team in 2002–03, according to the figures reported in the financial press. The NHL itself has issued two reports showing an operating loss of \$9 million per team for the same 2002–03 season. The NHL claims that teams on average have been making yearly losses of about half this size over

Table 57.2 Revenues, payroll costs and profits per team, NHL, selected years

	1989–90	1993–94	2002–03
<i>Financial World and Forbes data</i>			
Revenues	\$20.9	\$31.4	\$70.0
Player costs	\$6.3	\$13.0	\$47.3
Player costs share	30.1%	41.3%	67.5%
Operating profits	\$3.0	\$3.8	(\$4.1)
Profit share	14.3%	12.1%	(5.9%)
<i>NHL data</i>			
Revenues		\$28.2	\$64.2
Player costs		\$15.9	\$48.6
Player costs share		56.5%	75.5%
Operating profits		(\$1.5)	(\$9.1)
Profit share		(5.3%)	(14.2)%

Sources: Negative numbers (losses) are in parentheses. Data obtained from various issues of *Financial World* or *Forbes*; NHL data released by the NHL in 2004 (www.nhlcbnews.com/historical_results.html).

the first eight years of the 1995 collective bargaining agreement (CBA). There may be discrepancies in the figures provided by different sources, but they all point in the same direction: in the red!

There are two ways to look at these numbers. One is to take them at face value, and hence to become very much concerned about the disastrous financial situation of the NHL and the future of major league ice hockey. Indeed, there are other indications showing that the financial situation of some teams is or was in jeopardy: attendance is low in many of the new markets; recently several teams went through a bankruptcy procedure (Pittsburgh, Ottawa, Buffalo) before being salvaged; and several other teams, five by the last count in 2004, were being put under surveillance by their banks and asked to provide additional collateral. Finally, NHL data show that four teams lost more than \$30 million and eight more lost over \$10 million (out of revenues that average only \$70 million); by contrast only two teams earned operating profits that exceeded \$10 million.

The second stance is to show scepticism. The players, through the NHLPA, have claimed that an audit of four individual teams have left them convinced that net revenues were underestimated by an average of \$13 million per team. If this is the case for every team, then the NHL average \$9 million operating deficit per team would be brought back to zero. As is well known, notwithstanding the huge tax breaks provided by the ownership of a sports team (Fort, 2003, ch. 11), club owners pull various tricks to reduce their apparent profits. First, they charge themselves hefty fees for running the team. This was reportedly done for several years by Barry Shenkarow, owner of the Winnipeg Jets, allowing him to earn substantial annual management fees, while at the same time whining about the huge financial losses of the Jets, until the team departed to Phoenix (Silver, 1996, p. 155). Another strategy, for team owners who also happen to be the owners of the cable company that broadcasts the team games, is to set low fees for television rights, thus lowering the profits of the team and increasing those of the cable company. Third, a variant of this is available when club owners own their team arena, which is the case for 22 of the

NHL clubs. The company owning the venue may set high rents and keep most of the revenues from events, thus lowering the profits of the team while raising those of the venue. In this manner, team owners can argue that the franchise is losing money, and ask for public funding, under the threat of departure to another city. This is precisely what owner Rod Bryden did. When Bryden attempted to sell the Ottawa Senators to a limited partnership in January 2002, he argued that the club's operating losses could easily be transformed into a break-even situation, by amending the revenue-sharing agreement between the Senators and the Corel Centre, both of which he owned. While his figures showed that the Senators were losing \$6–8 million (Canadian) a year, they also disclosed that the Corel Centre was making a \$15 million annual gross profit, despite hosting a relatively small number of events besides hockey (Norfolk Capital and Triax, 2001). This is fairly common practice, according to a previous president of the NHL, Gil Stein (1997, p. 230).

The NHL has attempted to pre-empt this kind of criticism by asking Arthur Levitt, the former chairman of the United States Securities and Exchange Commission to provide an independent assessment of the accuracy of the aggregate financial data released by the NHL, which he did in 2004 (Table 57.3). Levitt himself commented that 'the league is on

Table 57.3 NHL Summary Statement of Operations, Combined League-wide 2002–2003 Season (US\$m)

	Regular season	Play-offs	Total
Revenues			
Gate receipts	886	111	997
Pre-season & special games	50	–	50
Broadcasting and new media revenues	432	17	449
In arena revenues	401	14	415
Other hockey revenues	82	3	85
Total revenues	1851	145	1996
Player costs			
Salaries and bonuses	1415	14	1429
Benefits	64	1	65
Total player costs	1479	15	1494
Other operating costs			
Other player costs	28	–	28
Team operating costs	259	23	282
Team development costs	69	2	71
Arena & building costs	138	7	145
General & administration	116	1	117
Advertising, Marketing, PR & tickets	126	6	132
Total operating costs	736	39	775
Total costs	2215	54	2269
Operating loss (excluding depreciation, amortisation, interest and taxes)	(364)	91	(273)

Source: Levitt (2004, Appendix I).

a treadmill to obscurity', adding that 'I would neither underwrite as a banker any of these ventures, nor would I invest a dollar of my personal money in a business which to me appears to be heading south' (*Globe and Mail*, 13 February 2004, p. B7). This led the media to offer support to the owners contra the NHLPA.

The strategy being pursued by the NHL is similar to that adopted by Major League Baseball in 2000, with the release, before starting negotiations with the players' union, of the report of the so-called 'Blue Ribbon' panel on baseball economics, which 'demonstrated' that the attempt by clubs to remain competitive led to salary and ticket price inflation, and to persistent operating losses, to the tune of \$10 million per team. The Blue Ribbon panel, which included the previous Governor of the Federal Reserve Board, Paul Volcker, also claimed that free market processes led to large and growing revenue disparities that were causing rising competitive imbalances. These, and the higher ticket prices, could potentially destroy fan interest in the game.

Along with the Levitt report, the NHL (2004a) has issued a paper covering the NHL CBA. The paper, besides showing what went wrong with the previous agreement, claims that a new agreement should provide affordable tickets, with a system designed to put up 30 competitive clubs. The authors try to demonstrate that current conditions have led to competitive imbalances, where the vast majority of player transactions are financially motivated. It is argued that 'an inability to spend competitively on players virtually precludes a club's chances for competitive success'. Low-revenue teams are said to be barred from access to the Stanley Cup. This is shown, however, by reference to the relationship between payrolls and Stanley Cup participation to the finals or semi-finals: for instance, teams with payrolls in the lower half have only achieved three of the 18 Stanley Cup final appearances over the first nine years of the existing CBA. But, there is nothing surprising here: one would expect the best players to be better paid; hence teams with good players ought to do well in the play-offs. On the contrary, the New York Rangers despite running the biggest payroll in the NHL did not reach the play-offs for five years in a row.

Fairness and competitive equity is an important issue among hockey fans (NHL, 2004b), and it certainly is a topic in sports economics. What has been the evolution of financial balance and competitive balance in ice hockey? Table 57.4 provides two dispersion measures each for revenue imbalance and payroll imbalance. The coefficient of variation is defined as the ratio of the standard deviation to the mean; the range is the differential between the maximum and the minimum values, divided by the mean. My interpretation of the data is that salary and revenue inflation, which started in the 1990s, did worsen payroll and revenue imbalances. However, while revenue imbalances in the new century are not as bad as they were towards the middle of the 1990s, payroll imbalances in the 2000s are clearly at their highest levels. Measures of skewness show that this must be mostly attributed to the behaviour of the high-payroll teams. There is thus some validity to the concerns of the officials of the NHL: payroll imbalances are worse than ever, and may be linked to the irresponsible behaviour of some team owners and general managers. Indeed, correlation coefficients between revenues and payroll are much higher now than they used to be, which would indicate that teams with large revenues now manage to obtain and retain good players and do not hesitate to spend their cash. This could be interpreted as a move from profit-maximising to win-maximising behaviour; or it could be due to owners being lured by the big payoff expected from successful play-off teams.

Table 57.4 *Revenue and payroll imbalance, NHL, 1989–2004*

Year	Revenue imbalance		Payroll imbalance	
	Coefficient of variation	Range	Coefficient of variation	Range
1989–1990	0.23	0.84	0.17	0.75
1990–1991	0.23	0.84	0.24	0.81
1991–1992	0.31	1.29	0.23	0.82
1992–1993	0.34	1.08	0.21	0.80
1993–1994	0.35	1.24	0.28	1.02
1994–1995	0.37	1.54	0.27	0.94
1995–1996	0.33	1.24	0.24	1.04
1996–1997	0.28	1.07	0.27	1.02
1997–1998	0.28	1.08	0.28	1.00
1998–1999	0.28	1.14	0.25	1.16
1999–2000	0.27	0.94	0.32	1.36
2000–2001	0.26	1.01	0.31	1.13
2001–2002	0.29	1.06	0.37	1.34
2002–2003	0.27	0.96	0.32	1.39
2003–2004	0.27	0.90	0.35	1.24
Average	0.29	1.082	0.274	1.055

Sources: Wakeford (2003) and author's calculations from data found on the website: <http://users.pullman.com/rodfort/SportsBusiness/BizFrame.htm>.

But does payroll imbalance lead to competitive imbalance? While payroll and winning percentages are indeed correlated (the average correlation coefficient between 1989 and 2002 is 0.43), competitive imbalance, however it is measured, does not seem to have worsened. Table 57.5 shows a measure of winning percentage dispersion, given by the ratio of the standard deviation to the idealised standard deviation (to take into account the length of the season). Winning dispersion in the 1990s is no worse than it was in the 'golden years' of ice hockey, and it is much reduced compared to the 1970s. In addition, the increase in payroll imbalance in the new century is associated with a reduction in performance imbalance.

It could be argued, however, as do officials of the NHL, that while competition in the NHL in a given year is now tighter than it used to be (reporters say that parity in the NHL has been achieved), it is the same clubs that keep ending up at the top of the ladder. To account for this, some other approach is required, one that examines competitive imbalances *through time*. One can compute the correlation coefficients in the winning percentage of teams, from one year to another, as is done by Wakeford (2003). As one would expect, these winning percentage year-by-year correlations fall down towards zero almost continuously as the lag being considered gets larger. Here, for space considerations, Table 57.6 only shows correlation ratios going back three years. The lesson to be drawn is quite clear: correlation between present and future performance is much weaker than it used to be. It is harder for good teams to remain at the top, and poor teams improve more quickly. Whether this is due to the more liberal collective agreement, the

Table 57.5 Dispersion measure of winning percentage, NHL

Year	Ratio	Decade	Ratio
1989–1990	1.686		
1990–1991	1.868	1920–1929	1.61
1991–1992	1.716	1930–1939	1.53
1992–1993	2.660	1940–1949	1.69
1993–1994	1.875	1950–1959	1.88
1994–1995	1.541	1960–1969	1.90
1995–1996	2.092	1970–1979	2.54
1996–1997	1.411	1980–1989	1.91
1997–1998	1.742	1990–1999	1.84
1998–1999	1.747	(2000–2003)	1.68
1999–2000	1.791		
2000–2001	1.858		
2001–2002	1.581		
2002–2003	1.592		

Sources: Fort (2003, p. 155) for decade ratios, except the 1990s decade and thereafter, which comes from Wakeford (2003), along with all yearly ratios.

Table 57.6 Performance imbalance through time: winning percentage correlations, NHL

Season	1 year into future	2 years into future	3 years into future
1989–90	0.96	0.92	0.85
1990–91	0.93	0.88	0.68
1991–92	0.90	0.74	0.72
1992–93	0.76	0.80	0.74
1993–94	0.91	0.87	0.84
1994–95	0.94	0.86	0.87
1995–96	0.87	0.80	0.69
1996–97	0.91	0.84	0.80
1997–98	0.87	0.84	0.65
1998–99	0.89	0.67	0.63
1999–2000	0.65	0.60	0.34
2000–2001	0.62	0.51	
2001–2002	0.50		

Source: Wakeford (2003, Appendix B).

influx of European players, new defensive strategies or the dilution of talent remains to be determined. That competitive imbalance through time has been reduced is also ascertained by Richardson (2000), on the basis of a similar analysis devoted to play-off results of the 1980s and 1990s.

The major problems facing the NHL thus seem to be financial rather than related to a lack of competitive uncertainty. The financial difficulties that we have alluded to above

are often attributed to what is said to be a poorly designed CBA signed in 1995. But how bad was that CBA for the owners? When the agreement came out, ending the owners' lock-out of 1994–95, all observers thought that the owners had clearly won the battle. 'It looks like owners won this round', says Fort (2003, p. 294), among many others. In 1995, the players gained ground on a single issue – unrestricted free agency for 31-year-old players. Their other gains were negative: they avoided the imposition of a payroll cap and the creation of luxury taxes. On the other hand, the owners succeeded in getting several restraining features – restricted salary arbitration and rookie salary caps – that should have helped reduce salary inflation. All these efforts were hampered, however, by the lack of discipline of the owners and that of their general managers, the latter finding ways to evade the spirit of the collective agreement as soon as it was put in place.

As a response to all this, the NHL commissioner imposed a 301-day lockout (and the entire 2004–05 NHL season cancelled), which ended with the signing of a new collective agreement, valid from 2005 to 2011. Players were forced to surrender on all counts. First, all existing salary contracts were automatically reduced by 24 per cent. Second, the owners imposed a much sought-after payroll cap – \$39 million, accompanied by a payroll floor of \$22 million. This means that some teams had to halve their payroll between 2003–04 and 2005–06. To help small-market teams achieve the floor, there is an undisclosed amount of revenue sharing among clubs. Third, if this did not do enough, players cannot earn more than 54 per cent of league revenues; to insure this, an escrow tax has been put in place, with a certain percentage of players' salaries being withheld in case this ceiling has been exceeded. Fourth, there is now a limit to the salary of an individual player: he can earn no more than 20 per cent of his club total annual compensation. Fifth, rookie salaries, performance bonuses, qualifying offers and access to salary arbitration have been severely constrained. The only good news for the players are that the minimum salary has been pushed up to nearly half a million dollars and that the age required to access unrestricted free agency will be progressively lowered from 31 to 27 years old. The new collective agreement in the NHL looks like that of NBA basketball; now one needs a lawyer to go through it.

What is the future of NHL hockey? Some observers claim that it is bright since salaries, relative to revenues, are now under control. Others think that it is rather gloomy. The NHL owners themselves estimated that overall revenues in 2005–06 would fall out by \$200 million relative to the 2003–04 season, due to hockey falling into oblivion in the sunbelt, as well as the negative response of frustrated fans as happened in baseball after the 1994 strike. This reduction in revenues did not occur however. Still, the NHL is facing a dilemma. It would like to orient itself towards a more general audience, to increase its popularity in the USA, and hence obtain a lucrative US national television contract which would improve upon poor media revenues. But this contract looks as elusive as ever, with the NHL executives acting on the premise that fighting and violence sell. As the most recent attendance study demonstrates, this belief is not without foundations, as a number of die-hard fans come to watch their home players fight and ram opponents into the boards (Paul, 2003). The Toronto *Globe and Mail*, which is the leading newspaper in Canada, has run an editorial series entitled 'How to save Canada's game' (10–14 April 2004), deploring the short-sightedness of NHL officials. The editors argue that the NHL missed a golden opportunity, in the 1990s, when 24 teams were building new arenas. They should have made the ice rink surface bigger, like in Europe, to accommodate the faster

and bigger hockey players, so as to improve the relevance of skill play and fast skating, as in Olympic play. Instead, players are encouraged to fight, to use their stick illegally, and to knock heads from behind. As the editors say, 'the NHL is allowing the worst elements in hockey to smother the best'. NHL culture is forestalling any progress in North American professional ice hockey; the playing rule changes introduced in 2005 may help to modify that.

The annoyance expressed by the *Globe and Mail* editors reflects the frustrations of the Canadian public, whose interest in major league hockey is declining, as people get sick and tired of watching unimaginative millionaires skate up and down the ice, while their team owners keep threatening to leave town and ask for more tax relief or new subsidies, with the support of commissioned economic impact studies. Today, many Canadians are disenchanted with NHL hockey because they see players' salaries as being out of touch with their own reality (86 per cent of Canadian hockey fans believe hockey players are over-paid, whereas only 41 per cent of the American fans believe the same: NHL, 2004b). This was made clear by the outpouring of public anger at the subsidy proposals put forth by the Canadian federal government in 2000 – which were withdrawn within three days (Whitson et al., 2000). Retrospectively, with the sharp rise in the value of the Canadian dollar, it is clear that such subsidies were totally unnecessary.

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58 The economic development of the Australian Football League

Ross Booth

This chapter begins with a brief review of the evolution of the unique brand of Australian football and the development, from the Victorian Football League (VFL) formed in 1897, of a fully-professional and national Australian Football League (AFL) comprising 16 clubs.

Analysis of clubs' finances and stated objectives suggest that AFL clubs are win maximisers (subject to breaking even financially) rather than profit maximisers. The win-maximising objective stems from the nature of club ownership. Of the 16 clubs, 10 are owned by their members, one is shareholder owned, four are owned by their respective state football commissions and one licence is held by the AFL. The objectives of the league and the changes in its governance are also discussed.

The history of labour market devices and revenue-sharing rules that the VFL/AFL has used to try to increase competitive balance is outlined. Six different periods between 1897 and 2003 are identified and the different levels of competitive balance are calculated for each year and then matched against the devices and rules used in each period. It is suggested that the high levels of competitive balance achieved in the VFL/AFL in the most recent period could well be the result of the introduction of both a national player draft and team salary cap.

Evolution of the Game of Australian Football

Not surprisingly, the game of Australian football, alias Australian Rules, is essentially an Australian invention according to esteemed Australian historian Geoffrey Blainey (2003, p. ix): it arose in the late 1850s when the various kinds of English football were still in flux and, at the beginning, it borrowed extensively from these games and especially from Rugby. Almost at once it was a distinctive game. So quickly did Australian football move in its own direction under its own momentum, and so often did it devise or adapt new rules and tactics that, within 20 years, it was far removed from Rugby and soccer and was still changing rapidly . . . the game has probably changed even more in the last hundred years.

Blainey (*ibid.*, pp. xi–xii) claims that there is little or no direct evidence for the belief that Australian football was simply an offshoot of Gaelic (Irish) football, or for the theory that Australian football is an old Aboriginal game. He also claims (p. 2) that Australian football is one of the oldest codes of football played in the world, older than American football (gridiron), Rugby League, Gaelic (Irish) football and Association football (soccer), but younger than Rugby. He points out (pp. 2–3) that the formation of the first senior Australian football clubs Melbourne (1858) and Geelong (1859) occurred before the formation of the first soccer clubs in England such as Notts County (1862) and Stoke City (1863).

The game has changed a lot over the years. The distinctive features of modern Australian football include teams of 18 players (plus four interchange players) playing

with an oval-shaped ball on an oval-shaped playing surface (135–185 metres in length and 110–155 metres in width), but with no offside rule. A match is played over four quarters each of 20 minutes. A goal worth six points is scored by a team member kicking the ball between the two goalposts, and a behind worth one point is scored either when the ball is kicked between the goalposts and the behind posts (the two of which are positioned on the outer side of each of the goalposts), or ‘rushed’ by any player between the behind posts. Players are allowed to tackle each other between the shoulder and the knee, to run while bouncing the ball and to catch or ‘mark’ the ball, the latter allowing a player to take a ‘free’ kick. However, throwing the ball is not permitted, instead it must be either kicked or ‘handballed’ or ‘handpassed’ (punched with a clenched fist).

Development of the National League: From the VFL to the AFL

The Victorian Football Association (VFA) was formed in Melbourne in 1877. In 1896, eight of the original VFA clubs broke away to form the Victorian Football League and the first season of competition was played in 1897. Over time, the number of VFL clubs in Melbourne grew and in the 1980s and 1990s clubs from cities outside Victoria were admitted. This necessitated an official name change at the end of 1989 to reflect the expansion of the former Victorian-based competition into a national competition. From 1990, the competition has been known as the Australian Football League.

The VFL began with eight clubs: Carlton; Collingwood; Essendon; Fitzroy; Geelong; Melbourne; St Kilda; and South Melbourne. Seven of these clubs were based in the Melbourne metropolitan area with Geelong located about 75 kilometres southwest of Melbourne. Richmond and University (of Melbourne) were admitted in 1908, but University disbanded before the start of the 1915 season. During the First World War, the number of clubs fell to four in 1916, and increased to six in 1917, eight in 1918, and nine in 1919. In 1925, Footscray, Hawthorn and North Melbourne joined to make a 12-team competition that continued until 1987, except for Geelong’s withdrawal during the Second World War in 1942 and 1943. South Melbourne moved to Sydney for the 1982 season and became Sydney (Swans) in 1983. Although strong state-based football competitions had long existed in Adelaide (the South Australian National Football League: SANFL) and Perth (the West Australian Football League: WAFL), it was the VFL that expanded nationally with the inclusion of the Brisbane Bears and the Perth-based West Coast (Eagles) in 1987, Adelaide in 1991 and Fremantle in 1995, making a league of 16 teams. In 1997 Port Adelaide joined the AFL, while the formation of the Brisbane Lions as a merger of the Brisbane Bears and Fitzroy kept the number of clubs at 16. In addition, two Victorian clubs have changed trading names in an attempt to become more attractive to (national) spectators and corporate sponsors. Footscray began trading as the Western Bulldogs in 1997 and in 1999 North Melbourne became the Kangaroos.

Club Objectives

The overriding goal of VFL/AFL clubs is winning and team success. In analysing the objectives of VFL clubs in the early 1970s, Dabscheck (1975, p. 178) found that club officials’ . . . ‘major objective is to see their football team win as many premierships as possible.’ In the mid-1980s, Stewart (1984, p. 7) concurs, arguing that ‘profits are seen as a secondary goal: a premiership is ranked more highly than an operating surplus’. Both authors also found that clubs were prepared to go into debt to achieve playing success.

More recently, Shilbury (1994) in a study of the strategic planning practices of AFL clubs finds that financial trading performance and on-field performance are the two most important aspects of football club management. He (*ibid.*, p. 257) describes this as ‘the utility maximising effect of voluntary administration by the president and board of directors’.

Club Ownership

The nature of club ownership in the AFL varies, and in general is vastly different from the privately-owned franchises/teams typical of the United States and Europe or the publicly (shareholder)-owned clubs often found in Europe. Most clubs in the history of the VFL/AFL have been and are member owned (now typically companies ‘limited by guarantee’) with club members normally electing the board of directors, who appoint professional managers to run the club. Until 1987, all Victorian-based clubs were member owned. North Melbourne (the Kangaroos) became shareholder owned in 1987. From the mid-1980s to the early 1990s, both Sydney and Brisbane each went through a short period of private ownership. Brisbane has now reverted to a traditional member-owned club, while the Sydney licence is AFL owned with its Board approved by the AFL. The two clubs in Adelaide, South Australia (Adelaide and Port Adelaide), and the two clubs in Perth, Western Australia (West Coast and Fremantle), are owned by their respective state football commissions which also manage football in those two states, including the SANFL and WAFL competitions.

Member ownership

Member-owned clubs have traditionally been administered by a board of directors elected by ‘financially paid-up’ club members. The aim of these club members has been not to achieve a financial return on their membership, but to assist with and to enjoy the playing success of their club. In other words, the clubs have not been profit maximisers but win maximisers subject to a budget constraint of breaking even financially. During the 1990s, member-owned clubs (and their directors in particular) seemed to become much more conscious of the need for financial viability, particularly in an environment where these clubs were fearful that the league would reduce the number of clubs in Melbourne by either merger or relocation.

Shareholder ownership

According to Nadel (1998), North Melbourne (one of the financially weaker VFL clubs) issued A\$3 million worth of shares in 1987 on the second board of the Stock Exchange, an exercise viewed by many as a fund-raising exercise. The VFL’s licence rules and North’s articles of incorporation limited individual shareholdings to 10 per cent and voting rights to 5 per cent, while the North Melbourne constitution guaranteed shareholders, but not members, the right to vote on proposed mergers.¹

State Football Commission ownership

The West Australian Football Commission (WAFC), formed in 1989 to oversee football in Western Australia, effectively owns the West Coast and Fremantle licences, the former through the company ‘Indian Pacific’ which is wholly owned by the WAFC. The board of directors of ‘Indian Pacific’ and the board of management of West Coast are in effect appointed by the WAFC. Until December 2003, Fremantle’s board of directors was

appointed by the WAFC, but an amendment to the constitution now allows Fremantle members to elect two members to the board of directors.² Until 1999, West Coast and Fremantle returned 75 per cent of any profits to the WAFC. Since 2000 the marginal profit tax rate has been 80 per cent up to A\$3 million, 70 per cent from A\$3–A\$4 million and 50 per cent above A\$4 million.³ Fremantle made losses between 2000 and 2002 and has negotiated a suspension of the profit tax for 2003 and 2004 in order to be debt free by 2005.⁴

Adelaide and Port Adelaide have sub-licence agreements with the SANFL which appoints the South Australian National Football League Commission (SANFLC) to administer football in South Australia. The board of directors of the Adelaide FC are all approved by the SANFLC, though in the last few years Adelaide members have been able to vote for up to three candidates' names to be put forward for consideration by the commission, whereas half of the directors of Port Adelaide have been member-elected since the club entered the AFL in 1997. Until recently, both Adelaide and Port Adelaide have each made a royalty payment of 80 per cent of any profits to the SANFLC. But from 2003 Adelaide has negotiated royalty payments of A\$500 000 (2003), A\$475 000 (2004) and A\$450 000 (2005), while Port Adelaide has negotiated a royalty payment of A\$225 000 in 2002 rising to A\$320 000 by 2006.⁵

Experiments with private ownership

The VFL/AFL's experiment of private ownership with the expansion teams in the northern states of New South Wales and Queensland proved to be brief and financially unsuccessful.⁶

A private syndicate headed by businessman Christopher Skase won the battle for the VFL/AFL licence for the Brisbane Bears in October 1986, but quickly ran into debt as did a subsequent private owner and businessman Reuben Pelerman before the licence was transferred to the Brisbane Bears, who put in place a traditional membership-based structure in November/December 1991, with the members nominating and electing the board of directors.⁷ The Brisbane Bears became the Brisbane Lions from 1997 after a merger with Fitzroy in July 1996.

In response to growing financial pressures, South Melbourne played 11 games in Sydney in 1982. In May 1983, the VFL agreed that it would subsidise the club and appointed a board to run the club whose name was changed to the Sydney Swans. At the end of July 1985, the VFL sold the Sydney Swans to a group led by Dr Geoffrey Edelsten. In May 1988, the Sydney club licence was sold back to the VFL until December 1988, when the VFL announced that a new private consortium which included media personality Mike Willesee had taken over for a period of five years. This group proved unsuccessful in turning the club's finances and on-field performance around and in May 1993 the AFL bought back the licence, and announced a restructuring which included the return to a traditional membership-based club.

AFL ownership

Since 1994, a board of directors approved by the AFL has managed the Sydney Swans whose licence is technically 'owned' by the AFL, but which might be thought of as being effectively 'owned' by its non-voting members. However, there are plans for two member-elected directors to be in place by 2005.⁸

Club membership and financials

Average annual club membership in the AFL was 27 821 over the three-year period from 2000 to 2002, with Adelaide having the highest (43 843) and St Kilda the lowest (19 266). There were 463 171 club members in 2003, bringing average club membership up to 28 948 with the highest being Adelaide (47 097) and the lowest Melbourne (20 555) (AFL, 2002, 2003c).

Over the three-year period from 2000 to 2002, the largest average annual profit of any club was Essendon (A\$1.425 million) while the largest average annual loss of any club was Fremantle (A\$1.610 million). On average over the same three years, the clubs approximately 'broke even' financially with an average annual loss of just A\$0.102 million (ICAA, 2003).

To summarise, the research on club objectives, the nature of the ownership, and the analysis of clubs' finances all point to win maximisation (subject to breaking even financially) being the objective function of AFL clubs.

League Objectives and Governance

In its role as 'manager of the national competition and keeper of the code' the AFL (2002, p. 4) currently has four objectives which it sees as fundamental to the game's long-term future so as to ensure that the AFL retains its position as a leader in Australian sport. The AFL's four objectives are:

to effectively manage the national competition to ensure it is the most successful national elite sports competition for the benefit of our stakeholders – our AFL clubs, the players and the public; to promote public interest in the game by building the strongest consumer brand in Australian sport; to promote high levels of player participation in well-managed programs at all levels of community football to ensure Australian Football is the pre-eminent national football code; and to maximise the economic benefits of Australian Football to our member clubs, our players, the supporters, the football fraternity and the community at large.

The development of the national league was made easier by significant changes to the governance of the league. Both Dabscheck (1973) and Stewart (1984) discuss the organisational structure of the VFL during the 1970s and early 1980s. At this time, the league was run by a board of directors, comprising one director from each of the 12 clubs. However, with clubs intent on pursuing policies in their own self-interest, the so-called 'delegate' system seemed incapable of making decisions to solve both the competitive and financial difficulties of the 1980s.

In 1983, the VFL's player rules were declared void as a common law restraint of trade (Dabscheck, 1984). In addition, in the 20 years of football between 1967 and 1986, the premiership was shared between only five of the 12 VFL clubs. Sixteen of these 20 premierships were shared between just three clubs; Carlton won six premierships in this period, and Hawthorn and Richmond five each. By this simple measure alone, it was evident that the VFL competition over this period was decidedly uneven. Moreover, by the middle of the 1980s the VFL was in serious financial trouble. Performance in terms of the VFL's objectives was poor. Attendance and club memberships were dropping, player payments had increased dramatically, half the VFL clubs were technically bankrupt and the competition was incurring heavy losses, and a group of the stronger VFL clubs were planning a breakaway to form a national competition (AFL, 1994; Linnell, 1995).

In December 1985, the VFL board of directors resolved to appoint a commission with specific powers to administer the competition, but with the board (and therefore the clubs) still exercising ultimate control. In July 1993, the transformation of the AFL's corporate governance structure was completed when the board of directors approved the recommendations of the Crawford Report. This report recommended that all powers to run the AFL competition be transferred to the AFL Commission comprising up to eight commissioners, a chairman and a chief executive officer (but with limited powers with respect to the admission, relocation and merger of clubs and also limited powers with respect to the expulsion of a club) and the AFL board of directors be abolished (AFL, 2003a).

History of Devices Used to Improve Competitive Balance

From the formation of the VFL in 1897, Booth (2000) identifies six different periods comprising various combinations of different labour market devices and revenue-sharing rules used to improve competitive balance. The most recent period Booth identifies (1985–2003), roughly coincides with the term of the commission, during which the AFL has pursued a policy of 'playing and financial equalisation' so as to improve competitive balance. A team salary cap and national player draft have been the major devices used to influence the distribution of player talent, while revenue sharing has been used to lessen differences in clubs' revenues and hence the ability of clubs to recruit and pay players.

Period 1 (1897–1914) was one of strong competition for new players, described as a period of 'free agency'. Officially the VFL was an 'amateur' competition until 1911, though there was very strong suspicion of 'under-the-table' payments being made. Transfer rules applied to current players, but uncertainty remains as to how effectively these transfer rules were enforced and whether 'signing-on' fees and/or transfer fees were common.

Period 2 (1915–29) was one where each club was allocated a geographical zone of metropolitan Melbourne from which players could be recruited. However there was keen competition between VFL clubs for country, interstate and VFA players. The period ended with the introduction of the Coulter Law.

Period 3 (1930–44) was one of metropolitan zoning, with free agency for country and interstate players. Transfer fees and signing-on fees, though illegal, were not uncommon for country and interstate recruits. Employment was also a strong inducement. The Coulter Law, a uniform maximum imposed on each individual player's wage, was imposed in 1930. Despite this maximum wage being adjusted through the period, it became much more difficult to enforce with the passage of time.

Period 4 (1945–67) begins with the introduction of what the AFL describes as a 'modified-form of gate sharing' in 1945. Television coverage began in 1957, the income from which was shared equally between the clubs. Metropolitan zoning and the Coulter Law remained the major labour market devices in use.

Period 5 (1968–84) included the geographical zoning of country Victorian (Victorian Country Football League: VCFL) players to complement the metropolitan zoning system, a transfer fee system and various schemes to control player payments. Country zoning was introduced for the 1968 season. In 1970, transfer fees, signing-on fees and contracts were allowed for each club's two permissible interstate recruits. At the end of 1971, transfer payments were allowed for exchanges of players between VFL clubs. Player contracts became increasingly common and transfer fees were prevalent into the early 1980s. An interstate player draft was introduced in time for the 1982 season. Concern was raised

over the legal validity of the VFL's zoning, transfer and player payment rules, which culminated in the courts declaring the regulations an unreasonable restraint of trade in the Foschini case in 1983.⁹ To complement 50–50 gate-revenue sharing, in 1981 an equalisation levy was charged against all cash-paying spectators, paid into an equalisation fund and then redistributed equally among all clubs. From 1982, a contribution from each adult club membership ticket was also made to the VFL club membership ticket pool.

Period 6 (1985–2003) began with the introduction of the team salary cap from 1985. The appointment of an 'independent' VFL commission in 1984, which replaced the old VFL board of directors comprising a delegate from each of the clubs, heralded a new policy direction. Zoning was phased out during this period with country zoning ending in 1986 and metropolitan zoning in 1991. The first national player draft was held late in 1986, in time for the 1987 season, with drafted players initially being 'bound' for three years, later reduced to two. A pre-season draft (for delisted, or listed but uncontracted players) began in 1989. The sale of player contracts was banned and apart from a mid-season draft from 1990 to 1993, players and draft selections could only be traded between clubs during specified times during the off-season. Senior player lists (rosters) were also introduced at the time of the player draft. A feature of the draft/salary cap system was the inability of a club to draft a player unless it could fit his anticipated salary under the team salary cap. In 1993 special assistance draft concessions were given to the three bottom teams with competitive difficulties. A minimum wage was introduced in 1994 as part of the first of a series of collective bargaining agreements (CBAs) between the AFL and the Australian Football League Players' Association (AFLPA). Recruiting concessions were given to new clubs (Brisbane, West Coast, Adelaide, Fremantle and Port Adelaide) to help them form their player lists.¹⁰

In 1997, the 'rookie draft' was introduced allowing each club to draft up to six 18–23-year-olds. Rookies could not play senior football, but could be upgraded to the senior list when another player was put on the long-term injury list, when a player was delisted or at the end of the season when player lists are lodged prior to the national draft. The 1993 national draft special assistance rules were amended in 1998, giving one priority selection prior to Round 1 of the national draft to any team that won less than 25 per cent (five or fewer) of its matches in the 22-round season.

Beginning in 1999, the team salary cap was replaced by a total player payments cap (TPPC) which included injury payments and payments for pre-season matches and finals. Moreover, the equivalent of a minimum team salary was introduced requiring a club to spend at least 95 per cent of the TPPC on player payments. Genuine marketing and promotional activity was excluded from the new payments cap. The TPPC was strongly enforced with Essendon and Melbourne in 1999, Fremantle in 2001 and Carlton in 2002 incurring large fines and the loss of national draft selections following breaches of the cap. Season 1999 was the first under the CBA for seasons 1999–2003. New minimum base payments (for 1st, 2nd and 3rd round draft selections) and new senior match payments were negotiated. A veterans' (over 30 years old) list was also introduced as part of the senior list, with only 50 per cent of a veteran's salary included in the TPPC.

From 2000, 50–50 gate-revenue sharing (after deduction of match costs) was abolished, in favour of the home team keeping the net gate. Members, reserved seat and corporate box income is not shared, so teams playing in small stadiums often had little room for

a cash-paying crowd and after deduction of match costs provided a poor return to the visitors. Clubs now have more incentive to move home games to larger stadiums with larger cash crowds. League-revenue sharing of key income streams from national broadcast rights (there is no local TV revenue), corporate sponsorship and finals remains. The equalisation levy (a levy on all match goers paid into a central fund and distributed equally among the clubs) and the 'blockbuster levy' (a levy on 'blockbuster games' between large-drawing clubs scheduled twice each season so as to maximise attendance) of A\$25 000 were retained and adjusted for 'football' inflation.¹¹

To support the 16-team competition, a Special Assistance Fund (subject to various terms and conditions) to assist clubs in difficulty was announced in November 2001, with the Western Bulldogs receiving A\$1 million in both 2002 and 2003 and the Kangaroos A\$1 million in 2003.

After broadcasting football for 45 years since 1957 (except for ABC TV in 1987), a new consortium of the Nine (free-to-air), Ten (free-to-air) and Foxtel (pay) networks secured the national TV rights ahead of the Seven network for 2002–06 for an estimated A\$500 million.¹² The major change in the players' labour market for 2002 was the reduction of the minimum team salary to 92.5 per cent of the TPPC.

A Competitive Balance Fund providing up to A\$5 million per club over a three-year period, 2004–06 (to coincide with the end of the current national TV broadcast agreement), was agreed to in 2003. Both the Bulldogs and the Kangaroos had each received A\$1 million late in 2003 for the 2004 football financial year (November–October) (Stevens, 2003). The eligibility requirement for listing a player under the father–son rule was increased in 2003 to 100 VFL/AFL games (with interstate equivalents) after being 50 for around a decade, and 20 even earlier (AFL, 2003b). A new CBA was agreed to for the 2004–08 period, which features a moderate 3 per cent growth in the TPPC in both 2004 and 2005, no growth in 2006 and to be negotiated for 2007 and 2008. Minimum senior list sizes come into effect from 2004, 37 in 2004 and 38 in 2005 and 2006 while the maximum senior list (which can now include any number of veterans) remains at 40. The total player list including (up to 6) rookies cannot exceed 44 (AFL, 2003b). During 2003, the AFL announced the future phasing out of the 15 per cent team salary cap loading to Sydney (for higher cost of living) and the 10 per cent loading to Brisbane (to help retain players in the non-traditional Australian football state) (AAP, 2003b) and their replacement with more general allowances depending on a club's number of interstate players (AAP, 2003a).

Competitive Balance in the AFL

Table 58.1 and Figure 58.1 show the competitive balance ratios (actual SD/idealised SD) for the VFL/AFL based on the teams' win percentage data for the home and away seasons between 1897 and 2003. The lower this measure of the closeness of competition in a season, the more competitive balance there is in the league.¹³ Unevenness of competition peaked in the early 1980s, with 1981 and 1982 having the highest competitive balance ratios ever. Given the prevalence of the payment of transfer fees and interstate recruiting at this time, the VFL/AFL was concerned not only about an uneven competition but also the financial health of some of the clubs. This led the Commission to re-emphasise 'financial equalisation' between the clubs and to introduce the team salary cap and then the national player draft to address these problems.

Table 58.1 *Competitive balance ratios (actual SD/idealised SD), VFL/AFL, 1897–2003*

Year	Rds	CB ratio	Year	Rds	CB ratio	Year	Rds	CB ratio
1897	14	2.1339	1933	18	2.0344	1969	20	1.6758
1898	17	2.2262	1934	18	2.2215	1970	22	1.7321
1899	17	2.1004	1935	18	2.1731	1971	22	2.1638
1900	17	1.6977	1936	18	2.0000	1972	22	2.2747
1901	17	2.1386	1937	18	1.8782	1973	22	1.8566
1902	17	2.0580	1938	18	1.7743	1974	22	1.8464
1903	17	2.1454	1939	18	1.9555	1975	22	1.6697
1904	17	1.4297	1940	18	1.3472	1976	22	1.3844
1905	17	1.8981	1941	18	2.0184	1977	22	1.9656
1906	17	1.9852	1942	15	1.9343	1978	22	1.4902
1907	17	1.1632	1943	15	1.2411	1979	22	2.0094
1908	18	1.8738	1944	18	1.9100	1980	22	2.0707
1909	18	1.9293	1945	20	1.9770	1981	22	2.3549
1910	18	2.0028	1946	19	1.7622	1982	22	2.2680
1911	18	2.1499	1947	19	1.8918	1983	22	1.5570
1912	18	1.9322	1948	19	1.7547	1984	22	1.6237
1913	18	2.2336	1949	19	1.6490	1985	22	2.0132
1914	18	2.0385	1950	18	1.9508	1986	22	1.8505
1915	16	2.0242	1951	18	1.8733	1987	22	1.6157
1916	12	1.5679	1952	19	1.8353	1988	22	1.6652
1917	15	1.2383	1953	18	1.9603	1989	22	1.7707
1918	14	1.7321	1954	18	1.2693	1990	22	1.8091
1919	16	1.9543	1955	18	2.0638	1991	22	1.8781
1920	16	2.0000	1956	18	1.7533	1992	22	1.8749
1921	16	1.5855	1957	18	0.9813	1993	20	1.6713
1922	16	1.3123	1958	18	1.4011	1994	22	1.4078
1923	16	1.3070	1959	18	1.5546	1995	22	1.8387
1924	16	1.3693	1960	18	1.6415	1996	22	1.8540
1925	17	1.9225	1961	18	1.4561	1997	22	1.1555
1926	18	2.2132	1962	18	2.0548	1998	22	1.3121
1927	18	2.0794	1963	18	1.9413	1999	22	1.7139
1928	18	2.0367	1964	18	2.1731	2000	22	1.7678
1929	18	2.2812	1965	18	1.7213	2001	22	1.8586
1930	18	1.8659	1966	18	2.2751	2002	22	1.6096
1931	18	2.1257	1967	18	1.8810	2003	22	1.7774
1932	18	2.1452	1968	20	2.0656			

Table 58.2 shows the average ratios for the six different identified periods. The average competitive balance ratio over the whole history of the VFL/AFL (1897–2003) is 1.8286. The most uneven period is free agency in period 1 (1897–1914), which has the highest ratio of 1.9520. Period 6 (1985–2003) with a player draft and team salary cap is the most even (1.7076).

In conclusion, these competitive balance ratios lend strong support to the view that in the VFL/AFL, a league comprising of win-maximising clubs, a player draft and the team

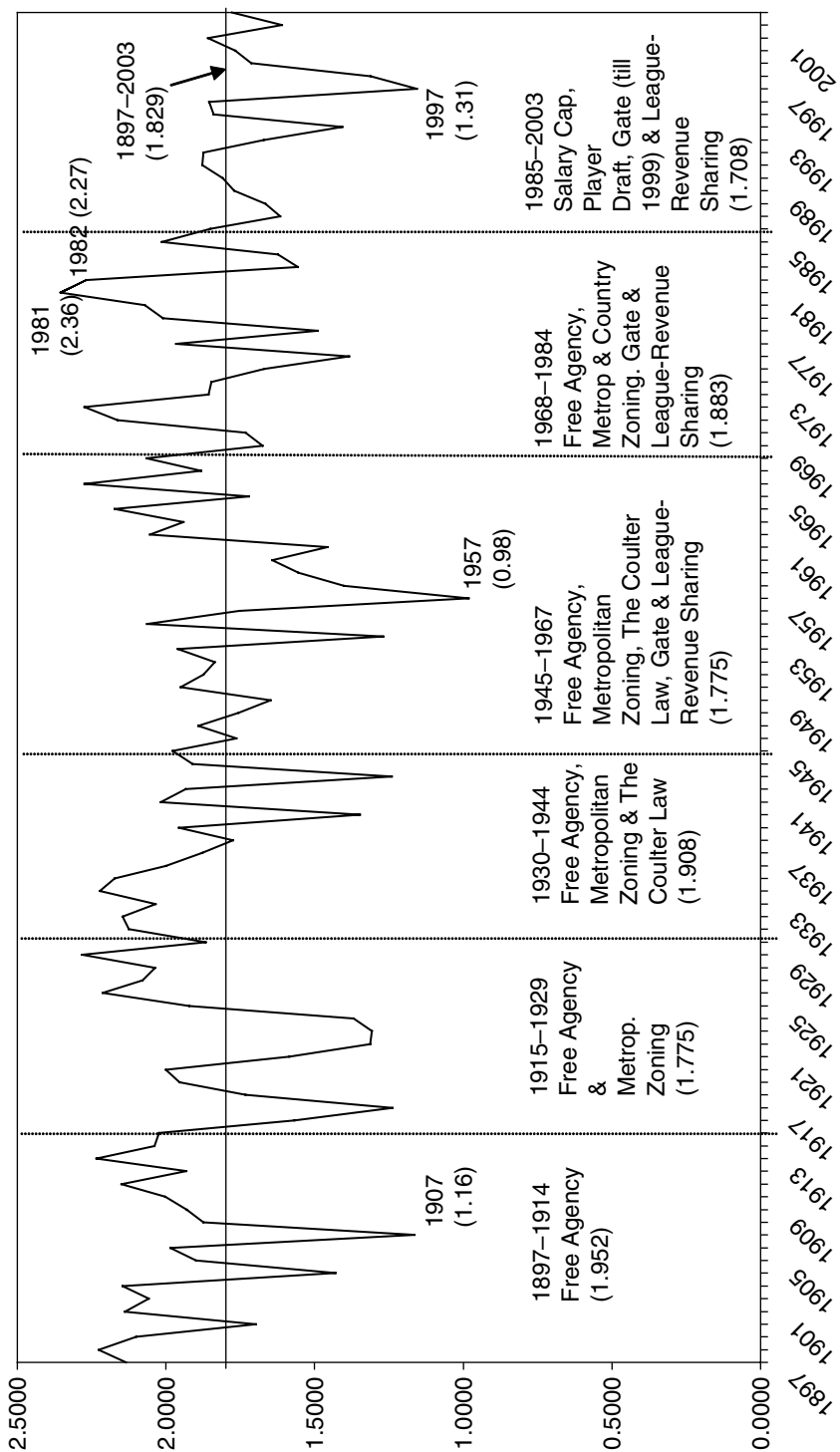


Figure 58.1 Competitive balance ratios in the VFL/AFL, 1897-2003

Table 58.2 *Competitive balance ratios (actual SD/idealised SD) VFL/AFL, 1897–2003*

Periods of labour market intervention and revenue sharing	Ave CB ratio
1. (1897–1914) Free agency	1.9520
2. (1915–1929) Free agency and metropolitan zoning	1.7749
3. (1930–1944) Free agency, metropolitan zoning & the Coulter Law	1.9083
4. (1945–1967) Free agency, metropolitan zoning, the Coulter Law, 'modified form' of gate- and league-revenue sharing	1.7749
5. (1968–1984) Free agency, metropolitan zoning, country zoning, 50–50 gate- and league-revenue sharing	1.8829
6. (1985–2003) Team salary cap, national player draft (from 1987), 50–50 gate- and league-revenue sharing (TPPC and minimum team salary from 1999, 50–50 gate-revenue sharing abolished in 2000)	1.7076
(1897–2003) Average	1.8286

salary cap have all played their part in helping to achieve higher levels of competitive balance. Moreover, during period 5 (1968–84), the 17 premierships were shared between only five of the 12 clubs: Carlton won the flag six times; Richmond and Hawthorn won four each; North Melbourne two; and Essendon won the last in 1984. In period 6 (1985–2003), the 19 premierships were shared between eight of the clubs which grew in number to 14 in 1987, 15 in 1991 and 16 between 1995 and 2003. Hawthorn won four flags; the Brisbane Lions and Essendon three each; Adelaide, Carlton, North Melbourne/Kangaroos and West Coast two each; and Collingwood one. However, three successive premierships to Brisbane in 2001–03 increased the concern of many clubs with Brisbane's 10 per cent TPPC loading, even though in none of these years did Brisbane finish on top of the ladder at the end of the home-and-away season.

Key Performance Indicators

Two of the key performance indicators of interest to the AFL are attendance and club membership. In 2003, aggregate attendance for the 176 home and away games was 5.87 million (the 3rd highest on record and up from 5.12 million in 1995, the first year of the 16-team competition) and reached 6.35 million including finals (the 4th highest on record and up from 5.96 million in 1995). The average home and away match attendance in 2003 was thus over 33 000. Aggregate club membership in 2003 of 463 171 was the largest ever, compared with 261 067 members in 1995.

Television ratings remain very strong with the 2003 AFL Grand Final averaging 3 million viewers nationally (of a population of around 20 million) and peaking at 3.5 million viewers, making it Australia's most watched sports event in 2003, while the top two internet sites in 2003 were also AFL related (AFL, 2002, 2003c).

Notes

1. St Kilda began issuing unlisted shares in 1987 which gave shareholders extra voting power compared with members. See Nadel (1998, p. 232).
2. Media Release, Fremantle FC, 'Member elected board representatives', 15 December 2003.
3. Richard Godfrey, Commercial Manager, West Coast Eagles FC, 17 December 2003.

4. Gary Walton, Chief Financial Officer, Fremantle FC, 18 December 2003.
5. Grant Rutherford, Finance Manager, Adelaide Football Club, 16 and 22 December 2003 and Brian Cunningham, CEO, Port Adelaide FC Ltd, 19 December 2003.
6. For more detail, see Hutchinson and Ross (1998) and Nadel (1998).
7. Graeme Downie, Chairman, Brisbane Lions, 18 December 2003.
8. Richard Colless, Chairman, Sydney Swans FC, 19 December 2003.
9. Unreported judgment, Supreme Court of Victoria, Crockett J, 15 April, 1983.
10. For more detail on the 1897–1996 period, see Booth (1997).
11. For more detail on the 1997–2000 period, see Booth (2000).
12. Nearly all broadcasts on free-to-air are delayed in the home market, except on pay-TV. See Macdonald and Borland (2004, pp. 310–11). See Borland and Macdonald (2003) and Macdonald (forthcoming) for a comprehensive discussion of many aspects of the operation of professional team sports leagues in Australia since 1970, including the VFL/AFL.
13. Following the approach suggested by Noll (1988) and first applied by Scully (1989) ‘competitive balance ratios’ have been used in the United States by Quirk and Fort (1992), Vrooman (1995), Berri (2001) and others to compare the closeness of competition within seasons. These ratios compare the actual performance of the league, with the performance the league would have achieved if all teams were of equal playing strength by measuring the dispersion of teams’ win percentages over a season relative to the idealised dispersion when all teams are assumed to have equal playing strengths. The less the deviation of the actual league performance from the ideal league, the greater is the degree of competitive balance. For more detail, see Booth (2004).

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59 Rugby: strategy and structure

*John McMillan**

Rugby union is a grassroots sport. Two and a half million players in 94 countries, from Andorra to Zimbabwe, take part in all manner of organised competitions. They are assorted in ability and background, and always have been. Richard Burton, the actor, played club rugby in Wales as a flanker (he described it as ‘ballet, opera, and bloody murder’). Tony O’Reilly, the businessman who headed the multinational food company H.J. Heinz, was a star winger for Ireland. Ernest Rutherford, the Nobel physicist from New Zealand who split the atom, played lock at club and university level, as did French president Jacques Chirac. In his youth in Argentina, Che Guevara, the revolutionary, played as a scrum-half and even launched a rugby magazine, *Tackle*.

Rugby union is also a professional sport. Jonah Lomu, the New Zealand wing three-quarter, is one of world sport’s recognisable faces. The Rugby World Cup is, by number of participating countries or television viewers, one of the world’s biggest sporting events.

Strategy

Rugby and soccer both derive from the game of folk football played in England since medieval times. Folk football had few rules of play: what rules there were rested on custom and varied from village to village. Any number could play, and spectators sometimes joined the fray. There was no referee, just a kind of social control by the players themselves. For hundreds of years the rules remained unwritten, until the 1860s, when national governing bodies were formed to codify them. Rugby opted to allow the ball to be carried by hand and physical tackles to be made, soccer not.¹ Later, rugby transmuted into rugby league, a simplified version of the game that arose out of a dispute over playing for pay, and American football, founded on the belief that making forward passes legal would improve the game. Today, rugby is played and watched by fewer people worldwide than its sibling, soccer, but by more than its descendants, rugby league and American football.

Rugby demands both speed and strength. In a top-level game, a player runs four to six kilometres, much of that distance at or close to sprinting speed, as well as making an average of 10 tackles and, if a forward, pushing in 30 or so scrums and innumerable rucks and mauls.

Rugby also demands, arguably more than most sports, innovative tactical thought. Among other sports, American football is perhaps most like rugby union in the breadth of its tactical options. By contrast, rugby league, for example, has less variety in types of play and therefore less scope for tactical variation. In rugby union, strategies change from season to season. Attack dominates one year and a lot of points are scored. The defensive systems have caught up by the next year and scores are lower. Then still further offensive schemes are hatched. One team dominates its opponents for a while, having devised superior tactics. Then the others work out how to counter them. ‘The game

evolves', remarked John Mitchell, coach of the All Blacks (the New Zealand national team). 'You can't live in the past with this game because if you do it bites you in the back-side' (quoted from *New Zealand Herald*, 27 May 2003).

Rugby players and coaches are, in effect, game theorists. The essence of game theory is strategic thinking: anticipating your opponents' reactions when you decide your own actions. The gist of the concept of Nash equilibrium is taking the other's strategy into account. This mindset pervades the 1906 book *The Complete Rugby Footballer* by Dave Gallaher and Billy Stead, captain and vice captain of the wildly successful 1905 New Zealand team that toured the United Kingdom and France: 'It almost goes without saying', they said, 'that tactics are as the soul of Rugby football'.

Gallaher and Stead appreciated the interactive decision making that game theorists were later to model: 'One kind of game will be played when a very powerful enemy is feared, and another one when it is realised that the opposition is strong only in a certain department'. They understood the value of the mixed strategy: 'the greater variety that a side possesses in its recognised movements, the greater are its chances of springing surprises on its opponents. It may play one set of tactics on one day and another on the next, and it may reserve a few peculiar movements for use only very occasionally'. They stressed strategic innovation: 'One must always be searching for some new construction, some new movement, the very ingenuity of which will flabbergast the enemy; and the side which has most of these will be the strongest'(ibid., 135–8).

Fred Allen, coach of the All Blacks in the 1960s, is renowned for his strategic thinking: 'Rugby is a simple game', he said, 'But here's the rub: while you and your fourteen teammates are trying the run or kick the ball for profit, the fifteen men of the other team are not only actively opposing your intentions but are cooking up scoring schemes of their own'. Like Gallaher and Stead he worked with mixed strategies: 'Each side, and each player on the side, must have their recognised ruses. A ruse can seldom be tried more than once in a game, but every ruse has, as it were, a double edge. When you have cut with it one way, you can turn round and cut with the other. You gain by the mystery you create'. Like Gallaher and Stead, also, he thought in terms of anticipating the opponents' reactions. Praising the great fullback Bob Scott, he said Scott had 'developed such confidence that he turned his rugby into the sort of chess of a master-player – he thought at least two moves ahead'(Allen and McLean, 1970, 1, 9).

Wayne Smith, the All Black coach in 2000–01, does what he calls 'reverse analysis' of each opposition team, by which he means thinking, like a game theorist, in terms of best responses: 'We look at how we think they'll be looking at us, how they think we'll play, where they think our strengths and weaknesses are, and we'll try to adapt accordingly' (quoted from *New Zealand Herald*, 28 July 2001).

Tactical innovation accelerated in the mid-1990s. Matches became more open and more appealing to spectators. Speed was emphasised. Attacking ploys multiplied. The typical game plan switched from striving not to lose to striving to win. The new style of play came after the stakes increased as rugby turned professional.

Professionalisation

Before 1995, rugby was officially amateur. The game was big business, and it was common for players to receive under-the-table payments, but the rugby authorities refused to acknowledge this. In 1995, the pretence ended abruptly. Driven by the threat of a rival

league starting up and bidding the top players away, the rugby authorities bowed to the inevitable and made the game openly professional.²

Television was behind the shift to professional play. The explosive growth in broadcasting revenues through the 1990s transformed many sports, and especially rugby. One Australian television network (run by Kerry Packer) funded the threatened breakaway league, and another (run by Rupert Murdoch) provided the broadcasting-rights contract that pre-empted the breakaway and bankrolled the nascent professional game.

Change, once it finally came, was sweeping: 'We had to acknowledge the changes which had taken place', said Vernon Pugh, the chairman of the International Rugby Board (IRB). 'The southern hemisphere had put building blocks in place for professionalism. There was no point in fiddling about. It was too late for evolution' (quoted by Tim Glover, 'Pugh: rugby's navigator on a rocky road', *Independent*, 27 April 2003).

The switch to professionalism called for changes not only on the field of play but also in organisational structures. The sport's administration had been amateur in the negative sense of the word. Quality management suddenly became needed, but it was not always forthcoming. Will Carling, the captain of the England national team, in a 1995 television interview called the committee running English rugby 'fifty-seven old farts'.

England's administrators, the Rugby Football Union (RFU), picked a fight over television revenues with France, Scotland, Wales and Ireland. The resulting impasse almost destroyed their historic tournament. Another bitter dispute erupted between the RFU and the clubs over the terms for the clubs' releasing of players to play for the England team and over the division of television revenues. The upshot was that a separate new body, an association of the leading clubs, was set up to run England's domestic competitions. In 2000, the top English clubs threatened to break away from the RFU. The tensions continued through 2003.³ The clubs were complaining about the amount of time their stars were away playing for the national team. There was a dispute over clubs' rights to membership of the Premier Division: the RFU argued for end-of-season relegation of the bottom-placed club and promotion of the first-placed lower-division team, while the Premier clubs argued for a closed shop. Most of the clubs were reportedly not covering their operating costs, because, they claimed, of the high salaries they were paying their players – which would seem to be an admission of business ineptitude.

English rugby, 'resembles nothing so much as post-Soviet Union Russia', Huw Richards wrote in the *Financial Times* just after the advent of professionalism, 'having shifted almost overnight from the constrictions of a wholly regulated system to having few rules, galloping inflation and a desperately uncertain future'. The organisational shortcomings gave rise to a 'shambles' in Europe's first season of professional rugby, Richards continued, 'a consequence of the nobody's-in-charge anarchy, with clubs and unions apparently bent on mutually assured destruction'.⁴

The 'shambles' was, however, specific to the UK. Elsewhere, rugby's administration adapted more effectively. To extend the post-communist analogy, in New Zealand (and Australia, France and elsewhere) the transition to the new order more resembled China's successful reform path than Russia's disappointing one. By contrast with Russia, where the reformers destroyed the mechanisms of the old regime and started with a clean slate – and the economy went into a tailspin – in China the reformers left the old mechanisms in place and built the new system around the old – and the economy boomed (McMillan, 2002, ch. 15). Whereas in England change was radical, in New Zealand professional rugby

was grafted on the existing hierarchy of club, provincial and national levels, and the transition to professional play went relatively smoothly. The New Zealand Rugby Union (NZRU), whose members are elected by the provincial unions, continues to organise both the national team and the domestic competitions. Retaining some degree of central control, the NZRU is able to balance the demands of the national team with those of provincial and club teams; the national team gets precedence.⁵

Rugby's governing bodies saw a rapid increase in their revenues following professionalisation. Between 1995 and 2000, the NZRU's annual income rose more than fivefold (Owen and Weatherston, 2004a, Figure 1). This windfall came from television fees and sponsorships, which in 1995 were small and by 2000 were 90 per cent of total income.

Tournaments

The ordinary recreational player is rugby's bedrock, professionalisation notwithstanding. Among the 94 countries that belong to the IRB as of 2003 (see Appendix Table 59A.1), England has the most registered players, with 640 000; then South Africa with 430 000, France with 250 000, and Australia, Japan and New Zealand with 130 000 each.

Countless local club tournaments are held, from the serious to the pleurably casual. 'My playing career was spectacularly undistinguished. However, I enjoyed bargaining about and using my considerable weight, in a lumpen sort of way, at loose head', says British writer Mike Seabrook, speaking for thousands just like himself. 'And later on I found that even if I did play the game like an ox on an ice-rink, there was still room for a substantial contribution for a drinker of my abilities in the clubhouse afterwards' (Barnes and Seabrook, 1995, 72).

A nationwide professional or semi-professional tournament is held in most of the major rugby nations, involving either elite clubs or regional teams: the Currie Cup in South Africa, the French Championnat, the English Premiership, the Welsh Premiership, the Super League in the United States, New Zealand's provincial championship and so on.

International tournaments for club or regional teams are a relatively new feature of the sport. The European Cup involves the top clubs from France, Ireland and the UK. The Super 14 pits regional teams from Australia, New Zealand and South Africa.

For national teams, two major competitions are held annually. In the northern hemisphere, the Six Nations tournament pits the national teams of England, France, Ireland, Italy, Scotland and Wales. In the southern hemisphere, the Tri-Nations tournament involves Australia, New Zealand and South Africa. An itinerant World Sevens tournament – an abbreviated version of the game, with seven players per team instead of the usual 15 – runs each year.

The World Cup, held every four years, is rugby's showcase (see Table 59.1). The winners have been New Zealand (1987), Australia (1991), South Africa (1995), Australia (1999) and England (2003). The Women's World Cup, held in 1998 and 2002, was won by New Zealand both times.

The reigning Olympic rugby champion, incidentally, is the United States, which won with a team from Stanford University in Paris in 1924. Rugby has not been at the Olympics since then, although there have been periodic moves to reinstate it.

Table 59.1 *Rugby World Cup*

	Teams	TV broadcasts	Live viewers
1987 in New Zealand & Australia	16	17 countries	600 000
1991 in England & surrounds	16	103 countries	1 000 000
1995 in South Africa	16	124 countries	1 000 000
1999 in Wales & surrounds	20	140 countries	1 750 000
2003 in Australia	20	200 countries	1 870 000

Sources: www.news24.com/News24/RWC_2003/Features/0,,2-1529-1532_1421857,00.html;
www.worldcupweb.com/wcrugby/records.asp; www.worldcupweb.com/wcrugby/donews.asp?ID=1746.

Organisation

Competitive balance is an issue for any sports league. If the competition were to become unbalanced, so that the outcome of the games was easily predictable, then any tournament would risk becoming boring, to the cost of live and television viewership (McMillan, 2002, ch. 10). Competitive balance is an issue in some of rugby's competitions.

In national-team tournaments, like the World Cup, the Six Nations, and the Tri-Nations, not much can be done to foster competitive balance, a player's nationality and therefore the team he plays for being more or less fixed. However, the IRB might improve the worldwide competitive balance if it were to change its eligibility rules, applying them differentially. It could loosen the rules defining the players' nationality for lower-ranked teams like Samoa and the United States, while retaining the existing strict nationality rules for higher-ranked teams like Australia and France. The IRB's current rules allow a player to be qualified for a country via his own or his parents' or his grandparents' nationality, so a player may be eligible to play for more than one country. Once he has represented one country, however, he may not then play for another. The IRB could perhaps relax this rule, so as to favour the lower-tier countries, by permitting former major-country players who satisfy the other nationality criteria to switch to playing for lower-tier countries. An ex-All Black of Samoan extraction, for example, would be allowed to play for Samoa. By strengthening the lower-ranked teams, such a rule change could bring better-contested and more exciting international matches. (In 2004, such a proposal was put before the IRB board but the IRB, with its penchant for dim-witted decisions, rejected it).

In domestic professional tournaments, various competitive-balance mechanisms are in use. In New Zealand's provincial competition, there is regulation of player movement between teams, revenue sharing (of the gate from international games and of television and sponsorship earnings), and promotion and relegation. Competitive balance does not seem to have been achieved, however, as two teams, Auckland and Canterbury, disproportionately win the title. In England's club competition, there is a salary cap (which is, however, reported to be routinely abused), the sharing of television revenues, and promotion and relegation.

The competition-policy authorities have on occasion probed rugby's organisational rules, questioning the constraints that the rugby unions have placed on the teams' off-the-field competition. In 1996, the New Zealand Commerce Commission examined the

NZRU regulations on player transfers among provincial teams. Its preliminary judgment was that the transfer rules amounted to price-fixing in the players' labour market. It later reversed itself, however, finding that, although the rules breached certain sections of the Commerce Act, any detriments from the lessening of competition were outweighed by their public benefits. The commission's chairman Allan Bollard concluded, 'the benefits to the public flowing from a more even National Provincial Championship are likely to be of a reasonably significant size, even when calculated conservatively'. In 2003, the UK Office of Fair Trading investigated whether the 12 English premiership clubs had been operating as a cartel. It was alleged that the incumbent clubs had blocked access to the top league by preventing promotion and relegation from being implemented.⁶

The labour market for players and coaches has gone global. Clubs in Japan, Italy, France and the UK bid for players, both stars and journeymen. Australia, New Zealand and South Africa have decreed that those who play overseas are ineligible for selection in the national team. This prevents most at the very top of the game from leaving, but others go. In 2002, it was reported that 650 New Zealanders, including some former All Blacks and some who had been close to All Black selection, were playing for pay overseas.⁷ This is enough to man about 25 squads. Some players looking overseas could influence wage setting domestically. If their teams attempt to keep them by raising their pay, then pressures to maintain parity will push up the other team members' pay. The global market puts a floor on players' earnings, and perhaps limits the effectiveness of mechanisms like a salary cap. English clubs, under a salary cap, reportedly find it hard to retain their star players in competition with French clubs, with no salary cap.

Questions

Little has been written on the economics of rugby union. There is just a single econometric study – Owen and Weatherston's (2004b) pioneering inquiry into the determinants of match attendance in the Super 12 – and there are three other articles – McMillan (1997), Owen and Weatherston (2004a) and Thomas (1997) – on the organisation of the sport in New Zealand and the UK.⁸

Rugby's mix of international and local tournaments raises some questions. Does the design of the domestic competition affect the national team's performance? Does the national team perform better when talent is dispersed through the domestic teams, or does it help to have a single domestic team that is dominant? For grooming players for the national team, how does a system of elite clubs, as in England, compare with a hierarchical system of local clubs feeding into selective regional teams, as in New Zealand? What are the consequences of the globalisation of the players' labour market?

Rugby is a promising test case for theories of sports organisation. How much does competitive balance matter?⁹ How can the clubs and the rugby unions best address the competitive-balance externality (all teams benefit from the competition being balanced but each, individually, has little incentive to foster it)? The range of structures of competition in the various tournaments provide data that could be used to compare the efficacy of alternative competitive-balance policies. For example, alongside the New Zealand domestic competition, with its promotion and relegation incentives, is the Super 14, without promotion and relegation but with considerable central control. What is the optimal design of a tournament? Can rugby put to use the recent thinking on the principles of sporting-contest design? (Szymanski, 2003).

Rugby's methods of organising its tournaments might contain lessons for other sports. Competitive balance is the focus of much of the debate about the right way to organise sporting leagues. But creating a balanced competition is not the only way to ensure spectator engagement. As with a handicap in a horse race, the authorities can make an uneven contest exciting for spectators by appropriately designing the rules governing the contest. The Super 14, for example, tallies tournament points in a novel way. In addition to the four points a team gets for a win, bonus points are on offer: one for scoring four or more tries and one to a losing team for getting within seven points of the winner. Whereas a low-scoring game yields four points to the winner and none to the loser, a high-scoring game could yield the winner as many as five points to the winner and two to the loser. The popularity of the Super 14 – it is televised worldwide – suggests the bonus points have their intended incentive effect. Rewarding a team scoring by tries rather than by penalty kicks, and rewarding continued efforts to score by both teams even if one is far ahead on the scoreboard, bonus points enhance the spectators' enjoyment. Does a bonus-point system like the Super 14's, creating incentives for attractive play by both teams even if the match-up is one-sided, reduce the need for policies addressed at competitive balance?

With rugby's worldwide scope, it deserves more analysis than it has so far received. Many questions remain to be answered.

Appendix 59A

Table 59A.1 *Player numbers worldwide*

Country	No. of players	Country	No. of players	Country	No. of players
Andorra	459	Guyana	270	Romania	2 987
Arabian Gulf	2 305	Hong Kong	5 342	Russia	8 700
Argentina	50 160	Hungary	1 489	Samoa	14 263
Australia	127 801	India	2 900	Scotland	33 600
Austria	400	Ireland	52 000	Senegal	310
Bahamas	284	Israel	1 100	Serbia	3 450
Barbados	100	Italy	39 856	Singapore	7 200
Belgium	4 121	Jamaica	3 570	Slovenia	820
Bermuda	120	Japan	133 330	Solomon Is.	780
Bosnia	635	Kazakhstan	2 400	South Africa	434 600
Botswana	425	Kenya	6 000	Spain	14 390
Brazil	2 000	Korea	1 604	Sri Lanka	65 850
Bulgaria	1 645	Latvia	520	St Lucia	72
Cameroon	700	Lithuania	1 620	Swaziland	594
Canada	16 500	Luxembourg	605	Sweden	2 840
Cayman	1 247	Madagascar	9 126	Switzerland	1 830
Chile	13 710	Malaysia	14 190	Tahiti	1 150
China	3 760	Malta	1 027	Thailand	2 900
Chinese Taipei	1 225	Moldova	1 270	Tonga	7 788
Colombia	460	Monaco	240	Trinidad	1 750
Cook Islands	1 000	Morocco	8 935	Tunisia	3 920
Côte d'Ivoire	5 962	Namibia	13 000	Uganda	4 500
Croatia	1 490	Netherlands	6 560	Ukraine	2 040

Table 59A.1 (continued)

Country	No. of players	Country	No. of players	Country	No. of players
Czech Rep.	2 495	New Zealand	133 400	Uruguay	3 750
Denmark	2 722	Nigeria	780	USA	37 430
England	641 260	Niue	440	Vanuatu	1 000
Fiji	60 000	Norway	450	Venezuela	850
Finland	148	PNG	3 100	Wales	59 900
France	252 638	Paraguay	1 740	Zambia	6 000
Georgia	6 492	Peru	550	Zimbabwe	17 625
Germany	4 200	Poland	2 250		
Guam	239	Portugal	3 958		

Source: International Rugby Board, www.irb.com/, 31 March 2003.

Notes

* I thank Dorian Owen, Clayton Weatherston and Justin Wolfers for useful discussions.

1. On the origins and early history of rugby, see Macrory (1991) and Richardson (1995).
2. This episode is described in the best book on the organisational side of the sport, FitzSimons (1996). For more on the process of professionalisation, see Owen and Weatherston (2004a).
3. See Malin (1997); Thomas (1997); Paul Rees, 'Premiership goes cap in hand', *The Guardian*, 25 March 2003.
4. Huw Richards, 'A primitive form of warfare', *Financial Times*, 4 May 1996, p. 1; Huw Richards, 'Euro sceptic fans are conquered', *Financial Times*, 16 November 1996, p. XI.
5. New Zealand's administrators have committed bungles of their own, notably the loss of the status of sub-host for the 2003 World Cup through a combination of misunderstandings and over-aggressive negotiating.
6. See McMillan (1997); Paul Rees, 'OFT set to end closed shop', *The Guardian*, 19 March 2003.
7. According to Paul Verdon, 'Is our national game truly losing ground?', *National Business Review*, 20 September 2002.
8. Nothing else shows up in searches in Econlit and discussion-paper archives.
9. The answer from Owen and Weatherston (2004b) is: in the Super 12, not much.

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60 The economics of professional rugby

Pierre Chaix

It is only recently that sport has become an economically important activity. Initially, sport was dominated by a combination of Anglo-Saxon and 'Coubertin' ideas of amateurism and non-paid voluntary organisations, and its development as an economic activity has been a gradual process. Today, playing and watching sport is big business. It is also an important means of communication, with the involvement of advertising agencies, financial backers and the media. For example, the 1998 football World Cup in France attracted 38 billion TV spectators. The number of international sporting competitions has grown enormously over the last 100 years. There were less than 20 sporting events of world importance in 1914 (Wimbledon started in 1877, the Olympic Games in 1896, the Tour de France in 1903, the Five Nations Tournament in 1910), but this had grown to more than 850 in 2003 (Bourg, 2004). Sport has evolved in response to the demands of the market.

Rugby is a young professional sport. Its transformation to a professional sport in 1995 was a revolution for rugby's national and international governing bodies that had been little inclined to change. Ten years after rugby turned professional, it is interesting to review the changes that have occurred. The audience for the last rugby World Cup in 2003 clearly established the importance of this event, placing it in the all-time top 10 of sporting events (Table 60.1).

There was a lengthy period of debate and conflict over rugby becoming a professional sport. The organisation that exists today is the result of this long history, marked in the beginning by a rejection of a 'marketplace' philosophy that is gradually being imposed by current economic realities. The process of professionalisation, facilitated by media

Table 60.1 The world's top 10 world sporting events in terms of total audience since 1996

Classification	Event	Year	Total audience (bn)
1	Football World Cup (France)	1998	38.0
2	Olympic Games (Sydney)	2000	36.1
3	Olympic Games (Atlanta)	1996	33.5
4	Football World Cup (Japan/S. Korea)	2002	28.8
5	Winter Olympics (Salt Lake City)	2002	13.1
6	Winter Olympics (Nagano)	1998	10.7
7	World Athletics Championships (Paris)	2003	4.5
8	World Athletics Championships (Edmonton)	2001	4.0
9	Rugby World Cup (Australia)	2003	3.4
10	World Athletics Championships (Athens)	1997	3.3

Source: Adapted from: International Rugby Board, *La lettre de l'économie du sport*, no. 674, 12 September 2003.

coverage of the sport, has imposed itself on rugby's ruling bodies, who face the twin problems of economic globalisation of sport and the current financial and sporting crisis confronting rugby.

The Professionalisation of Rugby

Football and rugby union started around the same time and they experienced the same debates and struggles. Some 130 years later, football has evolved at a regular pace, but rugby regressed at the end of the nineteenth century, and only returned to being a professional sport in 1995.

During the nineteenth century, England created many modern sports, partly by establishing the games' rules within the school system. The organisation of these physical activities in public schools soon developed and became broadly franchised with the setting up of the different governing bodies. The Football Association was created in 1863, and in 1871 the Rugby Football Union was established with the aim of developing and unifying rugby. Standardisation of the rules and the establishment of the two unions favoured the spread and development of these two ball games that soon ceased to be monopolised by the upper and middle classes. Additionally, the setting up of official competitions gave a new impetus to these sports. In 1876, the Yorkshire Challenge Cup was created by a textile manufacturer and was an immediate success. The appeal of competitions attracted considerable numbers of spectators. The games' economic foundations, based on the laws of supply and demand, were gradually consolidated, notably via developments in the organised selling of tickets, that was initially a disorganised and 'underground' activity. It then became possible to pay players – which enabled good players to transfer, or be transferred, between clubs. There was thus a strong current to establish rugby as a professional sport within the framework of the marketplace.

However, rugby refused to go along with the marketplace philosophy. The professionalisation of football had developed during a time of social calm. If, around 1880, relations were relatively harmonious between the different social classes, there was a rupture of this consensus with an upsurge of major social conflicts at the beginning of the 1890s. The elite public schools that, at the time, were involved in football, began a retreat into their own closed community. Subsequently, they abandoned football and turned towards the authentic amateurism of rugby XV, which became increasingly socially selective. They kept control of rugby and maintained a unified national system for the organisation of the game and its rules. The aim was to keep rugby independent of the constraints and obligations of the marketplace. During this period, one of the expressions of social conflict in England was the strictly amateur ethos that applied to the majority of sports and games – the principal purpose of a sport was that it should be a pleasurable activity for the players, not a paid employment. If the competitive spirit was to be encouraged as educationally useful, winning was not to be thought of as an end in itself. It was assumed that professionalism was inherently at odds with the essence of sport. When the public school gentlemen began to be beaten by players from the lower classes, at what they thought of as their own game, their response was amateurism (Sheard, 2001). The social upheaval in England in the 1890s was the origin of the refusal to allow professional status into rugby and the subsequent implementation of hard-line amateurism. But it was impossible to maintain a unified national structure and rules, and the intense social unrest of the period led to a schism (Dunning and Sheard, 1976). In 1893, the Rugby Football Union (RFU) opposed

professionalism in the sport. In 1895, the drafting of draconian rules drove northern clubs to split off. They formed the Northern Independent Rugby Union which, a few years later, modified some of the rules, became 13-a-side rugby and created Rugby League.

In 1886, the rugby unions of Scotland, Ireland and Wales created the International Rugby Football Board, joined by England in 1890. This wholly British body was one of the first international unions. It controlled world rugby by retaining the responsibility for encouraging the overall promotion, development, extension and management of the game of rugby. It defined the statutes, regulations and rules of the game. The supporters of the amateur ethos had an iron hand on British and world rugby, which had new life breathed into it only a century later, at the end of the 1980s. The board was always protectionist and monopolist. New members were not admitted until 1949. And the only new members were the former colonies of Australia, New Zealand and South Africa. France had played its first international match in 1906, but was not accepted onto the board until 1978.

So, from 1895 until 1987, rugby was isolated from the market forces that were influencing other sports on the international stage: no rugby world championship, no participation in the Olympic Games. Without European club competitions, international exchanges were kept to a minimum, with the Five Nations Tournament and rare tours between the members of the board. Even national championships were affected. The board pressed the French to abolish their championship, with the aim of putting an end to the practices of certain clubs that were considered incompatible with the status and spirit of amateur rugby. A conservative alliance between the International Board and the national unions led to a freeze on the development of professional rugby. The board did not wish to be challenged by progress in terms of market forces that would inevitably grow beyond its control. The English championship was only set up at the beginning of the 1990s. This institutional lid on the world of the rugby was remarkably efficient in isolating rugby union from the widespread development of paid sport, from the internationalisation of competition, and from marketing the game at world level. While a number of other sports were being transformed by their development as highly marketable events, rugby was resolutely opposed to progress and as a result saw its popularity decline worldwide.

The World Cup and the Professionalisation of Rugby

But there were new contenders looking at the financial possibilities of strongly mediatised sports, such as rugby. As early as 1982, the journalist D. Lord developed a World Cup project with the help of Graham Mourie, a former All Blacks captain, and with the backing of 203 players. Despite the fact that the project was supported by several international groups, it eventually failed because the players did not want to relinquish their guarantee of fame – the possibility of playing for their national side. However, this initiative pushed the International Board to vote in March, 1985, for the organising of the first rugby World Cup, to be staged in Australia and New Zealand in 1987.

It was vital that, in the face of competition from rugby league, these two countries create a rugby union event that would attract the interest of the media, investors and spectators. The best ‘amateur’ players were increasingly being enticed to play professional rugby league. If the first World Cup in 1987 was a major sporting and media success, it was a financial disaster, with the organisers only just succeeding in balancing the €5.34 million budget (20 times less than the 2003 budget). In 1988, it was decided to hold the second rugby World Cup in Great Britain and France and there were 16 teams in this

event, which was held in the autumn of 1991. To handle the sporting and financial aspects of the World Cup, the International Rugby Board (IRB) set up two companies. Rugby World Cup Ltd (RWC) organised the World Cup and associated publicity; it was based in the tax haven of the Isle of Man, allowing it to avoid the 35 per cent tax that the UK levied on sporting events. Rugby World Cup BV was based in the Netherlands and handled the commercial aspects. This set-up encouraged sponsorship and a consequent increase in television rights.¹ The 1991 World Cup was a commercial and sporting success that established the World Cup as a major world sporting event and at the same time sharpened the appetite of the players who wished to benefit from the financial success.

The third world Cup was awarded to South Africa, which had just started its political and social revolution under President F.W. De Klerk (Chaix, 2004a). That year, there was a major development in the professionalisation of rugby. Rugby Union was attracting ever-greater interest from investors from outside the game. Starting in 1995, the media magnate Rupert Murdoch, organised the 'Super 12' and the 'Tri-Nations' with a budget of €130 million over 10 years (involving Australia, South Africa and New Zealand).² At the same time, another media baron, Kerry Packer, was organising another world professional circuit. The world of amateur rugby union was faced with several problems, the resolution of which would push it into becoming a professional sport:

- Professional rugby league continued to recruit the best players from rugby union in England and in the southern hemisphere. At the same time, agreements between Rupert Murdoch and rugby union's national boards in the southern hemisphere would allow them to pay their players, and for them to sign contracts that would keep them in rugby union. So, here was the emergence of a group of rich, professional countries, while the 'poor' countries remained bound by the amateur rules.
- The Packer project put the national unions and International Board in a delicate position, since the best players were inevitably going to escape from their control – unless they could find a way of going along with these developments.
- Nationally, the unions were also experiencing strong pressure from the clubs that wanted to do away with the existing system of concealed payments and set up a system that would give them longer-term control over their players.
- Lastly, there were the players, many of whom invested most of their time and energy in the game of rugby. They too wanted to see an end to the system of concealed payments and to finally make official their financial and social status. In addition, European players in particular resented the wealth of the National Unions (from ticket sales and television rights for international matches) which was in sharp contrast to their own meagre earnings.

Facing a crisis, the International Board had no choice other than to put an end to the exclusively amateur status of rugby union and, on 27 August 1995, open rugby union was born. In fact, each national body had the right to decide whether or not it wished to go professional. Vernon Pugh, the Welsh RFU President who chaired the IRB group on amateur status, spoke of the ineluctability of the decisions that they had just taken, and that otherwise the board would have found itself excluded from organising top-level competitions. The International Board had realised that it had no choice but to go along with the professionalising of rugby.

The professional revolution that the International Board had firmly rejected a hundred years earlier finally came about. However, the rapidity of the transition between the pre-1995 official amateurism and the new professionalism had unexpected consequences. With the success of the Super 12 and the Tri-Nations tournaments, the southern hemisphere unions were able to retain control of the professional game. The situation was somewhat different in the northern hemisphere. But the two major nations, England and France – both of them hardline conservatives – were forced into rapid change by the pressure from their clubs. Their opposition to any form of progress meant that they were now compelled to let the clubs set up professional leagues that were relatively autonomous and, in practice, beyond the control of the boards.

The Diversity of the World of Professional Rugby

World rugby continues to be guided by the IRB. The 3 million players throughout the world belong to one of 95 unions that are members of the IRB. IRB members are organised on six levels, depending on the level of their game and their potential. The stated aim is to help the process of decision making for the benefit of each level. In fact, places on the council, the IRB's supreme authority that is responsible for all strategic decisions, are reserved mainly for the founder members (16 votes out of 21).³ Control of the council allows these members to set the agenda, based on 'seeking a balance between the needs of all parties while at the same time making sure that the top unions can thrive and provide high quality competition' (Strategic plan of the IRB, November 2004). In other words, rugby needs to be developed worldwide, at the same time protecting the leadership of the dominant nations.

Most of the income of the IRB comes from the World Cup and from the associated sponsorship deals (Table 60.2).

The IRB receives most of the profits from the World Cup (60 of the €85.6 million in 2003). The conditions demanded by the board for the organisation of the World Cup are very strict, as well as being beneficial to the board. The board also retains exclusivity on the television and marketing rights. Additionally, if the receipts from ticket sales go to the organising country, the receipts from VIP seats and boxes go to the International Board. In the past there were eight main sponsors with an exclusive position,⁴ which was estimated to cost them each about €4 million. However, for the 2007 World Cup, France hopes to soften this position and be allowed to benefit from national sponsors. In 2003, New Zealand was excluded from the organisation of the World Cup because of its

Table 60.2 Rugby World Cup receipts and profits

Year	Budget (€m)	Profit (€m)
1987	5.3	0
1991	30.5	18.2
1995	45.5	30.5
1999	100	68
2003	110	85.6

Source: IRB, *Les Echos*, 9 October 2004. Table compiled by the author.

Table 60.3 *IRB consolidated accounts for the year 2003 (€m)*

	2003 (World Cup year)	2002 (no World Cup)
Income	103.2	29.9
Operating expenses	(42.9)	(21.1)
Operating surplus	60.3	8.8
Interest and dividends receivable	1.8	1.8
Surplus (loss) on financial assets	2.8	(2.4)
Loss on sale of investments	(1.1)	(2.1)
Surplus on ordinary activities before levy	63.8	6.1
Surplus on ordinary activities after tax	63.6	6.1
Grants paid and payable	(10.7)	10.6
Surplus / (deficit) for the financial year	52.9	(4.4)
Surplus brought forward at beginning of year	57.7	62.1
Surplus carried forward at end of year	110.6	57.7

Source: 2003 International Rugby Board Annual Report.

Table 60.4 *IRB income for the year 2003 (€m)*

	2003 (World Cup year)	2002 (no World Cup)
Broadcasting	36.0	20.3
Sponsorship	18.5	5.5
Licensing and other income	48.7	4.1
Total	103.2	29.9

Source: 2003 International Rugby Board Annual Report.

refusal to provide stadiums that were free from adverts other than those of the main sponsors.

Profits from the World Cup are sufficient to provide the IRB with an annual budget of €28 million (except in World Cup years). More than two-thirds of this is devoted to development of the game. The IRB also finances the World Cup and provides significant funding to national and regional organisations;⁵ for example, the French Rugby Union, as one of the seven founding members of the IRB, receives €217 000 a year. The budget of FIRA-AER, which is the biggest regional association with 41 members, is about €2 million, of which 80 per cent is financed by the IRB. This budget is used to organise competitions (male and female), and to pay for referees, organisers, training and general expenses. FIRA-AER also advises on the allocation of €3.5 million from the IRB that is provided directly to the 41 member countries. This is distributed according to the countries' population, number of players, number of clubs and rugby schools. (Tables 60.3 and 60.4.)

The French National Organisation, or the Union/League Cohabitation

In France, power is shared between two bodies. The French Rugby Union (FFR) administers the amateur game and the national teams, and the National Rugby League (LNR)

Table 60.5 Summary of the FFR accounts, 1992 to 2004 (€000)¹

Year	Income	Costs	Operating profit	Exceptional income	Overall profit
1992	41.00	41.74	0.32	0.44	0
1993	35.69	36.62	0.69	0.25	0
1994	43.43	43.77	0.30	0.05	0
1995	43.92	47.22	1.03	2.27	0
1996	44.69	39.94	0.44	0.32	5.51
1997	38.55	38.80	0.32	0.13	0.2
1998	30.21	30.55	0.08	-0.1	-0.37
1998/1999	43.62	49.98	0.4	0.48	-5.49
1999/2000	54.58	54.07	0.51	0.21	0.82
2000/2001	52.48	48.25	0.30	0.08	4.45
2001/2002	56.60	53.66	0.46	-0.01	3.38
2002/2003	62.11	56.72	-0.37	-2.2	2.82
2003/2004	63.34	66.78			-3.44 ²

Notes

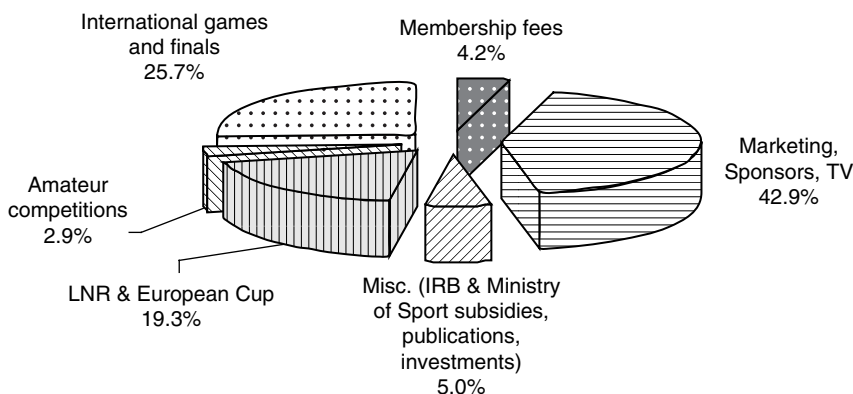
1. From 1992 to 1997 the budget was based on the calendar year. From 1998, budgets are based on the sport year July 1 to June 30, except for 1998, that explains that year's smaller budget.
2. The 2003–04 deficit, a World Cup year, is explained by the additional costs (preparation + payments for the players and the staff), and by the cancellation of three autumn tests.

Source: FFR budgets, *Midi Olympique magazine*, No. 18, May 2000; table compiled by author.

organises the professional clubs and professional domestic competitions. In 1998, the FFR decided to create a professional rugby league. The league represents, administers and coordinates professional rugby (Article 1 of the agreement between the FFR and the LNR). However, a careful reading of the text reveals a somewhat more complex situation. The FFR has the duty to 'to encourage and to develop the game of rugby (rugby union, 7-a-side rugby, and all other games of rugby conforming to the rules fixed by the International Rugby Board), to guide and to manage rugby, and to defend its interests'.⁶ There is an agreement that defines the responsibilities of the LNR and the FFR. Even if the league exists in its own right, it is clear that it operates under the aegis of the FFR.

The FFR has a reasonable income. It has a relatively large operating budget (€60 million according to the latest figures) and Table 60.5 summarises how the budget has evolved over the last 12 years. It can be seen that it has grown by 50 per cent since 1992 and that, except for 1998–99, it appears to be financially healthy. In 1997, the union collected €20.28 million from television and from sponsors of the French national team and the French championship. Six years later, this had grown to €26 million for the national team alone. The FFR has profited from the economic vitality of the league. Figure 60.1 shows more details of the FFR 2001–02 income.

Some elements of this budget stand out. Membership fees make a very small contribution. Amateur competitions make a loss – costs of more than €7 million for an income of €0.57 million. Income from the national team and the professional clubs represents more than 87 per cent of the total earnings. In fact, the national team and associated activities provide the lion's share of the FFR's income.



Source: Bulletin Officiel de la Fédération Française de Rugby.

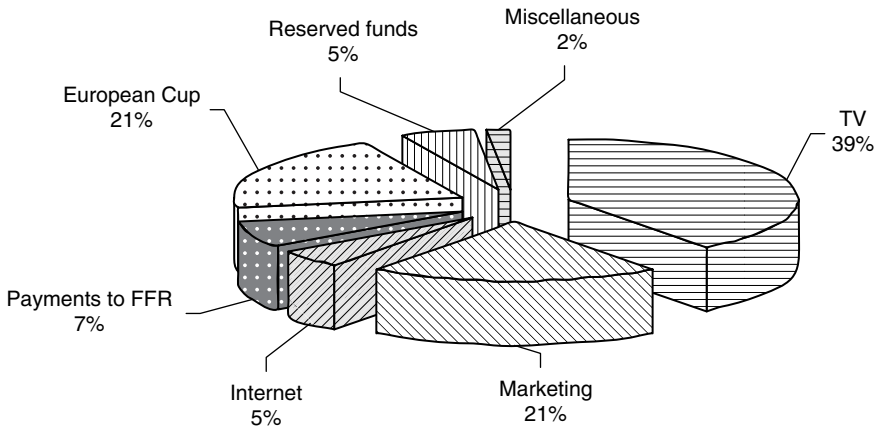
Figure 60.1 Breakdown of the FFR income, 2001–2002

Some 47.9 per cent of expenditures is allocated to the professional game. If one takes out the 18.5 per cent of the LNR budget that represents income from the European Cup that is ‘passing through’ the league, and the 17.3 per cent running costs, we can see that 29.4 per cent is devoted to the French national team and to the organisation of international matches, and 32.9 per cent is used by the FFR mainly for supporting amateur rugby and the pool of young players who constitute the French nursery squads. The excellence of French professional club rugby and of the international team means that the French union can comfortably subsidise their amateur competitions that lose money.

The LNR has its own structure. It organises the professional club championship, negotiates the contracts for television and sponsorship and it negotiates with the different partners: the unions, the Ministry of Sport and the organisers of the European Cup. It also provides financial assistance to the clubs. In 2003–04, the LNR budget amounted to €40.9 million. Most of the league income is from the sale of television rights and associated marketing deals for the French club championship (Figure 60.2).

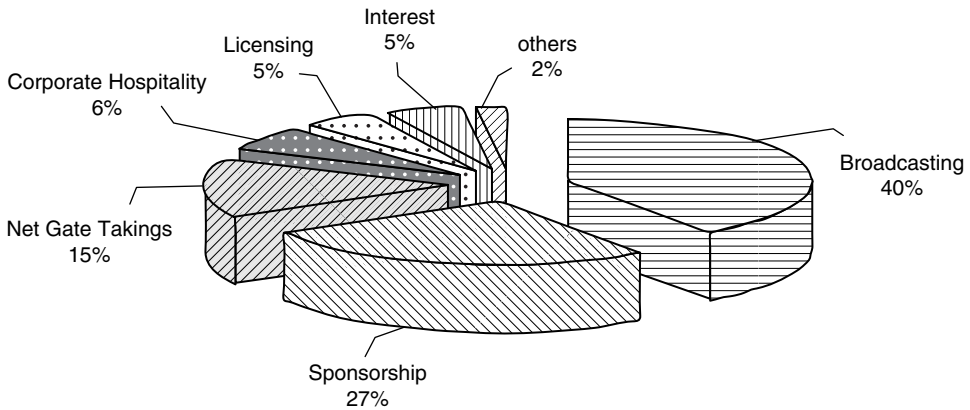
Rugby Union in the Southern Hemisphere: The Unions in Control

The southern hemisphere unions have done their best to organise a balance between the sporting and financial aspects of the game. In 1995, based on the proposals from Rupert Murdoch, Australia, New Zealand and South Africa started organising professional competitions, with the financial support of television. The unions retained control and the best players were paid a regular income. They set up a provincial international championship (the Super 12), and organised international matches with northern hemisphere teams or between themselves (the Tri-Nations). Each year, at the end of the competitions, there is a four-month break. These competitions provided excellent income – from TV, marketing deals and ticket sales. A first 10-year contract worth US\$550 million was signed in 1995. The renegotiations of the second contract ended on 22 December 2004 and the agreement was for US\$323 million (€238 million) over five years – much to the satisfaction of the three unions involved, whose organisations are based on the income generated by these competitions and in particular, the TV rights. The example of Australia clearly



Source: LNR.

Figure 60.2 LNR income (provisional), 2002–2003



Source: Australian Rugby Union.

Figure 60.3 Australian Rugby Board income, 2004

shows the importance of TV for southern hemisphere rugby – TV provides about 40 per cent of the total income of €45 million. Sponsorship and ticket sales contribute another 42 per cent (Figure 60.3). These are respectable sums, particularly considering the competition from other sports such as rugby league and Australian Rules football.

The receipts from television rights are shared on the basis of the countries' potential audiences (South Africa 38 per cent, New Zealand 33 per cent and Australia 29 per cent). The new contract includes two significant changes: the Super 12 will become the Super 14, with Australia and South Africa providing two new teams; the Tri-Nations, which was played on a home-and-away basis, will have teams meeting each other three times. This will profit Rupert Murdoch's News Ltd, which will broadcast an additional 28 Super 14

matches and three international matches. Those players who are not selected for the national teams compete in their national championships during the period of the international matches. The consequences are: the season is balanced, financial stability is assured, the players are protected, and there is a sole employer. It is easy to understand why the southern hemisphere unions have no wish to change the current setup.

The Evolution of Professional Rugby

Until the beginning of the 1990s, the financing of rugby followed the same pattern as that of other professional sports in Europe, based on spectators, subsidies and sponsorship, all at the local level (the SSSL model). Unofficial payments developed at an early stage and the professional setup has not yet succeeded in completely eliminating this. The professional system that was introduced in 1995 has rapidly evolved to a different model – one based on media, corporations, merchandising and markets (capital and players), at a global level (MCMMG) (Andreff, 2004). In percentage terms, the receipts from ticket sales have fallen substantially, as have subsidies, while television receipts have soared. Television represents less than 20 per cent of the income for French clubs, but on a global basis it provides around 40 per cent of the income for the unions and it ensures the presence of sponsors and other commercial interests. The regular increase in the number of foreign players in the championships is a clear indication that rugby is moving towards a global market for players, comparable to the situation in basketball and football. The administrators of professional rugby have set up systems for capping salaries, copying the model of the National Basketball Association and the National Football League in America, in an attempt to control the inflationary trend that affects both hemispheres.⁷ If rugby players' earnings have not reached the levels seen in football, they are nevertheless increasing sharply. The England international fly half, Jonny Wilkinson, has an annual salary of €715 000, and the highest-paid French player earns more than €400 000.

Currently, the trend is to increase the number of matches played, with the aim of increasing income (classic SSSL strategy), but that causes problems for the 'employees', that is, the players. There is a real problem in organising the playing calendar, in terms of national and European club competitions and international matches. This is a power struggle that has important economic consequences. The IRB organises its calendar with minimal concern for any difficulties that the clubs might encounter. The English or French unions, for example, may listen attentively to complaints from the leagues, but their short-term interests differ from those of the professional clubs. The unions need the income provided by international matches. More than 68 per cent of the French union's income comes directly (ticket sales, television rights, marketing) from the activities of the national team. On the other hand, the clubs need to be able to play in their respective national championships and in the European Cup. Everybody agrees that the players, especially the top players, play too many matches, but nobody is prepared to compromise and reduce the current excessive demands. The annual southern hemisphere tour of the French and English national teams at the end June/beginning of July is not particularly attractive to players who are tired after a hard season, but it is seen as the (compulsory?) complement to the southern hemisphere nations' European tour in November. The aim of the French and English leagues is to be recognised as a partner by the IRB and to have a greater say in future negotiations on the organisation of the calendar.

Conclusion

Since the end of the 1980s, the rapid move to professional status by world rugby has led to the creation of a complex system in which the different participants have a combination of political and/or financial aspirations. In less than 20 years, we have seen a change from the monopoly position of the IRB, operating through the national unions, to a situation that differs between the northern and southern hemispheres and between individual unions. At the moment there seems to be little prospect of a compromise between the three principal players – the IRB, the unions and the leagues – in terms of the game (internationals, playing calendars) or money (income from television). It would be difficult to reconcile the existing southern and northern hemisphere structures, in terms of their differing economic arrangements. At the same time, the players will not continue to put up with an overloaded calendar that adversely affects their fitness and health. This problem of players playing too many games is an important issue that needs further discussion and needs to be resolved. But it is less important than the continued global development of rugby. There are only a dozen or so countries that can claim to have a ‘rugby culture’. The future economic success of rugby requires that the game’s organisers succeed in making rugby a truly worldwide sport.

Notes

1. TV rights went up sixfold (€2.5 million to €15 million). Some 103 countries broadcast the contest compared with only 17 for the first World Cup. Profits remained modest, €4.5 million. But ‘inflation’ continues, and French TF1 is paying €85 million to broadcast the 2007 and 2011 World Cups, €50 million of which is for the 2007 World Cup alone. Thus, the French TV rights are more than the total income for the 1995 World Cup. French TV rights for the 2003 World Cup brought in €23 million.
2. Super 12 is a competition involving provincial teams from New Zealand, Australia and South Africa. The Tri-Nations is an international tournament with home-and-away matches for the New Zealand, Australian and South African national teams.
3. Two votes each for England, Australia, New Zealand, South Africa, Ireland, Wales, Scotland and France; 1 vote each for Argentina, Italy, Canada and Japan.
4. Bundaberg, Coca-cola, Heineken, Qantas, Peugeot, Suncorp, Telstra and Visa.
5. There are five regional associations that are intermediate between the IRB and the national unions: FIRA-AER (European Rugby Association), PARA (Pan American Rugby Association), ARFU (Asian Rugby Football Union), CAR (African Rugby Confederation), and FORU (Oceania Rugby Union Federation).
6. Article 1 of the FFR statutes.
7. In England, salaries are capped at €3 million per club. In France, salaries are capped at 55 per cent of the club’s budget. In New Zealand, the provinces hope to put a salary cap in place for 2005.

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61 The economics of cricket

*Ian Preston**

Rules and Nature of the Game

The game of cricket is a bat and ball game which developed in England from folk games played in the middle ages. Its rules were first codified in 1744 and again in 1784. Cricket in all its major forms has certain common features. It is played between two teams of 11 players on a pitch of indeterminate size. At or near the centre of this playing area is a flat prepared strip known as the 'wicket' at either end of which are a set of three upright wooden sticks known as the 'stumps' or also, confusingly, as the 'wicket'. At any point in the game, one team is 'batting' and the other 'bowling'. The team batting has two players at the wicket, one of them standing in front of the stumps at one end of the pitch facing balls delivered to them from the other end by someone in the bowling side. These balls are delivered in groups of six known as 'overs', the end from which they are delivered and the person delivering them changing with each over. The batting team scores 'runs' by attempting to strike the ball and run between ends of the wicket while the bowling side recovers and returns the ball. A ball struck to the boundary automatically scores four or six runs, depending on whether it bounces or not. In trying to score runs the batsmen expose themselves to the risk of being dismissed ('getting out' or 'losing a wicket') in a number of ways. Foremost among these are being 'bowled' (allowing a delivery to strike down the stumps), being 'leg before wicket' (preventing the ball striking the wicket by getting the body in the way, subject to numerous conditions), being 'caught' (striking the ball without bouncing into the hands of a fielder) or being 'run out' (allowing the stumps to be broken by the returned ball while running between wickets). All major forms of dismissal are made more likely by attempting a high run-scoring rate and batting teams therefore need to balance the advantage of fast scoring against the risk of losing wickets. Once dismissed, a batsman plays no further part in the innings. Once 10 of the 11 batsmen on the batting side are dismissed, the innings closes.

In the traditional form of the game each team has a set number of 'innings' – one or two – and the victors are the team scoring most runs in aggregate across their innings. The time allowed for a game was at one time unlimited (and in one famous instance of 1938 a two-innings match between England and South Africa failed to finish in 10 days). In modern times matches have been over two innings and limited to three, four or five days duration at the professional level. If no team has won within the time limit then the match is declared to be drawn. International matches of this format at the highest level, known as Tests, are played over five days, with each day comprising three sessions of about two hours. As an amateur participation sport, single-innings games completed within a single day remain common.

In 1963, the 'limited overs' or 'one-day' version of the game was introduced. Under these rules each team has only one innings which is terminated after a set number of overs whether or not all batsmen have been dismissed. The winner is the team scoring most runs in their single innings. A typical limited overs game of 50 overs for each team can be

completed in about six to seven hours. Tactics for the limited overs game continue to evolve, clearly becoming distinguished from those appropriate to the longer version of the game. For example, since the bowling team need not dismiss all batsmen to terminate the innings, there is greater emphasis on types of bowling which restrict run scoring. Correspondingly, batsmen, lacking the opportunity to accumulate a score slowly, are led to more adventurous and aggressive batting strategies. While the decline of skills of penetrative bowling and of defensive batting are lamented by traditionalists, one-day rules have led to development of new techniques and an entertaining version of the game of greater subtlety than is sometimes argued.

The more relaxed tone of the one-day game has been associated with other innovations. For example, the adoption of coloured clothing in team-specific outfits has created valuable merchandising opportunities. Particularly significantly, the tolerance of play under floodlights has allowed one-day games to be scheduled so that at least part of play occurs in the more economically attractive evening period, as, for example, in the popular 'day-night' format where the first innings takes place in the afternoon and the second under lights in the evening. Recent innovations shorten the duration of the game further – for example, the 'Twenty-20' format introduced in England in the summer of 2003 reduces the game to 20 overs a side allowing the whole match to be completed in an evening in about the duration of, say, a baseball game.

For those unfamiliar with cricket, it may be useful to make a comparison to baseball, the world's other major bat-and-ball game. Perhaps the key distinction lies in the centrality of the batting role in cricket. Just as a game of baseball centres around a pitcher who stays in play facing a frequent turnover of batters until retired permanently, cricket centres around batsmen who remain at the wicket facing a frequent turnover of bowlers until dismissed permanently (at least for the innings). Each team in baseball has nine innings of relatively brief duration whereas each cricket team has no more than two innings of much greater length – the implications for differences in batting strategy are profound. Techniques also differ. Pitchers pitch the ball from a stationary position seeking movement mainly in the air whereas in cricket the ball usually bounces once before reaching the batsman and bowlers run up to bowl the ball seeking movement both in the air and off the ground. Batters in baseball are restricted to hitting the ball into fair territory in front of the batter and must run on a groundball, whereas batsmen in cricket can hit to any part of the field and are never under an obligation to run. Taking all this together, outs in baseball are relatively more common than falls of wicket in cricket and home runs are relatively rarer than boundaries – while all these events are important, the relative significance of these types of events for spectators of the two sports is consequently different.

Organisation of International and Domestic Cricket

The game was taken from England to its colonies mainly in the nineteenth century and is now played predominantly in countries of the Commonwealth or countries with large numbers of expatriates from such countries. It is largely because of the enormous popularity of cricket in the Indian subcontinent that it can be regarded as one of world's most popular sports. Though by no means the leading sport in its country of origin, cricket is still a major sport in England, Australasia, Southern Africa and the Caribbean (Birley, 1999; Bose, 2002; Guha, 2003; Harte and Whimpress, 2003; Manley and Symonds, 2002 and Marqusee, 2005).

Ten countries have Test match status, which is to say they play the five-day game internationally at the highest level. In these countries, management and development of the game at all levels is the responsibility of not-for-profit bodies. These boards of control for cricket constitute the full members of the governing body for international cricket known as the International Cricket Council (ICC). Founded in 1909 by England, Australia and South Africa (as the Imperial Cricket Conference), it expanded to include India, New Zealand and the West Indies in 1926, Pakistan in 1953, Sri Lanka in 1981, Zimbabwe in 1992 and Bangladesh in 2000. Beyond these 10, the ICC currently has 27 associate members with voting rights – countries where cricket is ‘firmly established and organised’ – and 52 non-voting affiliate members – countries where cricket is played according to recognised laws under a recognised governing body. The associate members include some countries such as Kenya and the Netherlands where the game is played to a high standard and the possibility of promotion to Test match status is entertained, and others such as the United States where the presence of large numbers of expatriates from cricketing countries makes expansion an attractive economic prospect.

Originally a loosely constituted forum for discussion, the ICC has, since rule changes adopted in 1989, sought to establish itself as an effective managing body for the international game. It organises the main multilateral international tournaments, administers umpiring and refereeing, oversees player conduct and anti-corruption activity and takes charge of plans for international expansion. None the less, the governing bodies for cricket in member countries retain a high degree of autonomy, organising and retaining revenues from bilateral international competition.

The first international cricket match took place in 1844 between the United States and Canada, two countries in which cricket had been played since the eighteenth century. Since then international cricket has largely been played in the context of tours in which the national side of one country visits another to play a series of Test matches against its national team, typically interspersed with matches against local domestic teams of the visited country. This pattern of organisation persists for the international five-day game, although the ICC has recently sought to contextualise the results of these series by embedding the outcomes into an ICC Test Championship Table. A league table, first officially published in May 2001, ranks Test-playing countries on the basis of results in most recently completed series on a rolling basis. At the same time, a 10-year tours programme has been introduced to ensure that every Test country plays every other at least once home and away over a regular cycle. This does not restrict the possibility for popular Test series, such as the ‘Ashes’ series played between England and Australia, to continue to take place at a higher frequency. While this programme remains distant from the usual conception of a league, the intention has been to assure significance for all contests coming within its scope. The number of Test matches played has increased with the introduction of this programme. The frequency of matches for all Test-playing countries in one recent calendar year is shown in Table 61.1.

Tours are frequently accompanied by one-day international matches (ODIs) often in *ad hoc* one-day tournaments bringing together a small number of international teams. The introduction in 2002 of an ICC One-Day International Championship table also seeks to set these within some overarching context. Intensity of participation in one-day tournaments can be seen again from the table and clearly differs even between major countries.

Table 61.1 *International cricket matches played, 2002*

Team	ODIs				Tests			
	All	Home	Away	Neutral	All	Home	Away	Neutral
Test-playing countries								
Australia	29	14	10	5	11	5	3	3
Bangladesh	14	6	6	2	8	4	4	
England	24	7	13	4	14	7	7	
India	35	18	11	6	16	5	11	
New Zealand	31	7	12	12	8	5	3	
Pakistan	38	3	19	16	12	2	5	5
South Africa	38	20	4	14	9	8	1	
Sri Lanka	32	8	9	15	10	4	6	
West Indies	23	8	10	5	14	7	5	2
Zimbabwe	15	8	5	2	6	2	4	
Non-Test-playing countries								
Kenya	9	4	3	2				
Netherlands	2		1	1				
Total	145	103	103	42	54	49	49	55

The ICC also organises a number of international one-day tournaments, at various levels. The pinnacle of these is the four-yearly ICC Cricket World Cup, the most important single international cricket tournament. Introduced in 1975, the tournament is open to all Test-playing countries and to ICC associate members coming through qualifying competitions. The format has changed over time but always culminates in a one-day final between the two teams most successful from earlier stages. The most recent tournament in South Africa in 2003 took place over 44 days and involved 14 teams.

Most major cricket nations run domestic cricket competitions, though organised on different bases. Commonly these will involve both a four-day competition and at least one limited overs competition. Teams are usually but not always regionally based.

In England and Wales, for example, the 18 first-class counties compete in a season-long four-day competition with a league structure, recently modified to incorporate two divisions with end-of-season promotion and relegation. There are also limited overs league and knockout competitions, recently supplemented by an innovative and highly successful midsummer tournament of 20-over matches. In Australia, six state-level teams compete in both a four-day and a limited overs competition. In India, 27 teams from state associations compete in the four-day Ranji Trophy, which has also recently been modified to introduce a divisional structure with promotion and relegation, and in limited overs competitions. In South Africa, 11 provincial teams compete in a four-day competition and a limited overs competition.

Finances of International and Domestic Cricket

ICC income fluctuates considerably with the programme of international cricket events, as can be seen in Table 61.2. Accounting revenue in 2003, for example, is vastly inflated by the 2003 World Cup. Attendance at the event was 630 000 but the estimated global

Table 61.2 International Cricket Council finances, 2001–04

	2004	2003	2002	2001
Revenues (\$m)	11.9	224.7	9.8	21.1
Operating expenses (\$m)	19.3	22.3	16.0	16.2
Payments due to members (\$m)	–	194.0	–	–

audience for the event is estimated to have exceeded a billion people. Broadcasting and sponsorship rights were sold by the ICC to Global Cricket Corporation (GCC), a single multinational organisation, in 2000 as part of a package covering all major tournaments up to 2007, a period also covering the succeeding World Cup tournament in the West Indies, for \$550 million. The satellite broadcasting rights for the Indian subcontinent alone were reportedly sold on by GCC for about half of that sum. Many of the sponsorship deals contracted by GCC for the tournament were also from Indian firms or subsidiaries. ICC revenue attributable to the 2003 competition is largely due for redistribution to members, the host country receiving \$79.7 million and leading participating countries receiving payments of \$9 million each (subject in some cases to withholding over contractual disputes).

Finances of cricket boards in individual countries vary considerably. I concentrate below on three major cricket-playing nations about whom information is relatively accessible – India, the UK and Australia.¹ As a general principle, revenues from Test series and ODIs accrue to the host country and therefore form the basis for most boards' cricketing income.

- According to the published accounts of the England and Wales Cricket Board (ECB), the governing body in the UK, its gross turnover in 2004 was £75.1m (or about US\$137m), up from £73.5m in 2003, £67.0m in 2002 and £60.5m in 2000. About 68 per cent of the 2002 figure was said to be attributable to broadcasting and sponsorship rights. Broadcasting rights for all Test series in England plus the major part of domestic cricket over the four years 2006–09 were sold for £220m (and for £150m for the previous period, 2003–2005).
- In 2003/04 gross revenue of Cricket Australia (the former Australian Cricket Board or ACB) equalled A\$87.1m (or about US\$67m), up from A\$82.5 in 2003/04, A\$70.8m in 2002/03 and A\$57.2m in 2001/02, of which about 64 per cent came from media rights, 22 per cent from sponsorship rights and only 4 per cent from gate revenue.
- The Board for Control of Cricket in India (BCCI) reported earnings of Rs 732m (or about US\$16m) in 2002/03, down from Rs 853m one year earlier. Of this about 62 per cent came from broadcasting rights. The Indian state broadcaster Prasar Bharati paid Rs 2270m for the five-year rights to international matches played in India over the 1999–2004 period. However the value of rights for the subsequent four-year period will undoubtedly be substantially higher – bidding was reopened in 2005 after resolution of a legal dispute over treatment of a Rs 14 000m (or US\$311m) bid from Zee Network in an earlier bidding process.

A large tranche of these amounts is passed down to subnational cricketing bodies.

- In England, for example, the 18 first class counties each received about £1.3m in 2001, well over 40 per cent of ECB expenditure, for participation in cricketing competition. Counties which stage international fixtures receive additional payments for use of facilities. For a county without an international ground, the ECB fee typically constitutes about two-thirds of its income. ECB accounts for 2002/03 identify payments of £31.7m to lower-level cricketing bodies (£33.4m in 2001/02 and £32.2m in 2000/01).
- In Australia, distribution to state associations comprised A\$36.3m in 2003 (A\$33.8m in 2002 and A\$26.4m in 2001).
- In India, the BCCI decided in 2001 to disburse 70 per cent of broadcasting revenue to affiliated state associations for the next three years.

These payments reflect the fact that, considered in isolation, domestic four-day cricket (to the extent played in certain countries) is the least obviously economically sustainable part of the game. While Test match and one-day internationals are capable of drawing full crowds and large broadcasting audiences even on weekdays, domestic cricket is often far from well attended or watched. While many may maintain an interest in the outcome of such competitions, it is not surprising that competitions involving four-day matches played in the day and in midweek should sometimes have difficulty finding an audience. Not only is it dispiriting for players to perform before an audience – in the words of a former ECB chairman – of ‘three men and a thermos’, but the consequences for economic viability of domestic cricket in some countries are also serious. Proposals to slim down the size of domestic cricket in England, for example, are frequently heard although the existence of entrenched interests in the game’s governing bodies makes their acceptance unlikely. Of course international players learn the game and demonstrate their talents to international selectors through participation in domestic cricket, the continuation of which in some form is essential to the continuation of international cricket.

These large payments to lower levels restrict the ability of cricket to fund large salaries for its top ranking players.

- In Australia, top international cricketers are contracted to the ACB. Under a four-year agreement reached between players and cricket authorities in 2001 25 per cent of total cricket revenue is spent on payments to players, of which 55 per cent goes to ACB contracted players, of whom there were 25 in 2004. Under this scheme, international contracts in 2003/04 ranged from A\$125 000 to A\$484 000 (or US\$96 000 to US\$372 000) in value. The fee for participation in an individual test match is A\$12 100 and for an ODI A\$4850, so that match fees for an ever-present player would be similar in magnitude to the value of the contract. The remainder is paid to state players for whom a contract would be worth between A\$30 000 and A\$85 000.
- In India, the BCCI pays 26 per cent of its income to players, half of which goes to international players. A contract scheme was agreed in 2004 grading up to 20 top players in three tiers. Retainers in grade A are Rs 5m (or US\$111 000), in grade B are Rs 3.5m (or US\$78 000) and in grade C are Rs 2m (or US\$44 000). Money is

disbursed also through additional match fees and sponsorship payments amounting to between Rs 200 000 and 240 000 per Test and between Rs 160 000 and 185 000 per ODI so that an ever-present player might earn another Rs 10m in a year. These amounts may be multiplied several times by personal sponsorship. The most highly remunerated cricketer of recent years has been the Indian batsman, Sachin Tendulkar. Media reports speculate on an annual income amounting to several million dollars, though clearly a small part of this comes directly from fees for playing, the remainder coming from advertising and sponsorship revenue.

- The ECB does not disburse a predetermined share of revenue to players. The latest ECB accounts show total expenditure of £3.8m on cricketers' wages and salaries in 2004 (compared to £4.6m in 2003 and up considerably from £2.9m in 2002). The core of the international team are contracted and a typical contract is worth between £100 000 and £150 000 (or US\$182 000 and US\$273 000), with the captain earning a higher figure. Match fees are about £5500 for a Test match and £2200 for an ODI, with a premium for matches played abroad, so that ever-present players might easily double their contracted income through match fees. Further income comes from win bonuses and commercial sponsorship. In domestic cricket earnings are lower. An English county player might expect a salary of about £50 000. The progression from southern hemisphere summer to northern hemisphere summer enables many of the top players from other countries to play all year round if they sign contracts with English counties. Cricket being little played elsewhere in Europe, English cricket authorities have hitherto been little restricted by European labour law in setting rules regarding foreign participation and county clubs have been limited in the number of overseas players they can employ, though recent legal judgments affect the scope for this to continue. (Advocates of such rules argue that it aids development of the national cricket team, though this is contentious.) Despite this, such players are able to command higher incomes than other county cricketers for their perceived ability to attract revenue.

Although increasing, these figures are low when compared to other major world sports, both absolutely and in comparison to revenue. The reason for the low absolute level may be the revenues of the sport but the reason for the low wage share must lie in the dominance of the international representative game as a revenue source in cricket. The domestic club game is of questionable intrinsic viability and there is no club game at the international level. National eligibility rules prevent competition between teams for the services of players in international representative cricket, removing the most potent means for players to bid up their salaries. It is presumably no accident that top salaries in other team sports come from clubs and not in the form of payment for international duty.

Recent years have seen several high-profile contractual disputes between players and authorities over rates of pay – a symptom perhaps of discontent over the weak position of players. Most recently the 2003 World Cup was threatened by disputes over contracts which restricted players' rights in sponsorship deals with competitors of the tournament sponsors, a particularly important issue given the large proportion of Indian players' incomes coming in this form. In 2002, international players voted to accept collective representation, although several of the governing bodies show little willingness to accept this.

Recent Economic History

The magnitude of revenues and player incomes within the sport, though not great compared to some other sports, has grown considerably in recent decades. A particularly strong early stimulus to this was the shock of leading players' temporary defection to a rival competition in the 1970s (Haigh, 1993). Angered by the refusal of the ACB to enter into serious negotiations over the sale of broadcasting rights to his network Channel 9, the Australian entrepreneur, Kerry Packer, set up World Series Cricket (WSC) as a rival venture. The low level of player salaries made it possible for him to contract the services of many international cricketers, including most of the Australian team. British courts ruled that attempts of the established cricket boards to punish participants amounted to tortious incitement to breach of contract and that agreements to impose these rules internationally was a contract in restraint of trade. Innovative in format and televisual presentation, WSC introduced many ideas eventually widely adopted such as coloured clothing and floodlit games. Eventual resolution saw a rapprochement with higher player salaries and a more commercial orientation to cricket broadcasting. This unwelcome experience of competing commercial innovation provides a lasting counterweight to conservative instincts in management of the sport.

More recently, the aggressive realisation of revenue associated with the 1996 World Cup held in India, Pakistan and Sri Lanka not only exposed the unexploited scope for cricket to generate further revenue but also emphasised the emergence of the subcontinent as a major economic focus in international cricket. The recent growth in subcontinental broadcasting revenue only highlights this trend and underscores claims for a strong role in the international governance of the game.

Cricket has recently needed to face the trauma of one of the gravest corruption scandals to hit any major sport in modern times (Magazine, 2000). Rumours of corrupt behaviour were prevalent throughout the 1990s and a combination of investigative journalism, whistleblowing and incidental evidence gathered by Indian police uncovered extensive collusion between players and bookmakers to fix the results of and events within matches. The involvement of captains of South Africa, India and Pakistan has been accepted by cricket authorities and allegations were made against a much wider group of players. Commissions were set up to investigate the issue in several countries and the ICC established an Anti Corruption and Security Unit (ACSU) which reported at length in 2001 and continues to operate (Qayyum, 1998; King, 2000; CBI, 2000; Condon, 2001). Explanations focusing on the venality of a few prominent players fail satisfactorily to deal with the peculiar depth of the problem in cricket at the time. Other suggestions point to the role of low salaries, the presence of large illegal gambling markets in countries where the game is played, the proliferation of meaningless one-day tournaments and the opportunities for manipulation created by the complexity of the game. Tacit acknowledgement of some of these points may have encouraged acceptance, for example, of recently rising player salaries and reforms to the structure of international competition. The latest report of the ACSU declares international cricket strongly placed to deal with corruption but highlights the continuing threat posed by illegal underworld bookmaking.

Notes

* I am grateful for comments from Timothy Besley, Venkataraman Bhaskar, Faisal Hasnain, Stefan Szymanski and Stephen Ross.

1. Currencies of different countries are converted to US dollars at the rates US\$1 = £0.55 = A\$1.30 = Rs 45.

Bibliography

Cricket is well served by online resources, particularly the *Cricinfo* site at www.cricket.org which carries archives of news, information on the game and cricket statistics. The official site of the ICC at www.icc-cricket.com has links to the sites of national cricket boards where annual reports can be consulted.

Much useful information on the game is collected annually in:

Wisden Cricketer's Almanack, Guildford: John Wisden & Co.

Several single volume histories of cricket exist for individual countries, the most recent editions of which include:

Birley, Derek (1999), *A Social History of English Cricket*, London: Aurum Press.

Bose, Mihir (2002), *A History of Indian Cricket*, London: Andre Deutsch.

Guha, Ramachandra (2003), *A Corner of a Foreign Field: The Indian History of a British Sport*, London: Picador.

Harte, Chris and Bernard Whimpress (2003), *A History of Australian Cricket*, London: Andre Deutsch.

Manley, Michael and Donna Symonds (2002), *A History of West Indies Cricket*, London: Andre Deutsch.

Among other books which have aided the preparation of this chapter through their attention to the economics of the sport are:

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Marqusee, Mike (2005), *Anyone But England: An Outsider Looks at English Cricket*, London: Aurum Press.

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Also worth reading are the invaluable reports into the corruption scandal:

Central Bureau of Investigation (CBI) (2000), *The CBI Report on Cricket Match Fixing and Related Malpractices*, New Delhi: CBI.

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Section B

Principal Economic Issues

62 Uncertainty of outcome, competitive balance and the theory of team sports

Stefan Szymanski

Suppose two teams are scheduled to meet in competition, what is the level of expected demand conditional on the win probability of each team? This is in many ways the central question in the economics of team sports. Economists, going back to the earliest published papers in the field, Rottenberg (1956) and Neale (1964), have asserted that excessive dominance will destroy interest. In other words, consumers demand uncertainty of outcome, and demand is increasing in that uncertainty.

This ‘uncertainty of outcome hypothesis’ has been the basis for a number of policy prescriptions. Teams in a league compete for success. Without intervention, competition will generate an equilibrium distribution of success (wins, points and so on). The obvious condition for a competitive equilibrium should be that the marginal revenue of a win equals the marginal cost. In a competitive labour market it might be expected that the marginal cost of a win would be identical across teams (competition should equalise the marginal cost per unit, otherwise talent could profitably move from one team to another), and therefore the equilibrium condition reduces to the equalisation of win marginal revenues across teams. It is commonly argued that the distribution of wins at this equilibrium will not generate enough outcome uncertainty in the league, thereby inhibiting demand and even threatening the viability of the league. It is therefore argued that teams should be allowed to enter collusive agreements (such as roster limits, salary caps, draft rules, revenue sharing) in order to ensure a more balanced distribution of outcomes.

This review deals mainly with the question of empirical support for the uncertainty of outcome hypothesis (for two recent reviews of the literature on uncertainty of outcome, see Borland and Macdonald, 2003, and Szymanski, 2003).

It seems so intuitively obvious that an unbalanced contest is less attractive than a balanced one that most observers seem to show little interest in whether it is in fact the case. It is not uncommon to hear anecdotes about low attendance at particular games or in particular seasons in support of the general proposition. Most economists would accept, however, that some solid statistical evidence is required before accepting the hypothesis as fact. Moreover, there are some good reasons to be cautious about the proposition, even on a priori grounds. First, while balance can be exciting, so can the contest between a Goliath and a David. Even if David seldom wins, the realisation of the completely unexpected can generate enormous satisfaction. Second, the performance of a perpetually successful team can also provide extra interest, either among those who support the ‘dynasty’, or among those who are rooting for it to fail. For example, those who do not support the New York Yankees love to hate them. Third, even if it were true that a completely predictable contest would be unattractive, it is hard to say what the effect of a small change in balance would be, starting from a given distribution of wins. Few economists think that a perfectly balanced contest would be in the best interest of a league, given that

in most leagues teams from larger cities have greater levels of support – at some level it is desirable that the strong teams are relatively successful in order to sustain the widest possible interest.

Match Uncertainty

A test of the uncertainty of outcome hypothesis can be formulated in a number of ways. The most widely used approach has been to measure the uncertainty of outcome of an individual match in a league, and to test whether attendance at the match is significantly affected by the degree of uncertainty. Match uncertainty can in turn be measured in a number of ways. One approach is to use a measure of the relative quality of the two teams based on earlier results, weighted in favour of more recent games. The difficulty with this is that the researcher can have only limited confidence that past results will be a good guide to the future, and hence any estimate is likely to be imprecisely defined. The approach that has been adopted in most of the more recent literature is to use betting odds. If these odds are set by bookmakers in a competitive market then they should provide an unbiased expectation of the probability of each team winning (or a tie) and hence a basis for estimating the effect that the balance of probabilities will have on attendance. Some caution is required here, since in some countries and for some sports, such as soccer in the UK, betting is based on fixed odds set by the bookmaker a week in advance, which means that the published odds may not accurately reflect consumer expectations about the uncertainty of the game. Moreover, the relevant uncertainty for the consumer is more likely to be at the date the ticket was purchased, rather than at the date the odds were set, and the level of uncertainty may fluctuate between these two dates. This problem will be even more significant in relation to season ticket holders. Finally, when matches are sold out, demand at published prices cannot be directly observed, which may require the use of estimation methods that can account for this truncation, such as the Tobit regression.

Empirical studies find remarkably weak evidence in support of the uncertainty of outcome hypothesis. For example, Borland and Macdonald (2003) surveyed 18 studies across a variety of countries and sports and found that ‘only about three provide strong evidence of an effect on attendance . . . Other studies provide mixed evidence that suggest a negative effect on attendance of increasing home-win probability only when that win probability is above about two thirds’ (p. 486). In other words, home-team fans are not interested in a well-balanced contest: they want their team to win, and are more likely to attend when the probability of that event is large. The evidence that demand may decline at very high home-win probabilities also needs to be interpreted cautiously, since there are very few games that are this unbalanced, and hence the estimates are based on a very small number of observations. The result that attendance at a match is almost everywhere increasing with the success of the home team is not very surprising, since most popular clubs grow by being successful, but it does suggest that some caution is required in the use of the uncertainty of outcome hypothesis. The evidence does not suggest that the hypothesis is false, but it does suggest that its importance is not as great as is often suggested.

Given that teams have historically generated most of their income from attendance, it is not surprising that this measure of demand is the one that has generally been the focus of attention. However, as TV rights are an increasingly important share of total income, there is a need to estimate the effect of uncertainty of outcome on TV viewership. This is an issue on which much research remains to be done. It may be that TV viewers are more

sensitive to uncertainty of outcome, given that many will have no particular loyalty to a team and may just be interested in the excitement of the contest. However, broadcasters also tend to argue that full stadiums are necessary to make an attractive TV viewing spectacle, suggesting there may be an interaction between the demand of the attending public and the viewing public.

Championship Uncertainty

Championship uncertainty may be considered to be the likelihood that one or a small number of teams dominate the championship, either within a single season or between seasons. Given that the large number of games played in a league championship implies that the ranking of teams is likely to reflect accurately their relative strengths, we no longer need an independent measure of outcome uncertainty; instead we argue that the actual distribution of wins is an accurate reflection of the expected distribution, and hence the uncertainty of the outcome.

Even if match uncertainty added nothing to demand (that is, attendance was everywhere increasing with the home-team win probability) it might still be argued that a more uncertain championship increased demand, as long as there were decreasing returns to winning. This is perhaps the most important question in relation to the uncertainty of outcome hypothesis: what is the distribution of wins that would maximise league-wide attendance? It has been the perennial claim of teams and league organisers that unrestrained competition will lead to excessive dominance by teams with greater resources (for example, big city teams). This is, in principle, a testable hypothesis. If we can estimate the relationship between attendance and wins for each team in a league, we can in principle compare the outcome when there is unrestrained competition to an estimate of the distribution of wins that would maximise attendance (or revenue, or some other stated objective).

One possible outcome of such an exercise would be to find that every team in the league exhibited the same sensitivity to wins as every other team, and from this we could conclude that the optimal distribution of wins would require a perfectly balanced championship. Few observers, however, believe that all teams have the same sensitivity to wins. In practice, large city teams are likely to have a larger sensitivity, simply because they draw on a larger population. However, it is possible to imagine counterexamples: for instance, small city fans might have a taste for success while large city teams might be able to fill the stadium whatever level of success it enjoys. If there is asymmetry in the sensitivity of wins, then a strategy of maximising league-wide attendance would involve biasing wins towards the strong drawing teams. Since these teams also tend to be the ones that win more, it could be that the competitive distribution of wins is also the profit-maximising distribution. This proposition, known as the invariance principle, was advanced by Rottenberg in relation to the trading of players and extended by Quirk and El-Hodiri (1974) to the impact of gate-revenue sharing. These results rely on the assumption that firms exist in a Coasian world, where all potential gains from trade are exploited and all externalities are internalised.

Competitive markets seldom conform to the Coasian ideal, largely because firms are unable to write complete contracts with each other, most obviously because antitrust law prohibits such agreements. Other reasons may be lack of adequate information or information asymmetries that lead to market failure. A specific kind of market failure for the firm (but not the consumer) is what is sometimes called the 'competitive externality', by

which firms competing against each other consider only the gain to themselves from increased competition, not the cost imposed on others. Strict and enforceable cartel rules are required to avoid these outcomes. Notwithstanding the argument of Fort and Quirk (1995; 1265) that ‘Professional team sports leagues are classic, even textbook, examples of business cartels’, these necessary levels of coordination to eliminate all competition have seldom been achieved. Szymanski (2004) compares the attendance-maximising distribution of results for league to the competitive outcome and shows that in a world of asymmetric teams the competitive outcome is in fact *more* balanced than the planner’s optimum. He also provides empirical estimates for Major League Baseball to support this argument.

There have been surprisingly few other papers that have examined empirically the effect of championship uncertainty, either within or between seasons, although such studies are starting to emerge now, most notably Schmidt and Berri (2001) and Humphreys (2002). Their estimates lend some support to the uncertainty of outcome hypothesis, but that support is quite weak.

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63 The objective function of a team

Stefan Késenne

The well-known textbook objective of a firm in microeconomic theory is profit maximisation. In the United States, most analysts assume that sports clubs also behave as profit maximisers (Rottenberg, 1956; Noll, 1974; Quirk and Fort, 1992). In the European sports literature, there are some doubts as to whether this is a realistic assumption in the industry of professional team sports. Sloane (1971) asserted that European football clubs do not behave as profit maximisers, but rather as utility maximisers, with other variables beside profits entering the utility function. Even if it is true that professional sports clubs in the US major leagues are more commercially orientated and businesslike companies than in European football, some American analysts seem to have their doubts as well (Quirk and El-Hodiri, 1974; Rascher, 1997).

The reason for investigating the objective of a sports club is that different objectives can lead to different outcomes in terms of the distribution of talent across clubs in a league, the average level of player salaries, total league revenue, optimal ticket prices, the impact of different regulations and so on. However, the problem with these club objectives is that it is very difficult to distinguish empirically utility and profit-maximising behaviour.

We shall present the most important objectives that have been proposed in the literature so far. The implications of different objective functions for the sports industry are then investigated before discussing the empirical tests to distinguish profit and utility maximisation.

Profit and Utility Maximisation

In order to compare the different objectives of sports clubs, we start from the specification of a simple model of club revenue and cost. The variables that are most cited and observed as being important for explaining the season revenue of a club are first, the size of the market, or the drawing potential of a club for players and spectators. It is obvious that a club in a big city, or a densely populated area, has a better chance of building a successful team than a club in a small town. A second variable is the own winning percentage of the team or the playing success on the field; most supporters clearly prefer to watch a winning team. However, if the winning percentage becomes too high, most analysts expect spectators' interest to fade. So also the uncertainty of outcome, which is an essential characteristic of a sports competition, cannot be overlooked, although there is some discussion about the importance of the competitive balance in a league for club revenue (Zimbalist, 2002). It is therefore assumed that the winning percentage has a positive but decreasing marginal effect on revenue.

On the cost side, we consider only the player labour cost, which is simply the product of the total number of playing talents, not the number of players because of their heterogeneity, and the unit cost of playing talent. This simple model can be written as:

$$R = R(m, w) \quad \text{and} \quad C = cx, \quad \text{where } w = \frac{x}{S}. \quad (63.1)$$

In this model, R stands for the season revenue of a club, m is the market size and w the winning percentage of the team. C is the season cost, x is the number of playing talents and c is the unit cost of talent. The relationship between winning percentage and talent can, in its most simple form, be written as the ratio of a club's talent and the total supply of talents in the league.

Given this simple model, we can present a survey of the most important objective functions that can be found in the literature. We start with the most common objective in economic theory, which is profit maximisation. Total season profit is the difference between total revenue and total cost:

$$\max \pi = \max R - C. \quad (63.2)$$

The well-known optimality condition for profit maximisation is that marginal revenue equals marginal cost. A club maximises its profits if the increase in total revenue of hiring one more talent is equal to the increase in the total cost of one more talent; as long as the marginal revenue is higher than the marginal cost, the club can increase its profit by hiring an extra talent.

Sloane (1971, 133), observing that clubs in the English Football League differ from the normal business enterprises, introduced the objective of utility maximisation: 'This seems intuitively to be the most appealing in the football case since we may regard football as a consumption activity. Production and consumption occur simultaneously and football is largely a leisure pursuit'. It is assumed that clubs behave as if they are maximising a utility function that depends on more than just one variable, such as playing success, average attendance, health of the league, and profits. The author found that this assumption provided more valid predictions than profit maximisation in professional sports.

In a first attempt to make the utility-maximising model more operational, Késenne (1996) introduced win maximisation as a simplified objective function. His observation was that sports clubs are most of all interested in winning, and the best way to achieve that goal is to hire the best players, or in other words, to maximise the number of playing talents within the limits of the budget. As a first approximation, the breakeven condition was imposed. However, this condition is not necessary for the derived implications of win maximisation. One can as well assume that a club has to guarantee a certain profit rate, in order to satisfy the owners or the shareholders. Indeed, a club can be profitable without being a profit maximiser. So, the win-maximising model does not exclude profits (more losses because owners can also be prepared to spend money on their team). In its most simple form, this objective function can be written as:

$$\begin{aligned} \max w \\ \text{subject to: } R - C = \pi^0, \end{aligned} \quad (63.3)$$

where π^0 is a fixed amount of profit, which implies a fixed profit rate, as the capital stock is considered to be constant in the short run. The breakeven condition is a special case only where profits are zero.

It can be seen that win versus profit maximisation makes a difference in terms of the number of playing talents hired by a club. Figure 63.1 shows the talent demand level of a profit- and a win-maximising club. The horizontal axis indicates the number of talents,

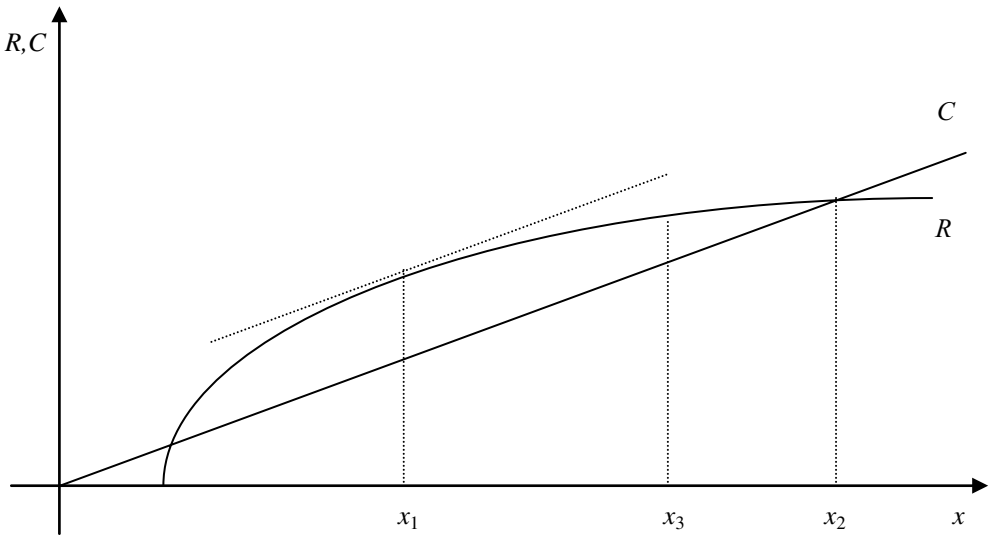


Figure 63.1 Profit versus win maximisation

and the vertical axis measures the total season revenue and cost. Obviously, both revenue and cost increase with the number of talents, as can be seen in model (63.1), but the rate of increase of the revenue function comes down, because of the importance of the uncertainty of outcome in the league championship.

If the club is a profit maximiser, it will hire x_1 playing talents, because in that point marginal revenue, which is the slope of the revenue function, equals marginal cost, which is the constant slope of the cost function. But a win-maximising club will hire talents until total cost equals total revenue so that it hires x_2 talents. If some profit is made, it will hire only x_3 talents.

Win maximisation is sometimes said to be equivalent to constrained revenue maximisation, although this is only true as long as total revenue is not coming down at, relatively, very high levels of club talent.

A variant of the utility-maximisation model has been proposed by Rascher (1997), who assumed that sports clubs are maximising a linear combination of profits and wins, which can be written as:

$$\max \pi + \alpha w, \quad \text{with } \alpha \geq 0. \tag{63.4}$$

Since the weights of the two objectives can be different for every club, this model allows clubs to be more profit orientated or more win orientated. The implications of this model are comparable with the win-maximisation model, which also includes the possibility of a certain profit rate. However, some differences do exist, as seen below.

The Implications of a Different Club Objective

Figure 62.1 showed that different club objectives can be expected to have serious implications for a number of important variables in the professional team sports industry, such

as the salary level, the distribution of talent, total league revenue, the ticket price and the market regulation impact. In order to show this, some simplifying assumptions will be made. We consider a two-team league with one large market club and one small market club with quadratic revenue functions and linear marginal revenue and average revenue curves. The only difference in both clubs' revenue function is the market size. The supply of talent is constant and the market-clearing unit cost of talent is determined by total talent demand and supply in a competitive player labour market.

What can be derived from this model in a profit-maximising league, where all clubs maximise profits, compared with a win-maximising league, where all clubs maximise their win percentage under the breakeven condition? Whereas the demand curve for talent of a profit-maximising club is given by the marginal revenue curve, it can easily be derived that the demand curve of a win-maximising club is given by the curve of the average revenue, that is the revenue per unit of talent. Within the relevant range of talent demand, the average revenue curve is decreasing, so that the marginal revenue curve is everywhere below the average revenue curve. It follows that demand for talent, at a given unit cost of talent, is lower in a profit- than in a win-maximising club.

A first implication of a lower demand for talent in a market, with a given supply of talent, is that in a profit-maximising league the unit cost of talent, or the average player salary, is also lower than in a win-maximising league. So, players in a win-maximising league are paid above marginal productivity.

A second implication is that the distribution of talent across clubs is more unequal if the clubs' objective is to win. This proposition holds not only for the simplified model above, but also under more general conditions as long as the large market team dominates the small market team¹ (Késenne, 2004).

The competitive balance in both scenarios can be seen in Figure 63.2, which shows the demand curves for the large market club i and for the small market club j , which differ only in the size of the market. On the vertical axis the unit cost of talent is indicated, and on the horizontal axis the number of playing talents. The origin of the large market club is on the left-hand side of the diagram, the origin of the small market club is on the right.

The distance between the two origins indicates the constant supply of playing talent. If clubs are profit maximisers, the demand for talent is given by the marginal revenue curve (MR). The point of intersection of the two marginal revenue curves yields the competitive market equilibrium (E_p) in a profit-maximising league, marking the distribution of talent (X_p) on the horizontal axis, and the market-clearing unit cost of playing talent (c_p) on the vertical axis. The talent demand functions of win-maximising clubs are given by the average revenue curves (AR). The point of intersection of the two AR curves indicates the player market equilibrium for a win-maximising league (E_w). As can be seen, the distribution of talent is more unequal in a win-maximising league (X_w), and as indicated above, also the unit cost of playing talent is higher ($c_w > c_p$). It is also possible that some clubs in the league are profit maximisers and others are win maximisers, or that the fixed profit rate of one club is higher than that of another club. This can obviously affect the competitive balance as can easily be derived from Figure 63.2, by looking at the points of intersection of the average and the marginal revenue curves. If large market clubs are assumed to be more profit orientated than small market clubs, this fact can improve the competitive balance in the league.

A third implication is that, in a win-maximising league, total league revenue is lower than

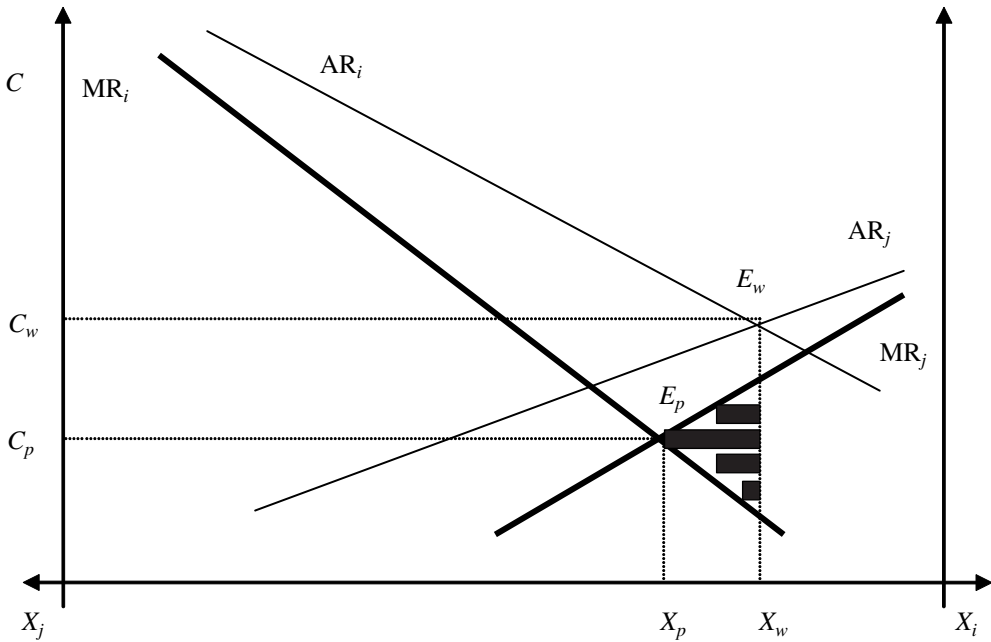


Figure 63.2 Player market equilibrium

in a profit-maximising league, because the playing talents are not efficiently allocated. It follows that the distribution of playing talent in a win-maximising league is causing a welfare loss. Players are employed in the team where their marginal productivity is not at the highest possible level. The loss of revenue of the small market club is not offset by a gain in revenue of the large market club. The size of the welfare loss can be measured by the hatched area in Figure 63.2.

As a fourth implication, it is clear that the club objective can also have its impact on the ticket price. A generally accepted assumption is that most sports clubs are price makers, because they are local monopolists on the product market. Even if the pricing rule turns out to be the same for profit- and the win-maximising clubs, it can be shown that the optimal ticket price of a win-maximising club will be higher than the optimal ticket price of a profit-maximising club. This can be understood by considering the fact that the number of talents hired by a win maximiser is higher (see above), which implies a higher quality of the play and a higher demand for tickets for every level of the ticket price. It follows that also the optimal ticket price, set by a monopolist, will be higher (Késenne and Pauwels, 2005).

The last and perhaps one of the most important implications of the win-maximisation objective of clubs is that the well-known ‘invariance proposition’, no longer holds. This proposition, introduced by Rottenberg (1956), states that restrictions on player mobility, and other regulations, do not change the competitive balance in a league. Applied to the league policy of revenue sharing across clubs, it has been shown that gate sharing does not change the distribution of talent, if clubs are profit seekers. The most important effect of revenue sharing is that it lowers player salaries.²

However, it can be shown that this is no longer true if clubs are win maximisers, even

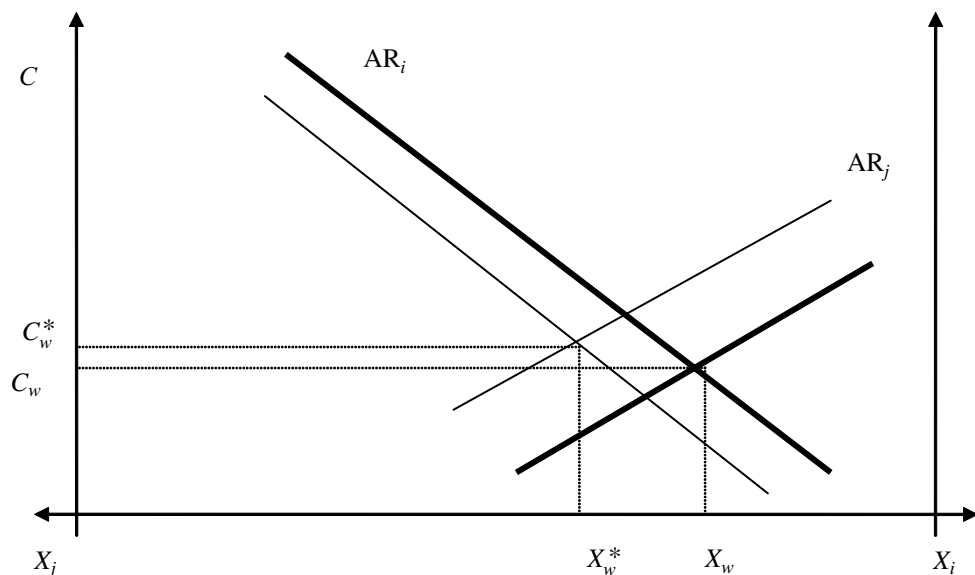


Figure 63.3 *Revenue sharing in a win-maximising league*

if they are profitable. Revenue sharing improves the competitive balance if the clubs' objective is to win. Another implication is that revenue sharing does not lower, but will increase player salaries (Késenne, 1996, 2000).

This can be illustrated in Figure 63.3, where the stars indicate the values after sharing. Whereas in a profit-maximising league, the demand curves for talent shift downwards for both the large and the small market clubs, leaving the distribution of talent unchanged on the horizontal axis, there will be an upward shift of the demand curve of the small-market club in a win-maximising league, which improves the competitive balance from X_w to X_w^* . It can also be seen in the figure that the unit cost of talent, or the average player salary, goes up from C_w to C_w^* . This is due to the fact that revenue sharing moves the player market equilibrium closer to the efficient allocation of talent among both clubs, which increases total league revenue, and allows the win-maximising clubs to pay higher salaries.

Finally, if the club objectives are best described by function (63.4), the competitive balance is the same as under profit maximisation if the appeal for winning (the parameter α) is the same for both teams. If the small market team is more win orientated, the distribution of talent will be more balanced. In that case, revenue sharing can also improve the competitive balance (Késenne, 2000).

Empirical Tests of the Club Objectives

One can find in the literature only a few tests of the profit-maximisation hypothesis in professional team sports. The majority of these tests concentrate on the estimated value of the price elasticity of the demand for tickets, because economic theory suggests that profit-maximising clubs set ticket prices in the elastic range of demand. Noll (1974) finds that the demand for baseball tickets at the current price has an elasticity that is smaller but not significantly different from one. He concludes that, given the fact that the marginal cost of

spectators is close to zero, the profit-maximising hypothesis cannot be rejected. Others found similar results, drawing the same conclusion (Alexander, 2001).

However, for several reasons, the value of the price elasticity is an unreliable indicator of a club's objective.

- The fast-changing revenue structure of most clubs shows that the share of non-gate revenues has become very important. In some professional football clubs in Europe, gate receipts are less than 30 per cent of the total budget. Many of these other revenues are positively correlated with stadium attendance so that a profit-maximising club sets its ticket price where the price elasticity of demand is much smaller than one.
- If the marginal cost of spectators is not zero, the profit-maximising value of the price elasticity will be higher.
- If a club is very successful in attracting spectators so that it faces a stadium capacity restriction for most of its games, a club can set its ticket price above the unrestricted optimal level.
- Another complication is that the total cost of attending a game includes more than just the ticket price, such as the cost of transportation and parking, snacks and drinks at the ballpark and so on. Some of these expenditures are extra revenues for a club so that they also affect the optimal ticket price.

One of the better tests has been applied to the National Hockey League (NHL). Ferguson et al. (1991) developed a test of the profit-maximising hypothesis based on the price-setting behaviour by hockey teams. The authors estimated a simultaneous model starting from a functionally specified version of the ticket demand function and the first-order condition for the profit-maximising price. The results of their test supported the hypothesis that hockey teams are profit maximisers. However, as already mentioned above, the pricing rule of a win-maximising club is the same as the pricing rule of a profit-maximising club. It follows that this test supports both the profit- and the win-maximisation hypotheses. It is possible that tests based on the implicit pricing rule might be able to distinguish profit maximisation from other club objectives, but they cannot distinguish between the profit- and the win-maximising hypotheses.

So, it is still not clear, as asserted by Cairns et al. (1986, 8), 'that we are capable in principle of empirically distinguishing utility and profit maximising behaviour'. They correctly pointed out that most contributions produce evidence in accord with profit maximisation but do not pay enough attention as to whether the competing hypothesis might also be consistent with such observations.

Do some other economic implications of club objectives offer any testable hypothesis that can separate profit and win maximisation? It was shown above that in a win-maximising club, players are hired even if marginal revenue tumbles below the salary level. Win-maximising clubs, even if they make some profit, pay salaries above marginal productivity, whereas profit-maximising clubs pay salaries in accordance with marginal productivity. It can also be shown that, under the (monopsonistic) transfer system, win-maximising clubs pay salaries above marginal productivity, whereas Scully (1989) has shown empirically that for profit-maximising clubs there is a considerable degree of monopsonistic exploitation. If it is possible for a sport like baseball, using Scully's

two-step procedure, to calculate the individual contribution of a player to club revenue, and to compare his contribution with his salary level, this comparison might reveal something about club objectives. Moreover, it has been shown that revenue sharing arrangements among clubs in a profit-maximisation league does not improve the competitive balance, whereas it does improve competitive balance if clubs are win maximisers. Can this observation also provide a test on the objectives of a sports club?

Conclusion

The discussion on club objectives is certainly not closed. What seems to be clear is that most are sports clubs interested in more than just profit making, but also that they do not want to win at any price. For several reasons, tests on the objectives of a club are controversial: short- and long-run considerations, accounting procedures, the power of the tests and so on complicate the matter considerably. Recently, Zimbalist (2003, 509) concluded that: 'owners maximise global, long-term returns and . . . these are very different from a team's reported annual operating profits'. Thus, we are still inclined to share the view of Quirk and El-Hodiri (1974):

The assumption that the actions of franchise owners are motivated solely by profits from operation of their franchises is admittedly somewhat unrealistic. Owning a major league franchise carries with it prestige and publicity, and a wealthy owner might view it simply as a type of consumption; for such a sportsman owner, winning games rather than making money might be the motivating factor.

Notes

1. For the popular Cobb–Douglas revenue function, this proposition does not hold. One of the properties of a Cobb–Douglas revenue function is not appropriate for a club revenue function in team sports. The third partial derivative of a Cobb–Douglas function with respect to the winning percentage is positive, whereas it should be negative (or, at the very most, zero), because the negative impact of a high winning percentage on the increase in revenue becomes stronger if the winning percentage approaches one.
2. Recently, Szymanski and Késenne (2004) have shown that, in a Nash-Cournot Equilibrium Approach, revenue sharing worsens the competitive balance.

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64 Production functions for sporting teams

Jeff Borland

Formal analysis and measurement of organisational production functions has been a significant field of research in recent years. Bartel et al. (2004, p. 217) describe the new research methodology of ‘insider econometrics’ that seeks to test the effects of organisation-specific determinants of firm productivity following ‘two broad principles’:

First it uses field work to generate a detailed understanding of a specific production process, its technology, and the nature of work in a particular industry. This field work in turn provides valuable insights about how to model production in that industry and what data to collect to estimate those models. Second, detailed operating data from the industry are used to estimate econometric productivity models that permit convincing tests of hypotheses about the determinants of productivity.

While this research approach may be relatively novel within the fields of industrial economics and labour economics, for sports economists it should sound very familiar. Estimation of production functions for sports teams – drawing on both a detailed understanding of the sporting competition, and team and player performance data – now extends over three decades.

In his seminal article on the labour market in professional sporting competitions, Rottenberg (1956, p. 255) recognised that:

A baseball team, like any other firm, produces its product by combining factors of production. Consider the two teams engaged in a contest to be collapsed into a single firm, producing as output games, weighted by the revenue derived from admission fees. Let the players of one team be one factor and all others (management, transportation, ballparks, and the players of the other team), another. The quantity of the factor – players – is measured by making the appropriate adjustment for differential quality among players.

This idea was first implemented empirically by Scully (1974) as part of his comparison between salaries and the marginal revenue product (MRP) of players in Major League Baseball (MLB). The production function estimated uses team season winning percentage in 1968 and 1969 as the ‘output’ variable:

$$\text{PCTWIN}_{it} = \alpha + \beta \text{TSA}_{it} + \chi \text{TSW}_{it} + \delta \text{NL}_i + \phi \text{CONT}_{it} + \psi \text{OUT}_{it} + \varepsilon_{it} \quad (64.1)$$

where TSA = team slugging average; TSW = team strikeout-to-walk ratio; NL is a dummy variable for National League; CONT is a dummy variable for pennant and divisional winners in the previous season; and OUT is a dummy variable for teams that at the end of the season were 20 or more games out of placing. Scully also estimates a team revenue equation that specifies revenue as a function of team winning percentage and market size. The two equations are then used to estimate the MRP of individual players, and those MRPs compared with player salaries in order to evaluate the extent of monopsonistic exploitation.

Scully's paper set the tone for subsequent research on team production functions that has been almost exclusively empirical – estimating production functions for a range of sports, generally with the objective of testing economic theory or describing some aspect of the operation of sporting labour markets. By contrast, theoretical studies of sporting competitions have primarily adopted a simplistic approach assuming that team winning percentage depends on the 'units of talent' owned by a team relative to its competitors (Fort and Quirk, 1995; Szymanski, 2003 for recent overviews).

Specification

A general form of production function for a sporting team might be specified as:

$$P_{it} = \gamma(Q_{lit}, \dots, Q_{Jit}, M_{it}, X_{it}, T_{lit}, \dots, T_{Nit}); \quad i = 1, \dots, I; t = 1, \dots, T \quad (64.2)$$

Denoting P as the performance or output measure, the model in equation (64.2) has performance of team i at time t dependent on the quality (Q) of the J players in the team, the quality of the manager (M), other factors (X), and quality of the other N teams in the competition.

To move from this very general specification, to a form of production function that can be empirically estimated, requires several decisions.

What measure of output?

Most commonly, studies that estimate team production functions have adopted a season as the time period over which to measure performance, and winning percentage has been used to represent output (Espita-Escuer and Garcia-Cebrian, 2004, Table 1). However, in sports where draws are common, using a win percentage measure may give a misleading impression of performance, so 'points' won has been seen as more appropriate (Schofield, 1988; Dawson et al., 2000a). Other studies have used alternative measures of team output such as attendance (Gustafson et al., 1999), revenue from TV broadcasts (Hausman and Leonard, 1997), and number of players drafted from a college team to the major league (Brown, 1994); or used a different time unit by analysing performance of a team in individual matches (Carmichael et al., 2000).

Most studies do not provide any explicit motivation for the choice of team output measure. In practice the choice seems to involve an implicit judgement about the objective of sporting teams, and the purpose of the study. Performance measures such as winning percentage or points won can be seen as either directly relevant to a team's objective (win-maximiser hypothesis), or indirectly relevant as one factor influencing team revenue and profits (profit-maximiser hypothesis). But where a study has some explicit purpose, such as measuring determinants of TV revenue, then it may be most appropriate to use that variable directly as a measure of team output.

What inputs?

Deciding how to represent player performance is the common starting point for estimating a team production function. One approach is to include measures of player *performance* that are regarded as important explanatory variables for team performance. For example, in the Scully (1974) study, measures relating to team batting and team pitching performance are included as inputs. The alternative approach is to include as inputs measures of player

ability. For example, in their study of English soccer, Dawson et al. (2000b) include measures such as player career league experiences, player age, and goals scored by players in the previous season. Of course it is also possible to have a two-stage approach that treats player ability as an input to player performance, and player performance as the determinant of team performance (see Carmichael and Thomas, 1995, for application of this type of approach to rugby league in England). As well, other factors apart from 'exogenous' player ability may affect player performance – for example, Krautmann (1990) studies how the time to next contract negotiation may affect player performance in MLB.

The other main issue is the range of inputs to be included in the production function. Apart from player quality, the main input that many studies have sought to include has been managerial or coach quality. In some studies this has involved developing measures of managerial quality to incorporate together with player performance or quality measures into the team production function (see, for example, Pfeffer and Davis-Blake, 1986; Kahn, 1993); in other studies a fixed effect is used to represent a manager, with the effect on team performance being identified by managers changing between teams (Borland and Lye, 1996; Dawson et al., 2000a). Where both player and manager or coach quality measures are used as inputs, one difficulty that arises is disentangling between direct and indirect effects of the manager. For example, managers might affect team performance directly by the way that they are able to combine a set of players of given quality into a team performance such as through their role in determining team tactics in a match; but there may also be indirect effects of a manager on team performance such as through the quality of players in a team due to the manager's role in recruiting, or on player performance through the role of a coach as motivator. A range of studies have found evidence that managerial quality and experience is positively related to team and player performance (Kahn, 1993; Singell, 1993); although managerial efficiency certainly does not have a perfect correlation with team performance (Dawson et al., 2000a).

Generally studies have not included the quality of opposing teams as an input to team performance. This may be appropriate where the output measure is seasonal winning percentage and teams play each other the same number of times during a season. But where the output measure was, for example, at the match level, or teams have different playing rosters through a season, then controlling for the quality of teams played would seem to be important.

What functional form?

Determining the appropriate functional form of a team production function requires a judgement to be made about the way that inputs combine to produce team output, and how increases in the 'quantity' of inputs will affect team output.

As Scully (1995, p. 64) notes: 'Players interact with one another in team sports. The degree of interaction among player skills determines the nature of the production function'. At one extreme it is possible to envisage a sporting competition where the output of individual players contributes additively to team output. Here there is no effect of interaction between players on team output; instead, output of individual players is perfectly substitutable. (This does not necessarily mean that individual players will be perfect substitutes. With a fixed number of players in a team there will still be a preference for higher-ability players.) In sports such as baseball and cricket it has been argued that there is sufficient separability between the activities of hitting and pitching, and batting and

bowling, for an appropriate representation of the team production function in those to be additive in the separate activities. At the other extreme would be a sporting competition where outputs of individual players are perfect complements in contributing to team output. That is, in a sporting competition where, for example, positional specialisation means that a team is 'only as good as its weakest link', a Leontief-type production function would be appropriate. Sports such as American and Australian football, which have a high degree of specialisation of tasks, and involve substantial interaction between players, would probably correspond most closely (although not exactly) to this case.

In general it will not be possible to increase the 'quantity' of inputs in a team production function by adding extra players. Instead the idea behind increasing inputs would be that the quality of inputs might become higher. (Although it may be possible to increase the pool of players that a team can draw on by increasing the roster size, or to by increasing the size of coaching staff.) How an increase in the quality of an individual input will affect team output depends on the degree of substitutability of inputs, but as well, it is likely to depend on the nature of the competition and the output measure. For example, where output is measured using team winning percentage, it might be reasonable to think that there would be decreasing returns to player quality since a bigger winning margin makes no difference to winning percentage; but where team output was measured by goal difference then it may be more sensible to represent constant returns to player quality.

The main approaches in empirical studies of team production functions have been to estimate fairly simple models that specify either a linear or log-linear relation between output and inputs. Linear models (Scully, 1974) implicitly assume additive separability of inputs. Log-linear models (Gustafson et al., 1999) assume that individual inputs interact multiplicatively to determine team output. A more 'structural' approach is taken in the study by Atkinson et al. (1988) of American football (National Football League) where specific interaction terms between inputs are chosen on the basis of expected interdependencies between positions. And in a study of team production functions for cricket in Australia and New Zealand (Bairam et al., 1990) a more general functional form – the CES (constant elasticity of substitution) production function – is estimated. This approach allows the degree of substitutability between batting and bowling performances in determining team performance to be assessed.

Types of Studies

Empirical analyses of team production functions in sporting competitions have predominantly studied MLB in the United States, and soccer in Europe. In part this may be due to (especially for baseball) the perception that the appropriate model of team output is relatively simple and hence easily amenable to econometric analysis; and as well the availability of detailed data on individual player and team performance. However, these sports also account for the bulk of empirical analysis on other topics such as demand for attendance at sporting competitions (Borland and Macdonald, 2003) so that it seems an explanation must also be the general interest in and importance of baseball and soccer. Other sports where team production functions have been studied are cricket, American professional and college football, rugby league in England, and basketball in the United States.

There appear to have been a variety of objectives in studies that have estimated team production functions. The common link between most studies, however, is the use of sporting competitions as a laboratory for testing economic theories (Kahn, 2000). The

original study that estimated team production functions in MLB by Scully (1974), and a range of subsequent research, have sought to use sports labour markets to test the extent of monopsonistic exploitation in a type of market where there is generally a single employer (or set of employers) in the highest-quality competition, and significant restrictions on mobility of labour. While Scully's study did find evidence of monopsonistic exploitation, later studies that have examined time periods with different wage bargaining institutions in MLB, or used alternative methods for imputing the 'value' of a player to a team, have not found evidence of exploitation (Marburger and Reynolds, 1994). More recently, several studies have used estimates of sporting team production functions to assess managerial efficiency (Dawson et al., 2000a). And team production functions have also been used as the basis for tests of whether 'CEO' succession adversely affects organisational performance (Pfeffer and Davis-Blake, 1986), whether turnover of coaches is consistent with labour market theories of matching (Borland and Lye, 1996), and incentive effects on player performance (Krautmann, 1990).

Empirical Methodology

The approach for estimating team production functions most often applied has been to use the ordinary least squares (OLS) method together with either of the following models:

$$\text{WPCT}_{it} = \alpha + \beta X_{it} + \varepsilon_{it}; \quad i = 1, \dots, I; t = 1, \dots, T \quad (64.3a)$$

$$\ln(\text{WPCT}_{it}) = \alpha + \beta \ln(X_{it}) + \varepsilon_{it}; \quad i = 1, \dots, I; t = 1, \dots, T, \quad (64.3b)$$

where WPCT_{it} and X_{it} are, respectively, winning percentage (or alternative output measure) and a vector of input variables for team i in season t . This model can be supplemented with fixed effects for team or season, although especially in early studies, this was rarely done. The OLS approach provides estimates of the average effect of the set of input variables on the team performance measure.

The main alternative estimation approach, applied in particular in studies that have sought to estimate managerial inefficiency, is stochastic frontier analysis (see Dawson et al., 2000a, for a detailed overview). This approach estimates:

$$\text{WPCT}_{it} = \gamma + \phi X_{it} + (\delta_{it} - \lambda_{it}); \quad i = 1, \dots, I; t = 1, \dots, T, \quad (64.4)$$

where δ_{it} and λ_{it} are respectively, a two-sided error term representing the effect of 'noise' on team output and a one-sided error term representing inefficiency effects. Stochastic frontier models can be estimated either using a maximum likelihood method on cross-section data with an assumption on the distribution of the inefficiency error term, or using panel data that allows the inefficiency effect to be identified from repeated observations on the same manager.

The major econometric issues to be concerned about in interpreting findings from studies of team production functions would seem to be omitted variable bias, misspecification of the production function, and selection effects. Knowing all relevant inputs to team output, and finding appropriate measures for those inputs, is likely to be a difficult exercise in most sporting competitions. However, not doing this may cause biased estimates. As a simple example, where managerial quality and player quality are likely to be correlated, then measuring one of those variables with error will cause upward-biased

estimates of the effect of the other variable. As soon as some degree of interdependence between players in a team exists in how their individual performance will affect team output, a significant degree of complexity is introduced to modelling the team production function. But again, not doing this may introduce bias into estimates of how those individual inputs affect team output. Thus far the literature on team production functions appears to assume that all teams in a competition will have the same production function. But it does not seem unreasonable to think that different teams in the same competition could choose different ways to combine inputs, and that they would do this in a way that would cause selection effects to arise – such as according to their comparative advantage in following particular playing strategies.

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65 Revenue sharing

Stefan Szymanski

Revenue sharing between teams in a league is a common phenomenon. Perhaps the best-known scheme is that operated by the National Football League (NFL), where 40 per cent of designated stadium income is paid to the visiting team. At various times different leagues have operated schemes of this kind, albeit based on smaller percentages. For example, at its foundation in 1876 the National League (baseball) shared the gate revenues equally, but over time this percentage fell, until by the mid-1990s the visitors were paid only 5 per cent. Since that time Major League Baseball has operated a scheme which has revenue sharing effects, namely a luxury tax. All teams contribute 34 per cent of net local income (after paying local expenses) to a sharing pool, part of which is then redistributed to teams in the bottom half of the income distribution.

Revenue sharing schemes are frequently part of a package of measures. Notably, collective selling of broadcast rights (which might reasonably be viewed as a restriction of competition aimed at extracting higher payments from broadcasters) is commonly defended by leagues on the grounds that it redistributes income (relative to a regime of individual selling), because of an egalitarian sharing rule. This is true not only in North America, where each team receives an equal share of the total, but in leagues such as the English FA Premier League, where only 50 per cent is shared equally, 25 per cent is shared on the basis of league performance and 25 per cent on the frequency of TV exposure.

Economists have studied revenue sharing mechanisms since the pioneering work of El-Hodiri and Quirk (1971). The focus of these studies has been to discover the impact of these schemes on (a) the distribution of talent in the league (the competitive balance issue and (b) the profitability of the league. These questions are no different from the ones that are studied in relation to restrictions in the labour market such as the reserve clause or a salary cap. There is a fairly broad consensus in the economic literature that all restrictions will tend to raise profits (see Szymanski, 2003). There is less agreement concerning the effect on competitive balance. This is because the impact of a revenue sharing scheme depends on not only the amount of money redistributed, but also the effect on the incentives to invest in the team.

The easiest way to make this point is to start from a model where all income is invested in the team. Such behaviour is not necessarily consistent with profit maximisation, but is consistent with the objective of win maximisation, which is widely held to be the objective of clubs in professional European soccer leagues (see Késenne, 1996). In such a world, any redistribution scheme which takes from the rich and gives to the poor is expected to improve competitive balance, since the weaker teams will have more to invest and the stronger teams less.¹

Now consider a model where the teams are profit maximisers. In this case, the decision of each club is to invest only to the point where marginal revenue equals marginal cost. The type of redistribution scheme now needs to be precisely defined, in order to establish the impact on incentives at the margin. Consider, for example, a lump-sum tax on each

club (for example, suppose each must contribute \$10 million for redistribution) which is then awarded as a prize to the team that wins the championship. Such a scheme will improve competitive balance, since marginal returns to success for each team will be more closely aligned. In the limit, if all club income were confiscated and then awarded as a prize to the team coming first in a league, then all teams would have exactly identical incentives to invest and the league would be perfectly balanced (in such a world, teams would lose money in every season in which they did not win the championship and an equilibrium might not exist).

Note here that identifying the incentive effects requires that both the revenue-raising and the revenue sharing rules must be identified in order to establish the incentive effects. The most widely studied incentive scheme is gate-revenue sharing, where the visiting team is paid a fixed percentage of the gate, as in the NFL. Note that such a scheme is not quite the same as sharing all income equally (because the income from each match is only shared between two teams) unless there is a two-team league. However, the literature has focused almost exclusively on the two-team case because of its tractability, and this is the case considered here.

First consider the case where 50 per cent of the gate goes to the visitors and there is no other source of income. In such a case the teams act as joint profit maximisers, since they each receive 50 per cent of the income generated by the league. Clearly the teams will seek out a distribution of talent which maximises joint profits. Now consider the distribution of talent when there is no gate sharing at all. In this case each team cares only about its own income and does not take account of the effect of its investment choices on the income of its rival. If the two teams have equal revenue-generating capacity then these externalities are of exactly equal and opposite size, and hence the distribution of talent will be identical to the case where 50 per cent of the revenue is shared. In such a case, revenue sharing has no effect on competitive balance, since the teams are perfectly balanced to begin with.

However, consider the case where one team can generate a higher income from any given level of success (for example, win percentage). In this case, the externalities produced by each team are of different size. Suppose that the share of wins that maximise profits for the league is 60 per cent for the strong teams and 40 per cent for the weak ones. With 50 per cent gate-revenue sharing, each team will hire enough talent to achieve this outcome. Now if there is no sharing, each team will expect a larger marginal revenue of winning starting from the 60:40 distribution (because they are not sharing), and each team will ignore the externality that its choice imposes on the income of its rival. The externality created by the large team will be small, since the small team's revenue-generating capacity will be small, while the externality imposed by the small team will be large, since the large team's revenue-generating capacity is large. Hence, the small team creates the larger externality, implying that it will take a larger share of wins than when there is 50 per cent gate sharing. As a result, the equilibrium when there is no gate sharing is more balanced than the equilibrium when there is equal gate-revenue sharing! Moreover, it is relatively easy to show that any increase in gate-revenue sharing will reduce competitive balance (see Szymanski and Késenne, 2004).

This surprising result illustrates how carefully revenue sharing schemes need to be considered, and that it should never be presumed that such schemes will automatically improve competitive balance. Some authors have argued that revenue sharing will have no

impact on competitive balance, basing their argument on a version of the Coase theorem. This argument assumes that whenever the marginal revenue of a unit of talent is higher for one team than for another, then talent will be traded to the high marginal revenue team. The reason why this is not the case when teams independently choose investment levels is that while marginal revenues of hiring a unit of talent are equalised, the marginal revenues of a win are not. The marginal revenue of hiring a unit of talent equals the marginal revenue of a win multiplied by the marginal effect of a unit of talent on win percentage. Under normal assumptions this latter effect decreases as teams become more successful, and hence when teams choose independently it can be the case that marginal revenues of a unit of talent are equal, while the fact that the marginal revenue of a win for the stronger team is larger is exactly balanced by the fact that the marginal effect of a unit of talent on win percentage of the stronger team is smaller. More generally, the proper application of the Coase theorem would require either equal revenue sharing or the large team to take over the operation of the smaller team in order to impose an efficient distribution of wins.

The economic analysis of revenue sharing schemes is still in its infancy and much work remains to be done to examine the incentive effects of the various forms of redistribution that are applied in practice.

Note

1. Surprisingly, one of the most neglected issues in the economics of sport is the sensitivity of success to the investment of financial resources. Some sensitivity is a precondition for any redistribution scheme to have an impact.

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66 The reserve clause in Major League Baseball

Lawrence Hadley

The Reserve Clause: Economic Theory

The reserve clause has been a permanent fixture in the labour market for Major League Baseball (MLB) players since 1887. It ties a player to the one specific team that held that player's contract the previous season. If the player wants to play MLB, he can only play for the one team that holds his contract, or for another team only if the player is traded at the owner's discretion. In other words, the reserve clause totally obliterates a free and competitive labour market in MLB. Prior to 1976, the term of the clause was the player's entire career. Since 1976 (free agent era), the clause ties a player to his team for the first six years of his MLB career.

The obvious economic impact of this reserve clause is the creation of a monopsony in the MLB labour market. By contract, there can be only one buyer of a player's labour services for the first six years of that player's career. This monopsony is mostly the result of the legal and institutional history of labour relations in the MLB industry, and more recently, the collective bargaining process between the owners and the players. The history of labour relations before 1975 is one of total domination by the owners. Since 1975, the players have made significant gains, including the elimination of the reserve clause for players with six or more years of service in MLB.

The most important prediction of the standard monopsony model is that the wage paid to the worker (player) will be less than the wage that would be paid in a competitive labour market. Theory predicts that workers are paid a wage equal to their marginal revenue product (MRP) in a competitive market, and theory further predicts that with monopsony, workers will be paid a wage that is less than their MRP. Exploitation is defined as the difference between a player's MRP and his annual wage. Since the reserve clause eliminates competition on the owners' side of the labour market, it will reduce the wage below a player's MRP. Therefore, the reserve clause is a mechanism by which the owners engage in monopsonistic exploitation of the players.

Two other important predictions are that firms (teams) will employ fewer workers and will produce less output. In MLB, the realisation of this last prediction involves a restriction on the number of MLB teams. If there are fewer teams than would exist in competitive markets, then there are also fewer roster spots. Therefore, fewer workers (players) are employed.

An important underlying economic reality that impacts the players' labour market is the unique athletic skills possessed by the players. For star players, the labour supply function is best represented as perfectly inelastic (vertical with respect to the wage rate) because *ex ante*, the number of star players is approximately fixed for any particular season. A player's opportunity cost is his wage rate in his next best alternative employment outside of MLB, and any player-generated revenues greater than the player's opportunity cost are defined as monopoly rents. The demand for the labour services of a star player (equal to the star's MRP) is likely to be greater than the star's opportunity cost

because the athletic skills are so unique. Indeed, for most players, their MRP is much greater than their opportunity cost. Therefore, the MLB labour market will exhibit large monopoly rents. The central issue in this labour market is whether the owners or the players will capture these rents. With a reserve clause, it is expected that the owners will capture the bulk of these rents via monopsonistic exploitation.

Owners have voiced the view that the reserve clause is an essential aspect of competitive balance. The idea is that small-market teams will be able to retain the star players that are developed by their Minor League system only if the reserve clause is in effect. The reserve clause protects the small-market teams from raids by large-market teams on the small-market's star players that could occur in a free competitive labour market.

In sharp contrast to this position of the owners, economists have frequently taken the position that the reserve clause will have no impact on the allocation of playing talent between small- versus large-market teams, and therefore will have no impact on competitive balance between small- and large-market teams. This idea, closely related to the Coase theorem, was first presented by Simon Rottenberg (1956). Sports economists refer to Rottenberg's idea as the invariance principle. It was demonstrated more formally in the theoretical model presented in El-Hodiri and Quirk (1971).

The basic argument begins with the proposition that MLB teams are best understood as profit-maximising firms. If playing talent can be transferred between teams by player trades or by cash sales, then the marginal cost of a unit of talent (the amount required to increase a team's winning percentage by one unit) will be equal for all teams. Therefore, these profit-maximising teams will purchase talent up to the point that their marginal revenue from one more win percentage is equal to the marginal cost of the talent required for that additional win percentage. In other words, players will be traded between teams until the marginal revenues of all teams are equal. Large-market teams will usually purchase more talent than small-market teams because the marginal revenue generated by talent is greater, and declines less rapidly, in the large markets over the same interval of win percentage on the revenue function.

The reserve clause does not restrict the transfer of players between teams, so it will not alter the distribution of playing talent. The profit-maximising distribution is the same with or without the reserve clause. The profit-maximising equilibrium occurs where the marginal revenue of player talent is equal to the marginal cost of talent for all teams. This equilibrium is invariant with respect to the property rights assigned (or not assigned) to the owners by the reserve clause (or its absence). An elaboration of this theory can be found in Quirk and Fort (1992) and also in Fort and Quirk (1995).

The invariance principle was first challenged by George Daly and William Moore (1981). They argued that the reserve clause (along with other labour market restrictions) will alter competitive balance. Their fundamental argument is that there are external effects between the revenue functions of teams in a sports league, and greater profits will be the result if the externalities can be internalised. These effects are the source of a common league interest in competitive balance. The reserve clause is one mechanism of internalising these external benefits. It promotes competitive balance, and the owners will certainly recognise their common interest because this balance increases revenues and profits. In this sense, competitive balance should be viewed as a public good for the entire league.

Daly and Moore's paper focuses on the empirical evidence relating to balance. The validity of the invariance theorem is ultimately an empirical issue – not a theoretical one!

They feel that the evidence supports their position: the widespread sale of talent to the large-market teams has mostly been a non-event. Thus, the reserve clause has acted as a constraint on the migration of talent to the large-market teams. But Daly and Moore do not address the issue of exploitation directly. However, in the early literature of the 1960s and 1970s, the idea that the reserve clause leads to the exploitation of players was not challenged. The only issue is: how much?

More recently, Stefan Szymanski (2004) has presented a rigorous theoretical case against the invariance principle and its implications for revenue sharing. Using the concept of Nash equilibrium, Szymanski demonstrates that revenue sharing will impact competitive balance. Specifically, he demonstrates the counterintuitive result that increased revenue sharing causes a degeneration of balance: the winning percentage of large-market teams increases. However, the implications of his model for the reserve clause and exploitation are yet to be explored.

Models for Estimating a Player's MRP

Gerald Scully (1974) was the first economist to use a formal model to estimate the magnitude of the monopsonistic exploitation of MLB players due to the reserve clause. Since exploitation occurs when a player is paid an annual wage less than his MRP, an empirical estimation of this exploitation must begin with an estimate of the player's MRP.

For his empirical estimates, Scully uses a two-equation recursive model which includes a team production function and a team revenue function. Basically, revenue depends upon win percentage which depends upon hitting and pitching inputs. The hitting input is measured with team slugging percentage (SLUG) and the pitching input is measured with the team's strike-outs to base on balls ratio (SOBB). The contributions of individual players are weighted by a hitter's percentage of team at-bats or a pitcher's percentage of innings pitched. Thus, each hitter's (pitcher's) MRP can be estimated as his contribution to SLUG (SOBB) times the number of win percentages generated by one SLUG (one unit of SOBB) times the value of one more win percentage to a team in terms of additional revenue. As examples, he estimates Hank Aaron's MRP at \$520 800 and Sandy Koufax's MRP at \$725 000 in 1968. It is important to note that each player's contribution is independent of the other players.

Scully defines the rate of exploitation as $(MRP - \text{salary})/MRP$. Scully's results indicate that the gross rate of exploitation (no adjustment for training costs) is between 0.88 and 0.89 for the average and the star players, respectively. Therefore, Scully's results indicate that prior to 1976, the owners took a very high portion of the monopoly rents, and the reserve clause is the mechanism by which they confiscated these rents.

It should be noted that the Scully model attributes the entire gap between MRP and the predicted wage to exploitation. In the second paragraph of his paper, Scully identifies the purpose: 'to crudely measure the economic loss to the players due to the restrictions of the reserve clause'. Several economists have proposed refinements and extensions to improve the Scully model. One economist (Krautmann, 1999), has proposed an alternative model for estimating MRPs that is completely different from Scully's model.

One early refinement was introduced by Marshall Medoff (1976). He pointed out that Scully's model is likely to be simultaneous rather than recursive. Variables excluded from the production function may influence the revenue function since win percentage (the dependent variable in the production function) is one of the independent variables in the revenue function. Some of the variables excluded from Scully's production function that

may make an impact on team revenue include managerial quality, fan enthusiasm and stadium capacity, among others. Therefore, the error terms in Scully's two-equation model are likely to be serially correlated. If this is the case, the ordinary least squares (OLS) estimation technique used by Scully will generate biased and inconsistent estimates of the regression coefficients.

If the Scully model is simultaneous, Medoff points out that the appropriate estimation technique for estimating the revenue function is two-stage least squares (2SLS). His 2SLS estimate of the impact of a one per cent increase in win percentage on revenue is \$7295 instead of the \$10 330 estimated by Scully. From this result, Medoff estimates the rates of player exploitation between 0.50 and 0.60 for the star hitters and star pitchers, respectively. Thus, he concludes that there is substantial exploitation as a result of the reserve clause, but the rates of exploitation are much lower than those estimated by Scully.

Sommers and Quinton (1982) use a modified Scully model to examine the players' labour market in the first season after free agency. They specify the population variable in their team revenue function as quadratic and also specify that it should interact with team win percentage. Thus, each market has multiple combinations of win percentages and revenue that exhibit diminishing or increasing returns to population. The coefficient on $SMSA^2 * WINPCT$ (the square of SMSA population interacted with team win percentage) is positive and statistically significant indicating that large-market teams experience greater returns in revenue (at an increasing rate) from additional wins than small-market teams. Their results suggest a complex relationship between team revenue, win percentage, and market size, which researchers have continued to explore to the present.

Zimbalist (1992b) offers another variation of the Scully model. First, Zimbalist proposes an alternative specification of the team production function. He suggests on-base percentage be added to slugging percentage to measure the hitters' offensive contribution. He also suggests that team pitching performance be calibrated with earned run average instead of the strikeouts to walks ratio used by Scully to calibrate the performance of a team's pitching staff. Also, in the team revenue function, Zimbalist suggests that lagged win percentage (one season) be included as an explanatory variable.

Zimbalist's other important critique is that Scully has not included 'counterfactual' players in his estimation of MRPs. Zimbalist uses the average team player as a reference point for estimating the player's MRP. In the absence of a specific player, he assumes that the roster spot would be taken by a player who exhibits the same performance statistics as the team averages. Zimbalist uses this technique to estimate adjusted player MRPs (which could be negative if a player's stats are below the team averages).

Zimbalist uses his model to estimate the MRPs of hitters for the 1986 to 1989 seasons. His estimates are lower than one would make with the original Scully model, mostly because his counterfactual player is the average team player, and he provides a sample of Red Sox players to illustrate this pattern. His analysis of the relationship between actual salaries and MRPs demonstrates trivial and insignificant correlation for players under the reserve clause and not eligible for salary arbitration (less than three years of service). This result indicates that these players were exploited.

Over 77 per cent of these reserve clause, arbitration-ineligible players were paid less than their MRP, and almost 72 per cent were paid less than half of their MRP. For the four seasons studied by Zimbalist, the ratio of MRP to actual salary (his best measure of exploitation) ranged from 4.11 to 5.83 for these reserve clause players. Approximately

40 per cent of the players subject to the reserve clause but eligible for salary arbitration were paid less than half of their MRP. The mean salary/MRP ratio for these players ranged from 1.55 to 2.00. For free agent players, this ratio was less than one on average.

Finally, Krautmann (1999) proposes an entirely different model for estimating players' MRPs. Essentially, he proposes the estimation of a salary equation limiting the sample to free agent players who exhibit a market-determined salary for the current year. These salaries are assumed to approximate the free agent players' MRPs, and the regression coefficients in the salary equation calibrate the competitive market-determined rewards for player performance. In turn, the salary equation can be used to generate a predicted value for salary for any player with performance stats in MLB. The predicted salary should approximate the player's MRP assuming that his performance would be rewarded at the same rates as free agents in a competitive market. His model is based on the well-known theoretical result in labour economics that in a competitive labour market, a worker (player) is paid a wage equal to his MRP.

Krautmann's criticism of the Scully model is based on the likely interactions in the production function between various inputs including player performance as well as non-player inputs (for example, the input of the field manager and the front office). On the other hand, the Krautmann model is firmly based in the microeconomic theory that labour inputs are employed by profit-maximising firms up to the point that the MRP of the input equals the wage rate. Because of this foundation in neoclassical microeconomics, it may be preferred to the Scully model. However, the potential weakness of the Krautmann model is that certain factors may not be paid a wage equal to their MRP for reasons relating to market structure and other factors.

Perhaps one of the most cited examples that cause MRPs and the wage rates to differ is the winner's curse, an idea developed by Cassing and Douglas (1980). In an auction market where a free agent player with unique playing skills sells his services to the highest bidder, a wage rate that is greater than a player's MRP may be expected. The reason is the uncertainty surrounding the player's actual MRP. This uncertainty will generate a distribution of estimates of the player's MRP which in turn will generate a distribution of bids around the actual MRP. Some bids will exceed the actual MRP and some will be less than the actual MRP. Since the player is expected to select the highest bid, he will likely receive a salary greater than his actual MRP.

On the other hand, some players will sign long-term contracts before eligibility for free agency. Maintaining playing skills until eligibility for free agency is uncertain, and a long-term contract is a mechanism for shifting that uncertainty to the owner. A long-term contract that pays a player less than his current MRP may be in the utility-maximising interests of the player. But in the short run, the player will receive a wage rate below his MRP. This will compensate the owner for assuming the risk that the player's skills will not deteriorate. The greater the risk aversion of the individual player, the greater the likelihood of a long-term contract.

The conclusion is that the reserve clause is one of the factors that encourages long-term contracts for MLB players. If there were no reserve clause, then there would be no waiting period to free agency. Thus, there would be less uncertainty regarding the variability of a player's skills.

Evidence of discrepancies between players' salaries and MRPs is found in Oorlog (1995). He presents a variation on the conventional Scully model of MRP by including

broadcasting revenues in his analysis. He finds that local media revenues and players' salaries are highly correlated. Theoretically, a player's MRP is independent of broadcasting revenue because these revenues are fixed in the short run.

The model also would predict that owners will not compensate players for their marginal broadcast revenue product. Yet the empirical evidence indicates that they do! The correlation between marginal spectator revenue (from the sale of tickets to spectators) and team win percentage is negative for 1991, and the correlation between team payroll and marginal spectator revenue was positive but very small (0.053). In contrast, the correlation between the average player's salary and media revenue was a positive 0.966. Perhaps owners act more like sportsmen who try to maximise team wins and championships than business decision makers who try to maximise profits? If so, a player's MRP would be irrelevant to his employment and his salary.

It must be recalled that before the free agent revolution in the late 1970s, there was no competitive labour market for any players. All players were subject to the reserve clause before 1976. Therefore, the only possible method for estimating a player's MRP was the Scully model. Despite the numerous refinements suggested in the literature, his model stands as an extremely important contribution to the sports economics literature, and it is still used by many economists in their empirical research.

Empirical Analyses of MRPs and Exploitation

On 23 December 1975, Peter Seitz ruled on the *Messersmith/McNally* case in which two players challenged the reserve clause. His decision was that, as stated in the contract, the clause only applied for one year. Therefore, a player could become a free agent if he played out his contract (played for one season without a contract). This led to a collective bargaining agreement in the summer of 1976 which gave players with six years of service in MLB the right to play out their contract and declare as free agents. Essentially, players now could sell their playing skills in a competitive labour market after six years of service in MLB.

Soon afterwards, there followed a plethora of papers analysing the labour market for free agent players. What was the relationship between salaries and MRPs in this market, and what were the implications for exploitation? How did the labour market for free agents compare with the market for all of the other MLB players?

The first paper worth noting is by Sommers and Quinton (1982). The authors use a variation of the Scully model to estimate the MRPs of the 14 leading free agents of the 'first family' in 1976–77. Player by player, their estimated MRPs are compared with the average annual cost of their contracts. Reggie Jackson is the most valuable player with an MRP over \$1.1 million compared to the annual cost of his contract equal to \$580 000. A labour economist would conclude that he was underpaid by approximately half a million dollars. All but two of the nine hitters generated revenues (MRPs) greater than the cost of their contract. For the five pitchers, MRPs and annual contract costs were approximately equal. They conclude that these free agents' salaries were commensurate with their ability to generate revenue for the owners. They also point out that the non-free agent players were still greatly underpaid, which meant that owners were better off to ignore the free agents in favour of these other players. Overall, however, the paper concludes that for this limited 'first family of free agents', monopoly rents began to shift towards the players, thus reducing owner exploitation.

The next study of note is Henry Raimondo (1983). He also uses the Scully model to estimate the MRPs of players in 1977 and free agents from 1977 to 1979. One conclusion was that the rate of monopsonistic exploitation had decreased for all players but especially for the free agent players. This is entirely consistent with theoretical expectations. Before free agency, Scully estimated that star hitters were exploited at a rate of 0.89 and star pitchers were exploited at a rate of 0.88. Medhoff's estimates were 0.59 and 0.51, respectively. Raimondo estimates rates of exploitation of 0.05 and 0.08 for free agent star hitters and free agent star pitchers, respectively. Obviously, for free agents, this is a dramatic drop in a very short period of time.

Hill and Spellman (1983) published a paper the same year that examined players' salaries for 1976 and 1977. Salary equations were estimated for hitters and pitchers, and the free agent binary variable was positive and strongly significant. Covariance analysis of the hitters' results suggested that the free agent players sold their services in a market with a different structure: a higher intercept and a different set of slope coefficients. They received higher pay than comparable players who were not free agents. Overall, they conclude that there existed a dual labour market: one for free agents and one for other players. However, the authors do not estimate players' MRPs, so estimates of exploitation are not part of the paper.

In a paper two years later, Hill (1985) uses the Hill and Spellman data in combination with a modified Scully model to estimate the MRPs of the same group of players from 1976 to 1977. He tests the hypothesis that exploitation was reduced between 1976 and 1977 because by that second year, all players in the sample could threaten free agency. This is expected to improve their bargaining position. Comparing 1976 and 1977, his results confirm the decline of exploitation. But he also concludes that exploitation was still substantial despite the free agency threat.

Hill has an extended discussion of gross and net MRPs. The latter are net of various costs including player development. The author points out that these costs represent investments in the human capital of the players. Without details, he concludes that overall, owners have sufficient opportunity to recover the investment for star players before they are eligible for free agency.

MacDonald and Reynolds (1994) address directly the question of the relationship between MRPs and salaries for MLB players. Like Medhoff (1976), they use 2SLS to estimate their model because the dependent variable in the production function, winning percentage, is likely to be correlated with the error term of the revenue function. They also estimate a salary equation with player salary data from the 1986 and 1987 seasons. If players' salaries are approximately equal to their MRPs, then the regression of these salaries on estimated MRPs should exhibit a constant term equal to zero and a slope equal to one. For experienced players eligible for arbitration or free agency, their results indicate that players are paid according to their career MRPs. By entering a quadratic MRP term, they also find that superstars are paid a salary premium greater than their talent/ability differential. But the young players who are subject to the reserve clause and ineligible for final-offer salary arbitration are paid less than their MRP. This result seems to be ubiquitous in all of these salary studies!

Gustafson and Hadley (1995) analyse the exploitation of reserve clause players using an earnings gap model from the labour economics literature. This model is the basis for the analytical decomposition of the earnings gap between reserve clause players (arbitration

ineligible) and all other players, including free agents, into several portions: the portion explained by differences in the means of the explanatory variables, the portion explained by differences in years of MLB service, and the portion explained by differences in the regression coefficients (rewards) of the explanatory variables. In a competitive labour market, differences in the mean values of the explanatory variables, including MLB service, are expected to generate differences in earnings. In a competitive market, these earnings differentials are justified because the explanatory variables measure player productivity, and differences in productivity should result in differences in earnings. However, differences in the rewards to the explanatory (productivity) variables are not justified in a competitive market, so the authors attribute this portion of the gap to monopsonistic exploitation. In a competitive market, rewards for one group of players would not be greater than for another group of players.

Using 1990 salary data, Gustafson and Hadley observe a total earnings gap of approximately \$700 000 for hitters and \$600 000 for pitchers. Their results indicate that approximately 25 per cent of the earnings gap between reserve clause, arbitration-ineligible hitters and all other hitters is explained by differences in the regression coefficients of the performance variables. For pitchers, the corresponding estimate is approximately 40 per cent. These portions of the earnings gaps are attributed to reserve clause exploitation. They also find that star players are more exploited (larger percentages of the respective gaps are explained by the regression coefficients) than the average players.

The most recent analysis of exploitation is by Mullin and Dunn (2002). They use a Scully model, but introduce 'star quality' into the estimation of each player's MRP. Their estimate of this quality is based upon the value of each player's baseball cards. Using data from 1989 to 1993, they estimate a regression equation that predicts the price of each player's card based upon performance and ethnic group. The residual of this equation is used to calibrate the player's star quality which in turn is used as one of the determinants of team revenue and thus MRP.

This model generates substantial estimates of MRP. They estimate the mean MRP for all players at \$2.56 million while the mean salary is \$1.02 million. The mean value for star quality is approximately \$200 000, but for the leading players, it is as high as \$4.5 million (Don Mattingly in 1990). On average, salaries were only 39.6 per cent of MRPs. The rate of exploitation was greater for hitters than for pitchers. More relevant for the reserve clause, the rate of exploitation was lower for free agents and thus higher for non-free agents including the reserve clause players.

Finally, a recent paper by Burger and Walters (2003) uses another variation of the Scully model to estimate total and marginal revenue functions for all the MLB markets. Their analysis includes both the contending status and the home-market size as determinants in these revenue functions. They estimate substantial differences in the marginal revenue of a win between MLB's markets. In New York, a win is worth \$3.62 million while in Milwaukee, the marginal value of a win is only \$0.59 million (both figures assume the teams are in contention for a pennant). The authors do not directly analyse the exploitation of reserve clause players, but they do show that players like Alex Rodriguez and Jason Giambi may have MRPs that exceed their generous contracts. In other words, even these free agents selling their services in a competitive market may have a salary less than their MRP!

One may infer that if their model were applied to reserve clause players not eligible for salary arbitration, then the estimated MRPs would also be substantial, suggesting that

these young players are exploited. This inference is consistent with the Mullin and Dunn (2002) analysis.

Surplus and Training

Krautmann and Oppenheimer (1996) point out that the lower earnings of reserve clause players for the first three years of their career may have an alternative interpretation. Rather than exploitation, the less-than-MRP earnings may be viewed as the returns to the owners for training their players in the minor leagues. Using Becker's (1975) training model, they examine minor league operations as an owner-investment in players' skills. The return on this investment comes via the reserve clause that allows owners to pay players less than their MRP for the first three years of their MLB career.

Krautmann and Oppenheimer define the surplus from a reserve clause player as the present value of the difference between the player's MRP and his salary over the first six years of his career. Their estimates of this surplus are based on data from Zimbalist (1992a). For an average player, they estimate this surplus at \$1.478 million. This is slightly less than the average cost to train a major league player which they estimate at \$1.602 million. They conclude that owners subsidise the average player approximately \$124 000 when they fund their own minor league operations.

The Krautmann and Oppenheimer paper challenges the standard interpretation of exploitation found in the literature. They view the surplus, (MRP – salary), as a legitimate market return to the owners' investments in training players as opposed to the exploitation of reserve clause players. The reserve clause is simply the mechanism by which this return-on-investment is realised.

A more thorough analysis of the relationship between exploitation and training is provided by Krautmann et al. (2000). The authors use the Krautmann (1999) model to estimate the MRPs of young arbitration-ineligible hitters who are subject to the reserve clause. Specifically, they start with a sample of free agent hitters who signed a new contract between 1988 and 1994. Because these salaries are the outcomes of a free competitive market, they assume that these salaries approximate these players' MRPs. They estimate a salary equation, and use the coefficients to estimate the salary (MRP) that would be paid to the reserve clause players in a competitive market.

The authors find that on average, the reserve clause players who are eligible for salary arbitration have actual salaries that slightly exceed their predicted salaries, implying that these players are paid a salary greater than their MRPs. In other words, the surplus for these players is slightly negative. The reason must be that arbitrators replicate the free market salaries of comparable free agent players. Thus, there is a one-time adjustment in players' salaries at the third year from monopsonistic salaries to free market salaries.

Krautmann et al. estimate the surplus of each of the reserve clause players, and then regress this on variables that measure the cost of drafting and training a young player. The regression exhibits significant results, and they indicate that the owners take the largest amount of surplus from the young rising stars. The authors conclude that given the market power of the owners, they take the surplus from the players as it is available. In other words, rising stars exhibit higher MRPs, and therefore a greater amount of surplus is extracted from them. For the average player, it is estimated that the surplus is only approximately 50 per cent (\$3 million) of the \$6 million that it costs to train each MLB player.

Conclusion

For young MLB players subject to the reserve clause, the difference between MRP and salary should be viewed as surplus. Given the monopsony position that is created for the owners by this clause, it is reasonable to conclude that the owners take the bulk of this surplus. The literature demonstrates that this has always been the reality before and after free agency. It continues to be a reality in MLB.

However, the function that this surplus may serve is debated. The prevailing view maintains that it is a Coase-like redistribution of surplus from the players to the owners based on the property rights assigned to the owners by the reserve clause. The justification for this exploitation has sometimes been made in terms of competitive balance. Depending on one's view of the relationship between the reserve clause and the invariance principle, that justification may or may not be valid. One thing is quite certain. Playing ability does command monopoly rents, and the reserve clause is one of the owners' mechanisms for capturing those rents.

The alternative view, first analysed by Krautmann and Oppenheimer (1996), is that the surplus extracted by the owners from players who have less than three years of service in MLB serves as the owners return on their investment. This human capital investment is made via general training in the minor leagues, and the player's MRP minus his salary is the owner's return. The owners may indeed be justified in their attempt to capture these monopoly rents. Without the rents as a return on their investment, they would be unlikely to fund the training.

The results of Krautmann et al. (2000) indicate that overall, the surplus taken from young players is not sufficient to cover the costs of training. Therefore, the owners are subsidising the training of the average player. But the owners take the greatest surplus from the young star players who exhibit higher MRPs and lower costs of training. Above-average players generate more than double the surplus of below-average players. In qualitative terms, these results are consistent with Mullin and Dunn (2002).

One cannot know how much a player may be exploited until one first knows how much that player is worth. Therefore, one cannot discuss the use of the reserve clause by owners to exploit young players and/or to recoup their costs of investing in the training of young players without first addressing the problem of estimating players' MRPs. There are two very different models – Scully (1974) and Krautmann (1999). Although the Krautmann model seems conceptually superior, a large majority of sports economists still prefer to use the Scully model in their empirical research. Also, there are continual refinements in the methodology that generate somewhat different empirical results and conclusions. This is illustrated by a comparison of the Krautmann et al. (2000) results versus the Mullin and Dunn (2002) results. The basic differences between these two analyses of exploitation/returns-to-training is the use of the Krautmann model versus the Scully model to estimate MRPs and the inclusion (absence) of star quality in Mullin and Dunn (Krautmann et al.) as a determinant of MRP.

But one interesting proposal makes sense. Let the reserve clause stand for two to three years, and let the salary scales of these reserve clause players be negotiated in the collective bargaining agreement. Eliminate arbitration. Players would be eligible for free agency after the reserve clause period. If Mullin and Dunn's estimates of player surplus are more accurate, then some (much?) of the exploitation would be eliminated. If the Krautmann et al. estimates are more accurate, then owners will either continue to subsidise player

training or find a way to shift some of the costs of training to the players and to minor league owners.

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67 The retain and transfer system

Dennis Thomas

The 'retain and transfer' system of player contract management was a particular form of labour market restriction on player mobility in association football, as historically implemented in the English Football League (FL) and variously adopted elsewhere. It was essentially a player reservation system which bound a registered footballer to his current club, potentially to the end of his employment career. The system granted a club the option of routinely and repeatedly extending a player's contract, providing it with a virtual monopoly over the player's services and effectively tying him to his club until, and if, the club gave the player permission to move elsewhere. Described by Sloane (1969) as a 'lynchpin' and the 'essence' of the organisation of the labour market in association football, retain and transfer may be viewed as a 'monopsonistic device' which was 'without parallel in the history of British industrial relations' (*ibid.*), with players treated as 'mere chattels' (Dabscheck, 1986) or 'indentured labourers' (Stewart, 1986), to be bought and sold by clubs.

Originating from an English Football Association (FA) regulation of 1885 which required clubs to register their players annually on a one-year contract, the retain and transfer system was formally introduced by the English FL in 1891. Member clubs of the FL were restricted to employing and fielding only players registered with the sport's two governing bodies, and a player could only play for the particular club with which he was registered and transfer to another club only with his current club's consent together with the approval of the ruling bodies. The system allowed clubs to retain a player for as long as they wished until they had either ceased to require his services or had agreed to transfer his registration to another club. At the end of contracts, clubs could retain players and negotiate a new contract, retain them but offer their registration for trade and sale, or cancel registrations and release players to become free agents.

Under the retain and transfer system, all player contracts were renewable annually at a club's discretion with the clubs entitled to retain a player's registration even if his contract was not being renewed. At the end of each season, clubs were required to produce two separate schedules for players, placing them on either the 'retained' or the 'transfer' list. For a player placed on the retained list, the club was only obliged to offer him a contract on terms matching the currently prevailing minimum (retaining) wage and conditions, while any player placed on the transfer list could move to a new club, if one was interested, provided his previous club received an acceptable transfer fee as compensation for loss of the player's services. Any player wishing to move to another club had to make a request to be placed on the transfer list. If the transfer request was granted, the player could move providing a satisfactory fee was paid to the selling club, but if the club holding the player's registration refused the request, then the player, if he wished to remain in employment as a professional footballer in the English FL, had no alternative but to stay with that club indefinitely. This often involved a player's wages being reduced to a minimum with him being forced to remain at that club until a transfer fee offer was made

which met with the club's approval. If a player did not accept the new terms offered by his retaining club he was not entitled to any pay, but his registration was still 'owned' by the club with the player not permitted to seek employment elsewhere, effectively preventing him from earning a living. While transfer-listed players were not entitled to any income from their club, it was the club which determined the transfer fee, which could be set at a level to discourage potentially interested clubs from purchasing the player.

Although retain and transfer was originally, and ostensibly, introduced and justified to prevent the, not uncommon, 'poaching' of players from one club by another, the traditional argument and basic motivation, from the English FL's point of view, focused on the need to prevent or reduce the concentration of playing talent into an elite group of increasingly dominant, and financially powerful, clubs to ensure competitive balance and sporting equality and spectator interest essential for a healthy league. However, as Sloane (1969) pointed out, the limit of 50 on the total number of players on the retained and transfer lists appeared rather generous if the intention was to limit the ability of clubs to monopolise playing talent. Apart from a belief that clubs should be compensated for the loss of players, another subsidiary argument for retain and transfer was the need to maintain team stability.

From the players' point of view, retain and transfer combined with the English FL's 'maximum wage' regulation to severely limit the economic mobility and income of players, and these restrictions were a persistent source of player discontent and a fundamental concern of the Professional Footballers' Association (PFA). By the 1950s, the inevitable tensions between the FL and the PFA led to a protracted struggle between players and clubs which generated steady pressures for reform. In January 1961, following a dispute involving the players' union requiring the intervention of the Ministry of Labour as conciliator, and the threat of strike action, the maximum wage restriction was abolished. Later in the year some minor modifications were made to the retain and transfer system, including allowance of an appeal by a player to the Football League Management Committee (FLMC) if, in the player's view, his club requested an inappropriately high transfer fee. It was now agreed that players in dispute with their clubs while negotiating a new contract, and those placed on the transfer list at the end of the season, would receive the weekly minimum wage appropriate to their division.

During 1963, George Eastham of Newcastle United went to court in an action against his club, the FL and the FA with regard to the prevailing retain and transfer system which prevented him from joining Arsenal, as the club of his choice, at the end of his contract period. Apart from denying him this opportunity, the application of the regulations saw his wage reduced to the then minimum of some £8 a week compared to the maximum of £20. In response the High Court, under Lord Wilberforce, declared that the retain and transfer system was an 'unreasonable restraint of trade', though not illegal, and consequently *ultra vires* and not binding on the player concerned (*Mr George Eastham v. Newcastle United Football Club and others*, 4 July 1963). However, while this successful challenge led to negotiations between the PFA and the footballing authorities which resulted in some concessions, only limited progress was made on the fundamental issue of retain and transfer, and despite their legal victory the PFA 'lost the peace' (Dabscheck, 1986). Although some concessions were gained regarding independent arbitration of salary disputes, payment of the previous season's contract provisions during a dispute, free transfer for players not offered the same terms as the previous season, and the inclusion

of an option clause in contracts, the clubs still had the power to decide whether to retain or transfer a player. While a player's right to move was now established, it was considered that the transfer system had such strong benefits for the development of association football that literal freedom involving no transfer fees was not feasible, and not sought by the PFA.

Under the revised 'option and transfer' system, a player's contract specified that his registration would be for an initial contractual period (usually one or two years) plus an optional period (exercisable only by the club and to be of similar duration at least equal to the initial period and on no less favourable terms), and where a club did not exercise its option to retain a player's registration on appropriate terms, the player was entitled to sign for another club on a 'free' transfer enabling him to move with no fee being charged. However, although players were entitled to move at the end of their contract, their club still had the power to decide whether they would retain a player or transfer him for a fee. The retaining club now had to offer a player terms which were at least the same as those at the end of his contract in order to retain the right to a transfer fee. As such, transfers were still at the discretion of the selling club which retained the ultimate power to frustrate a player's desire to move, so long as it was prepared to continue to pay and employ on the same conditions as previously. If a player rejected a new contractual offer, a dispute would be registered and a disputes procedure invoked, with players having a right of appeal against the terms offered or the transfer fee requested.

The disputes procedure consisted of a two-stage process. The first involved the right of either party to appeal to the FLMC by the end of the month following expiry of the contract. Failure to reach agreement brought a further appeal to a tribunal consisting of representatives of both parties and an independent chairman. The tribunal decision was delivered, at the earliest, two months after the contract expired and, in the majority of cases, did little more than fix the level of a transfer fee. If the player concerned did not obtain a new club within a fixed period, the fee would be adjusted downwards and after a further period could be reviewed again. Despite these modifications, however, the question of contract renewal remained the prerogative of the club and the system continued to be viewed as unsatisfactory from the point of view of the players and the PFA, since it tended to delay a player's move until the fee was reduced to attract a club (effectively a form of market testing), with clubs possibly waiting a considerable period until the fee had dropped by several stages.

Further revision of the retain and transfer system was incidentally encouraged by the publication of the Chester Report (1968) as produced by a committee established by the Department of Education and Science (DES) to inquire into the state of British football. This was in response to representations made by the English FL in 1966 to the Secretary of State for Education and Science concerning the deteriorating financial position of the game and the need for money for its improvement and administration. Embarrassingly for the FL, the report controversially included recommendations for the revision of contractual relations between players and clubs and recommended that 'every contract between a club and a professional player should be for a definite period, at the end of which either party should be free to renew it' (Chester Report, 1968, 11). Among the report's wide-ranging conclusions was the recommendation for the complete abolition of the retain and transfer system, with any receipt of financial aid by the FL conditional on it negotiating with the PFA with regard to changes to the employment contract. An agree-

ment was reached between the PFA and the FLMC in 1969 with the major provisions being: the inclusion of option clauses in contracts by the mutual agreement of the parties, an increase in minimum wages, the introduction of a standard form of contract to incorporate incentive payments, and introduction of a pension scheme to replace the existing Provident Fund. However, this agreement was not endorsed by the FL at the time as it failed to achieve the necessary three-quarters majority.

The growing erosion of the PFA's confidence in negotiating with the FL saw representations to a number of government departments regarding the problems involved in reaching agreements with the FL, and in 1973 the matter, viewed primarily as a labour relations problem, was referred to the Commission on Industrial Relations (CIR). In its 1974 report, the CIR found that the past conduct of industrial relations in domestic association football had been unsatisfactory and that the retain and transfer system was a problem which required immediate attention. In its view, continuation with it 'could ultimately lead to chaos' (CIR, 1974, 76) as it would remain open to legal challenge at any time and 'if it were to be declared to be an unreasonable restraint of trade, clubs would immediately face a very uncertain situation from which it might take them some time to recover' (CIR, 1974, 76). The report's central recommendation led to the establishment of the Professional Footballers' Negotiating and Consultative Committee (PFNCC), involving classic-style consultation and bargaining machinery, which immediately took up the issue of retain and transfer. After lengthy and frustrating negotiations, drawn out over three years, the one-sided option arrangement embodied in retain and transfer was finally abolished and a so-called 'freedom of contract' was established for the 1978–79 league season. Once again the FLMC had problems in convincing clubs to ratify an agreement, which was only eventually achieved following threatened strike action by the PFA. Although the PFA apparently believed that it could have abolished the transfer system altogether, they were concerned about the potential harm that this may have done to lower division clubs whose finances were based on the expectation of receiving transfer fees from the sale of players. As such, the PFA did not seek the abolition of transfer fee compensation as long as players had the right to change clubs following the expiration of their contracts. This change was also accompanied by a range of other employment 'improvements' for PFA members including better accident insurance, severance pay, and a non-contributory pension scheme funded by a 5 per cent levy on all transfer fees.

While the retention aspect persisted while a player was 'within contract' allowing the club to retain the player unless and until they negotiated an agreed transfer fee with another club, the link was broken at the end of the contract with the player now free to move to the club of his choice. Under this new arrangement, contractual renewal became a matter of mutual agreement and players were allowed to decide for themselves whether to leave on the expiry of their contract and negotiate a move to a new club. As before, to 'reserve' and 'retain' a player, the holding club was obliged to formally offer a player terms that were not less favourable than those in the final year of his expiring contract. Otherwise the player could automatically leave the club, on a free transfer with no fee payable, and be entitled to contact other clubs that might be interested in him and negotiate a contract with the club of his choice. To facilitate this, a list of all players seeking new clubs was regularly updated and circulated. If the holding club offered appropriate terms, at least as good as in the final year of the contract, which were subsequently rejected by the player, the club was entitled to compensation for loss of the player's services by a

transfer fee. The player, however, was free to move while the clubs negotiated the precise level of compensation, or had it decided by arbitration. As an additional feature of the new arrangements, any players aged 33 or more and had five years service with a club were also entitled to a free transfer.

Dabschek (1986) notes that while the new procedures enhanced the ability of players to change clubs, they bestowed an important negotiating advantage on selling clubs who (unlike prospective purchasing clubs) were not encumbered by having to pay a transfer fee to obtain/retain the services of a player with whom they made an agreement. Although the new system was termed 'freedom-of-contract', the out-of-contract player was still constrained to some extent in practice, and although it was a key principle that the compensation fee should not unduly restrict the free movement of players, the system stopped short of full 'free agency'. As such, and despite the eventual ending of the full retain and transfer system, the player transfer market in England, as elsewhere, remained firmly based on the principle that a transfer fee had to be paid to a club as compensation for the loss of the playing services of a transferred player that it wished to retain, irrespective of whether the player's contract had expired. This remained the situation until the aftermath of the European Court of Justice ruling on the *Bosman* case in 1995, which prompted further major steps towards acceptance of complete freedom of movement for out-of-contract players.

Preceding the introduction of 'freedom of contract' various discussions regarding the precise method of determining transfer 'compensation' fees to resolve player valuation disputes between negotiating clubs were undertaken between the English FL and the PFA. As described by Wood (1988), two alternatives were debated. One, based on a system employed in Holland and by the European footballing authority, UEFA, entailed fixing the fee according to a formula, with the remuneration offered to the leaving player multiplied by a variable factor which was calculated to reflect various features including the age and international experience of the player, and the divisional status of the clubs concerned. This had the apparent virtue of giving each player a fixed determinable value. However, while apparently initially favoured (particularly by the PFA), concerns arose over the tendency for such a system to fail to 'sufficiently remunerate' those, particularly lower division, clubs losing young and rising players of high potential, and 'overvalue' more senior, usually higher division, players of proven ability and advancing age. These largely club-based concerns, together with an unresolved dispute regarding whether the selling club's final offer to the player or the buying club's offer should be used as the basis for calculations, led to the 'factor' system being rejected. As a result, the alternative system of open negotiation and arbitrated dispute was adopted. English FL guidelines now required clubs to seek a negotiated settlement of transfer fees to their mutual satisfaction but if no agreement was reached by open negotiation, and on the application of the player or either of the clubs concerned, the dispute over the player's valuation could be referred for adjudication to the Football League Appeals Committee (FLAC). Established in 1978, FLAC was chaired by an independent chairman and made up of representatives of the PFA, Football League and the League Managers' Association, and acted as an independent tribunal for the determination of a binding settlement under a conventional arbitration process. (See Wood (1988) and Speight and Thomas (1997) for a detailed account of FLAC's form and operations. The latter also provides an assessment of its arbitration decisions.)

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68 The *Bosman* case and European football

Stefan Késenne

In 1990, at the end of his player contract at the Belgian 'Royal Football Club de Liège', and after negotiations on a transfer to Dunkerque in France broke off, Marc Bosman, a 25-year-old professional soccer player, rejected an offer from his club to continue playing at the minimum salary, which was less than one-third of the money he made during the previous season. His only choice was to play for Liège or to stop playing professional football. Bosman did not accept this unfair choice and took his case to court. In spite of the fact that a first court decision gave him the freedom to move to another club, he became the victim of a worldwide boycott by the Belgian and the international football federations. After a long legal fight, the final verdict of the European Court of Justice in Luxembourg, on 15 December 1995, abolished the transfer system in European sports, as well as the so-called 3 + 2 rule. The transfer system granted a club the right to own a player's services, so that a player was not free to move to another team, even at the end of his contract. A transfer was only possible if the new club was willing to pay the transfer fee claimed by the old club. One of the main reasons for adopting such a transfer system was the protection of the small-market clubs against the competition for players from the large-market clubs. The football federations wanted to guarantee a reasonable competitive balance among the clubs in a league by preventing the concentration of all playing talent in a few large-market clubs. At the same time, they wanted to reduce the top player salaries by imposing a transfer fee. The 3 + 2 rule was a nationality clause that limited the number of foreign players in a team, a maximum of three foreign players and two semi-foreign players, who played in that country for more than five years. The aim of the nationality clause was to protect the national clubs in small countries from the foreign competition for players. Although the *Bosman* ruling applies only to international transfers, after a short period of time, the national transfers also had to abide by the same rules, because a national transfer could easily be evaded by arranging two fake international transfers.

The national football federations of most European countries, as well as the international federations, UEFA and FIFA, immediately started a chorus of complaints, predicting the end of professional football, and a massive attack against the new ruling. The *Bosman* verdict clearly touched a vein because it reduced the powerful monopsony position that the football clubs and federations had acquired on the player labour market. However, the important question is whether the verdict did any real harm to European football.

This contribution presents an overview of the consequences of the *Bosman* verdict for football, the major professional sport in Europe. We investigate what can be derived from economic theory with respect to the impact of free agency and the international mobility of players. What are the lessons from the United States, where a similar reservation system was replaced by free agency more than 25 years ago? The major observations in post-*Bosman* European football are then discussed, followed by a look at the new FIFA–EU agreement.

The Theory

What can be derived from economic theory concerning the impact of the abolition of the transfer system? Based on the Coase (1960) theorem, the so-called ‘invariance proposition’ states that restrictions on the player labour market, such as the retain and transfer system, do not change the distribution of playing talent among clubs in a league, compared to a competitive ‘free agency’ player market, if clubs behave like profit maximisers. The explanation is simple: if a player is worth more to a large-market club than to a small-market club, both clubs will easily come to an agreement to trade that player on the transfer market, because the large club is willing to pay a higher transfer fee for that player than the player is worth to the small club, which the small club is also willing to accept. This view goes back to the seminal article on the economics of professional team sports by Rottenberg (1956). Later on, this proposition was formally proved by Quirk and El-Hodiri (1974). Also the empirical evidence shows that no correlation exists between the restrictions on the player market and the competitive balance. In the US major leagues, the player reservation system, which is comparable to transfer system in Europe, had already been abolished in the mid-1970s. There is some empirical research showing that the competitive balance has even been improved since the introduction of free agency (Quirk and Fort, 1992). The transfer system only granted greater financial security for small-market clubs, which could reserve their talented players, or were net sellers of talent on the transfer market. Also, player salaries were more in line with a player’s value to the league, rather than his value to the club (Noll, 1974).

Free agency has also ended the underpayment of players by profit-maximising club owners in the United States. Scully (1974) found a considerable degree of exploitation of Major League Baseball players before the mid-1970s. It goes without saying that, after the introduction of the free-agency system, a strong increase of player salaries occurred, as players were paid according to their marginal productivity. These observations simply confirm what can be derived from the theory of monopsony, a market characterised by a single demander. The player market in professional team sports, regulated by a transfer system, is often cited as the classical textbook example of a monopsonised labour market. If players are owned by a club, or if players in a monopoly league are allowed to move to another club only if both clubs agree on the transfer fee, the league, or the cartel of clubs, can be considered as the sole employer of professional players. Because of their monopsony power, clubs are not wage takers but can set wages in order to maximise profits. In the profit-maximising point, where marginal revenue equals marginal cost, the wage level, set by a monopsonist, is below marginal productivity. Scully’s estimates found a considerable degree of monopsonistic exploitation of baseball players in the United States.

All these findings are based on theoretical models where clubs are assumed to be profit maximisers. However, in European football, the general observation is that clubs are not so much interested in profits, but rather behave like utility or win maximisers (Sloane, 1971; Késenne, 1996). Under that hypothesis, what is the impact of the abolition of the transfer system on competitive balance and player salaries?

Because the demand for talent of win-maximising clubs is no longer determined by the marginal revenue of talent, as in the profit-maximising case, but by the (net) average revenue of talent, the impact of the abolition of the transfer system will also be different. The small-market clubs, as net sellers of talent on the transfer market, will now use the extra revenue to buy more talented players. The large-market clubs, spending money on

paying transfer fees, will have to reduce their spending on talent demand. It follows that the distribution of talent among large- and small-clubs will improve (Lavoie, 2000). However, this positive effect of the transfer system will not be very significant. It would be more significant if the initial distribution of playing talent, before clubs start to trade players on the transfer market, were more equal. But this is not the case, certainly not in Europe where there is no rookie draft system. By definition, a small-market club is a club with a weak drawing potential, not only for spectators, but also for players, so the initial player market equilibrium under free agency is already showing an unequal distribution of talent. It follows that there is little to trade from small to large clubs, so the distribution of talent under a transfer system will be close to the free-agency talent distribution. Only occasionally can a star player be sold by the small-market club which will allow that club to attract one or two regular players instead.

Recent research in Europe has also concentrated on the investment decisions of clubs in training young talent. Feess and Muehlheusser (2003a) found that the *Bosman* system is superior to the pre-*Bosman* system because it leads to higher investments in talent and higher player effort. However, if optimal contracts between club managers and players are feasible in both regimes, they only differ in contract length. This is clearly in contradiction with the many complaints of clubs that the abolition of the transfer system has killed all incentives to invest in talent (see also Dobson and Gerrard, 1997).

As distinct from the profit-maximisation model, players are, on average, not exploited in a monopsonised labour market of a win-maximisation league. Based on the monopsony model of the labour market, it can be shown that players are, on average, overpaid (Késenne, 2002). Also, a win-maximising monopsonist will hire playing talent until all revenue is spent on salaries, so the outcome is no different from the free agency outcome. The labour market equilibrium, in both cases, is found at the intersection of the market labour supply curve and the (net) average revenue curve of the monopsonist. It follows that the abolition of the transfer system in a win-maximisation league does not allow any rise in average player salaries.

So, the general conclusion is that the impact of the abolition of the transfer system has been very small, at least in the short run (Szymanski, 1999; Antonioni and Cubbin, 2000; Késenne, 2000; Feess and Muehlheusser, 2003a).

What can be derived from economic theory concerning the abolition of the so-called 3 + 2 rule, which freed the European player labour market? Liberalising the labour market of a particular industry like professional football, with a product market that is still characterised by a high degree of protectionism (national championships), is asking for trouble. It can be expected that players will move from the low- (small) to the high-productivity (large) countries, which can afford to pay higher salaries, so the absolute and the relative quality of the product in the low-productivity countries will diminish while the quality of the product in the high-productivity countries will go up. Clubs in small countries have to compete for playing talent with clubs in large countries, but they have to stick to their poor domestic league on the product market, because they are not allowed to participate in any larger and rich national league. One of the consequences is that the top clubs in the small countries are no longer able to compete with the large-country clubs in the European Champions League. The deregulation of the European players (labour) Market, without the deregulation of the European football (product) Market, has clearly widened the performance gap between the large and the small countries.

Post-Bosman Observations in European Football

What were the first observations in European football after the *Bosman* verdict in December 1995? It cannot be denied that there have been a few serious problems of transition, caused by the 'overnight' abolition of the transfer system. Many football clubs in Europe have always booked the transfer value of their players as an asset on their balance sheet, and used these assets as a bank guarantee for their loans. It goes without saying that serious problems arise when the next day the transfer value of the end-of-contract players is zero and the banks are left without any guarantee. Many clubs also lost a lot of money when they had invested in new players a few months or a year before the verdict. The transfer fee paid for these players could not be recovered when they left the club at the end of their contract. It should be mentioned here that both the *Bosman* lawyers and the advocate-general were in favour of a period of transition, in order to avoid these problems. It was only the shameless political lobbying of the national and European football associations that turned the European Court angry enough to abolish the transfer system overnight.

Another consequence of the *Bosman* case, that can be observed, is the lengthening of the player contracts (Simmons, 1997). The reason seems clear: clubs are still allowed to buy and sell a player whose contracts have not expired. Thus the powerful monopsony position of clubs could be restored and the trading of in-contract players could go on. Whereas many expected the transfer fees to go down, because clubs had the alternative now of hiring an end-of-contract player without paying any fee, the general observation was that they went up.

The most dramatic impact of the *Bosman* verdict is the increase in international mobility of (free agent) players in Europe (Maguire and Stead, 1998). Smaller countries like Holland or Belgium have experienced an exodus of all their star players to bigger football countries like England, Germany, Italy and Spain. At the same time the European countries have also seen an inflow of low-paid players from Eastern Europe and Africa, which has reduced the employment opportunities of the grassroot domestic players. But, obviously, it is not so much the abolition of the transfer system that is to blame for this. As predicted by the theory, the exodus is caused by the end of the 3 + 2 rule. Nevertheless, this increase of player mobility in Europe is an international equilibrium mechanism that all businesses have to face in the future global economy, including the professional sports industry, which cannot lag behind. A foreign team can pay a player more than the national teams because the player's productivity is higher in that foreign country. This player mobility leads to a more efficient allocation of labour in Europe, which is a good for the global sports industry. What has to be done to correct the disadvantage that player mobility created for the small-country teams is to free the product market as well, by creating, on top of the national competitions, an international European major league, open or closed, where the top clubs of the different European countries meet each other, while leaving their domestic leagues (Hoehn and Szymanski, 1999).

There has also been a tendency for player salaries to be on the rise, in particular the salaries of top players, which was generally blamed on *Bosman* and the increased European competition for the best players. However, there are other factors that might have contributed to the rise in player salaries, such as broadcasting rights. Between 1995 and 2000 television contracts, and to some extent also merchandising, went up dramatically, allowing clubs to spend more money on transfer fees and salaries. Another factor

is simply short-sighted management of club owners. In the post-*Bosman* 'free agency' period, club managers were inclined to use the money that was previously reserved to pay transfer fees, to bid up player salaries, thereby neglecting the fact that transfer fees will no longer be received when players leave the club. With no profits being made, there simply was no financial capacity for the average salary level to go up, unless clubs ran into serious financial problems. However, the abolition of the transfer system might have changed the salary distribution, because players are now paid in line with their value to their own team, which increases the salaries of top players to the disadvantage of grassroot players (Noll, 1974; Simmons, 1997).

Ever since the *Bosman* verdict, small clubs have been complaining about a serious loss of revenue. The transfer system has somehow functioned as a redistribution system between large and small clubs. Because they are net sellers of playing talent on the transfer market, smaller clubs have managed to survive with the financial compensation from selling their players on the transfer market. They also complain that the main incentive for clubs to train and develop young talent is now lost. Although these problems should not be overrated, many sport economists agree that another regulation, like revenue sharing or salary caps, should replace the transfer system in order to protect the interests of the small clubs. Concerning youth development, league authorities can easily work out a decent youth development compensation system, which is not to be confused with a transfer system, and which in no way restricts the players' freedom to move.

The New FIFA–EU Agreement

Following the abolition of the transfer system by the *Bosman* verdict in 1995, little changed: the transfer market in Europe seemed to be more alive than ever before, with transfer fees skyrocketing. No less than €77 million was paid in 2001 by Real Madrid for the French star player Zinedine Zidane. Because the *Bosman* ruling applied only to end-of-contract players, the response of soccer clubs was a lengthening of player contracts, so that buying and selling players could continue. Clubs do not compete with each other in a free players' labour market; they compete on the transfer market with club owners still deciding if and where players go. Most players still have to comply with the transfer decisions made for them by club owners, under the threat of a boycott of their career by all clubs and federations, as the unfortunate *Bosman* discovered when the only club willing to hire him, after he took his case to court, was in La Réunion, a small island in the Indian Ocean off the east coast of Madagascar.

Some clubs have also forced players to sign a new contract before the old one expired, in order to prevent them from leaving the club without any compensation. The usual threat is to be relegated to the B or C team. Thus, players who are worth good money on the transfer market will probably never reach the end of their contract, because the loss of money for the club is too large, given the high transfer fees paid for good players. Other contract players have been forced to leave their club, and to seek another one during their contract period, with the same threat of being removed to the B or C team. Although, by such practices, clubs seem to shoot themselves in the foot in the short run, they hope to set an example for the future. So, what has changed if clubs can continue to buy and sell contract players this way? The monopsony power of clubs is still in place.

Because the European Commission was no longer willing to accept these transfer rules and practices for contract players, it forced FIFA to come up with a new regulation

system. By March 2001, a new international transfer agreement between FIFA, UEFA and the European Commission was reached. The most important merits of this agreement are that, worldwide, end-of-contract players are now free to move to another club, and that the maximum length of a player's contract was set at five years. For contract players who break their contract and move to another club, a fee for breach of contract (the important question is how large?) has to be paid. Other measures are the creation of a solidarity fund and better protection for youth players against international trading. A weakness of the new regulation is that the agreement applies only to international transfers, and that the national rulings of the European countries still prevail, so domestic leagues do not have to abide by the new international FIFA rules.

However, in at least one important respect, the new transfer agreement has also turned the clock backwards. Whereas during the *Bosman* period no transfer fee had to be paid for end-of-contract players, in the new agreement, the new club has to pay compensation for youth training for all players younger than 23. It follows that there is a new restriction on the mobility of end-of-contract players if clubs know that they have to pay a fee. This is clearly in defiance of the *Bosman* verdict, while it is perfectly possible to establish a proper compensation system for youth training that is not linked in any way to the transfer of a player. Also, the size of the training compensation that FIFA has managed to put forward has little to do with the real cost of youth training. The FIFA argument is that you need to train at least 10 to 16 young players for one player to make it to the top. However, it is clear that, if 10 or more players all receive the same training and only one player makes it, it is the innate talent that makes the difference, and this has little to do with the training costs of a club. So, it seems that only the name of the game has changed from paying transfer fees to paying fees for compensating youth training and fees for breach of contract. As could be expected, football federations have tried everything to introduce transfer fees by the back door.

Moreover, recent research, comparing the *Bosman* regime with the new FIFA–EU regulation, indicates that the new regime will even diminish club incentives to invest in the education of young talent (Feess and Muehlheusser, 2003b).

Conclusion

There is no doubt that history will remember the *Bosman* case as a big step forward for football in Europe. The verdict simply put an end to the illegal practices and the misuse of power by sports clubs and federations; it has also forced the sports industry to face the laws of international business and sound financial management. Settling one's affairs after a period of national protectionism can only be a guarantee for survival in the long run. Most drawbacks of the *Bosman* verdict are only temporary, or they can be remedied by other and more legal regulations. It has to be clear that, whatever the advantages of any player market restrictions, whatever the interests of any particular industry like sports, their rules cannot violate basic human rights or labour laws. In that respect, also the new FIFA–EU agreement will not be guaranteed a long life.

European football and other professional team sports should consider allowing *more* competition on the product market, because it is not so much the competition on the European player market that is causing problems, but rather the limited competition on the European product market.

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69 The reverse-order-of-finish draft in sports

Leo H. Kahane

Origin

In 1935 two National Football League (NFL) teams, the Brooklyn Dodgers and the Philadelphia Eagles, entered a bidding war for the services of rookie Stan Kostas, a talented All-American football player from the University of Minnesota, driving the salary offer up to \$5000, an extremely large sum at the time. In order to avoid such bidding wars for college players in the future, the NFL implemented the first 'reverse-order-of-finish' draft ('draft' henceforth) in 1936. The reverse-order-of-finish meant that the team with the worst record in the previous season was the first to select from college players for the next season. The team with the second-worst record picked second, the team with the third-worst record picked third, and so on.

Other leagues followed the NFL example, with the NBA adopting a college draft for the 1949–50 season.¹ Major League Baseball (MLB) and the National Hockey League (NHL) adopted drafts later (they relied less on college talent and more on minor leagues as sources for new players). The MLB draft began in 1965 and the NHL draft in 1963.

The NBA later refined its draft system for the 1984–85 season to include a lottery for the first round of picks. It was believed that under the previous system, late in a season, teams with little chance of making the play-offs might intentionally lose games so as to improve their order of selection in the draft.² The lottery system would eliminate the guarantee that a poor finish would yield a low draft pick, thus removing this incentive to intentionally lose. The NHL later followed with a lottery system of its own.

In addition, as North American sports teams have looked beyond domestic borders for talent, the NFL, the NBA and the NHL have extended their drafts to include foreign players. The MLB is considering doing so as well.³

Potential Impact

There are two main reasons (one publicly stated, the other not) why owners support a draft system. Owners support the draft by arguing that it will improve competitive balance in their leagues. The argument is that without the draft, financially poor teams (usually located in smaller markets) will be unable to compete with rich teams for talented new players. As a consequence, the rich teams would become relatively stronger (and richer) while the poor teams would become weaker (and poorer). The resulting lack of parity in playing strength would be detrimental not only to the poor teams, but for the league as a whole.

This argument for the draft, however, does not hold up when we consider the 'invariance principle'. This principle, first detailed by economist Simon Rottenberg in 1956, simply states that a player will end up playing on the team where he has the greatest valued use (that is, the greatest marginal revenue product) regardless of who owns the rights to the player's talents (the player or the team currently holding his contract). That is, without the draft, rookie players will likely sell their services to the highest bidder. In this case, rich

clubs in large markets will generally outbid poor clubs in smaller markets as the former has more to gain (financially) from the rookie player than the latter. The end result is a high concentration of talent in the rich club.

According to the invariance principle, however, the same result would occur with a draft system in place. In this case, poorer teams who perform badly will, as a consequence, be awarded a low draft pick. If they choose a highly talented player, the team has essentially two possibilities: put the player in the line-up, or sell (or trade) the player to another team.⁴ If it is the case that the player is worth more to a rich club (in terms of potential added revenues) than the poorer club, the latter will sell or trade the player to the rich club. The end result, again, is a high concentration of talent in the rich club.

The second (virtually publicly unstated) reason for owners to support the draft is that it shifts the economic rewards (or 'rents') from player talent from the players to the owners. If there is no draft and rookie players sell their talents to the highest bidder then, as noted earlier, rich teams who stand to gain significant revenues from hiring the player would be willing to pay the player a relatively large salary for their services. On the other hand, if rookie players are not allowed to freely sell their services, but are bound by league draft rules to play for the team that chooses them, then it is the *owners* who stand to gain from the player's talents either by playing him (and increasing team revenues) or selling (or trading) him to another team. In either case, player salaries are expected to be smaller as the owners capture the rents.

Thus, in sum, the draft should have little impact on competitive balance and serve mostly as a means of transferring wealth away from players and towards owners.

Empirical Evidence

While there is little research on the effects of the draft on rookie salaries,⁵ there has been a considerable amount of work done on the effects of the draft on competitive balance. The invariance principle has a clear theoretical prediction of the effects of the draft: there should be no change in competitive balance. Does the data support this prediction? Fort (2003, pp. 242–6) suggests that they do. Using data from the NFL and the MLB he shows that the difference in the standard deviation of winning percentage (one of the many measures used to gauge competitive balance) pre- and post-implementation of the draft is not statistically significant. Or, in other words, the balance of competition was unchanged following the implementation of the draft.

Conclusion

The reverse-order-of-finish draft has been in place for many decades now, with the major argument in favour being a means of improving competitive balance. While the draft does not seem to have done this (a result the invariance principle predicted), it has surely been successful in transferring wealth from players to owners.

Another thing the draft has done is to put draftees in the limelight. The NBA draft, for example, has become a significant media event where the merits of potential marquee high-school and college players are debated by sports experts and the actual draft is shown on national television. This kind of exposure has likely had the effect of increasing signing bonuses and salaries of top draftees, somewhat offsetting the drag on rookie salaries that the implementation of the draft has probably caused.

Notes

1. The NBA had a territorial draft in place in 1947. It was later replaced with a 'reverse-order-of-finish' draft.
2. See Taylor and Trogdon (2002) for evidence of teams intentionally losing games for this purpose.
3. Current draft rules in MLB apply to residents of the United States, Canada, Puerto Rico and other US territories.
4. This assumes, of course, that the team which drafts the player can afford to sign him. This is not always the case as market forces may push up signing bonuses to the point where the drafting team cannot afford to sign the player. See Fort (2003) for more details.
5. There has been a great deal of work showing that the reserve clause system of the past had reduced salaries (see, for example, the seminal paper by Scully, 1974). Given that the draft is essentially a short-term reserve clause scenario, it seems logical that it too would reduce rookie salaries.

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70 Chasing the elusive salary cap

Daniel R. Marburger

Former Major League Baseball player, Charlie Lau, once said, 'There are two theories on hitting the knuckleball. Unfortunately, neither of them works' (www.baseball-almanac.com). Although he was referring to facing the likes of Phil Niekro and Hoyt Wilhelm, he may as well have been talking about designing salary caps in professional sports.

As pioneers of professional team sports, Major League Baseball learned during its infancy that the dominant strategy of a team is to bid quality talent away from its competitors. Unfortunately, because the total number of games won within a league is mathematically equal to the total number of losses, baseball owners soon discovered that their bidding wars did little more than transfer rents from their wallets to the pockets of the players.

In an effort to stop the outflow of money, the owners conceived the reserve clause. The reserve rule, which bound players to their employers for their entire careers, was the perfect foil to baseball's prisoner's dilemma. Because the rule was eminently enforceable (a star player could not switch teams and go unnoticed), baseball successfully steered itself away from its less desirable Nash equilibrium. Not surprisingly, then, as other professional sports leagues developed, each devised its own version of the reserve clause.

The state of affairs through which the clubs owned the property rights of the players remained unaltered until baseball's grievance arbitration decision in the Andy Messersmith case effectively nullified the reserve clause. Echoed in the courts in the 1992 *McNeil v. the National Football League* case and in Europe via the 1995 *Bosman* case, management no longer had free reign to unilaterally bar the movement of players from team to team.

With pocketbooks haemorrhaging to the benefit of players, professional sports owners looked to salary caps as a way to harness free agency. As the name implies, salary caps place limits on team payrolls. Typically, the collective sum of money set aside for players is established as a fixed percentage of league revenues, with each team constrained to spending within a specified minimum and maximum payroll.

The stated rationale for salary caps was to keep the leagues from self-destructing financially and to improve competitive balance. However, the seminal Rottenberg (1956) paper implied that salary caps were not necessary to maintain stable finances and ensure league balance. Teams would not voluntarily bid themselves into bankruptcy, and diminishing returns to winning guaranteed against the stockpiling of talent.

If we accept at face value that salary caps transfer player rents back to management (that is, management would never agree to a cap that required them to pay more than they would with free agency), the only real issue to resolve is the effect of salary caps on competitive balance. Késenne (2000) and Quirk and Fort (1992) demonstrated that salary caps could, indeed, improve competitive balance. By requiring equal team payrolls, a franchise with an especially large revenue base would not be permitted to bid its full value for a player if it were at or near the cap. This would promote league balance by allowing other

teams to keep the players that might otherwise be bid away. Moreover, by requiring a minimum payroll, salary caps can also ensure that teams in smaller markets do not free ride from large-market revenues by dumping quality players in favour of cheap, low-quality labour.

Nevertheless, Quirk (1997) also noted that salary caps apply only to player compensation. Franchises in revenue-rich regions may undo competitive balance by outspending small-market clubs for quality coaches, managers and other non-player personnel.

Vrooman (1995) disagreed with the assertion that salary caps improve competitive balance. Unrestricted free agency, he stated, results in the allocation of player talent that maximises league revenues. Interteam player transactions that undo league balance while increasing league revenues will continue to exist even with salary caps. For example, a 'small-market' team might sell a star player to a 'large-market' team, but agree to pay a portion of the player's salary to ensure that the opposing team stays within its cap. For this reason, Vrooman argued that salary caps do not improve competitive balance, but only represent a collusive effort by clubs to maximise league revenue while controlling costs.

Ironically, league histories with salary caps render any meaningful empirical test of their effects on competitive balance moot. As noted earlier, the dominant strategy for a franchise is to bid quality players away from its competitors. Given that no team would offer a salary that exceeds a player's expected marginal revenue product, any free agent acquisition represents a mutually beneficial transaction between a player and a club. Salary caps, therefore, have the tall task of increasing league wealth by thwarting mutually beneficial transactions between individual franchises and players.

This is, of course, the classic 'defection' problem confronting any prisoner's dilemma. Because the Nash equilibrium differs from the league's preferred outcomes, salary caps require successful monitoring and enforcement. In other words, the best interests of the league can only be enhanced by keeping individual players and clubs from acting in their own self-interest. In practice, this has proved to be difficult, if not impossible.

The National Basketball Association (NBA) was the first professional sports league to implement a salary cap. Persuaded that the league was in dire financial straits, the National Basketball Players' Association (NBPA) agreed to a salary cap for the 1984–85 season. The first cap earmarked 53 per cent of league revenues for player salaries. This allowed each team a maximum payroll of \$3.6 million.

The NBA salary cap was a 'soft' cap. Given that the dominant strategy for a team is to ignore the cap, the rules governing salary caps made non-compliance easy. For example, teams were permitted to sign a replacement for an injured player at a salary up to 50 per cent of the injured player's salary (or 108 per cent of the average league salary) without any of it counting against the payroll maximum. Moreover, salary cap rules allowed clubs to re-sign their own free agents even if the player's salary caused the team to exceed the cap. Finally, the agreement allowed teams at or near the cap to sign rookies at bargain prices (\$75 000 for first-round draft picks and \$60 000 for players drafted in lower rounds).

The latter provision soon created significant problems of inequity. The Houston Rockets, whose payroll was below the league maximum, signed rookie Akeem Olajawon for \$6.3 million over six years (Staudohar, 1998). In contrast, another first-round draft pick, Charles Barkley, was forced to sign with the Philadelphia 76ers for only \$75 000. Fellow rookie team-mate Leon Wood challenged this provision of the salary cap on

antitrust grounds (*Wood v. NBA*), but his case was dismissed by the courts on the theory that the cap rules had been negotiated into a collective bargaining agreement (CBA) that had been ratified by the players (but, interestingly, as one might note, not ratified by either Wood, Barkley or any other rookie).

The rule that exempted the salaries of re-signed free agents (also known as the ‘Larry Bird exception’) turned out to be a Pandora’s Box for teams that felt constrained by the cap. One of the most notorious exploitations of the loophole came from New Jersey Net star centre Chris Dudley. As a free agent, Dudley turned his back on a number of lucrative offers to sign a seven-year \$11 million contract with the Portland Trail Blazers in 1993. His Portland contract called for a ‘pittance’ first-year’s salary of only \$790 000 with the opportunity to become a free agent at the end of the first year. After the first year of the contract was completed, Dudley declared his free agency and promptly re-signed with Portland for a long-term deal calling for \$4 million per year – conveniently allowing the Trail Blazers (and Dudley) to circumvent the cap (Staudohar, 1998).

Occasionally, parties who endeavour to circumvent the rules get caught. Joe Smith entered into an agreement with the Minnesota Timberwolves to sign three consecutive one-year contracts below market value (an individual must play for one team for at least three years to become eligible for the Larry Bird exception) in exchange for signing a seven-year contract for \$86 million that was scheduled to commence in 2001. Unlike the Dudley case, however, the principals made the mistake of putting the agreement in writing – an agreement that eventually fell into the hands of the league. The Timberwolves were fined \$3.5 million, the team was stripped of five first-round draft picks (although two were eventually restored), and Smith’s contract was voided.

Salary caps also entail enforcement problems from another perspective. League payrolls are tied to league revenues. If league revenues go unreported, payrolls are artificially suppressed. Allegations of underreporting by NBA franchises ran rampant in the earlier days of the salary cap. Beyond blatant underreporting, franchises can ‘hide’ revenues. For example, the Atlanta Hawks and the Atlanta Braves are both owned by media mogul Ted Turner, who also owns the Turner Broadcasting System (TBS). Normally, television/radio stations pay the local team a fee for the rights to broadcast the games. Because both cable superstation WTBS and the Atlanta Hawks are owned by the same individual, any ‘fee’ paid to the Hawks is merely a transfer from one of Turner’s pockets to the other. Consequently, by reporting a broadcast fee well below its market value, the Hawks’ contribution to league revenues is understated, which in turn, leads to lower team payrolls.

Ultimately, the ‘soft’ NBA salary cap became a paper tiger. The Larry Bird exception allowed teams to routinely bypass the salary cap. In fact, at the end of the 2002–03 season, every single NBA exhibited a payroll that exceeded the \$40.27 million salary cap (with the Portland Trail Blazers spending a whopping \$104 million on player salaries)!

To no one’s surprise, NBA management was anxious to replace the soft cap with a harder (no exceptions) version. Getting the NBPA to agree was no easy task. Even when NBPA executive director Simon Gourdine reached a tentative agreement with NBA management to establish a hard cap, a group of star players, including Michael Jordan, started a movement to decertify the union. Jordan was a prime example of a player who had prospered courtesy of the Larry Bird exception. In 1997–98, for example, Jordan alone was paid over \$33 million by the Chicago Bulls – despite the fact that the salary cap established a maximum *team* payroll of \$26.9 million!

The tough negotiations for a new CBA resulted in a lockout to begin the 1998–99 season. The lockout forced the cancellation of half of the season. Although the new agreement did not eliminate the Larry Bird exception (or a myriad of other institutionalised exceptions), it did impose a series of caps on salaries. First, the agreement established that players with five or fewer years of professional experience were subject to a maximum annual salary of \$9 million, with salary maximums of \$11 million for players with 6–9 years of experience and \$14 million for players with 10 or more years of experience. For the 2003–04 season (the last year of the CBA), these maximums rise to \$10.96 million, \$13.152 million and \$15.344 million, respectively. The agreement also establishes a maximum 12.5 per cent pay increase for re-signed free agents.

The impact of the NBA's 'new-and-improved' salary caps will be difficult to assess for a while. The majority of star NBA players signed long-term contracts for salaries well in excess of the maximums established in the new CBA, but the salary caps will be grandfathered in so no player currently under contract will be forced to take a pay cut.

The National Football League (NFL) also has a salary cap. Unlike the soft NBA cap, the NFL advertises its version as a hard cap – no exceptions, no loopholes. Or so the theory goes. In practice, the principals have found creative means of 'softening' the cap. Football's cap was initiated in 1994. Following an unsuccessful attempt to obtain unrestricted free agency through collective bargaining, the union decertified and sued the NFL in the *McNeil v. NFL* case. The court's decision pushed management and the (newly reconstituted) union back to the bargaining table. The negotiations resulted in opportunities for unrestricted free agency, coupled with a salary cap.

The contract called for players to receive 64 per cent of 'designated gross revenue' (DGR) in the 1994 season, with this gradually falling to 62 per cent by 1997. Extended through the year 2006, the percentage of DGR earmarked for player salaries rises to 65.5 per cent in 2005, while falling to 64.5 per cent in 2006 (no cap exists for 2007, the final year of the agreement).

Almost immediately, the owners sought to subvert their own system. Because the caps were to be grandfathered in, NFL teams scurried to sign their stars to lucrative long-term contracts before the cap became effective.

In addition, the owners quickly discovered means of circumventing the cap. To allow them to sign additional free agents whose salaries would cause them to exceed the cap, clubs restructured the contracts of existing players. Increasing the length of a player's contract (but at the same salary), for example, would decrease the player's 'annual salary', thereby creating room for new players. Alternatively, teams could 'backload' a contract to suit its salary cap needs in any given year. Backloading means structuring a player's contract such that the vast majority of his salary is payable in the final year. This creates room for additional salaries in the early years of the contract. When the bulk of the salary becomes payable, the principals can either agree to a new restructuring, or the player can be released from his contract outright. In the latter case, since the NFL bars guaranteed contracts, none of the final year's salary counts against the cap.

Of course, one wonders why a player would ever agree to backload a contract while simultaneously giving the owner the right to terminate the agreement in its final season. This is done through signing bonuses. Unlike the player's contracted annual salary, signing bonuses are guaranteed, but pro-rated over the life of the contract. Consequently, the bonus acts as a substitute for a guaranteed annual salary because the player receives

the bonus in full even if he is released before the contract officially expires. The pro-rated portion of the signing bonus counts against the cap in any given year. When a player is released, however, the remaining portion of his bonus counts towards the salary cap in the subsequent year.

For example, suppose a player signs a four-year contract that calls for a \$1 million bonus. If the player is not released from his contract during those four years, \$250 000 per year will count against the cap. If the player is released after the first year, the remaining \$750 000 of the signing bonus will count against the cap in one lump sum in the following year.

This provision allows for its own unique loophole. If a player is released prior to 1 June, the remaining signing bonus counts against the cap that year. If, on the other hand, the player is released after 1 June, the club can count split the remaining portion of the bonus against the cap over the next two years.

Not surprisingly, cap rules caused an explosion in signing bonuses. In 1992, only 15 per cent of the players' total compensation was guaranteed. Ten years later, primarily due to signing bonuses, roughly 50 per cent of the players' salaries are guaranteed (www.nflpa.org).

These creative means of 'cap management' have not gone without controversy. Each year, highly paid veterans are routinely cut after 1 June to free up room under the salary cap. Some players re-sign with other clubs at bargain basement salaries, whereas other players even go as far as to accept pay cuts to avoid being released.

Ironically, although it was designed as a 'hard cap', several NFL teams sport payrolls that exceed the cap every year. In the first three seasons of the cap, when clubs rushed to sign their own players to long-term contracts, every NFL team exhibited payrolls in excess of the cap. In 2002, well after the grandfathering period had elapsed, eight teams still managed to spend more on player personnel than the cap allowed.

The National Hockey League (NHL) also has a salary cap – of sorts. Its CBA came about after a brutal impasse resulted in a 103-day lockout. Unlike the other US sports leagues, the NHL's salary caps are limited to players who are not yet eligible to test the free agent waters. Specifically, whereas a player cannot become an unrestricted free agent until he reaches age 31, the NHL establishes maximum salaries based on the player's age. Specifically, the agreement mandates that rookies sign multi-year contracts that cover their employment until they reach age 25. During this time, their compensation cannot exceed the maximum levels specified in the CBA. In effect, the NHL CBA adds insult to injury not only by maintaining a reserve system (thereby preserving each club's monopsony power) but also by setting maximum salaries.

One would think that with all the difficulties inherent in monitoring and enforcing salary caps, this ineffective tool of cost control would soon become extinct in professional sports. On the contrary, salary cap fever may soon spread to Europe. The English Football League has already announced its intent to implement salary caps (in which salaries are pegged to 60 per cent of turnover) in all three of its divisions. Moreover, the G14 group, made up of Europe's top 18 clubs, promised to introduce salary caps (in which the maximum payroll would be 70 per cent of turnover) by 2005–06.

Europe-wide salary caps may not be as easy to institute as one might believe. Most importantly, the salary caps would have to receive the approval of the European courts. Under European Competition law, unless it receives an exemption, a practice that restricts competition will be deemed unlawful. Regarding sport, the courts have judged that a rule

will not restrict competition if it can be demonstrated that, in the absence of the rule, the competitions between clubs would lose credibility, thereby threatening their very existence. Of course, the elite G14 have a tough road ahead of them if they seek to convince the courts that their competitions are losing credibility.

Ironically, if granted an exemption, salary caps in European football could have a devastating effect on the credibility of the game. Most of the G14 teams have payrolls below the 70 per cent target. On the other hand, in the face of declining revenues, smaller clubs often gamble that they can be promoted to the premier level by spending all of their revenues on player salaries. With a cap in place, these clubs would have to significantly reduce their payrolls, which could cause revenues to decline even more.

In any case, at the present time, salary caps are discussed as part of a 'gentlemen's agreement' rather than official policy, possibly to avoid legal scrutiny. If implemented, European footballers can look forward to the same sort of rule circumvention that has become synonymous with salary caps in the NBA and NFL. In other words, to mangle a famous Shakespearean quote: to cap or not to cap . . . what is the difference?

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71 The luxury tax in professional sports

Elizabeth Gustafson

The luxury tax is a relatively new cost containment tool used in professional sports. It is a more flexible version of the salary cap that allows teams to spend more than some specified threshold if they are willing to be taxed for that privilege. Those who push for a luxury tax generally have goals of controlling the growth of player salaries and/or promoting competitive balance in the league by evening out team spending on talent. Owners have used the luxury tax as a compromise with players who are strongly opposed to a salary cap. To date, the luxury tax has only been used in Major League Baseball (MLB) and in the National Basketball Association (NBA) in the United States.

Academic Studies of the Luxury Tax in Sports

Few academic economics papers have addressed the question of the luxury tax in professional sports. This is likely due to its recent emergence on the sports scene and its use only in the United States. Gustafson and Hadley (1996), Marburger (1997) and Fort (2003) have modelled the impact of a luxury tax on player salaries and on competitive balance and have agreed on most points: a luxury tax will tend to improve competitive balance and will decrease player salaries, transferring rent from players to those receiving the proceeds of the tax.

All the authors have assumed profit-maximising owners who operate in a league where one team winning more indicates that another wins less. The clubs hire players in a competitive market in which the total number of players hired will be fixed. Since the opportunity cost of the players is generally below their equilibrium salary in such a system, rent is earned and can be allocated to players, to clubs or to the league management. The total revenue of a club is a function of its success on the field as well as characteristics of the home-team market. Marburger (1997) and Fort (2003) both illustrate this market using the graph of a two-team league introduced in Quirk and Fort (1992) (QF) and used in much of their subsequent work on sports leagues. (See Figure 71.1.) Following QF, we use two teams, one from a strong-drawing area (team L) and one from a weak-drawing area (team S) where team L is expected to have higher total revenue (TR) and higher marginal revenue (MR) of a win for a given win percentage. On the horizontal axis, Marburger shows the fixed amount of talent being divided between the two teams by measuring one team's talent on the right and the other on the left. He then illustrates the demand of the two teams for talent with their marginal revenue product (MRP) curves. In Figure 71.1, the QF convention is followed which uses win percentage (W) on the horizontal axis and shows MR of win percentage as the demand curves. Since

$$MRP_{talent} = \left(\frac{\partial W}{\partial talent} \right) \left(\frac{\partial TR}{\partial W} \right) = MP_{talent} MR,$$

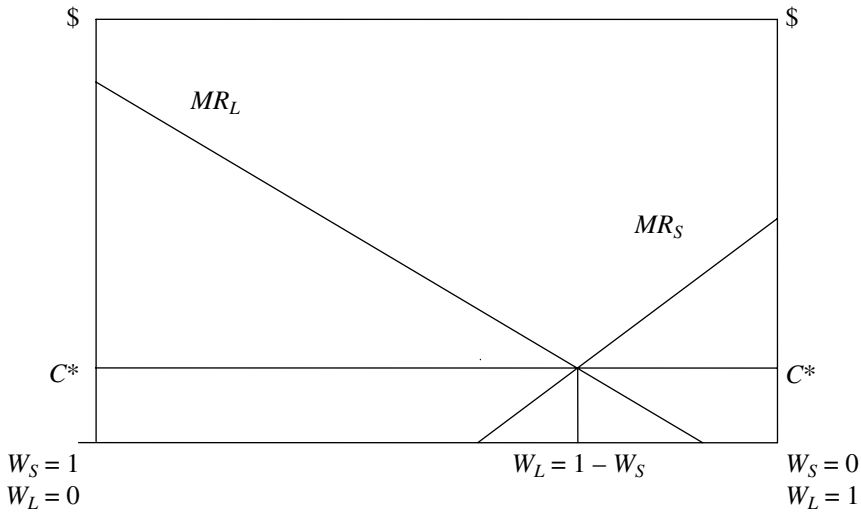


Figure 71.1 Talent market equilibrium

if one unit of talent is defined as increasing win percentage by one unit, then MRP_{talent} is equivalent to MR of win percentage. In this form the demand for talent curves yield information on competitive balance which is measured on the horizontal axis.

The price of one unit of talent is C and profit-maximising owners will hire at an equilibrium characterised by:

$$MR_L = MR_S = C.$$

At equilibrium in Figure 71.1, we see that team L, from the strong-drawing market, has a higher win percentage than does team S. The equilibrium price of talent is C^* and payrolls for the two teams are given by the rectangle products of $C^* \times W_L$ and $C^* \times W_S$, respectively.

The two parameters of a luxury tax are the tax rate and the threshold, above which teams must pay a tax on excess payroll. Assuming a threshold W_T and tax rate r ($0 < r < 1$), one can now say that the marginal resource cost of talent (MRC) is higher for teams with payrolls above the threshold, so that such a team's equilibrium occurs at higher MRP and lower salary:

$$MRC_{talent} = (1 + r)C = MRP_{talent}.$$

This representation is consistent with the work in Marburger (1997). However, to illustrate this new equilibrium on our graph, we instead assume that the effective MR becomes $[(1 - r) MR]$ for teams above the threshold, and team equilibrium is given by:

$$MR(1 - r) = C.$$

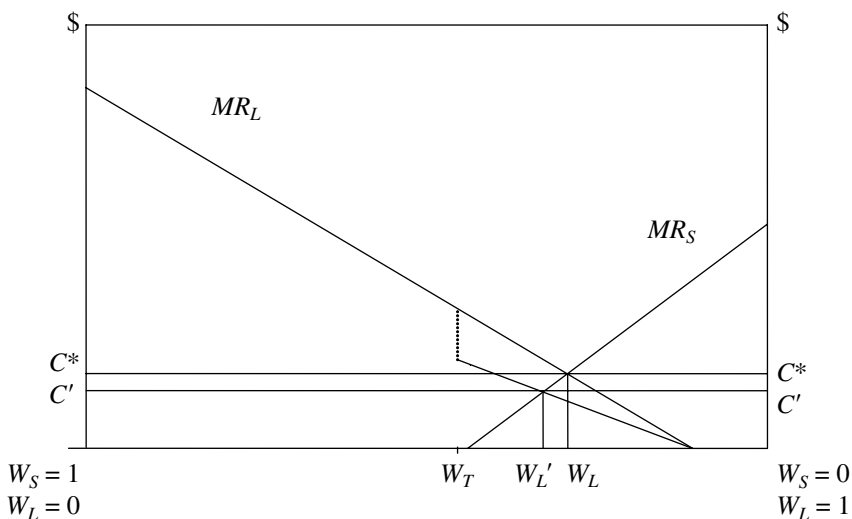


Figure 71.2 *Impact of a luxury tax on the talent market*

In Figure 71.2, the threshold is set at a level that impacts team L but not team S and the tax rate for this illustration is $r=0.33$. The MR curve for team L is altered when it passes the threshold W_T . There is a discontinuity at W_T showing that the next unit of talent hired contributes only $(1 - r)$ times its original MR. The effective MR curve continues to the axis at a slope $(1 - r)$ times the slope of the original MR curve.¹ In this example, the MR for team S is not affected but would show a similar change if it passed the threshold measured from the axis on the right. The league equilibrium now shows improved competitive balance with W_L falling to W'_L and W_S rising to $W'_S=(1 - W'_L)$. Since the total demand for talent is lower, player salary will fall to the lower C' and the team payroll rectangles will be smaller. Rent is transferred from the players to whomever receives the proceeds of the tax. This is the same result obtained by Fort (2003).

Marburger (1997) considers four different specifications of the luxury tax and subsidy distribution. In three of his scenarios the luxury tax is really a payroll tax with a uniform tax rate paid on all payrolls. In this case, he finds no impact on competitive balance of the luxury tax since all teams' MR curves are equally shifted in a downward direction, but the salary and payroll levels decrease. In his fourth scenario, the tax rate is endogenously determined and is assumed to increase with talent hired. In this case he finds no impact on competitive balance if the tax rate is a linear function of talent, but improved competitive balance if the tax rate increases at a faster rate than talent. If the tax rate increases faster than the talent level, then the MR curve for team L will fall farther than the MR curve for team S causing equilibrium W_L to fall and W_S to rise, improving competitive balance. This latter situation is most similar to a true luxury tax that goes from zero to some positive level at the specified threshold related to level of talent. Thus, Marburger's results are consistent with the previous findings.

Gustafson and Hadley (1996) examine the expected impact of the luxury tax that was being proposed for MLB for the 1996 agreement. They use a dual market for players that

assumes a fixed number of star players with a perfectly inelastic supply where star salary is determined by the intersection of total demand for stars with the fixed supply. The owners are assumed to maximise profits and the demand for stars is MRP of stars as in Quirk and Fort (1992) and Marburger (1997). Teams in stronger drawing areas have higher MRP of stars resulting in higher demand for stars and higher win percentages. The remainder of the players, called regulars, are in very large supply and their salaries are quasi-administered by the league. The paper focuses on the impact of the proposed luxury tax on star salary and on competitive balance.

In Gustafson and Hadley (1996), the luxury tax threshold is set at some fraction of average team payroll, h^* (average payroll). This type of threshold is in keeping with the thresholds being discussed for the 1996 MLB agreement and it introduces uncertainty into the process as well as causing the threshold level of stars hired to change with equilibrium star salary. The impact on the team demand for stars is illustrated by the same kind of discontinuity and lower slope demand that we saw in Figure 71.2. The results are the same as in Marburger (1997) and in Fort (2003). Larger drawing teams that tend to hire many stars have a decreased demand for stars but smaller drawing teams do not. The total demand for stars is, therefore, decreased causing star salary to fall. At the lower star salary, smaller drawing teams slide down their demand curves to hire more stars. Since there is a fixed number of stars available, the larger drawing teams, which now have lower demand will have to hire fewer stars. Competitive balance is improved, star salaries are decreased, and payrolls are decreased.

Only the Marburger (1997) study considers what might be done with the proceeds of the luxury tax. Marburger's four scenarios combine the impact of the tax with the impact of the distribution of the revenue from the tax. Since distribution of tax revenue to teams is really a revenue-sharing topic (see Chapter 65), I shall mention it only briefly here. Marburger's model assumes that attendance at games is positively related to both the home team record and the visiting team record. This is a departure from earlier models such as Fort and Quirk (1995) that assume attendance to be a function of the relative records of the two teams. This difference in the model causes revenue sharing to have an impact on competitive balance under some circumstances. In his discussion of the luxury tax and distribution of the tax revenues, Marburger finds that distribution of the revenue in a way that is exogenously determined has no impact on competitive balance since it does not change the MR functions. However, if the subsidy is inversely related to team revenue or other measures that increase with talent, then the MR of winning is decreased. Winning more leads to more attendance and revenue but also decreases the subsidy the team receives, so winning becomes less profitable. If the subsidy function of talent is linear, there is no impact on competitive balance due to all teams being similarly affected. If the subsidy share decreases at a decreasing rate as talent increases, then the teams with less talent will find their MR decreased by a larger amount and will have less incentive to win. Competitive balance in this case will be worsened.

All of the models discussed use the neoclassical model which assumes that only changes in MRP of talent will have an impact on the team demand for talent. This implies that subsidies to teams that do not change MRP of talent will not encourage or discourage the hiring of talent. However, if owners are assumed to have utility functions that depend on both profit and team success, there may be shifts in the demand for talent that are not related to changes in MRP. A subsidy given only to small-market teams may have an

income effect that increases demand for talent for those teams. Increased demand for talent by small-market teams while demand of large-market teams remains unchanged will lead to a new equilibrium with improved competitive balance. The downside of this from the owners' point of view is that the larger total demand for talent would also increase player salaries and payrolls.

Enforcement Problems

Making a large salary offer to a star player increases potential team payroll and vulnerability to the luxury tax. At the same time, players recognise that teams will react to the threat of the luxury tax by hesitating to pay high salaries. As a result, both team and player have incentives to avoid this problem by underreporting salaries. In addition, if the luxury tax threshold is expressed as a percentage of revenue, as it is in the NBA, there is incentive for teams who may be subject to that tax to inflate revenue and teams which may be well below the tax but which stand to get tax-related subsidies to deflate revenue. Learning as they go, sports leagues will include in their contracts safeguards against these avoidance actions.

Uncertainty

Luxury tax thresholds can be defined as a certain number of dollars of payroll spending or they can be defined relative to average team payroll or relative to league revenue. In the former case, teams are quite aware when they encounter the discontinuity in their demand curve for talent and should be expected to react to the lower effective MRP of talent. In the latter cases, since average team payroll and total league revenue are not determined until the end of the season, owners do not really know when they cross the line. Uncertainty introduces behavioural differences that have not yet been addressed in this literature. The NBA agreement that made teams possibly liable for a 100 per cent luxury tax for the first time in the 2001–02 season and which involves great uncertainty should lead to some work in this area.

The Luxury Tax Agreements

The luxury tax was first implemented in MLB in the 1996 agreement. The tax in that agreement was in effect for the 1997–99 seasons and then phased out. It was resurrected in the 2002 agreement. In the NBA, a luxury tax, referred to simply as a tax or a team tax in the collective bargaining agreement, was initiated in the 1999 agreement. The NBA luxury tax was invoked for the first time in July 2003 to be applied to payrolls for the 2002–03 season. In July 2005, a new NBA agreement was signed which includes a revised luxury tax. There are important differences between the MLB tax and the NBA tax that was in effect for the 2001–02 through to 2004–05 seasons.

The MLB Agreements

The 1996 collective bargaining agreement (CBA) for MLB included professional sports' first luxury tax as a compromise between owners who wanted to control payrolls with a salary cap and players who wanted to retain the benefits of free agency and final offer arbitration. In this agreement, the luxury tax was imposed for the 1997, 1998 and 1999 seasons on the teams with the top five payrolls. The compromise tax rate was 35 per cent for the first two years, falling to 34 per cent in 1999, and the tax was levied on the amount of

payroll above the specified threshold. In 1997, the threshold was the average of the payrolls of the fifth and sixth highest-paying teams. In 1998 it was 1.078 times the 1997 threshold, and in 1999 it was 1.071 times the 1998 threshold. After 1999, the luxury tax was replaced by increased revenue sharing until the new agreement in 2002.

Table 71.1, from Staudohar (2002), shows the luxury taxes paid under the 1996 contract. The relatively small amounts paid by free-spending teams such as the Yankees do not seem to be enough to have a serious deterrent effect on payroll growth.

MLB extended the 1996 agreement through 2001 and managed to reach a new agreement in 2002 just in time to avoid a strike deadline of 30 August. One of the most difficult issues in the agreement was the luxury tax. *The Blue Ribbon Report* (Levin et al., 2000) had recommended reinstating the luxury tax with a threshold of \$84 million and a 50 per cent tax rate. Early in the negotiations, Commissioner Bud Selig asked for an even higher threshold of \$98 million and a 50 per cent tax rate. Negotiations ultimately

Table 71.1 *Luxury taxes paid in Major League Baseball, 1997–99*

Year	Taxes paid (% of end of season payroll)
Total, 1997–99	
Baltimore Orioles	\$10 643 897
New York Yankees	\$9 919 651
Los Angeles Dodgers	\$2 712 672
Boston Red Sox	\$2 205 960
Cleveland Indians	\$2 065 496
Atlanta Braves	\$1 795 582
New York Mets	\$1 137 992
Florida Marlins	\$139 607
1997	
New York Yankees	\$4 431 180 (6.04%)
Baltimore Orioles	\$4 030 228 (6.24%)
Cleveland Indians	\$2 065 496 (3.50%)
Atlanta Braves	\$1 299 957 (2.45%)
Florida Marlins	\$139 607 (0.27%)
1998	
Baltimore Orioles	\$3 138 621 (4.06%)
Boston Red Sox	\$2 184 734 (3.67%)
New York Yankees	\$684 390 (0.93%)
Atlanta Braves	\$495 625 (0.80%)
Los Angeles Dodgers	\$49 593 (0.08%)
1999	
New York Yankees	\$4 804 081 (5.20%)
Baltimore Orioles	\$3 475 048 (4.40%)
Los Angeles Dodgers	\$2 663 079 (3.48%)
New York Mets	\$1 137 992 (1.57%)
Boston Red Sox	\$21 226 (0.03%)

Source: Staudohar (2002). (Sources cited in Staudohar, 2002: *Los Angeles Times*, 26 December 1997, p. C2; *New York Times*, 4 May 1999, p. C30; *San Francisco Examiner*, 23 January 2000, p. D3.)

Table 71.2 *Luxury tax thresholds and breach rates for Major League Baseball, 2003–06*

Year	Threshold (\$m)	First breach (%)	Second breach (%)	Third breach (%)
2003	117.0	17.5	–	–
2004	120.5	22.5	30.0	–
2005	128.0	22.5	30.0	40.0
2006	136.5	No tax	30.0	40.0

Source: Zimbalist (2003). (Sources cited in Zimbalist, 2003: *Sports Business Daily*, 4 September 2002, p. 8.)

increased the threshold to \$117 million in the first year and decreased the tax rate to 17.5 per cent, growing to 22.5 per cent over time with penalties for exceeding the threshold repeatedly that can bring the tax rate to 40 per cent for habitual offenders. The luxury tax payroll is for an annual 40-man roster, including 15 players from the minor leagues, and includes benefits. As a result, the luxury tax payroll numbers are much larger than the usual opening day or end-of-season payrolls we see reported. Table 71.2, from Zimbalist (2003), shows the parameters of the agreement. The proceeds of this tax go to a fund for player benefits and player development programmes. For the 2003 season, the luxury tax threshold was set so high that only the NY Yankees were liable for the tax. Their luxury tax 40-man payroll and benefits was \$184.5 million for 2003, well above the \$117 million threshold, making them liable for \$11.8 million in tax. The next highest luxury tax payroll and benefits was the NY Mets at \$116.3 million. For the 2004 season, the NY Yankees paid \$25 million while Boston and Anaheim paid \$3.2 and \$0.9 million respectively.

The NBA Agreement

A luxury tax was introduced in the 1999 NBA agreement as one part of a plan to keep total league salary and benefits at or below 55 per cent of basketball-related income (BRI) for the league. The NBA has had salary caps since 1984, but teams have routinely exceeded the caps through a number of exceptions such as being allowed to bid to keep free agents who have been on the team for three years. Under the 1999 agreement, there are still salary caps set at levels below the 55 per cent limit, but it is expected that teams will continue to exceed those caps.

In the 1999 agreement, the first tool invoked to keep the total salary and benefits at or below 55 per cent of BRI is the player escrow payment. Ten per cent of players' salaries is retained in an escrow account until total league BRI and payroll have been determined at the end of the season. If league payroll does not exceed 55 per cent of income, the money is returned to the players. If league payroll exceeds 55 per cent, some or all of the escrow money is returned to the teams to bring the payroll down to 55 per cent.

The escrow money from the players will correct the imbalance as long as league payroll is not more than 61.11 per cent of BRI. After that level, the luxury tax (or team tax) is invoked to handle the excess payroll overage. The luxury tax threshold is one over the number of teams (1/29 for 2003) times 61.11 per cent of league BRI as determined at the end of the season. Teams with payrolls above the threshold pay a 100 per cent tax on the amount of payroll above the threshold.

Table 71.3 Caps and thresholds for the NBA 1999 Agreement

Season	Defined salary cap	Actual salary cap	Threshold for player escrow money to be returned to teams	Luxury tax threshold
1999–2000	\$34m	\$34m	None	None
2000–01	48.04% of BRI ¹	\$35.5m ²	None	None
2001–02	48.04% of BRI ¹	\$42.5m	55% of BRI	61.11% of BRI (not reached)
2002–03	48.04% of BRI ¹	\$40.271m	55% of BRI	61.11% of BRI (\$52.9m)
2003–04	48.04% of BRI ¹	\$43.84m	55% of BRI	61.11% of BRI
2004–05	48.04% of BRI ¹	\$43.87m	57% of BRI	\$63.33% of BRI

Notes

1. From the BRI percentage, benefits are subtracted and then divided by the number of NBA teams to arrive at the cap. Note that projected BRI and benefits are used when computing the salary cap.
2. A special rule for the 2000–01 season reduced the cap if the 1999–2000 salaries and benefits exceeded 55 per cent of BRI. If 55 per cent of BRI was exceeded, then the excess was subtracted from the cap in 2000–01. Salaries and benefits did exceed 55 per cent of BRI – in fact they were 61.14 per cent according to the league's audit report. Therefore, the difference (about \$138.5 million, or \$4.8 million per team) was subtracted from the defined 48.04 per cent of BRI to calculate the cap. But since this would have set the cap below the guaranteed minimum of \$35.5 million, the 2000–01 salary cap was set at the minimum \$35.5 million.

Source: Coon (2003).

The CBA specifies that the escrow and luxury tax money is the property of the NBA and will be distributed at the league's discretion. Meetings of the NBA's board of governors during the 2002–03 season indicate that most of this revenue will be distributed to the teams with payrolls under the luxury tax threshold receiving larger shares. The board of governors also instituted a 'cliff provision' that adjusts the luxury tax rate and the share received for teams that have exceeded the threshold by only a small amount, above 61.11 per cent but under 65 per cent of their share of BRI. This accommodation is made due to the uncertainty about where the threshold will be when it is determined at the end of the season.

Table 71.3, from Coon (2003), shows the agreed salary caps as well as the escrow percentage which begins in the 2001–02 season at 55 per cent and becomes 57 per cent in 2004–05. The last column has been added to Coon's table to show the luxury tax threshold level.

While the MLB luxury tax is defined in terms of payroll above a pre-specified number of dollars, the NBA tax under the 1999 agreement is filled with uncertainty. The NBA threshold level of payroll is announced in July following the season end while payroll decisions have been made over the prior year. The threshold for 2001–02 was expected to be about \$55 million, but league payrolls were only 59.8 per cent of BRI and the luxury tax was not invoked. For 2002–03, league payrolls did exceed 61.11 per cent of BRI and the luxury tax threshold was set at \$52.9 million. That year, 16 of the 29 teams were liable for the luxury tax that totalled \$173 million. The Portland Trail Blazers, with the highest 2002–03 payroll, paid \$52 million in tax on a \$104.8 million payroll. The magnitude of

the NBA taxes eclipse the taxes paid in MLB and should have a significant impact on big spending. The NBA luxury tax was again invoked in the 2003–04 season.

Under the 1999 NBA agreement, teams below the threshold receive more of the escrow and tax revenues than teams above the threshold, leading to a marginal tax rate exceeding the 100 per cent specified rate. Rosenbaum (2004) finds that the highest effective marginal tax rates, which are greater than 400 per cent in some cases, apply to teams close to the threshold, rather than to the teams with the largest payrolls. This occurs due to the loss of subsidy money associated with crossing the threshold. Rosenbaum's analysis of team costs and revenues shows that, before the tax profits did not vary much with levels of spending. However, the large redistribution of income from high spending teams to those below the threshold resulting from the taxes and subsidies has greatly increased the variation in team profits. Teams which keep their payrolls below the threshold are much more likely to earn positive profits than their high-spending rivals.

While the luxury tax structure in the 1999 NBA agreement clearly included a stronger incentive to stay under the threshold than the MLB system does, the uncertainty about what the threshold will be and if there will be any penalty at all has an impact on team response that has not yet been addressed in the sports economics literature. The NBA seasons of 2001–02 through 2004–05 may turn out to be important years for researchers wishing to understand the impact of uncertainty. In July 2005, a new NBA agreement was signed which includes a defined luxury tax threshold of \$61.7 million for the 2005–06 season. The 100 per cent tax on pay above the threshold continues, but the uncertainty about whether or not a team will incur that tax has been eliminated.

Note

1. Fort (2003) shows the impact of a luxury tax using the two-team graph in a different way, but gets the same results.

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72 'At the top table': player unions in soccer

*Braham Dabscheck**

Player unions, or more correctly, those in professional team sports, have carved out for themselves a unique space in the annals of trade unionism. Legislation and legal principles promoting competition have been seen as being antithetical to unionism. Competition policy abhors combinations. Leagues, and their constituent clubs, have instituted a variety of monopsonistic labour market rules. Such rules have been invariably struck down by courts, in various jurisdictions, as being unreasonable restraints of trade or in conflict with pro-competition or anti-trust legislation. In response, and, in some instances, following suggestions of the courts, leagues have embraced player unions and/or negotiated collective bargaining agreements, in attempting to shield (usually revised) employment rules from legal attack (Dabscheck, 2000a). There is no better illustration of this than in the 'world' of soccer (association football). Moreover, competition policy has enabled the International Federation of Professional Footballers' Associations (FIFPro), a confederation of 40 soccer unions, to negotiate a *global* framework collective bargaining agreement with the Fédération Internationale de Football Association (FIFA), the governing body of world soccer. No other international union organisation, in any industry, has been able to conclude such an agreement.

Soccer is a British invention, which has been exported to, or adopted by, the rest of the world (Murray, 1994). Its modern, or professional, era begins with the formation of the English Football League in 1888. In the early years of its operation the league introduced the transfer and compensation system (it has had a variety of names over the years) and maximum wages to control the employment of players. Under the transfer and compensation system, which operates worldwide, clubs pay each other a transfer fee for players who change clubs during the life of their current contract, and a compensation fee for players whose contracts have expired and are no longer contractually bound to their former club.

In 1893 and 1898, English players unsuccessfully attempted to form a players' union. In December 1907 they were more successful when they brought into being the Association Football Players' Union, the oldest continuous players' union in the history of professional team sports. In 1958 it changed its name to the Professional Footballers' Association (PFA), the title which will be used throughout here. Following its formation, and throughout most of its history, the PFA has been concerned with reforming and overcoming restrictions placed on the employment and income-earning potential of members – such as maximum wages and the transfer and compensation system (Dabscheck, 1979, 1986; Harding, 1991).

The PFA has had a chequered history. In 1909 it successfully resisted an attempt by the English Football Association, the governing body of English football, to bring about its destruction in a recognition dispute (Dabscheck, 1991). Despite this victory, the PFA, for the next 50 years, experienced difficulties in obtaining benefits for members. Its major role in this period was one of representing members in contractual disputes and processing

workers' compensation claims, and/or providing insurance for injured players forced into retirement. In the latter part of the 1950s, continuing into the 1960s, the PFA made a more concerted attempt to attack English soccer's employment rules. In 1961 the maximum wage was abolished following threatened strike action. In *Eastham v Newcastle United Football Club* ([1964] Ch 413) the transfer and compensation system was found to be an unreasonable restraint of trade. In the mid-1960s and again, in the late 1970s, the PFA and Football League negotiated various changes to reduce the 'harshness' associated with the operation of the transfer and compensation system. One such change, introduced in the mid-1960s, was free agency for players not offered terms of employment equivalent to their previous contract.

Over the years the PFA has received inquiries for help and support in establishing unions from expatriate soccer players in Western Europe and the far-flung regions of the Commonwealth. There were players' strikes in Argentina and Uruguay, and the exodus of many leading players to Columbia, in 1948 and 1949 (Taylor, 1998, pp. 36, 64, 167 and 169), which may have been associated with failed attempts to establish player unions in those two South American countries.

On 15 December 1965, FIFPro was established at a meeting in Paris of representatives of French, Scottish, English, Italian and Dutch player unions (see FIFPro website).¹ It is interesting to note, however, that Associazione Italiana Calciatori (AIC), the Italian players' union, dates its formation and affiliation to FIFPro as occurring in 1968 (Personal communication, 29 September 2003). Under its current Articles of Association, FIFPro's goal is to bring together all footballers' associations in the world 'regardless of their nationality, religion, political conviction, race or gender'; to increase solidarity between professional players; establish leagues, organised interest groups or various other organisations in the most suitable way; and to pursue and defend the rights of professional football players.

In the early years of its operation, FIFPro's affiliates/members were European based. In the 1980s three unions from South America – Argentina, Chile and Uruguay – affiliated. In the 1990s, and continuing into the new century, members have joined from across the globe. Its website states that 'in the period 1998 to 2001 the FIFPro has grown from a European organisation into a global network'. FIFPro currently has 40 affiliates. The majority, 24, are European based, six are in South America, five in Africa, two in North America and one each in Asia (Japan), Australia and the Middle East (Israel). In all likelihood most, if not all, of these unions would have been formed and operated for a considerable period prior to becoming a member of FIFPro. For example, the Australian Professional Footballers' Association, which joined FIFPro in May 2000 (Personal communication, 17 July 2003), formed in April 1993, being the ninth attempt to establish such a players' organisation in Australia, with the first attempt having occurred as early as 1959 (Dabscheck, 1994).

The most important recent event in the history of world soccer, and the fortunes of FIFPro, in particular, and the progress of player unions in soccer, more generally, has been the 1995 decision of the European Court of Justice in *Union Royale des Sociétés de Football Association v Bosman* (Case C-415/93 [1995] ECR I-4921). Article 48 of the European Treaty, the 1957 Treaty of Rome (revised to Article 39 under the 1997 Treaty of Amsterdam) states that 'the free movement of workers shall be ensured within the Community' and 'shall involve the abolition of any discrimination based on nationality

between workers of the Member States as regards employment, remuneration and other working conditions'.

Jean Marc Bosman played with the Belgium club Liège. His contract expired in 1990. Liège offered him a contract, on lesser terms than he had previously enjoyed. Bosman declined the offer. Under the Belgium league's rules, Liège was entitled to receive a compensation fee if he changed clubs domestically, and, per FIFA regulations and those of the Union of European Football Associations (UEFA), the governing body of European football, internationally. Bosman was unable to attract any interest in Belgium. He received an offer from the French second division club Dunkerque. However, the two clubs could not agree on a fee, torpedoing Bosman's transfer. Denied the ability to obtain employment Bosman initiated legal action, which eventually found its way to the European Court of Justice. He claimed that compensation fees and restrictions on the number of foreign nationals that could play for a club (the '3 + 2' rule: three non-nationals on team sheets, plus two who had played uninterrupted in the club for five years) was in violation of Article 48 (revised 39) of the European Treaty.

The European Court of Justice ruled in favour of Bosman. Following this decision both UEFA and FIFA abolished the '3 + 2' rule and compensation fees for the international transfer of players within the European Union/European Economic Area (EU/EEA) (FIFA, 1997). In December 1999, European Commissioner Karel van Miert, following an application by the Belgium unions *Syndicat des Employés, Techniciens et Cadres* and *Fédération Générale des Travailleurs de Belgique*, found that FIFA's revised regulations were inconsistent with Article 85 (revised 81), which promotes competition, of the European Treaty. His objections focused on problems associated with the different, or 'anomalous', treatment between EU/EEA and non-EU/EEA players, moving into and out of Europe; and the international movement of players within the EU/EEA, whose contracts had been rescinded, or by mutual agreement between the two clubs and the player concerned (European Commission, 1998).

This opinion precipitated a lengthy round of negotiations, lasting almost four years, between the European Commission, FIFA, UEFA and FIFPro over the development of a new set of employment rules for world soccer. FIFPro felt it was marginalised in the negotiations. It was opposed to the use of labour market controls as a means to resolve problems associated with the organisation and administration of soccer. In February 2001, it presented a report to the European Commission, based on a model of income redistribution from broadcasting rights (FIFPro, 2001). Less than a month later the European Commission and FIFA announced that they had reached an agreement on principles for a new set of employment rules (FIFA, 2001a). At a meeting in Buenos Aires, on 5 July 2001, FIFA formerly adopted new regulations to govern the employment of players (FIFA, 2001b, 2001c, 2001d). Even though the substantive provisions of FIFPro had been ignored, these new rules, none the less afforded FIFPro a most important procedural role in the administration of these rules. At the end of August 2001, FIFPro dropped its objections and signed on to soccer's new employment rules.

Four major features of the new rules will be highlighted. The first three are substantive, the fourth procedural. Restrictions are placed on the international movement of players less than 18, compensation fees have been resurrected for players aged 18 to less than 23, and measures have been introduced to enhance contract stability for players 23 and over, via sanctions for players and/or clubs breaching contracts and players taking

up employment with a new club (see Dabscheck, 2002 for a critique). A dispute resolution chamber of FIFA's players' status committee, and an arbitration tribunal for football, has been created to resolve disputes in administering and interpreting the new rules. Both bodies involve equal representation from players' associations and clubs and/or leagues, with an independent chairperson.

On 28 September 2000, Gordon Taylor, FIFPro president, and chief executive of the PFA, circulated a letter to FIFPro affiliates, highlighting the changed nature of FIFPro's place in the world of soccer, resulting from its participation in these (at times, strained) negotiations. He said, 'Only until a few years ago we had received no recognition whatsoever, now we are recognised and at the top table and with that recognition will come achievement and responsibility' (Letter, Gordon Taylor, 28 September 2000).

FIFPro has been active in a number of areas. The various area representatives of FIFPro in FIFA's dispute resolution chamber and the arbitration tribunal for football have been determined. FIFPro has also maintained a watching brief on the operation of FIFA's new employment rules. It has expressed disquiet concerning the calculation of training costs and the problems that this will pose for players less than 23 wishing to change clubs. On two occasions, September 2002 and June 2003, it has persuaded FIFA to alter its employment rules to make them more 'player friendly' in making it easier for players to move to and find employment with new clubs (FIFA, 2002, 2003).

Wheels have been put into motion to enter into a 'social dialogue' to establish a collective bargaining agreement for European soccer. Such dialogue has been encouraged by the European Commission, following its involvement in the development of FIFA's 2001 rules (Article 138 (ex 118a) and Article 139 (ex 118b) of the Treaty of Amsterdam encourages such dialogue). In April 2003, FIFPro convened a conference, in Brussels, to enhance such dialogue and the conclusion of an agreement. The conference had in attendance representatives from various leagues, FIFA, UEFA, the G-14 (leading European) clubs, the European Commission and members of the European Parliament. FIFPro has also expressed opposition to a proposal by G-14 clubs to introduce a salary cap, beginning in the 2005/06 season.

FIFPro has also been active in providing aid to soccer player unions across the globe. Within Europe it has received representations from nascent unions, either seeking affiliation or help, in Switzerland, Uzbekistan, Moldova, Belarus, Armenia, Georgia, Azerbaijan and Kazakhstan. In December 2002 the Swiss Association of Football Players became FIFPro's fortieth affiliate. Various Ukrainian players have not been paid, and/or do not have contracts. The Nationwide Ukrainian Trade Union Footballers of Ukraine (NUTUFU) threatened strike action and asked for help from FIFPro. FIFPro made representations to the Ukrainian Football League and its Football Federation. It pointed out that if the issues in dispute were not quickly resolved it would ask UEFA and FIFA to take appropriate action. Theo van Seggelen, FIFPro's general secretary, and leader of the Netherlands players' union, visited the Ukraine in July 2002. He discovered that Ukrainian football authorities had established a company, or scab, union, of which all players apparently, automatically became members, as a means to side-step the NUTUFU. FIFPro's website of 23 August 2002 reports that van Seggelen informed Ukrainian football authorities that 'FIFPro is officially recognised by both FIFA and UEFA and the members of FIFPro are the only ones that are acknowledged as representatives of the players'.

Romanian players, and their union, have also encountered freedom of association problems. In December 2002, goalkeeper Florin Prunea, the union's vice president, was suspended for nine months (later reduced to six months) and fined €350, following a union meeting where he had made statements against clubs who had not paid players their salaries and violated contracts. One hundred players marched on league headquarters in protest. FIFPro lobbied FIFA and UEFA, who in turn pressured the Romanian Football Federation to cancel the ban on Prunea. The Romanian Football Federation and Romanian Football League established a scab union in April 2003. All players are required to join it if they want to remain members of their respective club teams. FIFPro's website of 10 April 2003 says it 'is very concerned about the current situation in Romanian football and the possible danger for the players' rights and interests . . . FIFPro will do anything to support . . . [the Romanian union], in its struggle against the illegal union'.

Three South American player unions (Brazil, Paraguay and Peru) affiliated to FIFPro in the early months of 2002. On 18 March 2002, the FIFPro website announced that its vice-president, Antonio Carraca, president of the Portuguese union, would visit South America to develop contacts with local player representatives in furthering the cause of defending professional footballers' rights.

In November 2001, Theo van Seggelen visited South Africa to provide advice and financial support to the newly formed South African Football Players' Union. A freedom of association abuse has been committed against John Moeti, the South African union's vice-president, denied selection in the national team, due to his involvement with the union. Early in 2002, a regional confederation of African player unions – Union des Footballers Africains (UFA) – was established in France, to aid African player unions. The Algerian Football Federation warned players against joining any player union (Algeria having such a union), on pain of being excluded from the national team. African Football Association president Issac Hayattou circulated a letter to all leagues in Africa to follow the Algerian example.

Hayattou was a candidate for the FIFA presidency in mid-2002. The FIFPro website of 29 April 2002 contained a statement from Mourad Mazar, the Algerian representative of UFA, opposing the candidacy of the anti-unionist Hayattou, who in the 12 years of his presidency, according to Mazar, 'hasn't accomplished anything for African football'. Mazar supported the incumbent Sepp Blatter, who 'pays attention to . . . players' and has developed a good working relationship with FIFPro. Blatter was re-elected. In June 2003, UFA, with financial support from FIFPro, organised 'Afric Awards' to honour Africa's leading players. The event was used as a vehicle by FIFPro to discuss developments concerning African football with African affiliates, including a delegation from Gabon.

In November 1999, FIFPro established a commercial arm called the FIFPro Foundation. Its objects are 'to represent the collective commercial interests of the unions of football players associated with the FIFPro and of the members of such unions', and 'to commercially exploit the name, portrait and popularity of professional football players all over the world'. The FIFPro Foundation obtains income from licensing computer-based soccer games. Being a non-profit organisation, revenues are redistributed to member unions. For 'wealthy' unions, or unions in 'strong' soccer nations, FIFPro Foundation revenue, though welcome, is of minor significance. For example, the English union, the PFA, obtains the bulk of its income from a share of broadcasting rights. On

the odd occasion, as it did in 2001, the PFA has threatened strike action to ensure that it receives such income – £17.5 million a year for 10 years! – to fund its operation and various welfare and educational programmes available to members (PFA, Report of the annual general meeting, 26 November 2001). For the Italian union, AIC, FIFPro Foundation revenue comprises only 3 per cent of its income; 90 per cent being derived from its own commercial activities. For weaker soccer nations, FIFPro Foundation income is of major significance. For example, in the case of its Australian affiliate it constitutes more than 50 per cent of its income. It is the ‘major’ source for unions in Finland, Hungary and Nigeria, and the only source for Switzerland (personal communications from the respective unions).

From the humble beginnings of the PFA, at the beginning of the twentieth century, through to the emergence of FIFPro in 1965, to its more recent activism in the 1990s and the early years of the new century, unions in soccer have become increasingly numerous and important. Since the 1995 *Bosman* case and intervention by the European Commission, FIFPro now sits ‘at the top table’ of world soccer. It acts globally and locally on behalf of soccer players and the respective unions they have formed. Globally, it negotiates with FIFA (and UEFA) and the European Commission in helping to determine framework issues, such as the global transfer and compensation system, which affects all players. In addition, FIFPro is in the process of attempting to negotiate a European-wide collective bargaining agreement.

Locally, FIFPro makes sorties into different parts of the soccer world to provide help, advice and support for players and/or their unions who experience problems and opposition from local football authorities. In turn, FIFPro utilises its working relationship with FIFA (and UEFA, if the issue is European based), to pressure such local football bodies to alter their behaviour. FIFPro, via the FIFPro Foundation, provides financial support to all member unions. For ‘small’ and new unions such financial support is crucial to their operation, if not their very survival.

The trajectory and fortunes of any soccer union (or any union for that matter) will be a function of the skill and determination of local leaders and members, the stance and policies of the football leagues/federations and clubs they interact with, and the nature of local political systems and legal regimes. Having said this, local soccer player unions can look to FIFPro, a confederation of soccer players unions for advice, aid and financial support in their various struggles with football federations, leagues and clubs in seeking to protect and advance the rights and interests of members. This is not a luxury that has been afforded to workers, and their unions, in any other industry.

Notes

* The author appeared as a witness on behalf of the Australian Soccer Players’ Association in a case before the Australian Industrial Relations Commission in 1995. He is a member of the now named Professional Footballers’ Association’s advisory board. He was part of a team which prepared a submission, on behalf of the International Federation of Professional Footballers’ Associations, to the European Commission, in February 2001. Thanks are expressed to various player unions for sending information which helped in the preparation of this chapter. Thanks are also expressed to Peter Sheldon, of the University of New South Wales, for translating information from Associazione Italiana Calciatori. The author is alone responsible for the views expressed, and errors or omission contained in this chapter.

1. Unless otherwise stated, information concerning FIFPro has been obtained from its website, www.fifpronet.com. Also see Dabscheck (2003).

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73 The player transfer system in soccer

Fiona Carmichael

The transfer market in association football or soccer has two main objectives as outlined in Carmichael and Thomas (1993). The first is to facilitate and organise the acquisition and exchange of players by clubs who become engaged in the transfer market either (a) to increase playing strength and improve team performance or (b) to improve club finances.¹ The second objective is to enable players to move between clubs to enhance their playing opportunities, job satisfaction and skills and improve their earnings.

Like most other sports labour markets, the transfer market in soccer has been the subject of restrictive controls. In the English Football League this was achieved mainly through the 'retain and transfer' system (see Chapter 67, above). Similar, but not identical systems operated throughout Europe. The English system was subject to a number of modifications in the player's favour during the 1960s and 1970s resulting in a revised system characterised by 'freedom to contract'. This meant that from 1978 players were allowed to negotiate a move to a new club on expiry of their contract. However, as long as the holding club offered terms at least as good as those in the final year of the player's contract, the holding club was entitled to a transfer fee by way of compensation from the club taking over the player's registration. If a transfer fee could not be negotiated, the dispute over the player's valuation would have been referred to the Football League Appeals Committee (FLAC). FLAC acted as an independent tribunal, although evidence suggests that the fees decided by them tended to be lower than those agreed outside the appeals system and thus favoured the buying club (Speight and Thomas, 1997a, 1997b). Since the 1995 *Bosman* ruling (see Chapter 68, above), a clearer principle of free agency with no transfer fee payable for out-of-contract players aged 24 and over has been established.

For players still under contract, the situation was and still is very different. The selling club can still expect to receive a fee and football league regulations require that the transfer itself should be managed directly between the clubs concerned. No player can initiate negotiations with another club and no inducements may be offered or approaches made to the player by another club. The potential buyer is required to approach the club and if a transfer fee is agreed, the buyer is given permission to speak to the player. If personal terms are agreed upon, the buying club and the player sign transfer forms.

Transfer fees can take a variety of forms, including a basic fee supplemented by top-up payments triggered by a certain number of appearances for the new club or at international level, or payments representing a share in the profits associated with any subsequent transfer. Some transfers incorporate exchanges of two or more players which may partly or wholly replace the payment of a fee. Many transfers are only temporary and some are explicitly negotiated as a trial. Neither of these initially involve a fee, although one may be agreed if subsequently the transfer is made permanent. Whatever their form all transfers are closely monitored by the relevant national association, the Union of European Football Associations (UEFA) at the European level and the Fédération Internationale de Football Association (FIFA) at the international level.

Following the introduction of 'freedom to contract', transfer fees rose rapidly as larger clubs competed for the most talented players. Transfer fees thus became a major source of revenue for smaller clubs which rely on youth policies and scouting to develop their player base. The Advocate General in the *Bosman* ruling accepted that smaller clubs often covered financial losses through transfer fee income, but he argued that the transfer system was not the only way to provide financial support for smaller clubs and therefore this argument could not be used to justify the wholesale continuance of the system (Simmons, 1997, 15). The argument that the transfer system redistributes income from bigger to smaller clubs is considered by Dobson and Goddard (1998). They examine transfer expenditure within the Football League between 1973 and 1994 and conclude that the pattern of net surpluses and deficits demonstrates that the transfer market acts 'as a mechanism for redistributing monies between clubs at different levels of the League' and that the importance of this role has grown (*ibid.*, 777). However, Szymanski and Kuypers (1999) examine data sets relating to the 1964–66 and 1978–97 seasons, and on the basis of their evidence argue that there is little support for the redistribution theory. The evidence relating to a redistribution effect of the transfer market is therefore somewhat mixed.

While smaller clubs may have lost out on some transfer moneys post-*Bosman*, they along with the larger clubs, can still sell their players for a fee while they are in-contract (or if they are under 24 years old). Thus the *Bosman* ruling gives clubs an increased incentive to sell players while they are still in-contract. It is not surprising then that big-money deals for in-contract players are still commonplace, the sale of David Beckham to Real Madrid in July 2003 for £17.25 million being a case in point. While Beckham's transfer generated considerable media attention, the fee negotiated was not the highest in 2003. That honour is at the time of writing reserved for Ronaldinho as can be seen in Table 73.1 which lists the highest money deals negotiated in 2002 and the first seven months of 2003.

Of course, the majority of negotiated transfer fees are much lower than those in Table 72.1. For example during 2001–02, data from the *Rothman's Football Yearbook* (2003) shows that there were 166 permanent transfers between the English clubs for disclosed fees and only 50 of these involved a fee of £1 million or more. Of these, the highest disclosed negotiated fee was £11 million paid by Chelsea to West Ham United for Frank Lampard and by Leeds United to Liverpool for Robbie Fowler. There were 82 additional transfers; 52 were free transfers, three involved only player exchanges, four were for nominal fees and for 23 transfers the fee was not disclosed. The fees paid for foreign players were generally higher; only nine of the 48 disclosed fees were for less than £1 million, the highest was £28.1 million paid for Juan Sebastian Veron by Manchester United to Lazio.² However, 12 of the foreign imports were free.

The high fees paid for a handful of superstar players may attract media attention but they are not really typical of the transfer market as a whole and skew the data considerably. These big-money deals have also continued to attract the attention of the European Commission, who are concerned about the implications in relation to freedom of movement of labour.³ However, there is evidence from Deloitte & Touche that transfer spending has peaked. In 2002–03, transfer spending by English league clubs fell to around £150 million from £407 million in 2001–02 (Deloitte & Touche Sport, 2003). The level of transfer spending is driven by the Premiership and also by the internationalism of the football transfer market: £323 million of the total for 2001–02 was spent by the Premiership and

Table 73.1 Highest transfer fees 2003* and 2002

Player	2003			2002		
	Selling club	Buying club	Fee (£m)	Selling club	Buying club	Fee (£m)
Ronaldinho	Paris-SG	Barcelona	21.25	Rio Ferdinand	Leeds Utd	29.1
David Beckham	Manchester Utd	Real Madrid	17.25	Ronaldo	Inter Milan	28.49
Damien Duff	Blackburn Rovers	Chelsea	17	Alessandro Nesta	Lazio	19.12
Cristian Chivu	Ajax Amsterdam	AS Roma	12.49	Hernan Crespo	Lazio	19.12
Marco Di Vaio	Parma	Juventus	9.62	Fabio Cannavaro	Parma	14.57
Jonathan Woodgate	Leeds Utd	Newcastle Utd	9	Nicolas Anelka	Paris-SG	13
Geremi	Real Madrid	Chelsea	7.02	El Hadji Diouf	Lens	10
Wayne Bridge	Southampton	Chelsea	7	Alberto Luque	Mallorca	9.56
Diego Forlan	Independiente	Manchester Utd	6.9	Hugo Viana	Deportivo la Coruna	8.5
Helder Postiga	FC Porto	Tottenham Hotspur	6.25	Massimo Maccarone	Newcastle Utd	8.15
Glen Johnson	West Ham Utd	Chelsea	6	Bernardo Corradi	Middlesbrough	7.64
Harry Kewell	Leeds Utd	Liverpool	5	Juan Roman Riquelme	Inter Milan	7.02
Nicola Legrottaglie	Chievo	Juventus	4.95	Robbie Keane	Boca Juniors	7
Ricardo Quaresma	Sporting Lisbon	Barcelona	4.21	Tore Andre Flo	Leeds Utd	6.75
					Glasgow Rangers	
					Sunderland	

Luciano	Atalanta	Lazio	3.96	Mikel Arteta	Barcelona	Glasgow Rangers	6
Zauri	Rennes	Lyon	3.78	Juminho	Atlético Madrid	Middlesbrough	6
Anthony Reveillere	Racing Genk	Ajax Amsterdam	3.54	Adrean Mutu	Verona	Parma	6
Wesley Sonck	Marseille	Everton	3.5	Cosmin Contra	AC Milan	Atlético Madrid	5.09
Joseph Yobo	Nantes	Manchester Utd	3.5	Jan Simak	Hannover 96	Bayer Leverkusen	5
Eric Djemba-Djemba	Leeds Utd	AS Roma	3.47	Peter Crouch	Portsmouth	Aston Villa	5
Olivier Dacourt							

Note: *Up to 31 July 2003.

Source: www.footballtransfers.info/transfers/highestfees2003.asp, 31 July 2003.

transfers from non-English clubs (imports) cost £238 million (*ibid.*). The growing internationalism of the transfer market is clearly demonstrated in Table 73.1, and is discussed in more detail in Sysmanski and Kuypers (1999, 105–6).

Following the *Bosman* ruling, some commentators predicted the collapse of the transfer market in professional football (see Simmons, 1997, for a summary of the debate that raged in the game following the *Bosman* ruling). This did not happen. The trading of players for a fee remains a characteristic of the transfer market for association footballers. The importance of cash trades distinguishes association football from the major team sports in North America where cash sales have not really been an issue especially since free agency was established in 1976. In contrast, the issue of transfer fee determination is integral to the economic analysis of the soccer labour market.⁴ A secondary issue has been that of the likelihood of transfer. It is to these issues, and especially the former, that this chapter now turns.

Transfer Fee Determination

Although an understanding of transfer fee determination is crucial to the wider analysis of the soccer transfer market, only a limited number of related studies have been undertaken by economists. Good summaries of this literature are provided by Downward and Dawson (2000, 219–22), Gerrard and Dobson (2000, 143–4) and Dobson and Goddard (2001, 227–37). Within this literature a debate, reflecting a wider debate in the economics of football, has arisen over the degree of competition in the soccer transfer market.

One view is that clubs and players hold a degree of monopoly power and that therefore fees are the outcome of a negotiated bargain. This perspective is adhered to in the papers by Carmichael and Thomas (1993), Riley and Witt (1995), Dobson and Gerrard (1999), Dobson et al. (2000) and Gerrard and Dobson (2000). An alternative view is put forward by Szymanski and Smith (1997), who argue that fees are the outcome of a competitive process. They are therefore determined by a player's innate ability and human capital investments which are reflected by his marginal revenue product (MRP) at the selling club. This approach is adopted in Carmichael et al. (1999) within the context of an empirical model that explores the determination of the probability of transfer and allows for sample selection.

The bargaining approach is appropriate to the extent that the transfer market is not truly competitive because it is characterised by either (a) uncertainty leading to risk and contractual incompleteness or (b) small numbers bargaining associated with transaction specificity so that identity matters. Carmichael and Thomas (2000, 5) argue that the transfer market is characterised by both (a) and (b). There is uncertainty because of asymmetric information about aspects of a player's quality and commitment and there is risk because it will be unclear, before a transfer, how well a player will perform as part of a new team structure. Small numbers bargaining between clubs is relevant because neither clubs nor players are homogeneous: 'In an extreme case a particular club may seek to acquire a particular player in which case the situation is one of bilateral monopoly. A more likely situation is where a particular player is sought by a number of clubs in which case the selling club has a degree of monopoly power' (*ibid.*, 4). In either case, identity matters and therefore buyers and sellers, when deciding on their offers will need to take into account the likely responses of others. This situation is a strategic one that requires game-theoretic modelling of the bargaining process. It is analogous to that usually

assumed to characterise the bargain over players' wages in the North American literature on sports labour markets (Downward and Dawson, 2000, 210–13). A bargaining approach has also been adopted in the more limited North American literature on cash transfers (see, for example, Marburger, 2002).

In the case of transfer fee negotiations (as with wage determination) there is also a conflict of interest, as a buying club will prefer a lower fee while a seller will favour a high fee. The upper and lower limits of the bargaining zone will be determined by the reservation fees of the buyer and seller. The upper limit will reflect the expected value of the player's playing services to the buying club and the floor of the zone will be determined by the value of the player to the selling club (see Gerrard and Dobson, 2000, 148–9, for a formal model of the transfer market that explicitly determines the upper and lower limits to the bargaining zone). The actual outcome of the negotiations will be determined by the relative bargaining power of the clubs. This will depend on the alternatives available to them, the player's skill and ability, the clubs' marginal valuation of his talent and the degree of monoposony power that is exercised (Carmichael and Thomas, 1993, 1470–71; and Gerrard and Dobson, 2000, 149–50). A negotiated fee higher than the seller's valuation can be interpreted as representing a monopoly rent extracted by the seller (as hypothesised by *ibid.*, 150). For this to happen, the buyer's valuation – in the case of profit-maximising clubs their estimate of the player's MRP – must be higher than that of the seller. If the valuations of the buyer and the seller are the same then the negotiated outcome will be the MRP of the seller as predicted by the competitive model.⁵

The competitive model can be defended on a number of grounds as outlined in Carmichael et al. (1999, 127–8). First, the transfer market has been characterised by freedom of contract since 1978 and there is considerable potential for movement.⁶ Second, there are many buyers and sellers (in what is now an international market as already noted). Last, there is a comprehensive if not perfect information network which observes and monitors the performance of players especially since the initiation of the Opta index⁷ in 1996. While it is true that since the *Bosman* ruling the transfer market has become more competitive a question regarding the non-homogeneity of both players and clubs remains. This may be less of an issue in relation to lower-ranked players and clubs and when transfers are between clubs in the same division.⁸ However, it is difficult to regard superstar players and the top European clubs in this light. Clearly players like Luis Figo and Ronaldo are in a different league (literally) from the majority of professional footballers. The players themselves generally want to play for more successful clubs,⁹ and the top clubs in particular, and this implies that identity matters at least to players. Furthermore, the MRP of a player can vary according to the club he plays for. For instance, the MRP of a player playing for a club like Manchester United will be higher than if he plays for a less well-supported club like Bolton. As counterarguments to these can no doubt be raised in support of the competitive model, the debate over the competitiveness or not of the transfer market remains unresolved.

Empirical Estimation and Evidence

In econometric models of transfer fee determination the dependent variable is the transfer fee and the independent variables are selected according to the model specifications. The competitive model implies that the transfer fee is determined by a player's expected contribution to his new team's output, which will depend on his innate ability and investments

in human capital. Thus in empirical estimations of the transfer fee equation, measures of ability and human capital are included as independent variables. In Carmichael et al. (1999) the independent variables include (i) direct measures of ability and human capital such as age, experience (indicated by league appearances), goal record and playing position, (ii) indirect measures based on individual characteristics such as international appearances and (iii) two indirect measures based on selling club status and performance, divisional standing and the goals for/goals against ratio.

The bargaining model implies that the transfer fee is determined by the balance of power between the buying and selling clubs: the greater the bargaining power of the seller relative to the buyer the higher the negotiated fee (and the greater the monopoly rent extracted by the seller). The relative bargaining power of a club will depend largely on team performance and market size (Vrooman, 1996) and the actual or expected contribution of the player. Thus in the empirical estimation of the transfer fee the independent variables should include measures relating to the characteristics of both the buying and selling clubs as well as the player. The inclusion of variables to reflect buying club characteristics is therefore the feature that distinguishes the empirical specifications of the competitive and imperfectly competitive models.

According to the proponents of the bargaining approach, models which do not include buying club characteristics suffer from omitted variable bias. But from the competitive perspective, buying club characteristics are jointly determined with the transfer fee as only wealthy clubs are able to afford more expensive players. Unfortunately the sample selection correction method adopted in the only study to explicitly exclude buyer characteristics, precludes the authors from testing the bargaining model by including buying club characteristics in their estimations (Carmichael et al., 1999, 128–9).

Sample selection bias is an issue deserving of attention in the analysis of the transfer market. The problem arises if the minority of players that transfer are not a random sample of footballers in that they have some unmeasured characteristics that make them atypical. Inasmuch as this is the case, transfer fee equations estimated by ordinary least squares will generate biased estimates. The Heckman (1979) correction method employed in Carmichael et al. (1999) involves a first-stage estimate of a probability of transfer equation the results of which are interesting in their own right. However, the independent variables included in the probability of transfer equation need to be the same for observations relating to both transferred and untransferred players. Clearly, players who are not transferred are not associated with buying clubs and so buying club characteristics cannot be included in the first-stage estimation. As a consequence they cannot be included in the second-stage estimation of the transfer fee equation.¹⁰

Gerrard and Dobson (2000) investigate these issues further by developing a test to determine whether transfer fees are in part monopoly rents to the seller. In their theoretical model, the observed transfer fee is a weighted average of the buying club's maximum bid price and the selling club's reservation price. The related empirical specification leads the authors to propose that a test for monopoly rents in transfer fees 'is whether the characteristics of the buying club are jointly significant as determinants of the observed transfer fees' (p. 151). They apply this test to their empirical model and find that the buying club characteristics are jointly significant of the transfer fee. They conclude that their results are consistent with the findings of the previous studies that have adopted a bargaining approach in that they provide evidence of the possible existence of monopoly rents in transfer fees.

In terms of the empirical specification, the existing literature can therefore be divided into two groups: those that include measures relating only to the player and the selling club as independent variables; and those that additionally include indicators relating to buying club characteristics. With regard to player characteristics, variables found to be positively and significantly related to the transfer fee include the following: goal scoring record, league appearances, international appearances and age (but not age squared, which is found to be negatively related to the fee implying a non-linear relationship between transfer fees and age). The results relating to the influence of a player's position are mixed and the impact of position on the fee appears to be dependent on performance as indicated by goals scored with goals scored by midfielders having the highest return (Carmichael et al., 1999, 142).

Independent variables included to reflect selling club characteristics have been selected to reflect team performance (for example, in terms of goal difference, league position and divisional status) and market size (average attendance, profits). In the studies specifying a bargaining model, equivalent variables are included to reflect buying club characteristics. In all the studies, selling club characteristics have some effect on the transfer fee. League position in particular has been shown to have a consistently positive effect on the fee. In studies including buying club variables, the league position of the buyer is similarly shown to be an important determinant of the transfer fee (see, for example, Carmichael and Thomas, 1993, 1473). Gerrard and Dobson (2000) additionally find that buying club attendances are significantly positively related to the transfer fee.

Carmichael et al. have also explored the determinants of the probability of transfer and find that this is raised by a change in management at the selling club and that goal scorers and more experienced players who have previously been on loan are more likely to be transferred. These results imply that the likelihood of transfer is affected by player (and selling club) characteristics and therefore the transfer of a player is not a random event.

The econometric evidence relating to transfer fee determination shows that transfer fees reflect the market valuation of a player and are closely related to his human capital and experience as in any other labour market. The additional relevance of selling club characteristics suggests that the value of a player's skill and ability is not independent of the club for which he plays. This is unsurprising in a team sport where a player's performance will depend to a large degree on the performance of his team-mates. However, the extent to which the influence of buyer as well as seller club characteristics reflects the bargaining power of clubs is contested. Ultimately the answer to this question depends on the degree to which the transfer of players is part of a competitive process or not.

Notes

1. That is, by liquidising their (player) assets in the way Leeds United did during the 2002–03 season.
2. At the time of writing (2004) Veron was on the verge of being sold by Manchester United to Chelsea for £12.5 million with an extra £2.5 million depending on Chelsea's success over the next four seasons.
3. In September 2001 the international rules relating to the transfer of in-contract players were amended as the result of a compromise agreement between the Commission, FIFA and UEFA (see Feess and Muehlheusser, 2002, and section viii of the FIFA rules for the status and transfer of players, www.fifa.com, 1 September 2001). However, the amendments made do not rule out transfer fees for an in-contract player, and they do not appear to have had a discernible effect on the transfer market.
4. In addition, confidentiality in relation to players' salaries has restricted efforts to explore issues relating to wage determination in soccer. In the absence of wage data, transfer fees can be interpreted as a measure of player worth.

5. Utility-maximising clubs may be prepared to pay more than MRP as playing talent will be valued for its contribution to playing performance as well as its contribution to profits (Vrooman, 1997).
6. The transfer of players is greater than 10 per cent of the stock of professional players in any season (Carmichael et al., 1999, 127).
7. Opta are the official player performance statisticians to the Premier League. They provide detailed match statistics for every player.
8. However, Marburger (2002) raises some interesting strategic issues in relation to transfers between clubs playing in the same league.
9. As evidenced by the usual outflow of players from newly relegated clubs.
10. Carmichael et al. (1999) find that the coefficient on Heckman's lambda is positive and significant at the 5 per cent level, indicating that sample selection bias is a problem that needs to be addressed in the estimation of transfer fee equations.

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74 Player agents

Daniel S. Mason

In the last few decades, with the advent of new and increasing revenue sources for sports leagues and associations, athlete salaries have soared worldwide. Within this context, the need for player agents has emerged, as athletes require additional assistance in managing the money they make and need guidance in manoeuvring through the various contracts and restrictions that govern their respective sports. In previous eras, agents were not required by athletes, as salaries were low and additional restrictions on player movement, such as the reserve clause, generally meant that players were at the mercy of owners and would sign contracts on a year-by-year basis. However, today's agent can help players reach a level of financial stability, both during and after their career, which is beyond the reach of athletes from previous generations (Ruxin, 1982). This chapter provides a brief overview of player agents in sport, with a particular emphasis on North American professional team sport.

With salaries earned by elite athletes reaching well into the millions of euros annually, acquiring the expertise of an agent is relatively affordable (Shulman, 1997). Historically, athletes represented themselves in negotiating playing contracts with teams, usually with managers with years of negotiating experience. This often led to a bargaining imbalance between teams and players (Gould, 1992). However, players soon began consulting attorneys or other professionals regarding their contracts; despite the fact that many teams showed an unwillingness to negotiate with agents, they are now seen as having a useful role in the bargaining process (Sobel, 1987). This is because contract negotiations can sometimes drag on for great lengths of time – time the player could be using to further his/her athletic talents.

The first acknowledged sports agent in North America was C.C. 'Cash and Carry' Pyle, who represented a number of prominent athletes, including football star Red Grange, during the 1920s and 1930s. However, the profession really began evolving during the 1960s, with the emergence of agents such as Bob Woolf, Marty Blackman and Mark McCormack. Through the 1970s, agents became much more widespread, mostly due to a shift in the bargaining power of athletes in their respective sports. A number of factors have been identified as the cause of this shift, including the presence of rival leagues, which gave players bargaining alternatives in lieu of the restrictions placed on player movement within specific leagues. This led to players signing multiyear contracts as opposed to traditional one-year deals (Roberts, 1992). In addition, the presence of rival leagues also meant that there were more jobs available in a given sport, which meant that there were more players requiring some sort of assistance from agents (Miller et al., 1992).

There were several landmark legal cases in the United States that resulted in the abolition of the reserve clause and the arrival of free agency, allowing players greater freedom of mobility within their own respective leagues. This resulted in a need for agents to help players exploit their new bargaining position. The increased popularity of sports, aided by growing television audiences through the 1970s and 1980s, meant more revenues for

clubs, who could spend that money on player salaries. In addition, stronger player unions and the advent of salary disclosure in some leagues also improved the bargaining power of players, which has allowed skilled agents to exact even greater salaries for players. Finally, with the aforementioned increase in television exposure, there have been greater opportunities for athletes to 'cash in' on their celebrity status through endorsements.

One other unique characteristic of the sports industry that has resulted in a niche for player agents lies in the authority of the player unions and the nature of collective bargaining in professional team sport. Unlike other traditional industries with a strong base of organised labour, player unions do not negotiate salaries on behalf of their members. Instead, unions have designated the right to negotiate individual salaries to agents (Wong, 2002). In fact, suggestions to have player unions negotiate widespread wage scales and merit-based payments have been strongly opposed in leagues such as the National Football League (NFL) (Lock and Hoffman, 1985). Thus, agents have been presented with the opportunity to fill a role for players that is not provided through their respective labour organisations (Crandall, 1981).

An Overview of the Player-Agent Relationship

Quite simply, the role of the agent in sport is to maximise the athlete's earning potential while providing a basis for the long-term financial stability of the athlete (Ehrhardt and Rodgers, 1988). The legal, contractual relationship between player and agent is similar to other principal-agent relationships in other business settings (Grosse and Warren, 1991). According to one legal definition of the law of agency, agency describes 'the fiduciary relationship which results from the manifestation of consent by one person to another that the other shall act on his [sic] behalf and subject to his [sic] control, and consent by the other so to act' (Barnett, 1987, pp. 1980–81). A fiduciary relationship requires that agents must act in good faith, and be honest and loyal towards the players that they represent.

Some form of standard representation contract, which has been developed by player unions and other governing bodies seeking to regulate agent behaviour, usually governs the player-agent relationship. This contract establishes the rights and responsibilities between agent and player – it does not require that an agent be successful; rather it is meant to ensure that the agent acts in good faith towards the player, and provides a means for the resolution of disputes and so on (Champion, 1997, p. 351).

The agent profession has become popular for the very reasons described earlier related to the growth of the sports industry and the potential earnings that can be made through representing athletes. Some agents are able to bring in commissions that rival that of the athletes they represent. For example, baseball agent Scott Boras will receive US\$12.6 million as a fee for negotiating the 10-year, US\$252 million contract for Alex Rodriguez of the Texas Rangers. Many agents are attorneys or provide services as part of their broader professional practices, such as financial management. It has been suggested that there are nearly as many agents as there are athletes; evidence from the four major professional sports leagues in North America would seem to support this notion. The National Basketball Association (NBA) has 350 registered agents and 350 players on its league rosters, the National Hockey League (NHL) 186 agents and 750 players, the National Football League (NFL) 1112 agents and 1900 players, and Major League Baseball (MLB) 328 agents and 1200 players (Shropshire and Davis, 2003). The number of agents is even greater when one considers that some of these leagues only register

agents that already represent a player who is on a major league roster, so these figures do not include aspiring agents. Finally, according to FIFA, there are over 1300 licensed player agents in world football, with over 200 registered in England alone.

Agent Duties

The duties that agents provide can vary greatly both between agents and the players that they represent. As mentioned, agents were initially hired to negotiate the playing contracts of athletes. For most leagues, the terms of the player–team relationship are governed by a standard player contract (SPC) that is set out by the league and the players through the process of collective bargaining. This provides the guidelines for agents and clubs in their negotiations (Wong, 2002). Qualified agents with strong negotiating techniques have been able to overcome the bargaining imbalance between seasoned general managers and players. Today, agents often have an advantage over managers; according to Brian Burke, general manager of the Ducks (and former player agent), the agent has more time to prepare to negotiate, given the other responsibilities the manager has in operating his/her club (Burke, 1993). To address the issue, some teams have acquired the services of specialists (often hired as assistants to the general manager), whose primary responsibility is to negotiate contracts with players. In the case of athletes in individual sports, the role of the agent is critical, given that many individual sports do not afford athletes the protection of collective bargaining agreements and standard playing contracts (Wong, 2002). Therefore, there is an additional burden upon agents in individual sports to ensure that their clients' interests are being met.

However, agent duties may extend far beyond that of negotiating contracts with teams and/or associations. As endorsement opportunities emerged, agents began seeking out marketing arrangements to supplement athletes' playing wages. In addition, other issues have arisen that require the expertise of agents, such as tax planning, particularly with athletes from different regions living abroad and playing for foreign clubs, and creating personal service corporations and other tax shelters to protect players' financial interests. Agents also may provide services including, but not limited to, legal counselling, financial management/advice, career planning, public relations, dispute resolutions and athletic training (Yasser et al., 2000). As one can see from the above list, the breadth of services available to players is great, and it could be assumed that any one agent could not possibly have the expertise to provide all services, should the player request them.

In addition, agents also end up providing services to athletes that are not necessarily set out in the standard representation contract. Agents may also take on the role of confidant to players, particularly younger ones, and develop quasi-friendships with their clients. Thus, agents are often the first people that players want to talk with, even with regard to things that are not related to his/her playing career. As a result, many agents can tell you stories about late-night phone calls from players who are in legal trouble, or simply want to talk to someone.

Agents have historically relied on the use of commissions; that is, a proportion of the contract amount negotiated with the team on behalf of the player. In past decades, the amount was set at around 10 per cent of the total contract amount. However, as salaries have increased, the percentage has dropped, and some player unions have put caps on the amount that agents can charge. For example, the maximum fee that an NFL agent may charge is 3 per cent, while in the NBA agent fees are capped at 4 per cent, or 2 per cent if

the player's contract is for the league minimum (Shropshire and Davis, 2003). Fees for obtaining endorsements can be much higher, in the 10–30 per cent range. However, agents have become more creative in the manner through which agents are compensated, such that agents are now typically reimbursed in one of four ways: (i) an hourly rate, usually between \$100 and \$400 per hour; (ii) at a flat rate or predetermined amount; (iii) a commission or percentage of the salary; or (iv) a combination of flat rate, commission, or hourly rate (Schubert et al., 1986).

Agent Issues and Concerns

This section discusses several issues related to player agents in the sports industry. As mentioned earlier, concerns have been made regarding the ability of agents to competently provide the variety of services that an athlete might require. In many respects, the services that an agent is able to offer will be based on the size and structure of the agent's business operations. There are three basic business models in the player agent profession. The first are free-standing sport management firms. Depending on the size of the organisation and the resources available, these organisations can offer the myriad of services that an athlete might require. The second type of organisation is the professional practice, usually a law practice, where an attorney-agent offers services as part of his/her broader business. The final type is hybrid organisations that combine law practices and sport management firms. These organisations rely on each other and will 'outsource' services based on the needs of the client (Yasser et al., 2000).

There has been a movement in the past 10 years or so for large, global agencies to consolidate and create ever larger, powerful agency companies that provide a diverse number of services to athletes (Shropshire and Davis, 2003). In this manner, today's top athletes, from a variety of sports, are able to take advantage of the synergies that large firms can provide, particularly with regard to endorsement and marketing opportunities. Thus, firms such as Octagon represent clients as diverse as retired American football star, John Elway, and tennis player Anna Kournikova. Powerhouse agency, IMG, employs over 3000 people, and has over 85 offices in 33 countries; however IMG has recently decided to divest itself of its player representation business in several sports, due to perceived conflicts of interest.

There are obvious advantages to players working with larger firms, such as avoiding the likelihood of working with an agent who offers services that he/she lacks the skills to provide (*ibid.*, 2003). However, working with a larger agency may have its drawbacks. In many cases, larger agencies cannot tailor their services to athletes in a way that makes the client feel important. It has been noted that clients in larger agencies seem to receive less personal attention and feel like more of a commodity (Remick and Eisen, 1986). In addition, conflicts of interest (to be described in more detail below) can arise where players represented by the same agent are vying for the same jobs with teams, or endorsements with the same companies. This is more likely to occur in larger firms with a larger stable of clients. In addition, concerns have been raised regarding conflicts in larger firms that have other business interests. For example, some larger firms also specialise in event management, which can be an issue where individual-sport athletes compete in events that are managed by the same company that represents them.

Another issue facing agents and players relates to the availability of information on salaries. Where players' salaries are in the public domain, players and other agents are

better able to evaluate the performance of the negotiating skills of agents. In leagues where salaries are not public, different agents may be more valuable or have competitive advantages over other agents. For example, if salaries are not widely known, then an agent who has extensive negotiating experience will have a much better sense of the market value of a client, as he/she will have negotiated contracts with other players of similar skills and experience. Thus, novice agents that represent players in leagues without salary disclosure may have more difficulty exacting lucrative contracts for clients, and may also be at a disadvantage *vis-à-vis* competing for clients with experienced agents.

One final issue related to agent operations is agent recruitment and retention. To a significant degree, players rely on word of mouth as a means to evaluate and select agents (Mason and Slack, 2003). Thus, building and maintaining a good reputation is critical for the success of an agent. This is due to the small and fraternal network within sport (Shulman, 1997). It has also been suggested that a reliance upon reputation is so important that players will ignore the professional affiliations and qualifications of agents and select one based upon his/her 'track record' (Champion, 1997, p. 356).

As the discussion above would suggest, new agents breaking into the profession are at a distinct disadvantage in gaining a base of clients. This is because they lack the established reputations of more experienced agents, and the specialised knowledge that will allow them to best serve their client's interests. In addition, agents who are also attorneys are even more limited, as there are restrictions imposed upon them relating to the solicitation of clients. As explained by one observer, unless an aspiring agent already knows an athlete, 'there is virtually no way to break into the business as an attorney' (Stiglitz, 1997, p. 371).

Agent Opportunism

An unfortunate consequence of the scenario described above is that some agents (of all levels of knowledge and experience) have resorted to unethical tactics in order to obtain and retain clients. Although many of the problems described below are unique to the sports industry, they reflect basic agency problems consistent with principal-agent relationships in other industries. Generally speaking, there are a number of forms and types of agent problems in sport. The first involves unethical solicitation. This can occur in a number of settings. One involves violating rules of solicitation of regulatory bodies, such as bar associations for attorneys, or contracting with collegiate players in the United States prior to the conclusion of the athletes' college careers, circumventing some state agent laws. It also might involve trying to lure players who are currently being represented by rival agents by manipulating the truth, or even outright lying. In some cases, agents have bribed players and their friends and family members to entice them to switch agents or to sign a representation contract with them. Another involves the charging of excessive fees, although this is less likely today in most sports, given restrictions on fees imposed by player unions.

Another problem involves conflicts of interest. In addition to the conflict faced by larger firms discussed earlier, conflicts can include: (i) agents representing players on the same team, who are vying for the same resources; (ii) players in the same league who play the same position; (iii) players on the same team that compete for the same position; (iv) athletes who compete for similar endorsement opportunities; (v) agents who also work in some capacity for the athletes' respective players unions; (vi) representing both players

and coaches; and (vii) representing players who are in the same free agent or draft pool (Fraley and Harwell, 1989; Cohen, 1993; Brown, 1994; Yasser et al., 2000).

Unfortunately, there continues to be a pool of incompetent agents who represent athletes. This may be caused by agents trying to perform duties beyond their means in order to retain a client or to lower the likelihood of the athlete signing with a rival agent. Related to general incompetence is income mismanagement, where the agent invests the athlete's salary unwisely. Finally, agents have been guilty of outright fraud in their business dealings with players (Yasser et al., 2000).

Monitoring

To decrease the likelihood of contracting with an unscrupulous or incompetent agent, it has been recommended that players sign with agents who are also bound by regulations and duties of care of parent professions, such as attorneys who are bound by bar codes and can lose their licences to practise if they are found guilty of any such transgressions (Remick and Eisen, 1986). However, these codes of conduct apply only to those agents who are a part of a broader profession. As a result, other stakeholders have emerged to monitor and police agent behaviour (Mason and Slack, 2001).

There are four basic types of regulation for players agents. The first are the codes of professional conduct described above, which govern certain professions that an agent practises in, such as law, or accounting. The second are those found within the sports industry, such as player unions or other organisations, such as FIFA (the International football authority). The third are government- or state-initiated regulations, such as those created by individual US states, or attempts to create comprehensive federal regulations. Finally, there are forms of self-regulation, which may include personal morals (Dee, 1992). In addition, some agents have collectively attempted to regulate their own behaviour, as evidenced by the now-defunct Association of Representatives of Professional Athletes (ARPA), which was created in North America in the late 1970s and at one point boasted 400 members.

Generally speaking, these forms of regulation address three basic areas: (i) professional standards (competence, integrity and diligence); (ii) improper conduct; and (iii) parameters for solicitation (*ibid.*). However, the variety of different regulations and concerns over jurisdiction has led to criticisms of many agent regulatory programmes. Nevertheless, it would appear that regulation from within the industry, such as that implemented by player unions or other sport organisations, may provide the best means of regulating agent behaviour (Mason and Slack, 2001). But, potential anti-competition problems arise by having these organisations regulate agents. For example, because these organisations reserve the right to deny an agent the right to represent a player, there is always the chance that an agent may be denied for reasons beyond the scope of the agent regulation (that is, a personality conflict with the head of a players' association). This issue was initially raised with the creation of the National Football League Players' Association (NFLPA) agent certification programme in the early 1980s (Lefferts, 1984; Greenberg, 1993). Similarly, FIFA agent regulations have been investigated due to allegations that FIFA's ban on players and clubs using agents not licensed by FIFA was anti-competitive.

It is unlikely that a comprehensive agent certification programme will emerge that will be without drawbacks. This is due to the variety of training of agents and the services they

provide, the range of services required by athletes, the trans-border nature of today's sports industry, and the fact that, with information asymmetry, there will always be a possibility of agents acting opportunistically without being detected. Leigh Steinberg, a prominent NFL agent, appropriately summarised these issues:

Professional athletes in our society are entertainers, spokespersons, role models and leaders. They are potentially powerful and persuasive figures. My responsibility as a sports attorney is to assist my clients in navigating the best course to fulfil this potential. Legislation, at any level, could never fully address or regulate the myriad of services that athlete representatives provide and that every professional athlete requires. (Steinberg, 1992, p. 114)

However, there does appear to be fewer examples of agent opportunism in sport today. This is due to increasing regulation, but also other factors such as better-informed athletes, and increased competition among agents for clients.

Conclusion

This chapter has briefly outlined and explored the role of agents in the sports industry, and although the profession may vary across sports and continents it is hoped that this review has provided a basic understanding of the issues and activities that underpin this important facet of the industry. To conclude, it is important to note that the role of the agent is ever evolving, and will continue to change as the industry itself changes. Although the influence that specific agents and agencies have may change over time, over the past 30 years agents have become an integral part of the business of sport, and should continue to be for the decades to come.

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75 The promotion and relegation system

Stefan Szymanski

The American model of a professional sports league is closed: the league consists of collections of franchises each of which has the right to compete unless voted out by a supermajority (usually two-thirds) of the existing teams. New teams cannot enter unless they win approval of a supermajority of the existing teams, something that cannot be achieved without offering to pay a substantial entry fee. While expansion and contraction have occurred throughout the history of the major league franchises, the process of change is slow.

In many other sports, notably professional football (soccer) leagues, a system of promotion and relegation operates. While there are several ways in which the scheme can operate, the most commonly used format is one where the worst-performing teams in a league during a season, measured by the number of points won (a measure that is close to win percentage) are demoted to an immediately junior league, to be replaced by the best-performing teams in that league. For example, in the top professional football leagues of England, France, Germany and Spain, the current rules (2004/05) require the three teams with the lowest points scored (3 points for a win, 1 point for a draw (tie)) to be relegated, to be replaced by the three best teams from the recognised second-tier league division. In the top Italian soccer league (Serie A) in 2003/04, in addition to the automatic relegation for the bottom three, the fourth-worst team was required to compete to maintain its position through a play-off against the sixth-ranked team of the second level (Serie B). In this case, somewhat unusually, there were five teams promoted automatically since it was decided to expand Serie A by two teams. In the event, the Perugia, the Serie A team lost (to Fiorentina, the Serie B team) and so were also relegated to Serie B. In many leagues, competition for promotion is frequently managed through play-offs. For example, in the second tier of English football (currently known as the 'Football League Championship'), the two best-performing teams are promoted automatically to the Premier League, while the next four teams compete for a single promotion place through play-offs.

This chapter describes the origin of the system, its benefits and its costs relative to the closed league system.

Its Origin

When a league is founded it is a relatively fluid structure. For example, during its early years, baseball's National League saw frequent entry and exit of member teams. Teams were expelled for reasons such as failing to complete the required number of fixtures, or for match-fixing. In 1877, the league's second year of operation, it even added an article to its constitution declaring that the most successful team not then a member of the league would be eligible for membership (this article disappeared the following year). Yet the National League never deviated from its fundamental purpose, the creation of a stable closed monopoly league, and by the turn of the twentieth century had achieved this goal. Since then, the National League, and its partner the American League, have maintained

a relatively stable composition, while expanding from 16 teams each to 30 over the past half-century. While franchises have been sold from one owner to another, and have relocated from one city to another, the membership of the major leagues has changed little. While the National Football League and the National Basketball Association are relative newcomers, they have remained loyal to this fundamentally closed vision.

The world's first soccer league was the English Football League, created in 1888. Numerous contemporary sources attest that the inspiration for this new format was baseball's National League. English football administrators were well aware of contemporary sporting developments in the United States, and could see how successful the American league system had become (for detailed evidence, see Szymanski and Zimbalist, 2005). There was, however, one fundamental difference. While the founder of the National League (William Hulbert) saw no benefit from working within the existing structures of baseball competition, the founder of the Football League (William McGregor) had every incentive to work within the existing structures. The foundation of the National League was a response to the crisis of corruption that had enveloped baseball in the 1870s – match-fixing was rife and fans were beginning to turn away from the game. Hulbert aimed to distance his league from corruption and therefore had little interest in working with existing baseball organisations. The foundation of the Football League was, by contrast, a response to the enormous success of the established governing body of football, the Football Association (FA), and the competition that it had created, the FA Cup. Cup competition had helped to turn football into a major spectator sport and to create huge followings for the major clubs. These clubs did not want to break away from the FA and its competition; rather, they wanted to create a stable set of fixtures to be played alongside the existing competitive structures.

Therefore the Football League had every reason to adopt an inclusive approach to the sport. Had the Football League imitated the closed door policy of the National League, the most likely result would have been open war with those clubs excluded, and expulsion from the FA. Given that the FA Cup was at the time hugely popular, there seems little doubt as to which camp would have triumphed commercially. By adopting a deliberately inclusive approach, the Football League avoided antagonism with the FA and the remaining clubs.

From its inception, the Football League declared its intention to expand to include more teams whenever possible. In 1888 it started with 12 teams, expanded to 14 teams in 1891, and in 1892 introduced a second division of 12 teams as well as expanding the newly named first division to 16 teams. In the American model, the league would at this stage have distributed the existing teams between the two divisions to establish two leagues of equal strength, and the winners could then have competed for the national championship. Instead, the league preserved the first division as a league of the strongest English teams, but offered hope of entering this division to teams of the second rank. Between 1892 and 1897 this was achieved through a system of 'test matches', by which the bottom three in the first division at the end of the season had to play the top three in the second division (that is, no. 16 versus no. 1, no. 15 versus no. 2 and no. 14 versus no. 3) in a single team game to determine which division each team would play in.

This system lasted until 1897, when the promotion and relegation system in its most commonly used format was introduced: the top two from the second division automatically replaced the bottom two. Almost in every country where soccer has been introduced,

the promotion and relegation system was adopted (although strikingly not in the current US professional league, Major League Soccer). Not only has it been adopted for soccer leagues, but it has also been used in other sports, such as rugby (league and union), cricket and even imported American sports such as basketball.

The promotion and relegation system requires some institutional arrangements in order to operate effectively. First, there must be an active player trading market, since promoted and relegated teams need to adjust to a different level of competition. Typically, income is higher in higher divisions, and therefore promoted teams both need, and can afford a better squad, while relegated teams need to offload some star players in order to adjust the financial commitments. 'Farm' systems, where major league teams own minor league teams, do not work well with promotion and relegation, since it would be possible for minor teams to be promoted into the same division as their senior team, leading to a potential conflict of interests. In Spain, where farm teams do compete, promotion is denied if it means entering the same division as the senior team, and such events are not unknown.

Benefits

Excitement for the fans

Promotion and relegation adds an extra dimension to the interest in a season's play. While the prospect of playing in a higher division may be important, far more so is the possibility of demotion. In a closed league, teams out of contention for the championship title have little incentive to win matches, and indeed the purpose of the play-off system is to keep as many teams in the race for as long as possible. The threat of relegation guarantees that there are few teams that do not have something at stake until the end of the season. Promotion also ensures turnover among the teams, adding to the variety of match-ups that fans can see.

Free entry

The fact that any team can enter the league hierarchy and be promoted to the highest divisions means that more towns have the prospect of achieving major league status. Thus in the North American closed leagues, teams have been able to extract significant financial concessions from local taxpayers faced with the threat of relocation, exploiting the limited scope for new teams to enter the market. In leagues with promotion and relegation such threats are unheard of, since any town can invest in its own team which can then win promotion to the highest division.

Inclusiveness

Sports leagues with promotion and relegation tend to be governed by bodies which take an interest in the development of the sport at all levels, since their members cover all sections of society, from the elite to the grassroots. This means, in particular, that some of the wealth that is created at the highest level of the game can be used to invest in the development of the sport. This has been a notable feature of the governance structure in world soccer, where income from competitions such as the World Cup has been successfully invested to develop the game in Asia and Africa. Closed leagues tend to neglect this aspect of the game, and to invest little in the development of the sport.

Costs

Financial instability

The threat of relegation means that teams are less likely to be profitable, since the investment of teams trying to avoid relegation tends to lead to a rat-race, where all invest to the financial limit. The dissipation of economic profit through competition of this kind need not be a bad thing, but there is a threat of financial instability if teams borrow against future earnings. This seems to have happened in European soccer in the 1990s, and the governing bodies are trying to introduce regulations that will limit financial profligacy.

Underinvestment

The incentive to invest in facilities and stadium capacity is reduced when teams face the threat of relegation. Even if the owners are willing to put up money, banks may be unwilling to lend when future revenues are risky and the cost of capital will be higher than in a closed league.

The threat that top teams will be relegated from the major league

This drawback, which is the one most frequently cited by people brought up under a closed system when they are first explained the way promotion and relegation works, is in fact probably the least important. In practice, the big teams are almost never relegated, largely because they always have greater financial resources than their smaller rivals. For example, if promotion and relegation were introduced into baseball, the Yankees would almost never be relegated, and even if they were, they would almost certainly be promoted back up in the following season.

Conclusion

Promotion and relegation is commonly used in leagues across the world, most notably in soccer. It is very common in Europe, and the European Commission (1998) described it as 'one of the key features of the European model of sport'. The system is more or less unknown in North America. Given the important incentive effects identified above, it is surprising to note that very little has been written about the economics of the system. For more detailed analysis see Noll (2002), Ross and Szymanski (2002), Szymanski and Valletti (2005).

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76 Team sports and finance

Wladimir Andreff

The finance structure of team sports is quite different between amateur and professional sports in Europe. In the past few years, the European professional sports model evolved and came closer to the US professional sports model. The transition from traditional to contemporary professional financing strategies is not without its problems, while the contemporary model addresses some shortcomings. Key aspects of the described changes include operation of club finances, access to capital markets and the role of the media. The contemporary model of sports finance is prominent at the highest levels of competition in Europe, and is expected to play an even greater role in the future.

Amateur Sports Model

In Europe, an amateur club's financial receipts reflect its basic aim of gathering members who are interested in the practice of sport. The club's purpose is for recreation and development of young players. Economic viability is sustained largely through subscriptions and private cash donations (Andreff and Staudohar, 2000). Depending on the level of sporting events in which it is involved, an amateur club may also derive revenue from gate receipts. This share could become extensive if the club's first team participates at the highest level of competition, but very few amateur clubs have a financial structure that is closer to that of a professional club. Funds also come to the typical amateur club from concession stands at games, parking, fairs, dances and the sale of club merchandise. For those amateur clubs at high competitive levels, income may also derive from advertising and sponsorship from outside business. This financial structure of European amateur sports is little changed from a generation ago. Moreover, in an amateur club, the major flows of finance (that is, subscriptions, donations, subsidies and spectators) continue to be derived from local sources.

The Professional Sports Model: Traditional

Throughout the first half of the twentieth century, the primary source of revenue to European professional sports was gate receipts. In some countries (France, Germany, Italy) there were subsidies from national and local governments and industrial patrons such as Fiat, Bayer, Philips and Peugeot. Advertising revenues became more important, and in the 1960s and 1970s, corporate sponsorship increased significantly as firms sought more direct identification in terms of audience, image, notoriety and sales. Even in cases where a club received subsidies from local authorities, usually municipalities, there was corporate sponsorship (but not ownership) from companies that were geographically located close to the club (Fiat and Juventus, both in Turin; Philips and PSV, both in Eindhoven). In the 1970s, revenues from gate receipts of professional teams were far greater, absolutely and proportionately, than for amateur clubs. Also, professional clubs received less from advertising, patrons and sponsorships. For instance, Table 76.1 shows that in Division 1 French football clubs in 1970–71, 81 per cent of revenues were from

Table 76.1 The evolving structure of French professional football finance, Division 1 (1970–2002) (%)

Revenues	1970– 71	1974– 75	1980– 81	1985– 86	1990– 91	1993– 94	1997– 98	1998– 99	1999– 00	2000– 01	2001– 02
Spectators	81	62	65	50	29	25	13	18	17	16	15
Subsidies	18	29	20	21	24	19	22	18	4	4	3
Sponsors & advertising	1	9	14	22	26	25	23	16	16	18	20
TV rights	0	0	1	7	21	23	37	41	56	51	52
Other (merchandising etc.)	0	0	0	0	0	8	5	7	7	11	10
Total	100	100	100	100	100	100	100	100	100	100	100

Source: Ligue Nationale de Football.

spectators, and just 1 per cent came from sponsors and advertising. France was unique in that 18 per cent of Division 1 football revenues came from municipal government subsidies, but similar to other European countries in that the lion's share of the gate receipts were from local or national French residents.

The above model of finance can thus be referred to as Spectators–Subsidies–Sponsors–Local or SSSL, and it has existed for a long time in all European countries. In countries where public subsidies to professional clubs are forbidden, private donations, subscriptions and membership fees make-up most of the difference. Although TV rights sales appeared in the financing of European football or British cricket in the early 1980s, television was not an important source of funds to clubs. In 1967, for instance, the British Football Premier League rejected a BBC proposal of a million pounds for the live broadcast of championship matches. The leagues and clubs were fearful that live television would decrease attendance at the stadium, thus shrinking their major source of revenue. Given the lack of competition among broadcasters – there was only one public television station at the time – the monopsony rights fee would not be sufficient to compensate for lost gate receipts.

The Contemporary Professional Sports Model

Most top-level European professional clubs no longer have the financial structure of the old SSSL model. During the 1980s and even more so in the 1990s, new sources of revenue emerged and old ones declined. For example, gate receipts in Division 1 French football fell from 81 per cent in 1970–71 to 50 per cent in 1985–86 and 15 per cent in 2001–02 (Table 76.1), subsidies from 18 to 3 per cent while the share of TV rights started booming in the 1990s.

In Italian Division 1 football, a similar trend is evident, as spectators brought in 71 per cent of revenue in 1988, but only 19 per cent in 2000 (Table 76.2). Spanish professional football had a somewhat different financing structure due to the specific significance of season tickets sold to the *socios* (season-ticket fans). In 1996–97, Spanish football entered the boom of TV rights revenues, which reached 23 per cent of the overall budget

Table 76.2 The structure of European professional football finance (Division I) (%)

Revenues (in %)	Italy			Spain			England		Germany
	1988	1998	2000	1993	1996	2000	1998	2000	2000
Spectators	71	36	19	55	46	24	36	34	27
TV rights	15	39	56	15	20	51	27	31	29
Sponsors, advertising	7	25*	25*	19	9	25*	37*	35*	44*
Other (merchandising etc.)	7			11	25				
Total	100	100	100	100	100	100	100	100	100

Note: *Including Other (merchandising, etc.)

Sources: Deloitte & Touche and national leagues.

in 2001 and, due to a financial crisis (García and Rodríguez, 2003), started to diversify towards other sources of finance. In the contemporary professional sports model, subsidies have declined in countries where they are not already banned. The share of revenues from advertising and sponsorships has held steady for the past 15 years in the range of 20 per cent in football, in the 1990s. The advertising-sponsor share is somewhat higher in basketball, which more recently became a professional sport in Europe, and even higher in rugby, whose 'professionalisation' dates back only to 1994 (Andreff and Staudohar, 2000).

If the SSSL model has declined, what are the new sources of funds to professional sports? In 1999–2000, TV rights took the first rank in the finance of French and Italian football, and their share has significantly increased in English and Spanish football. European football has become TV addicted and, probably, TV dependent (Andreff and Bourg, 2006). The relative importance of media revenues is increasing in other sports as well. Television has become, or is destined to be, the main source of professional sports finance. Involvement of the media in sports is not entirely new and started with newspapers. Also, public television channels have long been contributors to football revenues (RAI to the Italian Calcio, ARD-ZDF to the German Bundesliga, BBC to the English Premier League, and ORTF to the French Ligue Nationale de Football). However, their support has been a subsidiary source of funds, until the late 1980s, compared to spectators, patrons and sponsors.

A major reason explaining the rise of television in sport financing is increased competition in the industry. Whereas once there was only one public TV station, now there are many public and private channels to choose from (Andreff et al., 1987). Professional leagues and clubs can make use of this competition by negotiating more lavish television rights deals. This is a consequence of privatisation and deregulation of the media industry in Europe, particularly TV channels, and the phasing out of the monopsonistic position of a single public channel on the market for sports broadcasting in each European country. Television is increasingly taking a bigger part in financing professional sports in Europe. The relatively unsaturated European market and the internationalisation of sport has strengthened this tendency. The sports that are most conducive to television are those in which European or world events attract widespread interest. However, the renegotiation of current contracts with television channels, in 2003–05, is likely to curb the

inflation of TV rights, due to first signs of market saturation and the willingness of channels to hinder the monopoly power of leagues and clubs (Andreff and Bourg, 2006).

Another interesting aspect of the new model is the emergence of a generation of entrepreneurs onto the scene. These corporate titans are no longer the unselfish, financially disinterested businessmen of the past, but investors bent on improving the financial results of the clubs through ownership and control. There are numerous examples, a few of which are Jean-Luc Lagardère (Matra into Racing Paris), Silvio Berlusconi (Fininvest into Milano AC), Joe Lewis (ENIC into Glasgow Rangers), Mark McCormack (IMG into RC Strasbourg), Rupert Murdoch (BskyB's bid for Manchester United) and Malcolm Glazer (who finally acquired Manchester United in June 2005). The penetration of entrepreneurs and corporations into the sports business has triggered two significant changes. One is that the club's administration is taken over by professional managers, usually but not always resulting in financial stability. The other change is that the club's finances benefit from the ability of these new investors to mobilise additional funds for further growth and competitive edge. The new owners are eager to establish vertical integration in the industry through promotion of sporting events, control of stadium facilities, ownership of television rights, merchandising, and facilitating other aspects of a corporate empire.

A synergism develops as a result of the interaction between sport and business. Merchandising, for example, has long been a practice of clubs. But they lacked the resources for full-scale marketing. Specialists are now doing a better job of promoting a larger variety of team merchandise to greater numbers of people across broader geographic areas. Merchandising reached 10 per cent of football club Milano AC's revenue in 1997, 13 per cent of Tottenham Hotspur's, 22 per cent of Newcastle's, and 34 per cent of Manchester United's. For the last, in 1998, merchandising revenues provided as great a share as gate receipts. Merchandising is currently the main byproduct of football clubs' operations, providing a whole catalogue of items – apparel, linen, toys, schoolbags, watches, perfumes and so forth.

An additional feature of the new model is a magnified distinction between clubs as demanders and clubs as suppliers of talent. Some clubs concentrate more on seeking to increase revenue and return on investment by issuing securities (stocks, bonds) on financial markets and borrowing funds from banks. Other clubs are more conservative in their finances, but seek to take advantage of richer clubs' desire for talent by becoming net suppliers of players. The French football clubs at Nantes and Auxerre are well known as breeding grounds for talented players whose sale to other clubs is a major revenue source. This strategy of supplying the market with new players has been pursued more because the *Bosman* case allowed any club to recruit an unlimited number of players from other European Union countries. For instance, French football has been a net supplier to the European market for professional players after *Bosman*, and this has contributed to a flourishing financial state for French clubs for a few years.¹ Numerous British, Spanish and Italian clubs, net buyers in the market, are in the red.

European professional clubs are leading the world in selling stock to the public. The stock value of 22 quoted British clubs is in the range of \$1.8 billion. Funds collected from stock sales are used to modernise or extend stadium capacity, repay debts, train young players, or recruit 'stars'. The last strategy is risky because poor performance or injuries to star recruits can trigger a collapse in stock price, as happened to the Newcastle football club shares on the London Stock Exchange in 1997. Although the trend towards initial

public offering of stock has continued, stock prices have not held up well; if one excepts the success of Manchester United, which has outperformed the market, they have fallen.

In a nutshell, this contemporary model is based on four pillars: 'Media–Corporations–Merchandising–Markets'. Moreover, there is no longer a necessary link between the nationality of the professional club and the TV broadcaster, or the company that has an investment stake, or the stock underwriter, or the players on the field. Thus, at least on a European scale, professional sport finance is 'globalised'. We thus refer to this model as MCMMG.

Financing Strategies in the Two Professional Models

The evolution from the SSSL model to the MCMMG model is, in the first analysis, a shift from focus on quantitative variables to emphasis on qualitative variables. When the objective is to maximise gate receipts, clubs rely on influencing fairly simple decision variables in the SSSL model, such as improving attendance density by spectators, attracting a larger group of season ticket holders, and increasing the number of games (through qualification for domestic and European cup events). This is because ticket prices cannot be raised too much without affecting attendance. On the other hand, the strategy of decreasing prices to attract more spectators has not proved to be successful due to a low downward price elasticity for sporting events (Andreff, 1981). Qualitative variables such as stadium comfort and access to the stadium and parking appear to influence attendance more than ticket prices. If the municipality owns the stadium, the club must negotiate a subsidy to improve the facility, and if the club owns the stadium, it must engage in an investment strategy to be financed in the capital market. The latter case is facilitated through the MCMMG model.

The MCMMG model rests more on price and quality variables than on quantitative approach to the management of a professional club. Television contracts attract sponsors who inflate revenues to the stations and justify more generous rights fees to the club or league. This amount is a function of the broadcast market (Bourg and Gouguet, 1998). For instance, in the case of a supply monopoly of a professional league selling its events to several competing TV channels, broadcasts rights fees are far higher than in the case of a monopsony by a single channel negotiating rights with several competing leagues or clubs. The latter situation applied to all professional sports in Europe until the early 1980s, under the SSSL model.

The entry of entrepreneurs and corporate managers into the market has made the value of assets a strategic variable. Under the MCMMG model, the club seeks to maximise its return not only from the stadium but also from television, merchandising and capital markets. This model enables the club to take advantage of economies of scale through a wider range of services and products. Quantitative variables such as number of issued shares or number of stockholders do not matter as much to a club as qualitative variables such as stock value and the value of dividends distributed to shareholders, which are determined by the profitability of the club, winning percentage and reputation.

Transition Between the Two Models

Prior to the 1980s, European economies were much more government administered and regulated, so intervention of public authorities in the sports business was common. European economies were less internationalised and less open to competition. With the emergence of globalisation and more open markets, no sector, including sports, can now

escape the logic of the market. The transformation of some professional clubs into joint-stock equity corporations and the impetus towards profitability are logical outcomes of applying the MCMMG model to the deregulated market structure.

The SSSL model is necessarily running out. Under this model, the wage bill was spinning out of control. In French professional football in 1966–67, wages (including mandatory social security payments) were 56 per cent of overall expenses and caused a deficit of 6.5 million francs. By 1974–75, wages and social security payments reached 72 per cent of expenses, and 84 per cent in 1982–83. Only after a financial stabilisation programme was launched by the auditing body of the French National Football League in 1990–91 did the wage bill decline, down to 35 per cent in 1993–94; it went up again to 45 per cent in 1997–98, which compared the same year to wage bills of 43 per cent in Germany, 46 per cent in Spain, 52 per cent in England and 68 per cent in Italy. As noted above, deficits have existed in England, Italy and Spain. This creates a need for new sources of finance.

In clubs that behave as win maximisers (Késenne, 1996), the demand for acquiring star players is very high, and this demand is exacerbated by the absence of restraints in the player labour market as, for example, the draft of players and salary caps in American professional sports. The only restriction prior to the *Bosman* case was a limitation on the number of foreign players on European teams. Thus, the high demand for star players could not be satisfied, which placed strains on the domestic market, the relevant market for the SSSL model. The value of the best domestic players was correspondingly over-rated, fixed above the equilibrium price by excess demand. This was incompatible with the hard budget constraints of clubs hemmed in by the limited sources of finance in the SSSL model. It is not surprising that a number of European clubs have lost money.

The conventional solution to financial troubles under the SSSL model is to increase the number of games to increase gate receipts and attract more subsidies and sponsors. But in the long run, this solution is detrimental to quality of play, and, in any event, the supply of public subsidies and private donations is not infinite. One way out of the crisis is a drastic financial stabilisation programme prohibiting the acquisition of star players. Another is for a professional league to regress the clubs in the red into a lesser division of competition. Perhaps most important is to resort to new methods of finance. This is the way of the MCMMG model and the route taken by many clubs. Fresh money from new sources of finance has alleviated the budget crunch for some clubs, whereas deregulation of the player market in the *Bosman* case has facilitated international mobility of stars towards clubs that have adopted the revised model.

For clubs that cling to the SSSL model, the threat is to sink deeper in the red or to be marginalised from the most profitable sport events. It seems that such a trade-off was at stake in the aborted proposal of a European football superleague, which was imagined by and for big clubs already converted to the MCMMG model.² Should a superleague come into fruition, second-rank clubs would have their own national championships. These clubs would include those with a financial structure close to the SSSL model or who are in transition towards the MCMMG model.

Shortcomings of the Contemporary Model

Although we foresee more widespread adoption of the MCMMG model in the coming years, it is not without its problems. One is a problem of domination by the rich clubs. In Europe, the outcomes of games, especially in the major sport of football, are increasingly

determined by the financial capacity of clubs. In the absence of a player draft, the wealthiest clubs can skim off the exceptionally talented players so as to become even more competitive. They then earn more money, which in turn enables recruitment of even more top players. These powerful clubs have a higher probability of qualifying for and winning European cup events (Andreff and Bourg, 2006). The aforementioned superleague project was an attempt to institutionalise the domination of the wealthiest clubs, allowing the others to more realistically compete for prestigious national events. A second problem is the determination of competition calendar and rules of the game on financial criteria, and the television taking over greater control of events to maximise exposure. There has been talk, for instance, of changing a European football game into four quarters rather than two halves to leave more room for advertising.

Another issue is what appears to be growing corruption in European professional sports, especially football. The directors of four prominent French football clubs, for instance, have been sued for financial irregularities. There have been increased revelations of doping by football players to enhance performance and relieve the fatigue from playing two or three matches a week, due to the overall increase in the number of matches (a solution sought for the crisis of the SSSL model). This overwork is less striking in those clubs that have adopted the MCMMG model in so far as their extended financial resources enable them to recruit more players. A final shortcoming of the MCMMG financing model is a number of purely illegal misdemeanours. Fixing the outcome of a 1994 football game sent Bernard Tapie (Olympique de Marseille) to jail for eight months. In 1996, a football referee from Switzerland was accused of corruption for proposing an 'arrangement' to Grasshopper Zurich before one of its European cup matches. In 1997, the European football federation (UEFA) sanctioned a Belgian football club, Anderlecht, for fixing several games in the European cup. Illegal gambling operations have sprung up in various countries, namely Italy, with Totonero; some players are accused of organising gambling networks based on rigged football matches. The Russian Mafia and new riches are well known for money laundering through Western European professional sports, which is why the purchase of the Chelsea football club by Roman Abramovich was immediately suspect.

These examples suggest that the MCMMG has gone adrift and that more financial regulation should come from government. European professional sports are discovering the downside of big money inflow. An additional concern is the growing deficit of professional clubs, which is deeply rooted in the specificity of the MCMMG model.

A Financial Crisis of European Professional Football Clubs

Has the MCMMG finance model of professional team sports stabilised? Will it endure? To address these questions, one has to bear in mind that TV rights fees are the major source of finance in this model. On the other hand, the major source of expenditures is the wage bill. The stability and sustainability of the model rely heavily on a sort of dynamic equilibrium between the media revenues and wages. Recent data have revealed that TV rights fees paid to professional sports, in particular to professional football, started slowing down or stagnating, and would probably decrease in coming years, in different European countries (Andreff and Bourg, 2006). The major financial pillar of the MCMMG model is in jeopardy. On the other hand, the share of wages in overall expenditures increased (Table 76.3).

Let us consider first the French professional football league where a stabilisation programme curbed the wage bill in the early 1990s. In 1993–94, the ratio of the wage bill to

Table 76.3 *Wage/expenditures and wage/media revenue ratios in European football (%)*

	France						
	1993–94	1995–96	1997–98	1998–99	1999–00	2000–01	2001–02
Wage bill/overall expenditures	35	38	45	45	43	46	46
Wage bill/media revenues	187	138	122	127	72	97	102
	England		Italy	Spain			
	1997–98	1998–99	1997–98	1992–93	1995–96	1997–98	2000–01
Wage bill/overall expenditures	52	58	68	46	49	46	41
Wage bill/media revenues	193	195	194	298	212	261	179

Sources: National leagues.

media (TV) revenues was rather high (187 per cent) while the ratio of wages to overall expenditures was markedly low (35 per cent). Later on, the share of TV rights fees in overall revenues increased sharply, and the former ratio improved, in particular when the French football league was able to negotiate a four-year TV broadcasting contract of €1.1 billion in 1999. Since then, on the one hand the ratio wage/expenditures has deteriorated due to the rise of the wage bill. On the other, the negotiation became tougher with TV channels in 2002, since the latter were no longer eager to obtain the rights to broadcast the French football championship at any rate. The same reluctance to inflate rights fees has been observed since 2002 in the TV negotiations with other national leagues in Europe (and in other professional sports as well) where the ratio of wage bill to media revenues was rather higher than it appeared to be in France, and still increased in 2002: 75 per cent in Italy, 60 per cent in England and 55 per cent in Spain. This can be explained by two factors. The first one is a decreasing TV audience of professional football. For example, the percentage of population watching the Champions League matches was down, from 16.2 per cent in 1997–98 to 12.5 per cent in 2000–01, in France, from 14.1 to 8.9 per cent in Germany, and from 16.3 to 10.7 per cent in Italy, while it was virtually stagnating in England, from 14.2 to 13.8 per cent (after a 19.9 per cent peak in 1998–99), and it was up only in Spain, from 13.5 to 14.8 per cent. For the channels, a smaller audience means less advertising revenue and, thus, translates into a reluctance to invest heavily in football broadcasting rights. Moreover, the negotiations of football leagues with TV channels hardened with demand concentration on the market for football broadcasts: Telepiù and Stream merged into Sky Italia, Canal Satellite and Via Digital formed a strategic alliance in Spain, the Bundesliga is no longer a priority for SAT.1 and ARD, while the aborted competition between Canal + and TPS resulted in freezing the broadcasting rights fees of French football in 2002–03. At the same time, big football clubs (MCMMG model) out-bidding each other on the European labour market in order to hire exceptionally talented

players who would secure a qualification in the Champions League or the UEFA Cup, fuelled wage inflation.

Consequently, the MCMMG model is squeezed between the devil of wage inflation and the deep blue sea of stagnating or decreasing TV rights revenues. The result is a financial crisis, obvious in the case of professional football, with an increase in the number of clubs that are in the red and facing a rising indebtedness. The Lega Calcio, Serie A, had a €702 million deficit, and the French Ligue 1 a €46 million deficit, in 2002. The net debt of all French Division 1 football clubs has reached €570 million as of 2002, compared to €1 million as of 1997 whereas the Bundesliga debt has skyrocketed to €682 million as of 2003. These are the reasons why the G14 lobby, representing big European football clubs, argues for some sort of salary cap or wage regulation, and major Italian clubs have introduced a wage *catenacio* (padlock) that decreased all wages by 30 per cent, in 2003. It also explains why European football clubs are looking for a diversification of their revenue sources such as radio fees, internet trade, and an expansion towards North American and Asian markets. For instance, Manchester United has opened several stores in Singapore, Malaysia and Thailand, has signed a marketing agreement with the New York Yankees baseball club, and plays several games in the United States with other European teams, during the summer (Celtic Glasgow in Seattle, Juventus Turin in East Rutherford, and FC Barcelona in Philadelphia, in July 2003). The same month, Real Madrid played several games in China, Japan, Hong Kong and Thailand. It remains to be seen whether these inflows of fresh money will be enough to cope with the financial crisis of the MCMMG model (for an update in the case of the french football financial crisis: Andreff (2005)).

The American Professional Sports Finance Model

Even though the organisation and management of major professional team sports is more than slightly different in the United States (Staudohar, 1996), compared to Europe, their financial structure once again points at the MCMMG model. One specificity that matters as regards to finance is the franchise system, since there is a possibility of bankruptcy removing a team from a city or a league, and entire leagues may cease operation for financial reasons. Bankruptcies have occurred fairly often in the past but have been rare in recent years (Quirk and Fort, 1992). American professional teams' finance comes from four principal sources: ticket sales or gate receipts, local and national broadcasting rights, licensing income, and other stadium-related revenues including luxury boxes, concessions and stadium naming rights (Leeds and von Allmen, 2002). These sources of finance have changed dramatically over time and come close to the structure observed in the MCMMG model (Table 76.4).

Whereas gate receipts used to be an owner's sole source of revenue, they are now outweighed by media contracts. For some teams, such as the New York Yankees, media revenues far outweigh gate receipts, just like in European professional clubs that have switched to the MCMMG model. Moreover, gate receipts now make-up only about 75 per cent of the total revenue earned from the use of facility. Venue revenues (suite rentals, parking, concessions, venue advertising and naming rights) make-up the other 25 per cent. Professional teams also earn money through merchandising and licensing fees. A key aspect of league marketing is selling licences to manufacturers and vendors. There is a high value market in the United States for a variety of products such as trading cards, clothing and memorabilia. The 'official' soft drink, credit card, airline and so forth, of the leagues

Table 76.4 *US major league financing structure in 1996 (%)*

Franchise	Gate receipts	Media revenues	Venue revenues	Other revenues	Total revenues	Player costs*
Major League Baseball average	39	38	19	4	100	54
New York Yankees	32	52	13	3	100	47
Atlanta Braves	51	38	8	3	100	70
Los Angeles Dodgers	36	36	25	3	100	44
National Basketball Association	41	37	13	9	100	47
Chicago Bulls	44	32	14	10	100	29
Denver Nuggets	37	43	11	9	100	57
Los Angeles Clippers	28	54	7	11	100	64
National Football League average	29	55	10	6	100	67
Buffalo Bills	31	57	8	4	100	78
New York Jets	27	60	7	6	100	82
Indianapolis Colts	29	61	5	5	100	75
National Hockey League average	61	15	19	5	100	51
New York Rangers	51	12	29	8	100	48
Montreal Canadiens	56	18	16	10	100	50
Phoenix Coyotes	58	22	16	4	100	51

Note: * As a percentage of total revenues.

Source: Calculated from Ozanian (1997).

are powerful marketing tools that sponsors pay dearly to own. It might be supposed that in America, the land of free enterprise, sports teams would not receive subsidies. Although there is no direct payments from government to teams, there are generous tax concessions. Sports teams are the only kind of business that can depreciate human assets to reduce income taxes. Even more important are in-kind subsidies in the form of stadiums built at the expense of local governments to induce teams to stay in an area or attract teams from other communities (Noll and Zimbalist, 1997). Not only do teams get free or low-cost use of publicly financed stadium facilities, but also they often receive venue revenues.

One of the most important aspects of convergence between the American and European models is the media involvement that characterises the MCMMG model. No single event has changed the finances of American professional sports as much as the advent of television. Media revenues account for nearly half of football finance. In baseball, local broadcast revenues are far more important than in football, but media accounts for only about two-thirds of overall finance; basketball is in the same range while hockey is lagging behind in terms of media revenues. Although the revenues from national broadcast agreements are shared equally among teams, there is significant variability in local broadcast revenues. This leads to disparity in competing for players and puts big-market teams in a better position to win games. Because teams in big markets can be expected to attract more spectators and corporate money for luxury boxes, all these disparities contribute to financial imbalance across the league (just like across national leagues in Europe, after big clubs have adopted the MCMMG model).

Revenues to American football from the sale of TV rights have skyrocketed, for instance, the National Football League's TV contracts have increased from \$600 000 in 1960–61 to \$269 million in 1974–77, and \$17.6 billion in 1998–2005. The resulting rise in player salaries was on the same scale: the average salary climbed from \$15 000 in 1960–61 to \$30 000 in 1974–77, and \$1.4 million in 1998–2005. Free agency has been the engine for driving player salaries upward, but it is television that provides the fuel. However, in North America, the MCMMG model is not squeezed so far in a context where there is no TV fatigue (or less than in Europe) and where labour market forces are partly regulated (salary cap, rookie draft). Nevertheless, both the National Basketball Association and the National Football League contemplate regular season expansion to Europe, as a diversified source of finance, although there are no immediate plans in that direction. In recent years, the North American labour market has become more internationalised, increasingly justifying the 'G' of the MCMMG model.

The contemporary model of professional team sports finance is definitely dependent on television revenues, which have enabled clubs to inflate the wage bill. The model is sustainable as long as the leagues and/or clubs are able to negotiate growing TV rights fees. Otherwise, the model is jeopardised by wage inflation, as can be seen with the financial crisis of European football clubs. In this event, the two solutions seem to be a strengthened labour market and wage regulation, and the search for new diversified sources of finance.

Notes

1. However, due to wage inflation, French clubs are again in the red, from 2001 to 2005, despite the aforementioned strategy (Andreff, 2005).
2. The economic rationale for a superleague of international competition is discussed in Hoehn and Szymanski (1999).

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77 Inelastic sports pricing at the gate? A survey

Rodney Fort

The vast majority of attendance demand studies find that team owners set ticket prices in the inelastic portion of attendance demand. At first, this seemed puzzling to analysts since team owners with market power should be loath to set prices where marginal revenue is less than zero; raising prices to reduce attendance should increase revenues, reduce costs and raise profits. As one of the earliest analysts put it (Noll, 1974, p. 125):

If demand were inelastic, the belief that team owners do not maximise profits would gain important support. An owner wanting both to build a winning team and to provide a public service would not only overspend on player development but would also engage in cost-plus pricing; that is, ticket prices would be set just to cover the operating costs of the team and its player development system. If this 'sportsman' attitude were characteristic of owners, prices would be lower for a team with greater attendance, regardless of quality, and over the long run the profitability of all viable teams, regardless of attendance, would be about the same (except, of course, for teams with very low attendance figures that have difficulty covering costs).

In this brief overview, the evidence on attendance pricing is surveyed. Then, the explanations for inelastic attendance pricing offered by the earliest analysts are offered and assessed, especially in the light of additional empirical work since then. These include high fixed costs, price measurement error and cost of attendance measurement error. After that, more recent investigations are covered. These include long-forgotten theoretical findings, subsidy considerations by owners, 'performance good' aspects of sports entertainment, endogenous pricing, rational addiction and more general revenue function specification. The main conclusion of this reviewer is that results to date never use a complete specification of demand and revenue. So, it is premature to cast any summary judgement on whether or not sports team owners price in the inelastic portion of attendance demand even though there may be sound, profit-maximising reasons to do so.

Recurrent Evidence of Inelastic Pricing

An overview of the literature estimating the determinants of attendance demand (Table 77.1) makes it easy to see how one might be led to the conclusion that sports team owners set ticket prices in the inelastic range. (Unfortunately for any statements about breadth, US Major League Baseball (MLB) and English football comprise 65 per cent of the results – 10 and five of the total 23 studies listed, respectively.) The table shows that 20 of 24 studies (over 80 per cent) generate estimates of inelastic ticket prices, ranging from completely inelastic to an elasticity estimate of -0.68 . Through the 1990s (with only one exception), all of the evidence points to inelastic pricing for MLB, US minor league baseball (ML), English football (EF), English cricket (EC), Scottish football (ScF), US National Basketball Association (NBA), Australian Rules football (ARF), US National Football League (NFL) and Malaysian football (MF).

Table 77.1 Estimates of the price elasticity of attendance demand

Author(s)	Elasticity estimate	League
Demmert (1973)	-0.01	MLB
Noll (1974)	-0.14	MLB
Siegfried and Eisenberg (1980)	-0.25	ML
Bird (1982)	-0.22 (overall) -0.00 (within division)	EF
Schofield (1983)	-0.00	EC
Jennett (1984)	-0.00	ScF
Medoff (1986)	-0.00	MLB
Borland (1987)	inelastic	ARF
Whitney (1988)	-0.19 (NL) -0.56 (AL)	MLB
Scully (1989)	-0.61	MLB
Domazlicky and Kerr (1990)	-0.23 (overall) -0.00 (NL) -0.29 (AL)	MLB
Burdekin and Idson (1991)	-0.00	NBA
Borland and Lye (1992)	-0.50 to -0.59	ARF
Welki and Zlatoper (1994)	-0.28	NFL
Dobson and Goddard (1995, 2001 Ch. 7)	-0.11	EF
Wilson and Sim (1995)	-0.00	MF
Coffin (1996)	-0.11 to -0.68	MLB
Fort and Quirk (1996)	-0.43 to -0.50	MLB
Simmons (1996)	-0.12 to -1.21 (unadjusted) -0.41 to -1.81 (growth adjusted)	EF
Szymanski and Smith (1997)	-0.34	EF
Fort and Rosenman (1999a, 1999b)	-0.36 (AL) -0.50 (NL)	MLB
Alexander (2001)	-1.12 to -15.37	MLB
Forrest, Simmons, and Feehan (2002)	-0.28 to -3.67	EF
García and Rodríguez (2002)	-0.30 to -14.10	SpF

Note: Demmert (1973) reports a point elasticity of -0.93, but I could not replicate that result. Using his reported estimate for the overall price variable for both leagues (p. 65), along with his reported average price over the sample (quoted on p. 66), and his reported average attendance/capita (quoted in footnote 15, on p. 68), I find a point elasticity estimate of $(-0.00196) \times (2.50/0.43) = -0.01$, reported above. The elasticity estimate for Fort and Quirk (1996) is actually calculated in Fort (2004a). I calculated the elasticity estimates from Fort and Rosenman (1999a, 1999b) using data they report. I could not lay my hands on Borland (1987) and rely on the report in Downward and Dawson (2000, p. 107).

One study in the mid-1990s, and all three of the most recent tabled studies, find estimates for some teams in the elastic range, with a few of the estimates well in excess of -14.0. Two of these more recent works reverse previous findings in EF and one reverses previous findings in MLB. The other offers interesting evidence of elastic pricing in Spanish football (SpF).

To my reading, the controversial nature of their findings is not recognised by all researchers in the inelastic pricing camp. But those who do recognise it all try to explain

away their findings one way or another. Let us turn to those explanations and insights offered by more recent efforts.

Early Explanations

Four explanations are offered by some of the earlier authors in Table 76.1. First, in the short run, owners collect on their team and facility quality choices at the gate. And the actual annual operation of the team in the short run is dominated by fixed costs (team roster and facility). Since marginal costs are quite low, pricing at marginal cost should yield results at the unit elastic point of attendance demand. Demmert (1973), Noll (1974) and Scully (1989) all employ this explanation and argue that their results are statistically near unity (but refer to notes to Table 77.1 about a possible error in Demmert's calculation).

This explanation doubtless is valid since subsequent data on team revenues and expenses typically show that fixed costs dominate short-run spending (Fort, 2006, ch. 4). But this serves to point out that most of the earlier analysis of attendance demand concerns the economic short run. In the long run, the production decision concerns team quality and winning rather than letting one more person through the gate. And, in the long run, the marginal costs of winning can be very high indeed since they are tied to purchasing player services. Only future analysis will generate insight into the impacts of long-run decision making on attendance pricing.

The second argument rests on the reliance by nearly all demand studies upon some form of average price across seats in a given facility. For example, Noll (1974) and Jennett (1984) argue that larger parks have a greater proportion of seats with poor views than smaller parks and average ticket prices cannot capture this variation. Medoff (1986) also offered this line of reasoning, claiming that averages masked unspecified variation that made the measurement of price effects imprecise.

This explanation is a bit harder to swallow. The average price used by both Noll and Medoff was determined as follows (note that ticket price data in Team Marketing Reports' Fan Cost Index are also calculated in this fashion):

$$w_i = \sum_{s=1}^S p_{si} \gamma_{si},$$

where p_{si} is the price of seat type s in team i 's stadium, γ_{si} is the proportion of seat type s in team i 's stadium, and w_i becomes the average ticket price for team i , weighted by the proportions of different types of seats. Now, the only reason that this weighted average ticket price might not capture the larger proportion of bad seats in larger parks is if prices by seat types did not adjust for this fact in the first place. But it seems that they should. Presumably, then, this type of measurement captures variation in seat quality in percentage terms.

But there are other reasons for elasticity to differ by seat type that are not captured in a weighted average seat price (my thanks to Gerald Scully for these insights offered during personal correspondence). First, suppose that most of the season ticket sales are in the higher priced seats and that in many cases it is a 'use it or lose it' situation. Once they are season-ticket holders, fans would be reluctant to give them up. Indeed, waiting lists for season tickets are decades long for some teams. Second, Scully (1989, p. 103) shows that there are vast differences among teams in a given league between single-game ticket sales and season-ticket sales (season range 8.6 to 61 per cent) and business versus individual

ticket sales (business range 22.8 to 61.9 per cent). A similar result is found by Simmons (1996) for EF when he adjusts attendance for season-ticket holders. It would be worth investigating further how much the degree of inelasticity correlates with the percentage of all tickets that are season tickets and the percentage of tickets that are business-ticket sales (again, across teams in a league).

Noll (1974) was also the first to offer a third explanation for what appears to be inelastic ticket pricing. He surmised that elasticity estimates are understated since ticket price is only a portion of the overall cost of attendance. This is especially complicated because travel time varies by time of day and day of the week.

Subsequent researchers really took this issue to heart, but the evidence is mixed on travel cost. In a model that tried to hold travel costs constant, Bird (1982) found inelastic attendance pricing in EF, in total, and also found that attendance does not vary within divisions based on price. Fort and Rosenman (1999a, 1999b) also tried to hold the opportunity costs of attendance constant and still found inelastic pricing. However, Forrest et al. (2002), using the most sophisticated travel cost approach of all, did find that some EF clubs had elastic demand when the full cost of attendance is included. Given this last result, and the sophistication of its approach, Noll's original explanation may yet prove insightful and it would be interesting to see whether the Forrest et al. results generalise to other leagues.

In addition to these three explanations, sometimes the data have simply let researchers down. For example, Noll (1974) also found a negative relationship between price and admission for the NBA. He was willing to discuss this qualitative outcome but explicitly refused to discuss his quantitative (elasticity) result because of lack of confidence in the NBA pricing data. In their extensive sports economics literature review, Cairns et al. (1985, p. 15) also saw fit to lament the quality of the data:

The price elasticity results can be given two interpretations. First, that there is substantial evidence in favour of demand being highly price inelastic. Second, that the data problems of one form or another have led to the true relationship not being identified. A review of these problems tends to support the second interpretation.

And even after that, Baimbridge et al. (1995) actually found a *positive* relationship between price and attendance in English rugby league. But in response to Cairns et al., I think that it is unlikely the data will improve (at least they haven't in the intervening 20 years). And researchers will forge ahead as best they can.

All in all, pricing in the unitary to inelastic portion of attendance demand was a remarkably consistent finding for over 25 years. And the finding had been explained away for just as long. As if in direct response, some researchers amended their models to include travel cost. And more recently, researchers have delved into the result with additional theoretical applications (old and new) and empirical tests of these propositions. We now proceed to these recent efforts that employ long-forgotten theoretical findings, subsidy considerations by owners, 'performance good' aspects of sports entertainment, endogenous pricing, rational addiction, and more general revenue function specification.

Other Recent Findings

After Rottenberg (1956) first brought theory to bear on team sports, subsequent developments all follow Demmert (1973) and El-Hodiri and Quirk (1971, 1974a). The subsequent work focused almost exclusively on competitive balance, so it is no wonder that the

two earliest papers that continued to explore pricing choices by sports team owners have been all but forgotten (apparently, since I find no reference to them in any of the demand studies listed in the last section!). El-Hodiri and Quirk (1974b, henceforth, EH-Q) and Heilmann and Wendling (1976, henceforth, H-W), modelling attendance only, make it clear that inelastic pricing should be expected in certain situations. H-W, extending the approach in EH-Q, shows that there can be a trade-off between attendance revenue and other elements in sports team revenue functions that lead a profit-maximising owner to price in the inelastic portion of attendance demand.

I provide a unified mathematical presentation of the two theories in a recent paper (Fort, 2004a), but the H-W result is quite intuitive. Suppose an owner is currently pricing in the elastic portion of demand, but just above the price that would put one more fan through the turnstiles at the unit elastic point on attendance demand. Lowering price enough to let two more fans through the turnstiles will reduce ticket revenue (marginal revenue less than zero into the inelastic portion of demand). But the fans' purchases of parking, concessions and other attendance-related goods and services, may more than offset the decrease in ticket revenue. As long as the net revenue increase in attendance-related purchases offsets the marginal costs of admittance, the owner would do well to lower price into the inelastic portion of attendance demand.

H-W also cover a variety of other interesting situations. A conditional rental rate that kicks in at some threshold level of attendance does not alter the team owner's pricing decision. Comparing their results to the basic EH-Q outcome, H-W also note that all prices converge to the same price whenever a team is at capacity. Finally, they investigate how pricing at the gate may be altered by media blackouts such as those used currently in the NFL. If the value of media revenues generated by filling the stadium and lifting the media blackout, at the margin, exceeds the reduction in attendance revenue from inelastic pricing, then it makes sense to do so and increase revenues on net.

All along, then, earlier researchers missed a perfectly plausible explanation for inelastic ticket pricing, an explanation that offered the following insight. Either attendance-related expenditure was an important part of owner revenues, or the interaction between attendance price and broadcast possibilities led to inelastic ticket pricing, or both.

Sticking still with the attendance-only world, my work extended the H-W approach to a public choice setting where state and local politicians trade subsidies for lower prices than owners would otherwise choose (Fort, 2004b). First-order conditions for profit maximisation in this context are given and (I must admit) a superficial look at some data for the NFL tends to support the idea that owners will trade-off attendance price for subsidies.

Marburger (1997) employs the idea of a 'performance good' to derive inelastic pricing under profit maximisation in the attendance-only world. When consumers buy a ticket to a performance good, there are related complementary consumption goods (for example, concessions). If the price setter receives a share of related-good revenue, overall profits will be maximised when tickets are priced in the inelastic portion of demand. Marburger (like everyone else) missed the clear connection of his approach to that of H-W and he offers no new empirical evidence on the pricing issue. But he does relate his theoretical finding to the recurrent empirical findings on inelastic demand covered in the last section of this review.

Two more attendance-only works introduce endogenous price and quantity choices by team owners. Taking into account that team owners actually enjoy limited market power

in the presence of other sport and non-sport entertainment substitutes, Alexander (2001) employs a model where ticket price and quantity are endogenously determined by the interaction of both demand and cost factors. He finds team-level evidence that completely supports nothing less than unit elastic pricing and extremely elastic pricing by some MLB owners. Also treating price as endogenously determined, García and Rodríguez (2002) find that nearly every first Division SpF team owner priced in the elastic portion of demand. And the magnitude of their estimates for owners with the highest ticket price elasticity corresponds to Alexander's findings.

Alexander also found that owners in larger-markets priced much farther into the elastic range of their demands and smaller-market owners priced much less into the elastic range of their demands. But even in the more modern analyses, there is disagreement. Simmons (1996), despite finding a wide range of ticket price elasticity across EF clubs and a couple that actually were elastic, found no systematic variation either by success or market size.

Finally, for the attendance-only case, researchers are beginning to analyse the underpinnings of fan demand along the 'rational addiction' lines suggested by Becker et al. (1994). Ahn and Lee (2003) and Spenner and Fenn (2004) cast models of rational addiction, or habit formation, which are consistent with pricing in the inelastic portion of demand. Although as yet unpublished (in 2006), the empirical results in these two papers, for MLB and the NFL, respectively, appear (at least to this reviewer) consistent with that theory.

Perhaps rational addiction will prove enlightening on past empirical findings about fan allegiance. For example, Depken (2000, 2001) and Dobson and Goddard (2001) find predictable variation across teams in what they refer to as 'fan loyalty' that may be consistent with habit formation. Alexander (2001) finds that ticket price elasticity is unresponsive to the existence of a second baseball team. He speculates that this could indicate strong 'team allegiance' or, perhaps, habit formation. Finally, Owen and Weatherston (2004) suggest that significant factors in Super 12 Rugby Union attendance primarily reflect 'habit and tradition'.

All of the results covered so far are for an attendance-only world. Technically, no professional sport has fitted this description since radio broadcasts became prevalent in the 1930s. But, early on, local broadcast revenues were a very small proportion of total revenues in most professional sports. During this same period, stadiums were predominantly privately owned as well, entitling owners to the attendance-related revenue modelled by H-W.

Applications of attendance-only models to leagues as they presently stand are only appropriate where attendance revenue dominates. For all but a few premier leagues and international competition, this seems to be the case for world football. But it also is true of US minor league sports and so-called 'non-revenue' college sports (sports other than US football and basketball). Finally, since there is only a national television contract in the NFL, that league seems to fit this original theory.

A model that incorporates national and local TV revenues, albeit in a world where strategy among team owners is at its minimum (Szymanski, 2004), is in Fort and Quirk (1995) and Vrooman (1995), henceforth F-Q-V. In the F-Q-V framework, only relative quality among teams in a 'closed' league matters and team owners choose talent to maximise profits from the production of winning sold both at the gate and on TV. I perform a minor

rearrangement of the main $F-Q-V$ first-order condition and show how inelastic pricing of winning on the field can result (Fort, 2004a).

Essentially, if local marginal television revenue confronting a particular owner is 'large enough' relative to the average marginal television in the rest of the league, then that particular profit-maximising owner prices in the inelastic region of attendance demand for winning. Empirically, I then show that such a local TV relationship dominates in MLB. From this perspective, the consistent findings of inelastic ticket prices in Table 76.1 may simply confirm that the distribution of local TV revenues across team owners to push owners into the inelastic portion of attendance demand.

Conclusion

The theoretical work on ticket-pricing choices of team owners is quite extensive. But it has two major modelling shortcomings. First, the bulk of the work is formulated in a short-run attendance-only world with only attendance-related revenue. Second, nearly all of the attendance-only work considers ticket price as exogenous. Even in the sparse work that generalises revenues to include local TV, the exogenous ticket-price assumption remains.

And there are additional details that need sorting out. El-Hodiri and Quirk (1971, 1974b) offer a dynamic framework for sports team analysis. Perhaps a full stadium, today, enhances attendance revenues over time, a factor missed by focusing on static price choices. In addition, sell-outs dominate some leagues (the NFL comes to mind). Theory suggests that in this situation, team owners should be pricing in the elastic portion of their demand functions (Fort, 2004a). So, in order to find out why owners tend to price for sell-outs, it would be useful to return to the attendance-only world (if it applies, as I suggest it does for the NFL) and its explicit specification of the interplay between attendance and non-ticket revenues tied to attendance.

Two other details noted in the chapter could also do with some untangling. Does elasticity vary by seat type because season tickets are typically higher-priced seats? And does the wide variation in types of buyers (single-game versus season-ticket buyers; individuals versus business buyers) affect pricing choices? The data needs to answer this question are daunting, but the payoff in terms of explaining pricing choices by owners appear large.

In summary, the work on pricing to date lacks a comprehensive treatment of demand. This review shows that costs of attendance must be measured fully; works that do so provide much explanatory power. Further, estimation must include the relationship between attendance price, attendance-related consumption, local TV revenue, and politically determined subsidies to owners. And, as the more recently emerging literature shows, models must include endogenous pricing. And lest we forget, all of the other determinants of demand must be included – ticket price, income, the impact of substitute entertainment, and a set of variables related to Rottenberg's (1956) 'other hypothesis' about fan preferences for outcome uncertainty (for the regular season, championship play, and the concentration of championships over time). As if that weren't enough, since typically the researcher is confronted at least with panel data, the time-series behaviour of attendance also deserves treatment. Given that no such comprehensive treatment has been tried, it is premature to cast any summary judgement on whether or not sports team owners price in the inelastic portion of attendance demand.

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78 Financial innovation in professional team sports: the case of English Premiership soccer

Bill Gerrard

Financial innovation takes two forms – product innovation and process innovation. Financial product innovation occurs when new financial products are introduced, such as new debt instruments and new types of financial derivatives. Financial process innovation occurs when new technology is introduced into the production process of existing products, such as electronic trading systems, online financial services and automated cash tellers. Financial product innovation has tended to be driven by two principal factors – risk and regulation (Thornton and Stone, 1992). Increasing risk and volatility of financial asset prices combined with regulatory restrictions on traditional financial firms such as banks have created opportunities for new types of financial firms to enter the financial markets offering new products with different risk and return structures.

With the professional team sports industry, there has been considerable financial product innovation in recent years. Much of this financial innovation has involved the introduction of customised variants of existing financial products provided previously to different industries. Financial product innovation in professional team sports has been driven by both demand and supply factors. The highly competitive nature of sport pushes professional sports teams to operate on the financial brink, seeking to maximise sporting success subject to the team-specific financial constraint imposed by the team owners and debt providers. The internal dynamic of professional sports leagues creates a continuous demand for funds to finance the acquisition and remuneration of playing talent. In addition, teams require funding for infrastructure investment such as stadium development and the provision of training facilities. However, teams have found it increasingly difficult to fund player costs and tangible fixed asset investment through conventional financial channels of bank loans. Partly this financial constraint arises from the lack of sufficient asset security to act as collateral for further finance. Partly it is also due to the lack of appetite among banks to further risk exposure within the professional team sports industry. The funding constraints faced by professional sports teams has led to the development of a number of financial product innovations that have allowed teams to access new funding without increasing the risk exposure of conventional lenders.

This paper focuses on the financial innovation in one specific professional sports league, the Football Association Premier League (FAPL). The FAPL is the leading professional soccer league in England, having been formed in 1992 as the result of a breakaway by the top-division teams in the Football League (FL) that had been established in 1888. The primary motivation for the formation of the FAPL was for the top professional soccer teams to secure control over the media and image rights, currently worth around £500 million annually. Initially the FAPL consisted of 22 teams but this was reduced to 20 in 1995. A promotion-and-relegation system continues to operate between the FAPL and the FL with the bottom three teams in the FAPL each season being relegated and replaced

Table 78.1 Principal sources of new funding, FA Premier League, 1992–2002

Types of new funding	Amount
Stock market listing	£175m
Strategic media investment	£240m
Securitisation	£342m
Player sale-and-leaseback arrangements	£150m
Total new funding	£907m

Sources: Ashurst Morris Crisp, 2003; Jones and Boon, 2003.

by three teams promoted from the FL Division One (that is, the top two teams plus the play-off winners). The annual turnover of the FAPL now exceeds £1 billion.

The FAPL has seen four financial innovations since 1992: stock market listing, strategic media investments, securitisation and player sale-and-leaseback arrangements. In total these four financial innovations have raised around £900 million for Premiership teams (Jones and Boon, 2003). Table 78.1 provides a breakdown of the funding raised by Premiership teams through these financial innovations from 1992 to 2002. Over the same period, Premiership teams have undertaken capital expenditure on stadium and facilities of £1.025 billion (*ibid.*). Net capital expenditure by Premiership teams on stadium/facility investment and player transfers over the four years, 1998–2002, was an estimated £1.38 billion but teams only generated operating profits of £182 million. It is this funding gap that financial innovation has sought to fill.

Stock Market Listing

The first soccer team to list on the London Stock Exchange was Tottenham Hotspur in 1983. The initial public offering (IPO) of 41 per cent of the equity generated net proceeds of £3.3 million to the company. The next teams to follow were Millwall in 1989 and Manchester United in 1991. Millwall's IPO of 38 per cent of the equity generated net proceeds of £4.8 million. Manchester United also offered 38 per cent of its equity and received net proceeds of £6.7 million. The boom period for stock market flotation in English professional soccer was 1995–97 with 15 IPOs on the London Stock Exchange and the Alternative Investment Market (AIM) that raised net proceeds of £150 million. There have been no significant listings since October 1997 with only Watford, currently in the FL Division One, having listed since that time. Rather the trend recently has been for teams to delist from the London Stock Exchange and AIM either because of insolvency problems (that is, Leeds United, Leicester City, Nottingham Forest and Queens Park Rangers) or as a consequence of a change in ownership (that is, Bolton Wanderers and Chelsea). The highest-profile delisting occurred in the summer of 2003 when Chelsea was privatised following its acquisition by Roman Abramovitch, the Siberian oil billionaire.

Stock market listing is very common in all other industries and seen as almost an inevitable stage in the growth process as small owner-managed firms seek to raise further funding to finance their expansion. IPOs not only provide an immediate injection of equity capital but can also allow preferential access to capital markets in the future due

to the greater requirements for information disclosure by listed firms as well as the potential efficiency gains from tighter market discipline. Stock market listing is a relatively recent phenomenon in professional team sports for two reasons. First, professional sports teams are not perceived as conventional businesses seeking to maximise financial returns but rather, in many cases, as non-profit-making organisations that pursue sporting (that is, non-financial) objectives subject to a minimum financial constraint. Second, many professional sports teams face regulatory restraints on their capacity to pay dividends to shareholders. In England, the Football Association, the governing body with overall responsibility for soccer, imposed restrictions dating back to 1896 on the maximum level of dividends that could be paid by soccer teams (Szymanski and Kuypers, 1999).

The move onto the stock market by leading English soccer teams in the mid-1990s was facilitated by investor expectations of high expected revenue growth, particularly the future value of media and image rights. Provided that teams controlled the growth of player wages, investors expected the soccer industry to be able to generate significant shareholder value. The institutional restriction on returning shareholder value to investors through the payment of dividends was finessed by soccer teams becoming wholly owned subsidiary companies of their respective holding public limited company (PLC). It is the PLC, not the soccer team, that issues equity and pays dividends.

Initial stock market valuations of teams were buoyant with the peak market capitalisation of the 18 listed English soccer teams close to £2 billion. However, from mid-1997 onwards, soccer share prices began to decline as investors realised that wage growth continued to exceed revenue growth. Other than Manchester United, few listed teams have consistently produced a positive return on equity. Most listed teams are now priced purely in terms of allegiance and merit value with little expectation of future dividend returns. Share prices do reflect significant match results, particularly those affecting promotion and relegation prospects (Morrow, 1999; Dobson and Goddard, 2002). The other key influence on soccer share prices is takeover bids, both actual and rumoured. Share prices in Manchester United nearly tripled from around 90 pence in autumn 2002 to around 265 pence in early 2004 on the basis of aggressive stake building by several groups, most notably the Irish racehorse owners, Magnier and McManus, and the Glazer family, owners of the Tampa Bay Buccaneers. During the same period, Aston Villa share prices rose from a low of 110 pence to a high of 260 pence fuelled by rumours of interest by a Venezuelan consortium and a formal bid by a UK consortium led by Ray Ranson, a former Premiership and England Under-21 international defender, and Richard Thompson, a business magnate with previous involvements in Queens Park Rangers and Leeds United.

Strategic Media Investments

Strategic media investments in soccer teams, mainly in the form of equity stakes, were sparked by the satellite broadcaster, BSkyB's attempted takeover of Manchester United in September 1998. The takeover was blocked in March 1999 following a report by the Monopolies and Mergers Commission. As a consequence, BSkyB initiated an alternative strategy of building up a portfolio of strategic equity investments in several leading clubs – Chelsea, Leeds United, Manchester City, Manchester United and Sunderland. FAPL rules restrict cross-ownership stakes in teams to less than 10 per cent in order to protect the integrity of sporting contests. The cable broadcaster, NTL, adopted a 'follow-the-leader' strategy to prevent BSkyB achieving any competitive advantage through its

influence on leading soccer teams. NTL acquired equity stakes in four teams – Aston Villa, Leicester City, Middlesbrough and Newcastle United. Granada, the commercial terrestrial broadcaster now merged with Carlton to form ITV, acquired stakes in Arsenal and Liverpool. Most of these equity stakes also involved agency agreements whereby the media company undertook to market the team's media and image rights.

Media companies paid a substantial premium for their strategic equity stakes. Jones and Boon (2003) estimate that teams received £240 million from media companies from the sale of equity stakes. Most of these stakes are now worth less than 10 per cent of their original purchase price, for example, NTL's invested £25 million in Aston Villa in 2000 in the form of a convertible bond. The terms of the bond allowed NTL the option to convert the bond into a 10 per cent equity stake if the bond was not redeemed within five years. Aston Villa bought out the bond for £2.29 million in December 2003, the equivalent of a share price of £1.80 which was in line with the stock market valuation of the team's equity.

Securitisation

Securitisation is the process by which a company issues bonds secured against designated future revenue streams. The bonds, usually placed through the private placement market, give bondholders prior claims over these designated revenue streams for principal and interest payments. There are two types of securitisation arrangements: true-sale securitisations and whole-business securitisations (Ashurst Morris Crisp, 2003). A true-sale securitisation requires a company (known as the 'originator') to sell specified assets to a special purpose vehicle (SPV) with the SPV issuing bonds to raise the funds to finance the purchase of the assets. The assets are transferred from the balance sheet of the originator to the balance sheet of the SPV. The SPV funds the principal and interest payments out of the revenues generated by the assets. If insufficient funds are generated by the SPV such that a payment default occurs, the bondholders have recourse only to the assets of the SPV. The bondholders have no further recourse to the originator. Hence a true-sale securitisation is an off-balance sheet, limited recourse financial instrument. By contrast, a whole-business securitisation involves the bondholders taking security over designated revenues of a company with no sale of assets outside the group (although it is usual for assets related to the designated revenue streams to be transferred into a separate subsidiary company within the holding group). A whole-business securitisation involves additional security for the bondholders with recourse to beyond the designated revenues and the associated assets.

Securitisations in the UK soccer industry are a relatively recent development with the first such arrangement undertaken by Newcastle United in December 1999. Newcastle United used the £55 million raised principally to fund the redevelopment of St James' Park stadium to increase capacity from 36 000 to 55 000 seats. By the end of 2002, eight securitisation deals had been completed with English soccer teams worth £342 million with most of the bonds issued on a 25-year term. Five of the securitisation deals were mainly used as a means of funding stadium development. In the case of Leicester City and Southampton, securitisation provided the bulk of the funding to cover the construction of new 30 000-plus capacity, all-seater stadiums.

The soccer securitisations have been whole-business securitisations with ticket and corporate hospitality income used as designated revenue streams in all cases except Leicester City. The details of the securitisation deals are provided in Table 78.2. Securitisation

Table 78.2 UK soccer securitisations

Team	Amount	Date	Term	Receivable
Newcastle United	£55m	Dec 1999	17 yrs	Ticket and corporate hospitality income
Southampton	£25m	Dec 2000	25 yrs	Ticket and corporate hospitality income
Leicester City	£28m	Aug 2001	25 yrs	Media rights and sponsorship income
Ipswich Town	£25m	Aug 2001	25 yrs	Ticket and corporate hospitality income
Leeds United	£60m	Sept 2001	25 yrs	Ticket and corporate hospitality income
Everton	£30m	Mar 2002	25 yrs	Ticket and corporate hospitality income
Manchester City	£44m	Jun 2002	24 yrs	Ticket and corporate hospitality income
Tottenham Hotspur	£75m	Nov 2002	20 yrs	Ticket and corporate hospitality income

Sources: Ashurst Morris Crisp, 2003; Jones and Boon, 2003.

requires relatively stable and predictable revenues. In the case of English soccer teams, gate attendances are very predictable. The size of a team's fanbase is largely a matter of history and geography – the demographics of the team's location and previous sporting success. The high degree of fan loyalty ensures that gate attendances remain relatively stable even as team performance fluctuates, with the exception of promotion and relegation. The process of securitisation involves the designated revenues flowing into lockbox accounts that cannot be accessed by the soccer team. In the case of (advance) season-ticket sales, the receipts are usually paid into a lockbox account until a certain level is attained (usually a multiple of the annual principal and interest payment due to the bondholders) after which the receipts flow down into a general working capital account that can be accessed by the team. In this way the bondholders have preferential status over revenues. In most cases the team's stadium provides the ultimate security in case of default.

Securitisation can offer a financially prudent method of long-term financing for stadium development as in the case of Newcastle United and Southampton. Securitisation to finance investment in bricks and mortar obeys the old financial adage of 'borrow long to spend long'. The term of the debt matches the term of the investment. The case for using securitisation to provide funding for player acquisitions and general working capital is much less clear-cut. Yet several soccer teams, most notably Leeds United and Manchester City, have used securitisation in this way. Securitisation involves complex and costly arrangements that can be difficult to restructure if a team's financial situation changes. Apart from arrangement costs and additional costs in the case of financial distress, there are also hidden costs of securitisation to the extent that cash-scarce teams may have to run additional expensive overdraft facilities to compensate for the working capital tied up in the lockbox account. In the case of financial distress and insolvency proceedings, securitisation may provide the option to convert the bond into a stadium leaseback/buyback arrangement. This is what occurred at Leicester City when it went into administration following relegation from the FAPL. Ownership of the newly constructed Walkers Stadium reverted to the bondholders and the new owners of Leicester City negotiated a long-term leasing arrangement with the eventual buyback of the stadium.

Despite professional soccer being a high-risk business with teams operating close to the financial edge, there has been a remarkable survival rate with very few teams going out of business. One way or another, fans tend to rally round to save teams in financial distress.

The high survival rate provides considerable long-term comfort to investors. In addition, securitisation reduces the risk exposure to the bondholders by effectively taking the soccer team 'out of the loop'. Teams cannot burn cash on player wages until there are sufficient reserves in the lockbox account. Unlike conventional lending arrangements, securitisation gives lenders priority over the allocation of revenues rather than operating surpluses. Conventional lending arrangements give priority to operating costs, implying that players take precedence over lenders in the distribution of revenue. Securitisation effectively reverses the order of priority between lenders and the players (and other trading creditors). But in restricting the risk exposure of the bondholders, securitisation redistributes the risk exposure of other investors in the team. The overall risk impact is ambiguous. Securitisation increases the financial risk of the team by significantly increasing gearing ratio. The impact on the business risk depends on how the funds are used to enhance the team's underlying business model.

Player Sale-and-Leaseback Arrangements

One of the principal assets of a professional soccer team is the transfer value of its player registrations. In order to play for a team, a player must be registered by the team with the soccer authorities. Ownership of a player's registration gives the team exclusive rights to the use of the player's playing services. If a player moves to another team, the player's registration must be transferred. In professional soccer a transfer fee is payable to a player's previous team by way of compensation when the player moves between teams. Until 1995 a transfer fee was payable even if the player's contract with a team had expired. However, following the *Bosman* ruling by the European Court of Justice in December 1995, transfer fees are now only payable if players move between teams while still under contract. Out-of-contract players are free agents with no transfer fee payable (although in the case of young players there may be a liability for compensation in respect of player training and development costs). Even following the advent of *Bosman* free agency, under-contract players can have significant transfer asset value.

Player sale-and-leaseback arrangements were developed in UK professional soccer in the late 1990s. These arrangements sought to use the transfer value of player registrations as designated security for medium-term debt finance. The scheme was pioneered by Ray Ranson (see above) at Benfield Greig, a London-based insurance company. The first deals were completed with Bradford City and Leeds United in the summer of 1999. In total, it is estimated that around £150 million has been loaned to Premiership soccer teams between 1999 and 2002 through player sale-and-leaseback arrangements (Jones and Boon, 2003).

Soccer teams have always relied on player transfers as a means of raising cash if necessary. The player sale-and-leaseback arrangement formalises this, but allows teams to retain the player rather than transfer him to another team. Although the scheme seeks to emulate traditional sale-and-leaseback arrangements used extensively in other industries, formally it is not a sale-and-leaseback arrangement because the assets (that is, the players' registrations) are not sold and remain on the team's balance sheet. It is not an off-balance sheet financing arrangement because only soccer teams registered with the sport's governing bodies can hold player registrations. Furthermore, even if player registrations could be owned by other entities, teams would still face the difficulties of reaching agreement with the players and their agents to allow the transaction to progress. Unlike fixed tangible assets, human resources can say no to a transfer of ownership of the rights to their

employment services and may only agree to the transfer if rewarded financially. Benfield Greig's player sale-and-leaseback arrangement succeeded in overcoming these difficulties by effectively lending against the estimated market value of designated player registrations as the primary security but with recourse to other assets in the event of any default.

Apart from overcoming the difficulties of lending secured on the exclusive rights to the employment services of human resources, the Benfield Greig scheme also resolves the problem of conventional lenders having excessive exposure to the soccer industry. The player sale-and-leaseback arrangement provides a credit insurance wrap for bank lending. Banks provide the funds but the risk exposure is effectively sold separately through the insurance markets. Hence, as has become clear for those deals with teams that have subsequently gone into insolvency proceedings, the ultimate creditor for this funding arrangement is the German re-insurance company, Gerling, who underwrite the default risk.

Although some of the player sale-and-leaseback deals have been used to finance working capital and other capital expenditure requirements, most of the deals have been back-to-back transactions to finance player acquisitions. Until 2003, FAPL and FL rules required teams to settle at least 50 per cent of the basic transfer fee (that is, that part of the fee that is non-contingent on future events such as player appearances, goals scored, international recognition and team performance) immediately with the balance of the basic fee to be paid within 12 months. However, player contracts, particularly for star players, are typically four or five years in length. The player sale-and-leaseback arrangement allowed teams to spread the cost of the transfer fee over the whole length of the player's contract in line with the amortisation charges allowed by financial reporting standards. (Since 2003 English soccer teams have been free to negotiate the payment schedules for transfer fees without restriction thereby reducing the opportunity for a third-party to provide this facility.) Under the Benfield Greig scheme, teams requiring finance for a player acquisition approach Benfield Greig Football Finance (BGFF) to arrange the deal. BGFF arrange the necessary bank loan and the credit insurance wrap for the team through an offshore management company, Registered European Football Finance (REFF), domiciled in the Channel Islands. UK tax laws force sale-and-leaseback arrangements to be operated offshore to avoid tax being paid on any profit arising from the initial sale of the asset to the leasing company. REFF lends the funds to the team and manages the principal and interest payments on a quarterly basis over the length of the player's contract.

If a team subsequently sells a player's registration that is being used as designated security, then either the balance of the principal plus penalties for early redemption must be paid or other player registrations with an estimated transfer value at least equal to the outstanding principal can be substituted as designated security. However, with the decline in the transfer market since 2002, coupled with the unwillingness of Gerling to underwrite new player sale-and-leaseback deals, it is understood that teams no longer have the option to substitute so that teams must repay the outstanding principal in full when designated players are transferred.

Financial Innovation and the Icarus Phenomenon: The Case of Leeds United

Have the financial innovations in the UK soccer industry contributed to the financial crisis facing many English professional soccer teams? To the extent that sporting competition will always push teams to burn cash on transfer fees and player wages, it could be argued

that financial innovations, particularly securitisation and player sale-and-leaseback arrangements, have provided additional funds to soccer teams over and above what would have been available through more conventional lending channels and thereby significantly increasing the financial risk of teams. In this way, financial innovations may have allowed some teams to overextend themselves in pursuit of sporting success, leading to financial distress; flying too high and getting burnt – the Icarus phenomenon. Several teams that undertook securitisation and/or player sale-and-leaseback arrangements have gone into administration subsequently: Bradford City (player sale-and-leaseback), Huddersfield Town (player sale-and-leaseback), Ipswich Town (securitisation), Leeds United (securitisation and player sale-and-leaseback) and Leicester City (securitisation and player sale-and-leaseback). Probably the most extreme example of the Icarus phenomenon in English soccer in recent years has been Leeds United, a team that went from UEFA Champions League semi-finals to administration and the real possibility of relegation from the FAPL within three years. The case of Leeds United demonstrates the upside and downside of financial innovations in the soccer industry.

Leeds United was acquired by the Caspian Group in the summer of 1996 and listed on the London Stock Exchange. The team raised just under £35 million from the initial equity issue. After its stock market flotation, Leeds United initially operated under a relatively tight financial regime with positive operating cash, modest net player transfer expenditure and limited net borrowing. The change in its financial behaviour began in the summer of 1999 under the executive chairmanship of Peter Ridsdale. In the financial year ending 30 June 2000, Leeds United raised £15 million in new borrowing through player-sale-and-leaseback as well as £9 million from the sale of an equity stake to BSKyB. The next financial year witnessed further new borrowing of £24 million, primarily via player sale-and-leaseback followed in 2002 by new borrowing of £69 million, principally made up of a £60 million securitisation. In total, in the 26-month period from August 1999 to September 2001, Leeds United raised new debt and equity of at least £109 million of which £70 million was spent on net player transfers (Table 78.3).

Initially this massive investment in players was successful in sporting terms. Leeds United finished in the top five of the FAPL from 1998 to 2002 and qualified for European competition each season, reaching the semi-finals of the UEFA Cup in season 1999/00 and the semi-finals of the UEFA Champions League in 2000/01. However the acquisition of so many star players significantly increased player wages with total staff costs rising from £18.6 million in 1999 to £53.6 million in 2002. Such a high level of wage costs was only sustainable with regular participation in the UEFA Champions League. Failure to qualify in 2002 led to an operating cash outflow of £5.7 million in 2002 and £12.1 million in 2003. The heavy reliance on debt finance also significantly raised net interest payments from £1.5 million in 1999 to £6.6 million in 2003. A severe financial crisis was inevitable. A fire sale of players in 2003 raised £20.5 million to cover the operating losses and interest payments. But the sale of players weakened the team significantly with Leeds United struggling to avoid relegation from FAPL. Leeds United avoided relegation in the second to last game of the season in May 2003 but the relegation battle continued the following season. The holding company, Leeds United PLC, went into administration in March 2004 with the soccer team being sold to new owners. The main creditors, the bondholders and Gerling, suffered huge losses on their investments. It is reported that the bondholders accepted an upfront cash payment of £20 million plus various deferred contingent

Table 78.3 Cash Flows, Leeds United, 1997–2003

Cash flow	1997*	1998	1999	2000	2001	2002	2003
	£000	£000	£000	£000	£000	£000	£000
Operating cash flow	-1 474	3 837	4 997	3 372	15 741	-5 716	-12 136
Tax	0	-510	0	-76	0	0	0
Net sales/purchases, tangible fixed assets	-2 016	-3 204	-2 569	-5 783	-3 651	-3 545	-1 709
Player trading	-12 797	-6 200	-3 418	-16 156	-28 189	-25 470	20 473
Other investment	-8 302	0	0	-250	0	0	0
Net interest receipts/payments	-550	-993	-1 452	-1 619	-3 525	-3 212	-6 563
Increase in borrowing	1 386	0	3 630	15 000	24 162	68 639	10 039
Loans repaid	0	-2 341	-1 551	-2 462	-5 619	-19 542	-12 112
Net share issues	34 677	12	0	8 987	1 235	0	0
Other financing activities	-261	2 478	1 699	-458	-316	-260	-466
Net cash flow	11 573	-6 921	1 336	555	-162	10 894	-2 474

Note: *18 months reporting period.

Source: Company accounts.

payments as settlement for the £60 million bond. Gerling fared even worse, reportedly accepting £2.5 million in full and final settlement of £20.3 million outstanding principal owed by Leeds United on the player sale-and-leaseback arrangement.

The experience of Leeds United raises a number of key questions on the role of financial innovations in the ultimate business collapse of the soccer team. The prudence of undertaking a 25-year securitisation to finance player transfer expenditure and operating losses is clearly problematic, yet both the senior executive management of Leeds United and the bondholders agreed to the deal. Given that the deal collapsed within two and a half years, there are obvious issues of the effectiveness of corporate governance and risk management processes of both the borrower and the lenders. Financial innovations, almost by definition, seek to exploit opportunities created by existing institutional restrictions. Securitisation and player sale-and-leaseback succeeded in circumventing the supply constraint of conventional lenders to the soccer industry. But that supply constraint had been set by the conventional lenders on the basis of their risk evaluation of soccer teams. Financial innovation increased the financial risk of soccer teams to the detriment of existing investors. Perhaps the ultimate lesson of Leeds United is the need for both soccer teams and investors to reassess their risk evaluation procedures to ensure a better appreciation of the investment risks associated with new financial arrangements.

Future Prospects

Professional soccer teams will continue to require cash to finance both short-term investment in playing assets and working capital, and longer-term investment in the real infrastructure – the stadium and training facilities. Hence there will continue to be scope for the development of new financial products using the assets of the team – the fanbase, the real infrastructure and the players – as designated security. However, the immediate future

prospects for further financial innovations are likely to be limited. The depressed player transfer market, partly as a consequence of uncertainty over future media revenues, restricts the scope for player-based financing arrangements. The high-profile financial problems of several teams, especially Leeds United, is also likely to have reduced the appetite among investors to undertake further securitisation deals.

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79 Collective selling of broadcast rights in team sports

*Susanne Parlasca**

While the prices paid for football television rights have been widely commented on in the press there has hardly been any public debate regarding the intervention of national and European competition authorities against collective selling of television rights on the basis of competition laws.

By focusing on football as the most popular team sport, this chapter sets out first to describe why television rights of sport events are vital to TV companies and professional clubs. It then explains why collective selling of TV rights constitutes a cartel negatively affecting fans, media concentration and small clubs. Then it turns to explaining why broader TV coverage would not harm interest in televised football or attendance. After this, the chapter discusses whether joint selling is indispensable for revenue sharing among clubs. Finally, it tests the rationale for intervention of national competition authorities in collective selling and for the exemption decision of the European Commission in the Champions League case.

Television Coverage of Football Matches Vital to TV Companies and Professional Sports Clubs

As the most popular team sport in Europe, football forms a key element in the competition for viewers among television companies. The live coverage and highlight programmes of top league matches, European or national Cup matches are constantly among the Top 10 of the highest-rated TV programmes of the respective week. Football attracts particularly men in the 14–49 age bracket who are a popular target of advertisers. Due to the constant audience interest in televised football, TV rights are of considerable strategic value for TV companies: TV companies invest in football rights to call the viewers' attention to the programme of new suppliers (advertising-based free TV, pay-TV, pay-per-view TV). In 1992 the pay-TV operator British Sky Broadcasting (BSkyB) succeeded in concluding its first contract with the Football Association Premier League (FAPL) giving BSkyB the exclusive right to live broadcasts of Premier League matches on pay-TV over five years. New contracts have been concluded in 1996, 2000 and 2003. Under the current three-year contract, BSkyB pays £1.024 billion for 138 live games per season and £60 million for the rights to broadcast the other 242 games on a delayed basis (Harbord and Szymanski, 2004, p. 5). Also in many other countries (Germany, Spain, Italy) football was used as a battering ram to establish pay-TV (Szymanski and Zimbalist, 2005, pp. 159–69).

To assess the willingness to pay for TV rights it is necessary to take into account two essential points: the bids TV providers place depend on the quality of TV rights (live rights, deferred rights and so on, see below) and the contribution that sports programming will make to their *overall* revenue structure, not just to the advertising revenue of the sports programme itself.

TV revenue has become a major source of finance of professional football clubs. In Germany, average TV revenue accounts for about 40 per cent of total revenue of

professional football clubs. Furthermore, TV coverage considerably increases the value of sponsoring rights whose value especially depends on the reach of the sponsoring message. In Germany, the first division of table tennis clubs even took over €300 000 production cost to enable the weekly live coverage of a first division match and the sponsoring news surrounding it. This strategy is typical of less popular or not yet popular sports.

In addition, TV coverage implies a substantial advertising effect. It encourages viewers to watch matches at the stadium, thus increasing gate receipts (unless the stadium is sold out anyway) and merchandising revenue. Regarding clubs with a small catchment area, TV coverage is the only chance for these clubs to attract additional fans on a supra-national level.

Collective Selling of Television Rights Constitutes a Cartel

While ordinary tickets to watch football matches of major leagues are sold individually by the clubs, 'virtual tickets' to watch these matches on television, that is television rights, are almost always jointly sold. Until the 1990s the adverse impact of collective selling did not become obvious since the monopoly power of league organisations was counterbalanced by monopsony power on the broadcasting side resulting from public monopolies or collusion.

While liberalisation of the TV sector led to strong competition among broadcasters the restriction of competition among the owners of television rights (individual teams¹) persisted (see Figure 79.1). Thus companies competing to acquire TV rights (TV companies or intermediate sports rights agencies) face a single supplier (FAPL or UEFA, the European Football Union), which holds all TV rights of the respective league in its hand. As a result, the prices of TV rights have escalated.

As a 'hard-core' cartel, the sellers of rights prevent any competition on price or 'quality' of TV rights among the clubs as members of the cartel. While most cartels simply restrict supply of homogeneous products, the restriction of the supply of TV rights to football matches concerns an extremely heterogeneous product. The fact that it is not only quantity that matters (for example, defined as number of matches shown on television) but also quality, that is, mode and conditions of coverage as fixed in television contracts, is often neglected in the debate on the pros and cons of joint selling of TV rights.

If TV rights were sold individually by the clubs, instead of a cartel organisation, the clubs would shape the conditions for using TV rights to their matches and set the prices accordingly. There would no longer be one uniform contract covering hundreds of league matches (380 matches per Premier League season, 125 matches per Champions League season and so on). Instead, TV contracts for league matches would vary according to the mode and conditions of TV coverage, for example, exploitation of live rights in free TV or pay-TV, extent of coverage (live coverage, long or short reports), time of coverage (same day or next day), exclusive or non-exclusive coverage²). Taking into account that collective selling affects quantity and quality of football TV rights available on the market, the negative effects of collective selling of TV rights on fans, media concentration and small clubs becomes obvious.

Collective Selling of Broadcast Rights Reduces Consumer Choice

In practice, collective selling has led to considerable restrictions of output in terms of number of matches shown live and number of live matches available on free TV. Although every minute of a match is recorded and although the liberalisation of the

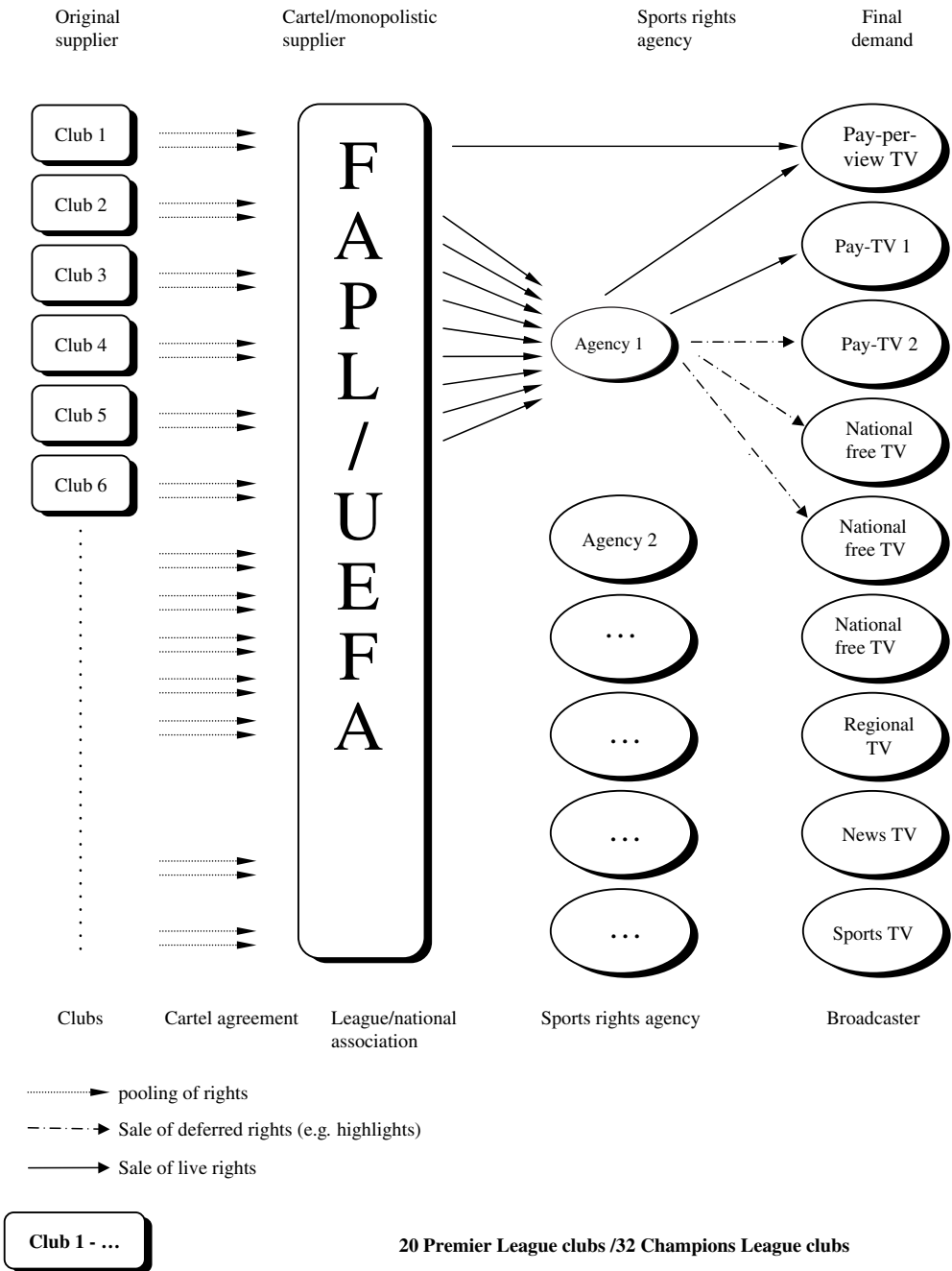


Figure 79.1 Cartelised selling of football rights after liberalisation of the TV sector

television sector has created sufficient room on regional and national television programmes to transmit these highly attractive matches, fans often cannot watch the match they are most interested in. In England the restriction on live broadcasting means that only 36 per cent of Premier League matches are televised live and that there are no live broadcasts on free-to-air TV, although FAPL games would attract an average viewership of 8 million people.

In Germany only two out of 306 Bundesliga matches were transmitted on free TV whereas 304 matches were transmitted live on national pay-TV ('Premiere'). The size of the loss of consumer surplus can be inferred from the fact that those few Bundesliga matches that had been transmitted on free TV (Sat 1) regularly attracted the highest weekly audience of Sat 1 and typically ranked among the Top 10 programmes of all German TV suppliers in the respective week.

Since the supply of live TV rights to top division matches has been artificially reduced, TV companies have resorted to friendly matches and friendly tournaments of top division clubs or to live coverage of foreign clubs, although these transmissions draw a much smaller audience than top division matches. Sky Sports, for instance, offers football fans live coverage of the Spanish first division instead of additional FAPL matches. German viewers may watch on free TV friendly matches such as Middlesbrough versus Borussia Dortmund or matches between Bundesliga clubs at an Austrian tournament. In a world of individual selling the consumers would be able to decide, as in any other broadcast market (for example, films) which matches to watch in which mode (free TV and/or pay-TV and/or pay-per-view TV, live or deferred coverage, long or short reports).

Reduced consumer choice is accompanied by excessive advertising prices and/or excessive subscriber fees for pay-TV and pay-per-view TV. Either the association (UEFA) or the league organisation (FAPL, DFL Deutsche Fußball Liga GmbH) or the sports rights agency that acquires the live rights can bundle, divide or withhold TV rights (by leaving them unused) to maximise revenue. Regarding free TV, the cartel or its commercial partner can make spectators watch the advertising during transmissions and avoid the fragmentation of the audience that would result if there were partially or completely overlapping football transmissions. Fewer viewers would like to subscribe to B SkyB's sports channels or to Premiere if they could watch all the home matches of Arsenal and Leeds or Schalke and Stuttgart live on free TV.

Regarding pay and pay-per-view TV, consumers may have a complete choice between top division matches but subscribers have to pay monopoly prices for watching FAPL or Bundesliga matches. If different matches were shown on different pay-TV channels, two or more TV companies would have to compete on price to sell their football package.

Collective Selling of Football TV Rights Fosters Media Concentration

The collective selling of football TV rights considerably impedes market access of small TV companies and sports rights agencies since they face only two large suppliers instead of numerous national and foreign clubs: FAPL and UEFA. Small sports rights agencies and TV companies are not able to acquire a capital-intensive rights package (for example, live rights to 134 FAPL games over three years). While small TV companies have to calculate strictly economically, financially strong broadcasters can easily absorb excessive prices over their total programme and pass them on to their customers. In the United States, regional television suppliers were able to grow by purchasing live

TV rights from local clubs. In contrast, no regional TV companies have been able to buy football television rights to matches of German teams of regional interest. In Germany, small TV companies such as TV Berlin sooner or later became part of a large media group.

Detrimental Effects of Collective Selling on Small Clubs

Collective selling strengthens the popularity of well-known clubs and limits opportunities for small clubs to win additional fans. Due to the restriction of output by joint selling, only big clubs such as Manchester United, Bayern München, Ajax Amsterdam or PSV Eindhoven regularly appear on television (league matches, national cup competitions, Champions League). Individual selling of TV rights would lead to a considerable increase in the coverage of small and medium-sized teams. These clubs would gain fans from other regions, thus offsetting locational disadvantages (small stadium, small catchment area and so on). Small clubs (for example, Bolton Wanderers, Mainz 05) introducing new star players or an exciting style of play can only attract fans outside their home area if they receive broad coverage on a regular basis. Press reports and brief highlights are unlikely to create a lasting interest. With individual selling, the advertising effect of broader TV coverage can lead to higher ticket revenues and sponsor receipts. Small teams might no longer have to rely on financial solidarity schemes but could to some extent strengthen their financial position themselves.

While it is often argued that the current system helps the small teams by preventing the big teams from growing stronger, the opposite seems to be much more likely. The television contracts resulting from joint selling tend to prevent the small teams from competing by focusing all the attention on the well-established teams. This is also true for the UEFA Champions League. UEFA restricts the broadcasting of matches to the Champions League by setting identical kick-off times for all matches (20.45 MESZ). At the same time, UEFA excludes to a great extent competition by any other football match (UEFA Cup, national leagues, national Cup competitions and so on) by not allowing any other (inter)national match to take place on those Tuesdays or Wednesdays after 8 p.m. This restriction of kick-off times by the governing body of European football is to the detriment of small and medium-sized clubs³ and to the benefit of UEFA and the Champions League clubs. Champions League clubs can realise much higher revenue since there are no partially or completely overlapping football transmissions of other European or national football competitions that would divide the football audience between competing TV companies.

All matches of smaller clubs would be broadcast since there is considerable demand by television companies for those rights. The audience figures of German second and third division matches (2nd Bundesliga and Regionalliga) prove this assessment. The weekly live broadcast of 2nd Bundesliga matches by free-to-air sports channel DSF attracts 1.2 million viewers on average. Apart from European Cup matches, no other sports programme of DSF draws a higher audience. Even if this audience figure were divided into three as a result of additional live broadcasts leading to the division of the audience according to their preferences, these three programmes would still range among the Top 5 programmes of DSF. Even third division matches can draw more than 400 000 viewers of regional programmes, thus making the acquisition of television rights of clubs of lower leagues attractive for regional or small national television programmes.⁴

Broad Coverage Does Not Harm Football Interest or Attendance

If more matches are transmitted live, the ratings for the most popular matches may fall, since an increased viewership will be spread over a larger number of games. Such a decline, however, would not provide evidence that viewers have lost interest in televised football. Free-to-air live broadcasts of FA Cup matches draw an average viewership of over 8 million.⁵ Premier League games are about as popular as FA Cup matches. If there were a parallel transmission of a second Premier League match, less than 8 million viewers would have watched the match because some of them would prefer an alternative game. Furthermore, the alternative game would have attracted additional viewers, that is, those who are *only* interested in the alternative match. As a result, the ratings per Premier League match would drop but the aggregate number of viewers would increase. As in the case of popular TV movies, there is no reason why a viewer should refrain from watching football because he or she has a choice.

There is also no empirical evidence that TV coverage of a football match negatively affects its attendance. On the contrary, experiences in the UK, Germany and the United States prove that increasing broadcasts resulted in increasing attendance figures, thus confirming the advertising effect of TV coverage. There are many reasons why television coverage of league matches does not negatively affect their attendance (sold-out stadium; determinants of ticket demand differ from TV viewers' demand – atmosphere in the stadium, opportunity to support home team; many TV viewers do not live in the catchment area of the stadium). But even if there were any negative effects, it is up to the club to decide whether and to what extent it refrains from selling television rights to protect its stadium attendance and to what extent it reduces ticket prices to maximise total revenue (tickets, TV rights, sponsor receipts).

Collective Selling Not Indispensable for Revenue Sharing among Clubs

The standard argument for collective selling is that it is indispensable for revenue sharing, which ensures competitive balance among the members of the league. In practice, smaller clubs could also earn high television revenues for their home matches under individual selling:

- sporting success creates nationwide interest;
- every home team plays attractive opponents;
- almost every match is of significance (championship, qualification for European competition, relegation, derby, star players);
- revenue alone does not determine league standing: a team may have a chance to qualify for European competition or a promotion place by hiring and developing young players, by building a cohesive team, by better training and management, or even by pure luck; and
- a club may have a strong backing in its region (for example, Southampton or Kaiserslautern).

As far as there is a need for revenue sharing to promote competitive balance, it has to be based on the overall individual revenues of clubs (for example, gate receipts, TV rights, sponsoring revenue) to work efficiently.

Revenue sharing arrangements can easily be integrated into the general rules governing the league's operation, with sanctions against teams that refuse to contribute. The self-interest of professional teams (insurance effect, need for competitors) will in any event make them agree to some form of revenue distribution. In fact, in the United States and Europe, sports leagues have already introduced redistribution mechanisms based on individual revenues to maintain a competitive balance, since they perceive that it is in the long-term interest of all members of the league. According to FAPL rules, a redistribution scheme requires the support of only 13 clubs to become compulsory.

The Assessment of Collective Selling by Courts and Competition Authorities

In the United States and several Member States of the European Union, the courts and competition authorities predominantly developed a strong stance against collective selling of broadcast rights. The European Commission, however, seems willing to exempt these price-fixing cartels from the ban on cartels, thus neglecting not only reasoned decisions of Member States and a Swiss court but also long-lasting experiences in the United States.

In 1984, the US Supreme Court prohibited the central marketing of television rights to American football college matches by the umbrella organisation of college sport (National Collegiate Athletic Association, NCAA). The NCAA had claimed that joint selling was necessary to protect live attendance at the matches of weaker teams. The Supreme Court rejected this defence, allowing the positive effects of prohibiting collective selling to take effect: prices of college TV rights decreased, live coverage of matches increased and as a result, interest in college football at all levels has expanded significantly since 1984.

The NCAA decision contrasts with the antitrust exemption granted by congressional lawmakers to professional team sports (football, baseball, basketball, ice hockey) in the 1961 Sports Broadcasting Act (Zimbalist, 2003). As a result of that exemption, prices for television rights for matches of the National Football League (NFL) and of Major League Baseball (MLB) tripled. However, the US exemption is widely held not to apply to joint selling to pay-TV.

In Europe, several national competition authorities issued a prohibition decision regarding the joint selling of football television rights. In 1994, the German Bundeskartellamt prohibited the collective selling of television rights to European Cup matches by the Deutscher Fußball-Bund (DFB). Also in 1994, a Swiss court ruled that the Champions League was an infringement of Swiss cartel law. In 1996, the UK Office of Fair Trading (OFT) referred to the Restrictive Practices Court three agreements between the FAPL and its member clubs, B SkyB and the BBC, resulting in collective selling. In 2002, the Dutch competition authority (Nederlandse Mededingingsautoriteit, NMa) prohibited the joint trading of rights to live broadcasts of matches of the Dutch Premier League ('Eredivisie').⁶ These decisions contrast with the exemption decision of the European Commission in the Champions League case in 2003.⁷

Since 1 May 2004, restrictive agreements have been legally exempted under Article 81 (3) of the EC Treaty⁸ if they fulfil all of the following four conditions:

1. The agreement contributes to improving the production or distribution of goods or to promoting technical or economic progress,
2. while allowing consumers a fair share of the resulting benefit.

3. The restrictions must be indispensable to the attainment of these objectives.
4. The undertakings must not have the possibility of eliminating competition in respect of a substantial part of the products in question.

The German and Dutch Competition Acts contain similar provisions.

Based on the arguments presented above, the NMa prohibited the collective selling of rights to live broadcasts of top division football matches by the Dutch league organisation (Eredivisie N.V., ENV).⁹ The NMa ruled that collective selling was to the detriment of consumers (reduced choice of live transmissions at higher prices) and resulted in a barrier to entry for smaller broadcasters. The joint sale of rights to live broadcasts was found to be not necessary to maintain a sporting balance between the football clubs because the clubs could redistribute part of the revenue they obtained individually. Similarly, the European Commission notes in its Champions League decision of 2003 that a redistribution of revenue can be undertaken without it being linked to any collective selling arrangement.

The Commission, however, identifies two benefits of collective selling of Champions League matches: creation of a single point of sale and branding. By giving meaning to the creation of a single point of sale for Champions League matches, the Commission follows some institutional economists who emphasise that collective selling allows for a reduction of transaction costs. This defence would be applicable to any price-fixing hard-core cartel, thus completely omitting the social costs of cartel behaviour (Kruse and Quitzau, 2002, p. 75).

Regarding the branding argument, the Commission mainly takes over UEFA's arguments without scrutinising their economic importance.¹⁰ The main determinants for broadcasters' demand for TV rights to football matches are the ranking of the championship in the hierarchy of football competitions (Champions League, top national league, national cup, second division and so on) and the perceived quality of the teams involved in the televised game. There is no empirical evidence that the attributes introduced by UEFA have stimulated any additional viewers' interest and demand as the Commission states (uniform coverage, identical kick-off times, logo, anthem). Even if these attributes were of any relevance, their implementation could be integrated into the Champions League rules without distorting competition in broadcast markets by introducing collective selling.

The Commission decision in the Champions League case also fails to take into account the positive effects of the individual selling of TV rights to matches of the qualifying rounds of the Champions League, the UEFA Cup, the former European Cup Winners' Cup and the European Champions' Cup prior to the introduction of the Champions League. Individual selling has enabled smaller broadcasters to acquire television rights to European matches involving national participants. TV rights to Champions League matches involving a national club, however, are out of reach for small broadcasters since collective selling of large rights packages creates considerable barriers to entry. As of the 2004/05 season, the UEFA Cup will include a group stage similar to the Champions League format. Against this background, the Commission decision might give rise to the formation of a second European football cartel comprising the clubs participating in the UEFA Cup.

At this stage it can be concluded that the collective selling of Champions League games has no economic benefits that could outweigh the negative effects of the hard-core

restrictions associated with joint selling, so that an exemption under European competition law could be justified. It remains to be analysed whether the new public bidding procedure for the sale of TV rights, which the Commission has imposed on UEFA, proves to be substantially less restrictive than the current sales arrangement.

The Commission decision does not aim at splitting up the cartel itself by banning collective selling of all members of the Champions League via UEFA. Instead, the Commission wishes to improve the negative market results resulting from cartelisation by forcing the league organisation to auction different packages of television rights. The Commission adopted a similar approach to collective selling of television rights to the English Premier League in 2003 and to the German Fußball-Bundesliga in 2005. In all three cases, the content of the newly formed packages was similar to the previous market results. The FAPL case demonstrated that the Commission's package approach does not lead to improvements in the television markets since in summer 2003 BSkyB was again able to acquire all live TV rights to Premier League matches. As a result the Commission modified the FAPL rights package in March 2006 to ensure that there will be a second buyer.

The Commission's package approach might lead to improvements on the markets for media rights for new media (internet, Universal Mobile Telecommunications System (UMTS) and so on) since UEFA has been forced to sell certain internet and other new media rights to media companies. Whether or not this interference in the competition between television and other forms of electronic media for football rights will promote the internet and UMTS will depend on the prices providers will have to pay for the recorded signals. Potential benefits on new media markets, however, cannot be used to justify considerable restrictions of competition on broadcast markets under European competition law.

Clubs engaged in less popular team sports, such as handball, might be worried that individual selling for football would imply individual selling for them as well. While there seems little to be gained by exempting sports from antitrust laws, it is obvious that a small sport that can sign an exclusive contract with a broadcaster to promote its sport on TV could well offer consumers more choice than enforced individual selling that might not attract any broadcaster. In such a case, the competition authorities would have to distinguish whether an agreement was likely to increase or restrict competition and consumer choice.

Conclusion

The collective selling of football television rights to league matches constitutes a 'hard-core' cartel, since the sellers of rights prevent any competition on price or specification of TV rights among the clubs as members of the cartel. The cartelisation substantially reduces viewers' choice and is to the detriment of small clubs. As football rights are a key factor for attracting viewers to a programme, collective selling considerably distorts competition on TV markets to the benefit of few large TV companies.

With individual selling of football rights, consumers would decide – as they do in other broadcasting markets (for example, films) – which matches to watch in which mode in a market where football clubs compete to supply the most attractive products (free TV and/or pay-TV and/or pay-per-view TV, live and/or deferred coverage, long and/or short reports).

Several national competition authorities in the European Union have prohibited collective selling of television rights by league organisations, since the arguments given for an exemption of joint selling under national competition law have proved to be not valid. Forming a cartel to sell ‘virtual tickets’ is not indispensable for the functioning and viability of football leagues. It is not necessary either for achieving reasonable revenue distribution among the members of a league or for the development of young players. Against this background, and having evaluated the reasons given, the exemption decision of the European Commission regarding the collective selling by UEFA of television rights to Champions League matches seems to be rather based on intransparent political compromises than on sound economics.

Notes

* The views expressed are those of the author.

1. Under most national civil laws, the home club is the owner of the commercial rights to the championship match. The economic rationale is that the home team bears the economic costs and risks: it rents (or owns) the stadium and bears the organisational costs at the venue. The visiting team’s costs are covered by its right to be organiser of the return match. The organisational contributions of the respective governing body (for example, FAPL, UEFA) are not associated with taking any economic risk. All organisational tasks carried out by associations or league organisations result from powers ultimately delegated by the individual clubs. The members of the league pay for these organisational services either directly (for example, referee cost) or by their contributions. This position has been widely accepted, notably in the United States and the Netherlands, where the issue has come to court.
2. See Parlasca and Szymanski (2002, p. 87) for a detailed analysis of relevant quality attributes that determine the value of TV contracts.
3. In November 2000, for instance, five German clubs had to squeeze their UEFA Cup matches in on a single Thursday (16 November).
4. For a detailed overview over ratings and rankings of football coverage in the German television sector, see Parlasca and Szymanski (2002, p. 90).
5. See Harbord and Szymanski (2004, p. 13). There is no free-to-air viewership data for Premier League matches available because English top division matches were last shown on free-to-air TV in the 1991/92 season.
6. While the Bundeskartellamt’s decision was confirmed by the German Supreme Court (‘Bundesgerichtshof’, see BGH WuW/E DE-R 17) the UK Restrictive Practices Court (RPC) ruled that the restrictions could only be assessed under an ‘all-or-nothing’ approach and therefore as a whole operated in the ‘public interest’. Shortly after the RPC decision, the English competition law was harmonised with European competition law so that now there is no reliable final ruling by English courts.
7. Commission Decision 2003/778/EC of 23/07/2003, COMP/C. 2-37.398 ‘Joint selling of commercial rights of the UEFA Champions League’, OJ L 291, 8.11.2003, p. 25 (‘Champions League decision’).
8. Due to a substantial amendment of the procedural law of European competition law, companies entering into restrictive agreements fulfilling the four conditions of Article 81 (3) of the EC Treaty no longer need to apply for an exemption decision at the Commission.
9. The collective selling by ENV of rights to broadcast summaries with a view to providing a comprehensive overview of the matches played was not regarded as a restriction of competition since it was a product which could only be realised jointly by the clubs. For the decision, see www.nmanet.nl/en/images/14_5392.pdf.
10. See Champions League decision, para. 154 ff.

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80 The sporting exception and the legality of restraints in the US

Stefan Szymanski

The nature of a sports league, or any sporting contest, creates a peculiar economic problem. According to Fort and Quirk's classic dictum, 'Professional team sports leagues are classic, even textbook, examples of business cartels' (Fort and Quirk, 1995, 1265). Business cartels are prohibited from entering into collusive agreements by antitrust law, since such agreements are likely to lead to increased prices, lower output and inferior choices for consumers. However, it is hard to imagine how a sporting contest can be arranged without some form of collusion. First, the participants must agree to be bound by the rules, and to submit themselves to agreed disciplinary procedures in cases where the rules are broken. Second, the teams must agree a system for scheduling games and determining the winner of the championship. Third, and more controversially, the organisers of sports leagues claim that agreements to restrain unbridled economic competition may be necessary to ensure the survival of the league. Clearly, sporting competition is not the same as economic competition. In sport, one competitor requires another, and arguably one strong enough to offer effective competition. In normal economic competition one competitor benefits from the failure of its rivals. As Neale (1964) observed, in ordinary business, monopoly is a goal but in sport, monopoly is bad for business.

Flynn and Gilbert (2001) suggest that a natural interpretation of the economic structure of the major leagues is as a joint venture. Recognising the 'peculiar economics' of team sports (Neale's famous phrase), that production requires the cooperation of rivals, so that each team has a vested interest in the existence, and even the success, of its competitors, it is reasonable to suppose that some kinds of agreements can be legally entered into. This is no different from the antitrust treatment that would be accorded an agreement between two competitors entering into an agreement to bring a product to market that would not exist in the absence of the joint-venture agreement. Facilitating the joint venture may in all likelihood require the agreement of restraints among the partners. The essential legal issue is whether such ancillary restraints have the effect of significantly limiting competition, and whether such restraints are proportional to their intended benefit.

Clubs manifested their urge to impose restraints on economic competition almost as soon as professional sports leagues were invented. Baseball's National League, the oldest surviving and the model for all subsequent leagues¹ was founded in 1876. In 1879, the league created the 'reserve rule', which prevented players from moving to other teams in the league without consent. While clearly reducing the bargaining power of players, the owners were keen to justify it in terms of the benefits to the health of the game as a whole. In 1889, the league issued a statement claiming that the reserve clause was instituted to protect the weaker teams and that the need to equalise playing strengths of teams was widely recognised.² The power of the reserve rule lay in the ability of the major league clubs to obtain agreements with smaller clubs and leagues to respect it. The essence of

‘Organised Baseball’, as it soon became known, was that a player unwilling to be bound by the reserve rule would be unable to find employment at another baseball club and was thus effectively debarred from making a living from the profession. Early legal challenges to the reserve rule focused on its essential unfairness, since players could be dropped at the end of each season if the club no longer wanted them. These cases were rejected by the courts on the grounds that players had entered into the contracts voluntarily and were free not to sign them if they did not like them. However, following the collapse of the rival Federal League in 1915, its backers brought an antitrust case against the major leagues, claiming that, being outside Organised Baseball, they had been denied access to players. Notoriously, the Supreme Court decided in 1922 that the antitrust laws did not apply to baseball on the bizarre reasoning that baseball did not involve interstate trade (and hence was not subject to the Federal antitrust law). Sports leagues the world over have cited this precedent in support of a claim for special legal treatment. The US courts have revisited the baseball exemption, but while making clear their low opinion of the judgment, they have refused to overturn it. For example, in *Flood v. Kuhn* (107, U.S. 258 (1972)), the reserve clause was examined but the court refused to prohibit it on the grounds that it is for Congress to overturn the now venerable antitrust exemption of baseball.

In the case itself, the major leagues did not rely on this argument alone, but advanced a more plausible explanation of the need for special antitrust treatment:

If the reserve clause did not exist, the highly skilful players would be absorbed by the more wealthy clubs, and thus some clubs in the league would so far outstrip others in playing ability that the contests between the superior and inferior clubs would be uninteresting, and the public would refuse to patronise them. (Court of Appeals, 1920)

This is essentially the ‘competitive balance defence’, which has been repeatedly advanced by leagues in the United States and has found favour with some courts and legislators. For example, in 1951, the congressional hearings on baseball organised by Congressman Emmanuel Celler concluded:

Baseball’s history allows that chaotic conditions prevailed when there was no reserve clause. Experience points to no feasible substitute to protect the integrity of the game or to guarantee a comparatively even competitive struggle. The evidence adduced at the hearings would clearly not justify the enactment of legislation flatly condemning the reserve clause.³

If the reserve clause is the classic sporting restraint, there are a plethora of restraints engaged in by sports leagues, many of which have been considered by US courts. The types of restraints that might fall under this analysis include labour market (for example, reserve clause, draft, salary cap, roster limits, restrictions on player trading), product market (for example, revenue sharing, collective selling, exclusive territories) and capital market (for example, restrictions on ownership). Most of these issues have been the subject of litigation.

Smith v. Pro Football, Inc (593 U.S. F.2d 1173 (1978)) considered the NFL draft and declared it an unreasonable restraint of trade. Writing contracts intended to evade salary cap restrictions were considered (*Bridgeman v. NBA* (re: Chris Dudley), 838 F. Supp. 172 (D.N.J. 1993)) and upheld in this limited context. *Mackey v. NFL*, 543 F.2d 606 (8th Cir. 1976) rejected the ‘Rozelle Rule’ which required teams signing a free agent in the NFL

to compensate the player's previous team with a draft pick and *McNeil et al. v. NFL* (70, F. Supp. 871 8th Cir. 1992) rejected the NFL's subsequent plan (Plan B) to allow teams to protect up to 37 players on their roster. *Finley v. Kuhn* (569, F. 2d 1193, 6th Circuit 1978) upheld the right of the commissioner of baseball to penalise teams selling players for cash on the grounds that it might weaken the selling team and reduce competitive balance.

The relationship between collective selling of TV rights, competitive balance and revenue sharing was considered in *United States v. NFL*, 116 F. Supp. 319 (E.D. Pa. 1953) and *NCAA v. Board of Regents*, 468 U.S. 85, 107 (1984) and in both cases competitive balance justifications were considered potentially valid reasons for the maintenance of the challenged restraints (on individual selling) and so were not *per se* illegal, but in both cases on a rule of reason the restraints were deemed either excessive or not tailored to achieve the stated aim.⁴ In the Raiders' case (*Los Angeles Memorial Coliseum Comm'n v. NFL*, 726 F.2d 1381 (9th Cir. 1984)) the court upheld a jury verdict that the league's application of the NFL rule requiring a majority of three-quarters of member teams to permit a relocation (thus protecting exclusive territories) restrained competition. It rejected the claim that the rule was justified by any legitimate interest of the NFL, including maintaining competitive balance. In *Sullivan v. NFL* (U.S. Court of Appeals, First Circuit, 34 F.3d 1994) the court allowed that motives such as competitive balance might on a rule of reason justify prohibiting public ownership of a franchise.

On balance it might be argued that the courts have demonstrated some scepticism about competitive balance justification for restraints, although they have accepted them as possible justifications under a rule of reason. The main obstacle for sports leagues has not been the willingness of the courts to treat leagues as a special case, rather it has been the lack of convincing evidence to support their claims. It has not escaped the courts that the profit motive might equally account for the clubs' desire to impose restraints, and in most cases the leagues have been unable to provide clear and unambiguous evidence that the claimed restraints are necessary to produce the required effect. Moreover, courts have often taken the view that the same effect can be achieved with a less restrictive alternative.

If the courts have been careful to demand evidence, US legislators have been less circumspect. Sport is not a big industry in financial terms, but it is one that grips the imagination of a large fraction of voters, and politicians take up arms against sports leagues at their peril. Given the substantial investments that local governments are prepared to make to attract and retain major league franchises, they are unlikely to quibble over relatively small-scale monopoly profits in order to retain the goodwill of these positive image generators. Legislators have consistently refused to condemn monopolistic league practices, and in one case have been willing to introduce legislation to overturn antitrust legislation. This is the famous Sports Broadcasting Act of 1961 which gave an antitrust exemption to the collective selling of league broadcasting rights for 'sponsored telecasts', which has generally been interpreted as free-to-air broadcasts. The legislation was introduced to enable the NFL to circumvent the 1953 judgment (mentioned above) and to market their rights collectively to the networks. Interestingly, this decision may have helped limit the migration of rights to pay-TV, since the law grants no exemption for collective selling to these platforms.

While we have so far dealt with court rulings and legislation specifically involving sports leagues, there is one general feature of the US legal system that has had a major effect on sports leagues. This is the exemption of collective bargaining agreements from antitrust.

Player unions became powerful institutions from the 1960s onwards and were able to secure dramatic improvements in working conditions as well as minimum wage levels. While hostile in general terms to unionism, the leagues soon found that they could use the collective bargaining exemption to their advantage, since any restraint written into the collective bargaining agreement cannot be challenged under antitrust law. The most widespread use of this exemption has been in the negotiation of salary caps. In some cases, the benefits of using this umbrella have been so great that while some of the more valuable players have tried to close the union, in order to negotiate better deals for themselves, the employers have gone to court to preserve the union – a remarkable state of affairs in industrial relations.

Conclusion

Once a sports league is treated as a business, it becomes subject to antitrust law. Antitrust law prohibits collusion between rival entities, but teams in a sports league must cooperate to some degree to maintain a viable sporting competition. Some have argued that we should even consider a league as a single entity for antitrust purposes, but since the legal reality is that teams in a league are independent legal entities, this view has not commanded widespread support. More plausible is the view that the league is a joint venture where ancillary restraints are necessary for the efficient functioning of the league, but that these restraints are subject to challenge on a rule of reason basis. The behaviour of the US courts is consistent with this approach, though it is worth noting that they have generally required good evidence in support of any given restraint.

This landscape is somewhat complicated by the baseball exemption, the Sports Broadcasting Act, and the collective bargaining exemption. None the less, it can be argued that the United States has, over the last century, developed a clear and largely consistent treatment of sports leagues which admits their exceptional character but does require any special treatment to be interpreted as narrowly as possible in order to avoid antitrust abuse.

In the rest of the world the legal position has been less clear. Traditionally, business motives in sport have been discouraged and even today it has not been widely accepted that sports leagues are businesses, and many people believe that the profit motive has no place in sport. The European Union, for example, recognises the special social character of sport, and in some European countries it is argued that business motives should be suppressed in the name of regulated and largely amateur sport. In France, for example, all sport is licensed by the state and even large sporting organisations such as its major soccer clubs are given limited commercial freedom and treated as special legal entities under the law.

This position was largely tenable until the 1990s because of the limited amount of money involved in sport, which meant that antitrust authorities had few concerns. The advent of competition in pay-TV broadcasting in Europe in the 1990s and the huge amounts of money that this brought into sport made this position untenable, and led to a number of investigations by the European competition authorities, most notably in relation to player contracts (the *Bosman* judgment) and the collective selling of broadcasting rights. In the absence of any consensus as to how sports leagues should be treated, the antitrust authorities have thus far struggled to set out a clear framework. Thus, perhaps surprisingly, the case for the sporting exception remains better articulated in the United States, where professional sport is accepted as business, than in the EU, where the role of business remains contested.

Finally, there are a number of excellent texts on US sports law, perhaps the best survey of the case law being provided by Weiler and Roberts (1998).

Notes

1. Szymanski and Zimbalist (2005) show that the National League was the model not only for American sports leagues, but also for the world's soccer leagues, the first of which (the English Football League) was consciously modelled on the National League.
2. 'As a check on competition, the weaker clubs demanded the privilege of reserving five players'. The statement was issued in connection with a dispute over the control player contracts with the rival Players' League created in the same year. The statement went on to say 'the necessity for such power of preserving the circuit of a league, by approximately equalizing its playing strength, is recognized by the League' (Spalding, 1911). The early development of what might be called the 'competitive balance defence' is discussed in Eckard (2001). He points out that the competitive balance defence started to be used only in the late 1880s, by which time it had become apparent that Congress would pass an antitrust law; prior to that the reserve clause was justified simply in terms of reducing player wages.
3. This and the previous reference cited in Szymanski and Zimbalist (2005, ch. 7).
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81 The specificity of sport and European Community law: the example of nationality

Jean-Christophe Breillat and Frank Lagarde

For a long time, it seemed incongruous to ask the question whether sport was subject to Community law. Indeed, for many years sporting institutions considered that they lived in a separate world and that their deeds and their behaviour could not come within the competence of Common Law – and therefore state courts. The best proof of this is that until very recently most international federations, through their statutes, pure and simply forbade their members to take any disagreement to the ordinary courts, on pain of disciplinary action! Such practices, which are contrary to the most basic human rights (but which are, however, tending to disappear since the setting up of the Court of Arbitration for Sport in Lausanne, Switzerland), clearly indicate the natural reluctance of the sporting world regarding any rules and control mechanisms of which it is not the source. What could be more natural, then, than for institutions wary of national legislation to exclude a priori the application of a supranational law such as Community law? The observation is even more valid as, in so far as the international federations are concerned, most of them have their headquarters in Switzerland, which is not a member of the European Union (EU).

The fact remains that the world of sport has finally to resign itself to being subject to Community law, mainly with regard to the question of nationality clauses, which could as well be considered as one of the favoured areas of study for Community institutions to take into account the specificity of sport.

Conditions for Enforcing Community Law to the Sporting Sector

The principle of subjecting sporting institutions to Community law

Sport was relatively quickly confronted with Community law, since it was in 1974 (16 years after the signing of the Treaty of Rome) that the first sports case came before the Court of Justice of the European Communities (CJEC).¹ In this case, two motorcycle pacemakers complained that the international federation, Union Cycliste Internationale (UCI), ruled that the motorcycle pacemaker and the cyclist had to be the same nationality, which, according to them, put them at a disadvantage. Before dealing with the heart of the problem, the CJEC had to rule on a fundamental question: were the rules of the UCI subject to Community law? It is often said that case law, especially Community law, as far as foreigners taking part in sports competitions are concerned, applies only to 'professional' sportspeople. However, this expression is used only because it is easy to understand. In fact, the CJEC judgments do not use it. From the Walrave ruling onwards, the position has been expressed in these terms: having regard to the objectives of the Community, sport is subject to Community law in so far as it constitutes an economic activity within the meaning of the EC Treaty.

In order to understand the ambiguous relationship between sport and Community law, it is essential to bear in mind that it is because of economics that the latter has become

involved with the former. In any case, there is nothing more natural. In reality, the word 'sport' does not currently appear anywhere in Community texts, least of all in the Treaty of Rome, which means that Community institutions (especially the Commission and the CJEC) have no competence to deal directly with sport as such. Therefore, they have to find a more general legal basis. However, Community law is above all an economic law, for the immediate concerns of Europe's founding fathers in the 1950s were to build an institutional and legal model to preserve a lasting peace on the continent; and it seemed to them that economics was the perfect vehicle to achieve that goal.

The extent to which sports institutions are subject to Community law

The notion of the 'professional' sportsperson It is therefore necessary to determine to what extent the activity of sportspeople can be described as economic. Admittedly, the obvious limits in applying Community law to sport – and therefore taking its specificity into account – were very soon established, especially concerning the make-up of national teams. But it should be clearly understood that, although the exercise of sports which are commonly considered as professional (for example, football or top-level cycling) naturally constitutes an economic activity, this idea is nevertheless more wide-ranging and also relates to less clear-cut situations. Also, in so far as the application of Community law – and therefore the benefit of basic freedoms such as the freedom of movement for workers – depends on it, the CJEC considers that the idea of economic activity should not be interpreted in a restrictive way.

First, it does not matter that the sports federations consider that the sportspeople in question must be recognised as either professionals or amateurs: 'the mere fact that a sports association or federation unilaterally classifies its members as amateur athletes does not in itself mean that those members do not engage in economic activities within the meaning of the Treaty'.²

Second, for sporting activities to be considered as having an 'economic' character, what really matters is that the activity is paid; it does not matter what type of payment (bonus, compensation and so on) or that there is no written contract.³ In this connection, the CJEC had to decide whether the activity of a Belgian judoka (judo specialist) should be considered as economic in so far as she received grants from her federation and from the Olympic Committee, as well as benefiting from sponsorship money.⁴

However, the judge ruled that in order to be considered as economic, 'the work performed must be genuine and effective and not such as to be regarded as purely marginal and ancillary'.⁵ In this respect, Community case law insists on the following objective criteria:⁶

the objective conditions of practice which the federation or some other institution attaches to the award of financial aid: daily training, other obligations requiring exclusive dedication to the sport, substantial investment of time and effort, a high level of performance, and medals;

furthermore, in order to be regarded as 'non-amateur', a sportsman must be subject to the conditions described above for a certain period of time, that is to say that there must be a degree of continuity in his activity;

finally, the amount of aid received is not immaterial: travelling expenses and even benefits in kind which amount to more than an average salary constitute pay rather than aid awarded for purely sport-related reasons.

To conclude, a sport which is officially an amateur sport (or, more precisely, which does not have a professional sector which is officially recognised by the sports authorities)

could possibly be affected by Community law from the moment that sportspeople find themselves in a situation where, de facto, the exercise of their sporting activity has an economic character in the sense of Community law, according to the above criteria.

The territorial field of application As far as the problem of the territorial field of application is concerned, sports institutions soon argued that since most of them have their headquarters outside Community territory (generally in Switzerland), they could not see themselves applying this law 'from elsewhere'. Here again, these objections could not hold up against the analysis of the Community judge who logically considered that the imperative rules resulting from the Treaty should be used to appraise all legal relationships in so far as these relationships, by reason either of the place where they are entered into or of the place where they take effect, can be located in the territory of the Community.⁷ In other words, it does not matter whether the headquarters of a sporting institution is located on Community territory or not. What is important is where the effects of the regulations in question occur.

On the other hand, looked at from the specific angle of the principles of the freedom of movement for workers and non-discrimination, which are those that concern us as part of this study, Community law is not intended to be applied to individuals who are not nationals of a member state of the EU; to which it would be appropriate to add in certain conditions the nationals of certain other countries. Thus the consequences of the CJEC judgments could be perfectly legally limited to Community nationals. But, and this is a remarkable phenomenon, particularly after the *Bosman*⁸ ruling, Community law spread beyond its natural borders. This is such a fundamental element that it should not be forgotten. If the European Community has had, for nearly 50 years, the commendable ambition of achieving unity in continental Europe – and a certain success has to be recognised, since there were 25 Member States as of 1 May 2004 compared to six at the beginning – this European unity has already existed for a long time in the particular field of sport!⁹ The fact that, even during the Cold War, sporting unity has always existed in continental Europe in most sporting disciplines, is not the least of the specificities of the sporting movement, compared to other sectors of social and economic life. However, when Community law effectively bans limiting the presence of foreign players in teams, and this ban applies only – as indicated above – to Community nationals, then institutions are faced with a choice. They can apply Community law only to those members who are legally subject to its principles – but in this hypothesis, sports rules would not be uniform over the whole of the European continent. On the other hand, they could make the pragmatic choice to have a single set of regulations for obvious reasons of fairness between participants in the same competition, since, as far as all the clubs taking part in the same European competition are concerned, it would not be acceptable for some to be subject to restrictive rules resulting from Community law and others not. Experience has shown, after several years spent trying to restrict Community case law to the exact territory of the EU, that sporting institutions have tended to standardise their rules and, in the end, apply legal principles resulting from Community law to non-Member states.

The notion of sporting specificity/sporting exception

In so far as sport is not one of the competences which the Member states entrusted, in varying degrees, to the European Union (unlike, for example, agriculture, transport or

even culture), it is obviously not possible to envisage a ‘sporting exception’ which would enable sport to benefit from derogatory measures in the way Community law is applied to it. In the current state of the law, if the activity in question could be considered as an economic activity within the meaning of the EC Treaty, the Community institutions – most importantly, the Commission and the CJEC – are obliged to apply to it strictly the basic Community principles (free movement of workers, free service provision, free competition, and no discrimination because of nationality). However, all these concepts are open to interpretation and subjectivity. This does not mean that it is possible to envisage, in the immediate future, the acceptance of a sporting exception. However, it does not exclude that a certain sporting specificity could be taken into account, provided that a real will exists – particularly and especially, political – in that direction.

From the 1970s onwards, the CJEC has fully appreciated that the sporting field presented a certain specificity which – after strongly asserting that sport is subject to Community law – it came to moderate by declaring that Community rules do not affect the composition of sports teams, in particular national teams, whose formation is a question of purely sporting interest and as such has nothing to do with economic activity. It was unreasonable to consider that the ban on discrimination, because of nationality, applied equally to national teams! But in order to justify a common-sense solution, the judge used an argument – that is, that it had nothing to do with economic activity – which is ironical when one thinks of the huge financial interests that national teams in certain so-called major sports generate nowadays. Taking the specificity of sport into consideration is therefore not a new idea, even if its legal justification did not, perhaps, stand up to the facts.

BOX 81.1 DECLARATION ON THE SPECIFIC CHARACTERISTICS OF SPORT AND ITS SOCIAL FUNCTION IN EUROPE, OF WHICH ACCOUNT SHOULD BE TAKEN IN IMPLEMENTING COMMON POLICIES

Sporting organisations and the Member States have a primary responsibility in the conduct of sporting affairs. Even though not having any direct powers in this area, the Community must, in its action under the various Treaty provisions, take account of the social, educational and cultural functions inherent in sport and making it special, in order that the code of ethics and the solidarity essential to the preservation of its social role may be respected and nurtured.

The European Council hopes in particular that the cohesion and ties of solidarity binding the practice of sports at every level, fair competition and both the moral and material interests and the physical integrity of those involved in the practice of sport, especially minors, may be preserved.

Furthermore, even if the European Commission and the CJEC are independent institutions, they are not necessarily impervious to the political will of the Member states of the EU. This is why, rather than a sporting exception which would involve an amendment

to the Treaty of Rome – and therefore the unanimity of the Member states – the heads of state and the governments preferred to make a formal declaration, on the occasion of the European Council in Nice, 7–9 December 2000 (Box 81.1). This does not have, strictly speaking, any legal validity. On the other hand, its political importance is crucial, since it is the first formal recognition on the political level of what constitutes the specificity of sport and which justifies a comprehensive and reasoned application of Community law.

While waiting for the future inclusion of sport into Community laws, which would give a legal basis for European authorities to make Community principles and rules of the sporting movement coexist even more closely, the Nice declaration forms the only point of support for those in favour of taking into account the specificity of sport. This is highly significant with regard to the delicate question of applying Community principles with regard to nationality clauses.

The Enforcement of Community Principles to the Sporting Sector

We have shown that sport comes within the competence of Community law the moment it constitutes an economic activity within the meaning of Article 2 of the EC Treaty.

Consequently, the basic principles sanctioned by the Treaty – especially the principles of the freedom of movement for workers (art. 39, § 1), of non-discrimination (arts 12 and 39, § 2), and of the free provision of services (art. 49) – are applicable to all Community sportspeople or those in the same category working in an economic activity within the meaning of *Walrave, Donà* and more recently *Deliège* case law.

On the basis of this reasoning, the Community judge considered that the rule that a sporting organisation can limit the number of professional players who are nationals of a member state and who could be lined up to play in club competitions, was contrary to the principle of the freedom of movement for workers.¹⁰

Having just recovered from the shock wave produced by the effects of this decision, the labour market of professional sport certainly did not expect to undergo new major deregulation several years later.

That, however, is exactly what happened at the beginning of 2003, with the recognition by the Court of Luxembourg of an equal right of treatment in working conditions, between professional sportspeople who are nationals of a non-member country linked to the EU by an association agreement, and professional sportspeople who are nationals of a member country.¹¹ With this new division, the abolition of ‘nationality clauses’ in the professional sport sector has never seemed more topical.

Nationality clauses and the principle of the freedom of movement for workers

Although in the process of disappearing, the nationality clauses can none the less be justified from a strictly sporting point of view. First, note that these types of clauses, which were imposed by the rules of the sports federations or the professional leagues, had the effect of restricting the access of foreign players to club competitions. The restriction concerned the recruitment of these players and even their participation in sporting meetings.

Second, before the *Bosman* ruling, football applied the so-called ‘3 + 2’ rule. UEFA, the European Football authority, was responsible for this rule, which provided for the possibility of limiting to three the number of foreign players which a club could include during first division championship matches or European championships, plus two players who

had played for an uninterrupted period of five years in the country of the national association concerned – three years of which were in the junior sector.

From a sporting point of view, the nationality clauses can be justified in several ways:¹²

1. They make it possible to preserve the connection between each club and its country. The public identifies more with its team when it is mostly made up of national players.
2. They help to protect national training systems. By limiting the number of foreign players in competitions, the nationality clauses encourage clubs to train young national players to be later included in their professional team. Liberalising the labour market has, on the contrary, called into question the very nature of training at club level. The clubs have the option of freely employing foreign players, often at less cost.
3. The nationality clauses are necessary for the balance of competitions, from the European point of view. They ensure that the major clubs do not monopolise the best players, which would create too great a distortion in the competitive balance.

None of these justifications, however, convinced the Community judge who, in the *Bosman* case in 1995, decided to apply without restriction the principle of the freedom of movement for workers in favour of all professional sportspeople from a member country of the EU and, by extension, the European Economic Area: EEA (the EU countries, along with Iceland, Liechtenstein and Norway).

The court noted that it is immaterial that the nationality clauses do not concern the recruitment of players, which is not limited, but only the opportunity of their clubs to field them during an official match. Indeed, in so far as participation in these matches constitutes the main focus of the activity of a professional player, it is obvious that a rule which limits it, also restricts the employment opportunities of the player concerned.

But for all that, the refusal of the CJEC to take the specificity of sporting activity into account concerns only club matches. The *Bosman* ruling did not challenge case law, according to which the principle of the freedom of movement for people is non-invocable with the regulations and practices which exclude foreign players from certain matches for non-economic reasons. This is due to the character and the specific limits of those matches which only concern sport as such, as is the case with matches between national teams from different countries.¹³

Therefore, the protectionist logic of sporting organisations was partially shattered after 1995, encouraging the best players in the Community to emigrate and to sell themselves to the highest bidding clubs, causing a significant rise in salaries and helping to increase the sporting imbalance between the richest clubs and the others. It was only a first step, however, in the process of sporting rules being subject to Community law, in so far as nationality is concerned.

Nationality clauses and the principle of non-discrimination in employment

Eight years after the *Bosman* ruling, sporting organisations were far from suspecting that nationality clauses, which in certain sports remained as something that could be used against professional sportspeople who were not nationals from the EEA, would once again be banned by the Community judge.¹⁴

This time, the case concerned a Slovak professional handball player, Maros Kolpak, employed by a German club. The person concerned demanded the right to be able to take part in competitions organised by the German Handball Federation, and to do this under the same conditions as German or Community players. His claim was based on the association agreement signed on 4 October 1993, between the European communities and their member states on the one hand, and Slovakia on the other. This agreement provided that workers with Slovak nationality who were legally employed on the territory of a member state could not be discriminated against on the grounds of nationality, as far as working conditions, pay or dismissal are concerned, compared to the nationals of the aforesaid member state. The CJEC upheld the claim.

The court considered, first, that the clauses of the agreement are directly applicable, which means that Slovak nationals can cite a precedent before the courts of the host member state.¹⁵

Second, it judged that these clauses must be interpreted in the sense that they are opposed to the application – to a Slovak professional sportsman who is regularly employed by a club established in a member state – of a rule enacted by a sporting federation of the same state. According to this rule, during championship and cup matches, clubs are allowed to field only a limited number of players from other countries which are not part of the EEA agreement.¹⁶

This decision was quickly interpreted, rightly, as being a severe blow to the federal practice of nationality clauses, in so far as many other countries to date enjoy a European association or cooperation agreement which includes a clause of non-discrimination in employment because of nationality (Algeria, Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Hungary, Kazakhstan, Kirghizstan, Latvia, Lithuania, Morocco, Moldova, Uzbekistan, Poland, Romania, Russia, Slovakia, the Czech Republic, Slovenia, Tunisia, Turkey and Ukraine).

However, the impact of the *Kolpak* ruling must be put in perspective, even if this ruling necessarily raises the question of the interest in maintaining nationality clauses in the professional sports sector, because of the uncertainties it has produced.

First, it should be stressed that each sport has found itself affected differently by this new prohibition of nationality clauses – on the one hand, because the economic interests at stake differ greatly from one discipline to another, and on the other, because certain sporting organisations had anticipated this development by excluding from its jurisdiction, nationality clauses for foreign sportspeople who could cite a European association agreement.

Second, it must be remembered that there is a difference in degree between the principle of freedom of movement for workers, intended in the *Bosman* ruling, and the principle of non-discrimination in employment, intended in the *Kolpak* ruling. The first implies the absence of all restrictions in the access to the labour market in the host member state (no particular formalities to respect). Only nationals of a member country of the EEA can cite this. The second obliges the workers concerned to be ‘legally employed’ in the territory of the aforesaid state, which presupposes that they respect the conditions of residence and access to the labour market provided for in the legislation of that state. In other words, the right to equality of treatment in working conditions can only benefit professional sportspeople from an associate state when their official papers are in order with regard to the entry, residence and working conditions defined by the host member state.

The question then has to be asked whether all the association or cooperation agreements signed by the EU and its member states with other countries are likely to have the same direct effects in national law. From this point of view, it is certainly advisable to distinguish between those agreements which make the principle of non-discrimination in employment an obligation for member states, and those which make it just a simple recommendation. For the latter, the CJEC judge could consider that they are not unconditional enough to be directly applicable.

The question arises, especially, in the application of the ‘Cotonou’ partnership agreement of 23 June 2000, between the EU and 77 African, Caribbean and Pacific countries (ACP). This agreement, which became effective from 1 April 2003, envisages that ‘each member state grants to workers who are nationals of an ACP country legally working in its territory, treatment which is characterised by the absence of all discrimination based on nationality compared to its own nationals, as far as working conditions, pay and dismissal are concerned’.

This statement is certainly authoritative and could therefore, a priori, serve as a basis for a professional sportsperson from an ACP country to disagree with restrictions of access to club competitions because of his/her nationality. But it could also be that the CJEC judge considers that because of the sought-after aim of this partnership agreement (which is clearly not to favour the future EU membership by the countries concerned), there is no need to recognise that it has a direct effect.¹⁷

The extension of the *Kolpak* case law to all European association or cooperation agreements and especially the Cotonou agreement is therefore, for the moment, uncertain. On the other hand, what is certain is that from 1 May 2004, a certain number of hitherto associated countries will be integrated into the EU (Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, the Czech Republic and Slovenia). Professional sportspeople who are nationals of these countries will no longer appeal to European association agreements, since they will eventually themselves be subject to all of the principles set out in the EC Treaty; in particular, the principle of the freedom of movement for people, which served as the basis of the *Bosman* ruling.

Whatever the real impact of the *Kolpak* ruling, European sporting organisations must ask themselves the question, within the current context of Community law, whether it is in anybody’s interest to maintain nationality clauses, the impact of which is increasingly insignificant. Certainly, many countries are still not concerned with the application of Community principles, but the contentious clauses will find a justification when a professional football team in Europe can today be made up of French or Italian or Polish or Slovenian players, and tomorrow, perhaps, of 11 players from Senegal or the Ivory Coast.

In any event, by applying Community law without considering the specificity of sport,¹⁸ European authorities have weakened – or contributed to weakening – the system of self-regulation set up by sporting organisations, of which nationality clauses are the cornerstone. They have thus plunged the labour market in professional sport deeply into economic liberalism. Only the future will tell whether this is the best way forward.

Notes

1. Case 36/74 *Walrave v Union Cycliste Internationale* [1974] ECR 1405, paragraph 4.
2. Case C-51/96 and C-191/97 *Deliège v Ligue Francophone de Judo et Disciplines Associées ASBL and Others* [2000] ECR I-2549, paragraph 46.
3. *Deliège*, opinion of Advocate General Cosmas, paragraph 37.

4. *Deliège*, paragraph 51.
5. *Deliège*, paragraph 54.
6. *Deliège*, opinion of Advocate General Cosmas, paragraph 43.
7. *Walrave*, paragraph 28.
8. Case C-415/93 *Union Royale Belge des Sociétés de Football Association and Others v Bosman and Others* [1995] ECR I-4921.
9. The European Olympic Committees (ENOCs) (an association which brings together all the European national committees) today has 48 members.
10. Case C-415/93 *Union Royale Belge des Sociétés de Football Association and Others v Bosman and Others* [1995] ECR I-4921.
11. Case C-438/00 *Deutscher Handballbund e.V. v Maros Kolpak* [2003].
12. See *Bosman* case, paragraph 121.
13. CJCE 14 July 1976, above.
14. CJCE 8 May 2003, above.
15. On this question, the court refers to its ruling of 29 January 2002, *Pokrzepowicz-Meyer*, case C-162/00 which recognised a direct effect of the non-discrimination clause included in the association agreement signed on 16 December 1991 between the European Communities and their member states on the one hand, and the Republic of Poland, on the other.
16. The French Council of State upheld an identical solution in a dispute opposing a professional Polish basketball player with the French Basketball Federation, see CE 30 December 2002, *Fédération française de basketball*: app. no. 219646.
17. The Ministry of Sport asked for the opinion of the European Commission on the interpretation to give to the principle of non-discrimination owing to nationality set out in the Cotonou agreement. While awaiting an answer, it pointed out to the sporting federations involved that it found nothing to justify challenging the nationality requirements applicable to sportspeople from an ACP country.
18. Viviane Reding, the European Commissioner responsible for Culture, Education and Sport, stated that the application of Community law to the nationality clauses was completely logical, and that in this respect, FIFA's proposal to establish positive discrimination, that is the obligation for clubs to field at least six players eligible to play for the national team ('6 + 5' rule), largely to protect training, was not admissible. In her opinion, if the specificity of sport must be recognised, sporting organisations cannot on the other hand be freed from the provisions of common law, such as freedom of movement and non-discrimination.

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82 Sport and globalisation: sport as a global public good

Jean-François Bourq and Jean-Jacques Gougnet

The phenomenon of globalisation nowadays means the idea of complete integration of the economy into a vast market dominated by worldwide multinational companies (Andreff, 2003). In particular, this development of world capitalism means a loss of autonomy of nation states, as far as monetary and financial policy is concerned – which also tends to call into question the very idea of territory or border (Adda, 2001). The world economy has therefore become an area for the mobility of capital, knowledge, labour, culture and so on, subject to a growing logic of privatisation – which states are finding increasingly hard to resist.

Within such a context of globalisation, sport has, over the last 20 years or so, seen basic changes to its fundamental nature, its place in society and its organisation. It will gradually find itself dominated by the economic and financial logic of the market. In order to characterise this influence of economic globalisation on sport, this chapter will consider three questions:

- Can sport be considered as a global public good?
- What are the main current weaknesses of the world governance of sport?
- Should a radical reorientation in the world organisation of the sporting system be envisaged?

Sport as a Global Public Good (GPG)

The new world context: the birth and development of the idea of GPGs

The idea of a GPG appeared in international negotiations at the end of the 1990s, mainly concerned with the issue of sustainable development. Faced with the extent of global environmental problems (the greenhouse effect, biodiversity loss, the increase of North–South inequality and so on), reference was increasingly made to the demand for global governance (Kaul et al., 1999). For example, the United Nations Development Programme (UNDP) recommends carrying out human development through an extensive strategy of coordination between all the groups of concerned actors: individuals, non-governmental organisations (NGOs), businesses, public authorities and international organisations (UNDP, 2003).

Since the founding world conferences in Stockholm (1972) and Rio (1992), followed by that in Johannesburg (2002), some positive signs of attempts to create synergy among these actors have appeared (Sacquet, 2002):

- the emergence of a global citizenship in the form of citizens' forces of opposition ('alterglobalists'), information and expertise networks, NGOs and so on. As far as the rights of man or the improvement of human 'abilities' are concerned,

unquestionable results have already been noted in certain countries of the South (Sen, 2003);

- the strengthening of the role of local authorities, particularly in applying local Agenda 21s (Agenda for the 21st century) and the values which they bring (transparency, solidarity, responsibility, and so on);
- the promotion of corporate social responsibility in many forms: the appearance of rating agencies, the development of ethical and interdependent investment funds and the involvement of multinationals with annual reports on sustainable development; and
- the appearance of a new type of consumer concerned about fair trade.

It is in this new international context that the debate about GPGs will arise.

A theoretical revival

The conceptual origin of GPGs should be looked for in economic theory, with the traditionally established distinction between public and private goods, with regard to two principles. In particular, pure public goods are goods to which the principles of rivalry and excludability do not apply: non-rivalry means that consumption of a good by an individual does not prevent another individual from consuming the same unit; non-excludability means that an individual cannot prevent another from profiting from the good in question (national defence policy, for example).

Nevertheless, pure public goods are relatively rare in reality. It is more common to come across public goods characterised by rivalry (in the form of congestion or saturation) or by excludability (owing to access for which one must pay). It is a question, therefore, of quasi-public goods. Lastly, there is the existence of public goods, the use of which the state makes mandatory: merit goods (health, education, sport and so on).

Finally, this distinction between public and private goods is based on recognising market failures, which involves state intervention – and that contradicts liberal logic. However, this approach to public goods was in keeping with the idea of regulating the economy, as it is traditionally understood within the framework of the nation state (Keynesian policy). Now, the logic of economic globalisation has called this approach into question over the last 20 years (Michalet, 2003):

- on the one hand, market failures which justify state intervention, no longer concern the national market, but rather the global market;
- on the other, this intervention should be under the authority of a global institution,
- which poses the problem of global governance.

Faced with the collapse of the traditional framework for analysing public goods (national), different options were adopted for approaching global public goods:

- some economists consider the second are simply an extension of the first (from national to global);
- on the other hand, others think that GPGs are of a different nature from traditional public goods. In particular, they include an ethical dimension which cannot be ignored, especially as far as the survival of humanity is concerned.

These are, then, the fundamental rights and needs of a human being, as well as the environmental constraints on which the recognition of a global public good must be based (Lille and Verschave, 2003; Sen, 2003).

From this, therefore, the question has to be asked as to whether sport is categorised as a GPG or not. We make the following proposition:

- by definition, a GPG is a good that the market cannot produce; so sporting events escape this category;
- on the other hand, an idea besides culture, education or health, which are completely outside the sports market, could be categorised as a GPG – to which it is closely connected.

Basically, this means that it is necessary to distinguish carefully between these two categories of goods and, moreover, to describe completely different realities as ‘sport’ – with, on the one hand, ‘merchandising’ sport and, on the other, ‘true’ sport. It is also necessary to stop the hypocrisy which consists of claiming to be representative of the second, in order to put forward the principles of regulations of the first. In this perspective, several series of difficulties of a conceptual nature emerge. Traditionally, sport has been defined according to four cumulative criteria: a dynamic situation (muscular effort), a competition (winner and losers), rules and an institution.¹ The anthropological characteristics of the person currently doing sport are very close to those of someone in the past (Vigarello, 2002). The pleasure of the physical game, the regular comparing of performance to see who is the best, the objectification of movement by independent measurement, the lessening of individuality, the cult of excellence and the pleasure of transgression are not traits which are specific to the modern athlete. On the other hand, contemporary sociological and economic developments encourage a hegemonic globalisation, although they do impoverish the meaning of sport. With several hundred thousand professionals in the world, several billion viewers on TV and a significant share of world trade, top-level sport can no longer be presented as a simple game or physical activity.

In addition, the originality of sport – but also its complexity – is that it is based on two opposing systems of representation and values: on the one hand, sport draws on delighting in nature, equilibrium and health; on the other, it comes under the ideal of surpassing oneself, which leaves it open to excess and to all sorts of tricks; which become the very negation of sporting ethics and public health. Consequently, what are the values which are likely to promote sustainable sport? What compromise can be found between the many paradoxes which the sporting institutions have to manage: the status of sport as a strictly codified educational human activity and what is at stake commercially; the globalisation of sport and its local *raison d’être*; the demands made by performance and that of human dignity; and financial means and sporting purposes?

The key question relates to the difficulty of creating a common representation of sporting values and the model of top-level competitive sport: exchange value only and/or a factor of health, education and integration? The non-existence of an a priori sporting social contract, prior to the production of a global public good, probably partly explains the weakness of the governance of world sport – as it does the non-existence of a global sporting citizen (sportsman, spectator, viewer or taxpayer) who will have to materialise.

These reservations show the difficulty of radically opposing, or even separating, two ideas about sport: on the one hand, top-level sport which is globally commercialised (private good); on the other, sport as the heritage of humanity (public good). The catalyst of such a challenge could only be the 'meaning' given to collective action, that is, a set of shared values on essential data concerning the future of sport and a common appreciation of the means to implement them. The building of this global sporting general interest or this common universal good must necessarily involve public opinion.

The Globalisation of Sport and Its Current Regulation: What Is the Current State of Affairs?

The internationalisation of sport could be defined as the preliminary stage of globalisation, with mainly national sporting practices and events opening to the outside world, but with an extension limited to only a part of the world and only to certain disciplines (1890–1970). Globalisation characterises its global development in the period from 1970 to 1990. From the 1990s onward, globalisation is the result of two processes: that of new information and communication technologies (television, satellite and so on) which remove distances and borders from the spatial, temporal, linguistic and ideological point of view; and that of the market, which has established itself in sport as a universal reference, giving all sporting events a common measurement.

Globalised sport, commercialised sport

The setting up of a production/communication system of increasingly integrated mass sporting events justifies the expression (Harvey and Saint-Germain, 1995). It includes effectively unified competition space, sporting authorities and companies (sports goods manufacturers, sponsors, distributors and operators) who manage their activities on a global basis with global mechanisms which come within the market economy and a liberal logic – access to the financial markets, gaining new markets, developing market programmes, international pursuit of share creation for shareholders and the free movement of labour and capital input.

Deregulation, along with the removal of two major institutional obstacles (the possibility of paying all sportspeople since 1981 and of commercially exploiting Olympic symbols since 1986), as well as the opening up of the economic life of sport with the creation of worldwide marketing programmes (transition from local sales to global sponsorship and distribution agreements), has promoted sporting events, increased competition between private operators trying to obtain the rights and included the strategies of the sporting movement and of companies in a global logic.

For a long time, since at least the first modern Olympic Games in 1896, sporting activities have had an international dimension. It is true that the process of global competition corresponds to a natural historical construction (the International Olympic Committee – IOC – and the international federations), the ultimate aim of which has always been universality (Bourg and Gouguet, 2005). It is also probably in sport that globalisation has met the fewest obstacles, which has involved a modification of sporting values from the last two decades of the twentieth century onwards.

The exchange value of sport prevails over its use value; and the educational and health values of sport and its intrinsic aesthetics are replaced by instrumental market values. It

is, therefore, not globalisation which is the problem in itself, but the privatisation of modern sport.

It is the latter which, henceforth, will give sport its resources and its direction. What is increasingly at stake is the taking over of the financial resources generated by top-level sport. Initially, non-profit-making organisations, such as the IOC, federations and clubs, were the owners of sporting events. Holding the monopoly for running these events created a shortage, which made it possible to increase their turnover and to make a growing profit from them. But, along with an increase in established or claimed property rights (radio and TV broadcasting rights, internet, marketing, byproducts, the name of events and stadiums, goal-scorers' royalties for their goals shown on TV and so on) is a corresponding increase in economic actors and jobs in the sports industry, in the widest sense of the term: agencies specialising in marketing, communications, financial investments and career management.

This chain of values is both segmented and privatised: in Europe, and especially in team sports like football, the ownership of TV and/or commercial rights had been yielded to clubs which had become commercial businesses – to the detriment of the federations and leagues, which carried out a public service mission and negotiated these rights in a centralised and collective way, before distributing them according to criteria of solidarity. The progressive transfer of the management of public sporting facilities from the public to the private sector signals the retreat of Public Service: access to television, which determines the development or the decline of different disciplines, depends on their ability to mobilise advertising audience and receipts. Anti-authority sports cultures (street sports, open-air activities and so on) have, in their turn, become the subject of merchandising. In the same way, the media broadcast a 'winner' and 'self-made-man' culture and impose a consumerist habit. The increase of radio and TV exclusive rights has reduced the right to information and has imposed a charge for viewers.

However, in many ways, top-level sport is a mixed good – that is, public financing of training and facilities, tax exemption, the concession to commercial businesses to operate public sports enclosures, direct subsidies and the illegal securement of the positive externalities created by amateur sport. Yet, even though the taxpayer is often solicited, only the shareholder receives dividends. The legitimacy of this double concomitant movement of the socialisation of a part of the costs and the privatisation of profits appears questionable – even if it intervenes to strengthen the competitiveness and autonomy of clubs, as well as the return on the private operators' investment.

The current weaknesses of world sports governance

The international sports system currently in force was set up from the end of the nineteenth century onwards, at the instigation of the IOC and the international federations – but only from a symbolic and moral point of view. Admittedly, the IOC these days includes as many national Olympic committees as the planet has sovereign states. True, the IOC has at its disposal a restraint power, which raises questions of an ethical nature. But the IOC, which is the supreme authority of the Olympic movement, is a non-profit-making NGO endowed with few legal instruments concerning worldwide sports organisations and athletes. Moreover, its governance of sport is not very effective, because it is affected by a crisis in its aims, which are uncertain and not very legible (sporting objectives/commercial objectives). Indeed, even though the sporting movement has for decades

defended the heritage of the values of the Olympic spirit defined by Pierre Coubertin, this official position has now become unconvincing.

The structure of the sporting system is incomplete and unsuitable: weak direct power, limited role and functions, opaque decision rules, insufficient democratic legitimacy, loss of sovereignty and so on. Attempts to favour a new form of governance based on a greater transparency – such as the procedure for designating the organising towns for the Olympic Games or the countries hosting world championships – appear insufficient for the challenges presented by the liberal globalisation of sport. Which itself creates a demand for a global public good, for which there is no offer at any level. Sporting institutions are trying to be an intermediary for a demand for sustainable and ethical sport, but national regulations – against doping, for example – are ineffective since control of the legal, sporting and scientific aspects require a response at the world level. It is, therefore, the logic of the market itself which is increasingly denounced as a cause of the appearance or increase in these public ‘ills’.

The deregulation and privatisation of the economy of sport also involves the disappearance of the instruments of sovereignty for the sporting power. If the IOC and the international federations were at the same time, from 1890 to 1980, the world policemen for the sports world, vectors of its development and guarantors of its ethics, it would appear that from now on the sporting movement must very often be content to interpret the new rationality which some 20 outside companies in the sports markets are pushing (sponsors, broadcasters, manufacturers of sports goods and marketing agencies). It forms a community of interests which acts in a network and which occupies a central place in the new production system of sporting events. Sporting institutions are, therefore, placed under the supervision of private companies, which are responsible only to their shareholders. Admittedly, they retain the symbolic legitimisation of sporting feats and official validation of competition results. However, the global market will, from now on, supplant sporting regulation.

Other Ways of Sporting Governance

An instrumental reorientation of sport

Governance will be defined as a business management technique (businesses, states and international organisations), implemented when a multiplicity of actors with differing interests have to find an area of agreement. In other words, it is a question of a continuous process where conflicts of interests can be overcome and a cooperative approach established.

‘Good’ governance would depend on the ability of the system to control deviant behaviour, the ‘global public evils’ (doping, corruption, cheating and so on), by economic and moral incentives. The globalisation of sport, therefore, poses the question of its world governance. Thus it would be appropriate that collective rules be developed, decided, legitimised, applied and controlled by a set of transactions (Council for Economic Analysis, 2002). This governance depends on the effect of specialised institutions in sport (IOC, international federations) equipped with clean tools, as well as on the standardising effect of private operators (sponsors, televisions, manufacturers of sports goods, shareholders and so on). It works both at a world level and through the channel of continental and national organisations. It partially holds its legitimacy from the delegation of the states and from the consensus of the sporting community; but it does come under

any central political authority and is not subject to any democratic sanction. This system of governance, which is in a state of constant transformation, responds to a threefold movement of the intensification of interdependencies, to the extension of these to new disciplines and to the enlargement of the geographical field to new countries (the number of international sporting events, of the nations represented and the national federations).

The natural tendency of the market is to produce public goods with positive externalities in an insufficient way; and to overproduce public goods with negative externalities – that is, those whose production includes an inconvenience (Council for Economic Analysis, 2002). Also, the external effects should correctly be taken into account by the appropriate management systems from the legal and economic points of view: this is what is at stake for global sporting governance to devise.

The bases of new governance must be defined. From this point of view, the idea of the World Anti-Doping Agency (WADA) is a first. The WADA was set up in 1999 with the intention of promoting and coordinating the fight against doping in all its forms, from the international point of view. Made up of representatives of the IOC, the national Olympic committees, international federations, sportspeople and governments from the five continents, this agency is independent only theoretically – in so far as its composition, its financing and its leanings are closely linked to the sporting movement and to the states who have direct interests in breaking records and winning medals. Despite everything, the world anti-doping code, which was adopted in 2003, is the first international instrument to harmonise the rules concerning doping in every sport and in every country.

However, the slow gestation of the WADA – with delicate negotiations concerning its mandate, its financing and its working – shows the limits and deadlocks in leading to a global agreement about a subject of common interest, in a context where national and individual preferences diverge; whether it is the attitude in relation to the risk of doping, to its cost, to its definition, to its damaging nature, to its regulation or to its sanctions.² In spite of significant advances, the fight against doping is unfortunately not currently a priority, since the health risk for sportspeople is judged to be acceptable. Thus, the result is a statute of doping comparable to that of ‘rare diseases’ in the field of health: those whose impact and extent are so weak in developed countries that there are not enough commercial incentives to warrant any research and development being devoted to them.

World governance, as far as the fight against doping is concerned, must make it possible to reduce these divergences of appreciation, as well as the transaction costs (reducing procedure costs, shortening the time taken to scrutinise the cases and improving the legal readability and predictability) by rationalising the then unified procedure.³ Thanks to economies of scale which could be produced, world governance could thus make this fight effective (decline of current immunity and disputes) and less costly (cooperating in producing useful scientific knowledge). Indeed, the example of the difficulties of the fight against doping shows the harm done to the development of a global public good by three absences (Kaul et al., 1999): the ‘jurisdiction gap’ (the lack of an institutional framework which could manage a global public good); the ‘participation gap’ (the lack of legitimacy of international authorities and of citizens’ sovereignty); and the ‘incentive gap’ (the lack of incentives and sanctions).

From this perspective, the production of a sporting global public good (SGPG) supposes a regulation emanating from public actors and/or independent private authorities (Box 82.1).

BOX 82.1 THE AGENDA 21 OF WORLD SPORT: CAN SPORT BECOME A GLOBAL PUBLIC GOOD? (21 PRIORITY RECOMMENDATIONS FOR THE TWENTY-FIRST CENTURY)

1. Carry out epidemiological studies to undertake a health appraisal of top-level sport;
2. study the short, medium and long-term effects of the use of doping substances and techniques on the health of sportspeople;
3. unify detection procedures, as well as the list of banned ways of doping and their sanctions, with the full application of the world anti-doping code;
4. research and develop activities aimed at strengthening the efficiency of anti-doping monitoring;
5. create an individual medical passport for sportspeople (the validation of which is essential for taking part in competitions);
6. promote information initiatives for sportspeople concerning the risks incurred to their health in case of doping;
7. a monitoring, control and suppression system for the whole of the doping ring (dealers, buyers and prescribers, and so on);
8. help promote sport in less-advanced countries;
9. action against money-laundering in sport;
10. fight against corruption and cheating in sport;
11. research the consequences of high-level competitive sport on the health and life expectation of sportspeople's lives;
12. promote a precautionary and preventative principle in relation to all sporting excesses (intensive sport for children, and overloaded training and competition schedules, and so on);
13. protect the environment during the carrying out of any sporting structure;
14. fight against all forms of violence in stadiums;
15. clarify the values and purposes of diverse activities which are currently grouped together under the term 'sport' and distinctly denominate these views and practices;
16. promote sport as a public utility and sustainable sport;
17. create global sporting institutions of governance (United Nations Sports Programmes and agencies, and so on);
18. implement instruments to regulate world sport (taxes and fines, and so on);
19. institute initiatives against the giant scale of major global sporting events;
20. fight against the waste of public funds in commercialised sport;
21. promote a sporting world order (world sporting citizenship, a common sporting social contract and a legal framework, and so on).

A new institutional structure

Without going into details, it is possible to say that two different types of authority regulate the world economic system:

- the United Nations system,
- other global institutions, apart from the UN: OECD, G8, Davos, World Trade Organisation (WTO) and so on.

The important thing to remember is that three institutions are going to acquire powers of decision greater than those of the UN: the International Monetary Fund (IMF) and the World Bank (for financial questions) and the WTO (for regulating international trade). Thus it is that business law, overlooking social and ecological questions and so on, has become the major instrument of world governance, which is why the demand to enlarge the field of competence of the WTO to the services of the General Agreement on Trade in Services (GATS) is going to extend world merchandising to domains which are traditionally reserved for public services (health, education, culture and environment).

This hegemony of economic logic, based on the privatisation of resources and regulation via the market, thus risks making the weakest having to put up with market failures (individuals, regions and countries). That is why, for the last few years, an extensive discussion has been under way concerning the necessity of in-depth reform of international institutions. In particular, it is now recognised that a true ‘democracy of world governance’ has to be achieved (Lille and Vershave, 2003) and that a global law for justice for all has to be allowed to emerge (Latouche, 2003).

Of course, sport has not escaped such a debate. International sporting authorities are too numerous, not active enough and often questioned concerning their role and their aims. Consequently, it would be advisable to look again at the instruments and fields of governance in order to clarify their functions, legitimise their mandates and strengthen their powers. It is not only and mainly a question of compensating for the failures of the market – and to make it more efficient – but, beyond that, to protect global public sporting domain and to find an alternative model by changing the paradigm.

Three different, non-conflicting ways could be explored as a way of contributing to (re)founding a true global governance (Michalet, 2003):

1. *The creation of a specialised supranational organisation (the United Nations Programme for Sport, UNPS)* This coordination authority, which would be democratic and recognised and come from the states and sporting movement, would be integrated into a revitalised UN system. The General Assembly would become the World Parliament; the General Secretary would become the President of Presidents elected by the World Parliament; and the specialised organisation, the UNPS, would become the equivalent of the ministers of the world state apparatus, in the same capacity as the IMF, UNESCO or UNCTAD.
2. *The increase in independent and specialised regulatory agencies* Producing standards and incentives on a world scale would favour the development of a sporting global public good to compensate for failures of the market (mechanisms, instruments and taxes). Each of these agencies would be in charge of a particular field of activity: the fight against doping, assistance to less-advanced countries for access to sport, the

fight against corruption, sporting ethics, the links between top-level sport and health and so on. Their intervention would extend to the whole planet and to all sports, taking account of the globalisation of competitions and what is at stake.

3. *The drafting of charters and codes of good conduct by major international companies*
Companies tend to behave as *free riders* in the field of commercialised sport, as elsewhere, leaving the care of others to finance and produce global public goods, while benefiting at the same time from their positive externalities (ethics and the fight against doping increase the market value of sport) since, by definition, the public good is freely available once produced. However, a manufacturer (Nike) and a sponsor (La Française des Jeux) did mobilise themselves after pressure for a boycott of their products and with a view to business ethics, when it was a question of the non-respect of children's rights (working conditions in the sports goods industry), of the expectations of sporting ethics and of public health (the confirmed doping of racing cyclists). Along with about 50 multinationals, Nike joined the Global Compact initiative launched by the UN in 2000, committing itself, in particular, to renounce child labour; and La Française des Jeux through a foundation to finance the fight against doping.

In conclusion, it appears that the idea of a global sporting good contributes to renewing the traditional approaches of GPGs. From this point of view, a classification of the word 'sport' is a precondition for the definition of the conditions which should be assembled so that sport could become a global public good. In order to do this, our proposals go beyond the subject of the efficiency of the sports markets. It would seem desirable to reconsider the general organisation of sport, so that the adverse aspects of the sports business can be prevented from pervading the whole of the sporting sphere. Only the future will tell if this option could constitute a new paradigm, likely to make sport appear as an element of the common heritage of humankind.

Notes

1. There is another way of understanding sport if the four traditional conditions are no longer referred to. Other sporting activities, which are not a priori spectacular or which do not fall within a constitutional framework, can be done if they are not based on domination and competition, but rather on exchange, support and cooperation.
2. For many doctors, it is top-level sport itself which is harmful to health in the short, medium and long terms, rather than the doping which is intended to lessen traumatic consequences. Would it not be also advisable to clear up this controversy by financing an extensive programme of international scientific research into the general problems posed by the precautionary principle?
3. Until now, the multiplicity of actions and recourses at stake before national, international sporting federations and state jurisdictions and legal institutions would engender controversies and contradictions linked to national specificities, and to regulatory differences according to the discipline; which would be equivalent, in the final analysis, to a virtual impunity for sportspeople.

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PART VII

DYSFUNCTIONS IN SPORT

83 Racial discrimination

Neil Longley

The Economics of Discrimination

The study of possible racial and ethnic discrimination in the players' market has long comprised an important segment of the sports economics literature. Sports economists have not only examined the potential sources and forms of any such discrimination, but have also attempted to empirically measure the relative impact on minority players of that discrimination.

The roots of this line of inquiry can be found in the broader economics literature that studies labour market discrimination, and dates back to the work of Becker (1957). In general, economists define discrimination as a situation where the outcomes experienced by individuals in the labour market are not solely a function of their productivity, but are at least partially determined by factors such as their race or ethnic origin.

The negative economic consequences experienced by those who suffer from discriminatory treatment may take many forms. For example, with salary discrimination, individuals from the non-preferred group receive, for any given level of productivity, lower monetary compensation than others in the labour market. Alternatively, with entry discrimination, the non-preferred group faces, again for any given level of productivity, greater barriers to even gaining employment within the labour market, thus resulting in the group being 'underrepresented' in that market. Finally, with segregational discrimination, the non-preferred group is unevenly represented across the labour market, often tending to be disproportionately represented in lower-paying, lower-status, types of occupations. Within any given labour market, all three types of discrimination may occur simultaneously, but it is also possible for one to occur without the other.

For those who engage in discriminatory behaviour, such behaviour is utility enhancing. These discriminators can be said to possess a 'taste' for discrimination – all else equal, they prefer not to interact with those from the non-preferred group. Such tastes may be the result of the overt biases and prejudices of the discriminator, or may be more subtle and systemic, whereby the discriminator holds preconceived, but incorrect, negative perceptions about those in the non-preferred group.

When a firm engages in discriminatory actions, such actions may be the direct result of the discriminatory tastes of the firm's owners and managers – so-called 'employer discrimination' – or they may simply be a rational response to the discriminatory tastes of other stakeholders of the firm. For example, it may be the firm's employees who have the taste for discrimination, in that they would prefer not to have as co-workers those from the non-preferred group. In such instances of 'co-worker discrimination', hiring those from the non-preferred group may lower workplace cohesiveness and productivity, or may make the firm a less attractive employer for those who hold the discriminatory views. This may force the employer to react, and to either hire fewer of those from the non-preferred group, and/or to pay reduced salaries to those from that group. Alternatively, it may be the customers of the firm who hold discriminatory views. With 'customer discrimination',

customers prefer to deal with firms that employ fewer of the non-preferred group, thus forcing the firm to respond to such views or risk decreases in revenues.

If labour markets are competitive, those firms that engage in discrimination must incur a financial cost for such behaviour. For example, if salary discrimination exists in a given labour market, this implies that those from the preferred group have a higher salary, per unit of productivity, than those from the non-preferred group. Thus, those employers with a taste for discrimination will receive a lower level of employee productivity for a given level of wage expenditure, compared to those employers who have no taste for discrimination.

Testing for Discrimination: The Attractiveness of the Sports Industry

Empirically testing for the presence of discrimination requires one to determine, for a given level of productivity, whether certain groups experience inferior labour market outcomes – in terms of salary, or in terms of representation – relative to the market as a whole.

While such tests are conceptually straightforward, they often present large practical difficulties. In particular, they require an extensive amount of micro-level data on both productivity and labour market outcomes – data that are simply not available for most industries. For example, in most industries, salary and productivity data for individual employees are almost always confidential, and not within the public domain. Furthermore, for most jobs, productivity is extremely difficult to measure objectively, and few jobs have convenient summary statistics into which an employee's productivity can be collapsed and summarised.

However, as Kahn (1991, 2000) notes, the professional sports industry is much less plagued by these data problems, compared to most other industries. Not only can the productivity of players be relatively objectively measured, such productivity statistics are publicly available. Furthermore, micro-level data on market outcomes – such as salaries and representation levels – are also publicly available. Thus, as Kahn (2000) has noted, the professional sports industry has become an important laboratory for labour economists – it provides researchers with data that are simply not available in many other industries.

However, this data availability is not the only reason why discrimination issues have been a frequent focus in the sports economics literature. The sports industry, in both North America and Europe, has often been viewed as a place where minorities may find greater opportunities than in society as a whole. In the United States, for example, Jackie Robinson broke the 'colour barrier' in Major League Baseball (and all of North American sports) when he made his debut with the Brooklyn Dodgers in 1947. This was during an era when blacks still faced many restrictions and impediments in US society as a whole. In fact, it was not until the 1960s that blacks gained the same legal rights in the US as non-blacks.

Following the debut of Jackie Robinson, blacks began to play an increasingly important role in major US professional sports. Their numbers increased to the point where their representation in the industry has now far exceeded their representation in the population as a whole. For example, by the mid-1990s, blacks, while comprising only about 13 per cent of the US population, comprised about 80 per cent of National Basketball Association (NBA) players, 65 per cent of National Football League (NFL) players, and 30 per cent of Major League Baseball (MLB) players (see *ibid.*).

Blacks are not the only significant minority group in North American professional team sport. Hispanics have long comprised a small, but significant, percentage of MLB

players. In hockey, the fourth major North American professional team sport, it is the dimension of ethnic origin, rather than race, along which players vary. There are actually three minority groups in the National Hockey League (NHL) – Americans, Europeans and French Canadians – with English Canadians being the dominant group. French Canadians are the minority group with the longest history in the NHL, and it has been this group upon which the sports economics literature has primarily focused. While French Canadians comprise only about 2 per cent of the North American population, they currently comprise about 10 per cent of NHL players.

In Europe, similar patterns have also emerged. In European football (soccer), representation by blacks in the sport is greater than their representation in the population as a whole. In England, for example, Szymanski (2000) reports that, by the early 1990s, blacks accounted for about 8 per cent of all league appearances, while accounting for less than 2 per cent of the population.

This significant presence of minority-group players in professional sports is not necessarily evidence of a lack of discrimination. Generally, economists define discrimination to have occurred if individuals with the same productivity experience different economic outcomes, with these differentials relating to the race or ethnicity of the players. Thus, to test for discrimination, one must examine, for example, whether black players receive the same pay as non-blacks, *holding playing talent constant*. Or, do blacks have to exhibit a higher level of playing talent in order to gain roster spots on professional teams? Or, are blacks segregated into certain, less-central, playing positions on teams? Some of the empirical evidence relating to these questions is overviewed in the following section.

The Empirical Evidence

Empirical approaches

The research on discrimination in sports is now quite voluminous, comprising dozens of articles, and spanning the past 30 years. The literature has examined all forms of possible discrimination – salary, entry and segregational – and has considered the various potential sources of such discrimination – teams, fans and other players. All four North American professional team sports have been studied, as has European football.

With salary discrimination, the general empirical approach has been to regress players' salaries on a series of variables designed to capture player productivity, team characteristics, and the race or ethnicity of the player. To the extent that the last variable(s) is (are) significant in explaining player salaries, salary discrimination has been said to exist.

With entry discrimination, the goal is to determine whether certain players are 'under-represented' – that is, for any given level of productivity, are players from the non-preferred group less likely to be represented in the league than players from the preferred group? Alternatively, one can think of entry discrimination as occurring when players from the non-preferred group have to exhibit a higher level of productivity to gain entry into the league than players from the preferred group. Empirically, this can be relatively easily tested for, by comparing average productivity levels of the preferred and non-preferred groups. If the non-preferred group exhibit, on average, higher productivity levels, this may be evidence of entry discrimination.¹ Segregational discrimination has been tested for by examining the distribution of players within a league – either their distribution to certain playing positions, or their distribution to certain teams in a league.

The remainder of this section provides a brief overview of some of the key empirical approaches and findings regarding discrimination, as they relate to each of the four major North American sports, and to European football.

Baseball

Baseball has been the most frequently studied sport with respect to discrimination issues. Its popularity among researchers is due to a number of factors. First, as America's 'national pastime', the sport has a long history and tradition, and occupies a special place within American sports culture. Since most sports economists are also sports fans, baseball's immense popularity with fans has also made it a natural focus for sports economists. Perhaps more importantly, though, is the fact that baseball offers some advantages over other sports when conducting empirical research. First, baseball was the first sport to allow the entry of black players, and thus has the longest history of integrated teams. Second, it is the sport with the most extensive and complete set of player statistics, thus allowing for more effective measures of player productivity. It is also the sport that first experienced free agency, thereby allowing researchers to test the effects of monopsony conditions on the likelihood of discrimination.

Some of the earliest studies on baseball did find evidence of entry discrimination. For example, Gwartney and Haworth (1974), using data from the early 1950s – a period that immediately followed Jackie Robinson breaking the colour barrier in 1947 – found a positive correlation between the number of black players on a team and the winning percentage of those teams. Thus, teams that were more integrated were more successful.² This lent support to the notion that teams that had a taste for discrimination paid a price for such tastes, in the sense that they were forced to accept a lower level of on-field performance. On a related theme, Goff et al. (2002) view racial integration as an innovation, and found that 'winning' (as opposed to 'losing') MLB teams were the first to integrate. Other significant early studies on entry discrimination included Pascal and Rapping (1972) and Scully (1974). Both studies used samples from the late 1960s, and both found blacks tended to outperform whites.

Some recent studies have focused on a different type of entry discrimination, dealing not with the entry of black players into the major leagues, but rather with the entry of retired black players into the baseball Hall of Fame. This line of research (see, for example, Jewell et al., 2002) examines whether blacks face discrimination in the Hall of Fame election process. Such studies have generally tended to find only weak, at best, discriminatory effects.

A number of early studies also found evidence of positional segregation against baseball players. Numerous studies found an overrepresentation of blacks at the outfield positions (see Pascal and Rapping, 1972; Scully, 1974; Hill and Spellman, 1984; Christiano, 1988), and some found an underrepresentation at positions like pitcher and catcher.

With salary discrimination, most studies (see, for example, Pascal and Rapping, 1972; Scully, 1974; Raimondo, 1983) have found little if any, evidence of significant discrimination against blacks, and where salary differences between blacks and whites have been found, they have sometimes revealed discrimination against whites.

The effects of more competitive labour markets – as given by the advent of free agency – have also been examined. Cymrot (1985) found evidence of salary discrimination against those non-whites not eligible for free agency, but no such discrimination against non-whites

who were eligible for free agency, implying that the competitive workings of the market eliminated the discriminatory outcomes. Christiano (1988), however, found no such pattern, while others (see Kahn, 1991) have questioned the logic of Cymrot's conclusions. Bodvarsson and Pettman (2002) found that both free agency and league expansion reduce the prevalence of discrimination.

Even if one finds evidence of salary discrimination or entry discrimination, the source of such discrimination – be it employer, co-worker, or customer – is often not directly ascertainable. Thus, some studies have specifically attempted to design methodological approaches that directly measure any possible customer (that is, fan) discrimination. For example, Scully (1974) examines attendance patterns and finds that black pitchers have a negative effect on attendance. More recently, researchers have turned their attention to the market for baseball cards and memorabilia as mechanisms to test for fan discrimination. For example, Nardinelli and Simon (1990) examine baseball card prices, and find that blacks have significantly lower card prices for any given level of productivity statistics. In a similar vein, Hanssen and Andersen (1999) examine All-Star voting by fans, and conclude that any discriminatory tendencies that may have existed during the 1970s had significantly decreased by the 1990s.

American football

Compared to baseball, there have been many fewer studies of salary discrimination for American football. Kahn (1991) hypothesises that this may be due to the difficulty in objectively measuring productivity for many positions in football. Kahn (1992), in one of the few salary studies of the NFL, found little evidence of any significant discrimination against blacks.

In one of the earliest studies, Scully (1973) did find evidence of entry discrimination, in that black running backs and wide receivers outperformed whites across a wide range of productivity categories. Scully also found evidence of positional segregation, with blacks being overrepresented at defensive back, running back and wide receiver, and being underrepresented at quarterback, centre and kicking. Kahn (1992) using data from 1989, found generally similar patterns with respect to positional segregation.³

Basketball

A series of studies (see, for example, Kahn and Sherer, 1988) during the mid- to late 1980s consistently found evidence of significant salary discrimination against blacks.⁴ Conversely, a number of studies during the 1990s (see, for example, Dey, 1997; Hamilton, 1997; Bodvarsson and Brastow, 1998) found no such evidence of discrimination.

Kahn and Sherer (1988) also found some evidence of entry discrimination, in the sense that blacks outperformed whites for a given salary level, but, conversely, found no evidence of biases against blacks in the NBA's draft of college players. Kahn and Sherer also found positional segregation, with blacks being underrepresented at centre and forward.

Considerable research also exists on possible fan discrimination in basketball. A variety of approaches have been taken. Kahn and Sherer, for example, find that white players increase attendance, while Brown et al. (1991) find that attendance is negatively affected with increased playing time by blacks. Burdekin and Idson (1988) find that attendance is positively affected by the closeness of the racial match between the team and the city's population. Koch and Vander Hill (1988) found a negative correlation between the

percentage of players on a team that are white and the percentage of the city population that is black. Kanazawa and Funk (2001) find strong evidence of increased TV viewership for games in which there was greater participation by white players. Conversely, Stone and Warren (1999) find no evidence of discrimination in the prices of NBA trading cards.

Hockey

Unlike the other three major North American team sports, where the issue is racial discrimination, in hockey, the issue is ethnic discrimination. In particular, researchers have long studied whether players of French Canadian descent suffer from discrimination.

Most of the early studies of salary discrimination found only weak, at best, evidence of any discrimination. Jones and Walsh (1988), using data from the 1970s, did find some evidence of salary discrimination, but this seemed to be restricted to those playing the defence position. Lavoie and Grenier (1992) found similar results for the 1970s, but also found that, by 1990, any salary discrimination that did exist during the 1970s had all but disappeared.

These studies, however, tended to treat French Canadians as a single group. Longley (1995), when controlling for the effects of team location, and using data from the 1989–90 season, found evidence of significant discrimination against French Canadian forwards, but only for those individuals playing for teams based in English Canada. French Canadians playing for teams based in the United States – even though they faced the same language and cultural barriers as those French Canadians playing for teams in English Canada – appeared to suffer no salary discrimination. Longley hypothesised that this finding may be attributable to the historic tensions between French Canadians and English Canadians. Jones et al. (1999), examining the same season as Longley, do not find evidence of such discrimination. Lavoie (2000) finds evidence of a ‘hometown’ effect, in that ‘local’ players receive a premium.

With respect to entry discrimination, Lavoie et al. (1987) found that francophone (French-speaking) NHL players outperformed their anglophone counterparts, particularly at the defence position. They take this as evidence of entry discrimination. Walsh (1992) debated this interpretation, and argues that the Lavoie et al. results are an artefact of an incomplete set of productivity measures, particularly as it relates to player size and defensive skills. Walsh claims that French Canadians tend to possess fewer of these attributes than other players, and when these attributes are included, French Canadians are not, in fact, underrepresented.

Segregational discrimination has also been examined in the NHL. Lavoie (1989) found some evidence of positional segregation, whereby French Canadians were underrepresented at the defence position, and overrepresented at goalie. Longley (2000) found evidence of segregation by team location, whereby French Canadians were underrepresented on teams in English Canada, relative to their representation on US teams. The latter may be evidence of customer discrimination, in the sense that English Canadian fans have biases against French Canadians; biases not held by American fans.

Recently, a new issue is emerging in the NHL. Over the past three decades the dominance of Canadian-born players has waned considerably, to the point where Canadians now comprise only about 52 per cent of NHL players. This trend started in the 1970s, as Swedes and Americans began entering the league in significant numbers, and accelerated during the 1990s as the fall of the Soviet bloc allowed a large influx of players from Russia

and (the former) Czechoslovakia. This has led some researchers to question the extent to which these minority groups may suffer from discriminatory treatment. Most studies, however, have failed to produce any strong evidence of significant discrimination against these groups.

European football (soccer)

Unlike North America, where four major professional team sports vie for the attention of fans, in Europe, a single sport – football (soccer) – completely dominates the professional sports scene. However, like North America, European football has also witnessed trends towards increased participation by blacks in recent decades – a trend that began in the 1970s, and has continued to the point where, today, blacks comprise a very significant minority of the players across European leagues.

A number of studies have examined the specific case of English football. Reilly and Witt (1995), for example, analyse transfer prices, and find no evidence of discrimination. Conversely, Szymanski (2000) tests for the presence of discrimination in the salary structure. However, rather than using the traditional analysis, where salary is regressed on a series of independent variables designed to capture player productivity, team characteristics, and race, Szymanski develops a ‘market test’ approach. Because the traditional regression approach is subject to the omitted variable criticism, definitive conclusions about the presence of discrimination are difficult to make – any finding of apparent salary discrimination can always be countered with the argument that the results are an artefact of an incomplete set of productivity variables, and are not due to discriminatory behaviour. If omitted productivity measures are correlated with race or ethnicity, then discrimination may be incorrectly concluded.

Szymanski’s market test approach attempts to avoid this problem by examining market outcomes across firms. It is based on the notion that (providing labour markets are competitive), if salary discrimination does exist in a labour market, then firms that employ an above-average proportion of individuals from the non-preferred group (that is, the ‘underpaid’ group) should have superior productivity, for any given level of payroll costs. Applying this concept to English football, Szymanski does find that teams that employed an above-average proportion of black players had, holding payroll constant, better on-field performance than other teams. This would then lend support to the hypothesis that salary discrimination does exist in English football. Preston and Szymanski (2000) extend this analysis, and find evidence that this discriminatory behaviour is not fan based (that is, customer discrimination), but rather is employer based. On a related issue, they also present evidence to show that blacks, on average, outperform whites, raising the possibility of entry discrimination.

Summary and Conclusions

The sports industry provides economists with an excellent forum in which to test for the presence of labour market discrimination. The availability of data in the industry, combined with the industry’s advanced level of racial integration, provides researchers with opportunities not found in other industries.

Because the volume of empirical studies in the area is so large and varied, definitive, across-the-board, generalisations and conclusions are not possible. Perhaps the most effective summary of the literature is that, while some researchers have found specific

evidence of discrimination, when one considers the overall body of literature, racial and ethnic discrimination does not appear to be a large-scale problem in the sports industry.

Notes

1. Kahn (1991) notes some of the problems with using productivity differentials as evidence of discrimination.
2. In a more recent study, Hanssen (1998) found similar results.
3. The causes of positional segregation, particularly as it relates to blacks being underrepresented at central positions, are a matter of some debate. Some argue that it is due to systemic beliefs in the industry that minorities are unqualified for 'leadership' positions. Others contend that discrimination occurs much earlier – in players' younger, developmental, years, and before the players have entered the labour market – where minorities are directed away from these positions.
4. McCormick and Tollison (2001), however, argue that the salary differentials are due to relative supplies and supply elasticity, and are not due to discriminatory behaviour.

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84 Gender discrimination

Brad R. Humphreys

A decade ago, Lawrence Kahn (1991), in a survey of discrimination in sports, observed: '[U]nlike black and white athletes, male and female athletes seldom work for the same employer in professional sports. Thus there are few opportunities in sports to study the issue of gender discrimination' (p. 412). Kahn was only partially correct in his assessment and sports have changed considerably in the intervening period. Even then, males and females were coaching both men's and women's sports teams at the collegiate level in the United States and male and female jockeys were competing for mounts and purses in thoroughbred horse races throughout the world. Since then women's team sports have become much more visible at the collegiate level and professional leagues have appeared in both basketball and soccer in North America and Europe. Gender equity issues at colleges and universities in the United States have become a prominent area of public policy debate. The landscape has changed dramatically in terms of the economic issues related to gender and discrimination.

Title IX of the Education Amendments of 1972 – a statute mandating equal opportunity for all individuals in federally funded educational activities passed in the United States – receives the lion's share of attention in the literature on gender discrimination in sports. Title IX prohibits discrimination on the basis of gender in any domestic educational programme or activity receiving assistance from the government of the United States. This regulation applies to secondary and post-secondary education. The statute increased female participation in athletics at secondary schools dramatically, and is widely viewed as successful and effective in this setting. The effect of Title IX on secondary school athletic programmes has received little attention in the sports and economics literature.

Title IX also applies to athletic programmes at colleges and universities, a much more prominent and interesting setting than secondary education. The effect of Title IX at the intercollegiate level has generated a considerable amount of attention in the sports and economics literature. Unlike the situation in secondary education, there is a considerable amount of disagreement about the effects of Title IX on post-secondary institutions of higher education. The regulation applies to three specific areas of intercollegiate athletics:

1. equal opportunity for females and males to participate in intercollegiate athletics;
2. equal access to athletic scholarships for female and male athletes; and
3. equal provision of practice time, support, travel, publicity and so on for female and male athletes.

Economists have examined Title IX from the perspectives of both economic theory and applied studies of economic policy. In both instances, the unintended consequences of Title IX – the effect of the regulation on opportunities for males in intercollegiate athletics – play a prominent role in the literature. Carroll and Humphreys (2000) developed a model of the behaviour of non-profit organisations under a regulation similar to Title IX,

where a utility-maximising athletic director who obtains utility from prestige, total budget and staff, is subjected to both a breakeven constraint and a constraint on resources devoted to men's and women's sports. This model predicts that athletic directors will oversupply men's sports in the absence of a Title IX like regulation, but in the presence of such a regulation the athletic director may either increase women's sports or decrease men's. This research highlights the unintended consequences inherent in gender regulations like Title IX, where the regulation requires equality in programmatic offerings or expenditure on both men's and women's sports.

In their empirical analysis, Carroll and Humphreys found that more prestigious athletic departments – those with high expenditure per male athlete, high expenditure per female athlete, or Division I football programme – were more likely to add women's sports and less likely to cut men's sports in response to Title IX, while larger institutions were more likely to cut men's sports. The results generally supported the assumption of prestige maximisation in modelling the behaviour of athletic directors and the existence of unintended consequences of the regulation.

This paper is the only attempt in the economics literature thus far to model the effects of Title IX on non-profit organisations. Clearly, additional theoretical work remains to be done in this area. Instead of revenue-maximising athletic directors, university decision makers could alternatively be modelled as revenue maximisers, income maximisers or as profit maximisers. All these approaches have been applied to the behaviour of non-profit organisations in other settings. Furthermore, a potentially interesting principal-agent relationship exists between the president of a university and the athletic director at a university. These two may have different objectives and face different constraints. Little attention has been paid to this interesting principal-agent relationship and the effect and effectiveness of Title IX in such a setting.

The body of empirical economic research on Title IX is large, but two important research questions remain unanswered in the literature at this time: (i) is there an economic basis for legislating equality of opportunity in intercollegiate athletics; and (ii) what was the overall impact of Title IX on opportunities in intercollegiate athletics for all college students. The first question has received almost no attention in the literature, and the single study bearing on this question contains no evidence supporting an economic basis for the statute. The second question has spawned a larger literature, but no consensus has emerged regarding the impact of Title IX on opportunities for male college students.

The economic basis for the statute, in the context of sport, lies in the lifetime benefits accruing to participants in intercollegiate athletics. By denying females equal participation in intercollegiate sports, colleges and universities restrict female access to a collegiate experience that would provide them with economic advantages in the labour market after graduation. According to this viewpoint, participation in intercollegiate athletics can be viewed as a form of human capital.

Given this economic rationale for the regulation, it is surprising that so little attention has been paid by economists to the key assumption underlying the statute. Does participation in intercollegiate athletics lead to any observable economic benefits to either males or females? These economic benefits might be detectable in three areas: increased academic success of participants in intercollegiate athletics, higher graduation rates and increased lifetime earnings. Of course, females experienced economic damages in the form of reduced access to athletic scholarships prior to the implementation of Title IX, but the

legislation has a much broader aim than simply equilibrating the number of athletic scholarships given to males and females on college campuses.

How large were the economic losses incurred by female undergraduates as a result of reduced access to intercollegiate athletics prior to the implementation of Title IX? This question gets to the heart of the economic basis for this statute. If there were no economic losses, in terms of lower lifetime earnings or reduced academic performance or graduation rates, associated with lower participation in intercollegiate athletics by females, then the primary economic losses would be only the consumption benefits associated with participation in intercollegiate athletics, the restricted access to athletic scholarships, and the benefits associated with improved health and well-being as a result of athletic participation. Arguably, the lost consumption benefits could be partially or fully mitigated by participation in athletics at the club or intramural level, and the health benefits could be partially or fully offset by physical education and co-educational access to fitness centres.

In the absence of benefits associated with earnings, academic achievement, or graduation rates, this leaves only lost access to athletic scholarships as the primary source of economic losses associated with reduced access by females to intercollegiate athletics. Athletic scholarships are important in that they reduce the cost of attending college to recipients and make it possible for some individuals to attend college who would not otherwise have been able to because of financial constraints.

But a great deal of financial aid was and is available to lower-income families, and the resources used implementing, enforcing and litigating Title IX could have alternatively financed a large number of need-based scholarships for females. Thus any economic justification for Title IX resides in the economic benefits – increased academic performance, graduation rates and lifetime earnings – flowing from increased participation in intercollegiate athletics.

No empirical research has attempted to estimate the economic losses experienced by female undergraduates as a result of reduced access to intercollegiate athletics before the passage of Title IX, or after for that matter. Surprisingly, there is very little empirical evidence that females benefit economically, in terms of higher earnings, from participation in intercollegiate athletics. To date, Long and Caudill (1991) have performed the only empirical study of the relationship between participation in intercollegiate athletics and earnings of male and female college students. This study examined a sample of 9787 individuals who were undergraduates in 1971, prior to the passage of Title IX. In this sample, 15 per cent of the males and 5 per cent of the females earned varsity letters – a measure of athletic success and not participation, although the only measure available in the data – while they were undergraduates. These individuals were surveyed in 1980, 6–9 years after graduation. Both the males and females who earned varsity letters had a greater probability of graduating from college, but males who earned varsity letters earned only 4 per cent more than males who did not and females who earned varsity letters had the same earnings as females who did not. There is no evidence that earning a varsity letter was associated with higher lifetime earnings for women.

This study has several important limitations. First, the students in the sample were undergraduates in the period prior to the passage and implementation of Title IX, so the results may reflect the adverse effects of reduced participation by females. Second, the 6–9-year period may not have been enough time for a significant difference in lifetime earnings to appear in the earnings of females, an effect that could be influenced by periods

spent out of the workforce by females in prime child-bearing and -rearing years. None the less, the study provides only limited support for an economic basis for Title IX.

Some ambiguity exists in the possible relationship between athletic participation and academic success. On the one hand, athletic participation takes time and could reduce time spent by participants on academics, leading to lower academic performance with athletic participation. On the other, participating in athletics may increase discipline, organisational skills and motivation, and thus lead to greater academic success. Also, time devoted to athletic participation may come from non-academic leisure time, not academic time.

Minimum grade point requirements for participation may also provide additional incentives for academic success to participants in intercollegiate athletics. But these requirements may induce athletes to take easier courses or choose easier majors to remain eligible to compete, complicating the observed relationship between academic success and participation.

It is also possible that participation in intercollegiate athletics leads to higher graduation rates. This is closely related to the link between academic performance and participation. Stronger students will have higher grades, complete more credits per semester, and be more likely to graduate in a timely fashion.

Because academic success is thought to be correlated with higher earnings, reduced participation in intercollegiate athletics would cause economic damage to females if participation is associated with greater academic success. The same argument holds for graduation rates, as higher educational attainment is also associated with higher earnings. What evidence supports the idea that participants in intercollegiate athletics have more academic success, or graduate at a higher rate, than other students?

Relatively little research has focused on the academic achievement of athletes, still fewer examine gender differences in academic performance among athletes. Lang and Rossi (1991) conducted a detailed analysis of the academic achievement of male and female college athletes. This study assembled a stratified random sample of about 80 athletes at 42 National Collegiate Athletic Association (NCAA) Division I institutions that was weighted to be representative of the 56 000 athletes at all Division I institutions. The study considered multiple measures of academic performance rather than a single measure like grade point average and compared the sample of athletes to a larger control group of non-athletes. The study found no evidence that participation in athletics was related to low academic performance, but both female and male athletes were less likely to be outstanding academic performers. Uptegrove et al. (1999) used the data collected by Lang and Rossi (1991) to further examine the effects of participation in intercollegiate athletics on academic performance. This comparative study of the academic performance of male athletes participating in football and basketball and female athletes participating in non-revenue sports found that male athletes were more likely than female athletes to repeat courses and be placed on academic probation. Additionally, male athletes had lower grade point averages than female athletes, even when ability and academic preparation were controlled for. Thus female athletes in non-revenue sports appear to perform better than male athletes who participate in revenue-generating sports, although it is not clear that female athletes perform better than the overall population of undergraduates.

Overall, the evidence that participation in intercollegiate athletics has a positive effect on academic performance or graduation rates is weak. Female athletes had higher graduation rates in several studies at individual institutions, but there is no evidence that

participating in intercollegiate athletics leads to greater academic performance among female athletes than in the larger student population.

The lack of evidence that participation in intercollegiate athletics increased the lifetime earnings of females prior to the imposition of Title IX, and the complete lack of research on the effect of participation on the lifetime earnings of females after the imposition of Title IX, coupled with the high profile of Title IX in the public policy arena, makes this a potentially fertile area for future economic research. Athletic departments at colleges and universities continue to cut men's athletic programmes and cite Title IX as the primary reason for these cuts, providing ammunition for those critics of Title IX who argue the regulation has important unintended consequences. If Title IX imposes large costs on these programmes, and leads to decreased access to intercollegiate athletics for men, then the economic basis for Title IX, and the assessment of the economic benefits accruing to women, needs additional study.

A considerable amount of economic research on Title IX has focused on the enforcement of the regulation and assessment of the degree of compliance with the statute. The dominant themes here have been the extent to which the unintended consequences of the regulation – the tendency of athletic departments to reduce opportunities for males rather than to increase opportunities for females to meet the requirements of the regulation – dominate the intended consequences, and the effect of big-time college football on compliance with the regulation. Football commands a considerable amount of attention because it has many more participants than other intercollegiate sports, has no counterpart female sport, and is the primary revenue-generating sport in most large athletic departments.

The large literature on compliance with and enforcement of Title IX encompasses many disciplines and contains a number of notable unresolved conflicts. Journals in economics, political science, sociology, law and sports management have published articles analysing, documenting and describing the implementation of the regulation and its enforcement. Zimbalist (1997) points out that the significant increase in participation by females came in the period following the passage of Title IX and that much of the litigation over the legal definition of compliance and the remedies for non-compliance has resulted in few additional gains, implying that much of the current debate misses the point, as the effects of the regulation have already been felt. Two other notable threads appear in the literature. The first is that the compliance measures adopted by the Office of Civil Rights (OCR) of the Department of Education (the US government agency that enforces Title IX) and upheld in subsequent court cases, contain important flaws. The second is that the presence of a big-time football programme complicates the issue of compliance with Title IX. Zimbalist surveyed the literature on compliance and enforcement of Title IX, and pointed out that the OCR uses three criteria to determine if an institution is in compliance with the regulation:

1. Does the institution provide participation opportunities for females and males that are 'substantially proportionate' to their enrolment rates in the student body?
2. Has the institution demonstrated a history and continuing pattern of programme expansion for females?
3. Does the institution 'fully and effectively' accommodate the interests of females?

These criteria are applied sequentially, and failure to meet at least one of the three typically results in economic sanctions against the institution. The criteria are also vague

enough to leave considerable room for interpretation, resulting in uneven application. In particular, the phrases 'substantially proportionate' in the first criterion and 'fully and effectively' in the third are not carefully defined and the 'continuing pattern of behaviour' mentioned in the second is an ambiguous concept. Despite these problems, assessing the degree of compliance at institutions with these criteria has been the focus of a considerable amount of research and a number of court cases.

Beyond Title IX, a small literature on comparative economic studies in intercollegiate athletics focused on gender discrimination on the earnings of coaches, including the earnings differential between male and female coaches and between the coaches of men's and women's teams, exists. Zimbalist (1999) discussed the economic issues underlying earnings gaps among male and female college coaches. Among college coaches, the males who coach men's football and basketball teams earn more than the males and females who coach other teams. Humphreys (2000) reported that the median women's basketball coach earned 55 per cent of the median men's basketball coach at large American colleges and universities in the early 1990s. Head coaches' salaries of less visible, non-revenue sports are much lower than the salaries of head basketball coaches. Humphreys also showed that female head coaches of women's basketball teams earned about 10 per cent more than males, even when ability, experience, revenue differences and differences in resources were accounted for. This is one of a very few occupations where females have been found to earn more than males, an unusual result.

There are a number of possible explanations for the observed earnings gap between football and men's basketball head coaches and other head coaches of intercollegiate sports teams. Zimbalist (1999) discusses a number of explanations for this earnings gap, including imperfections in the labour markets for college coaches, a lack of market pressures, and discrimination. Of course the revenues generated by football and men's basketball programmes at many universities justify some of this salary differential. Despite the large number of potential explanations for this earnings gap, the public policy implications of the large number of court cases in this area, and the increasing availability of data, this research question remains open and deserves more attention from economists.

Outside the arena of intercollegiate athletics in American institutions of higher education, gender discrimination in sport has received relatively little attention from economists, with two notable exceptions. Ray and Grimes (1993) examined compensation of male and female jockeys in thoroughbred horse racing in the United States – a major sport where males and females compete against each other. This research showed that male jockeys ride in twice the number of races than female jockeys but win nine times the purse money claimed by female jockeys. This paper contains strong evidence that – at least in thoroughbred horse racing – female athletes face significant gender discrimination. The recent explosion of women's professional sports leagues around the world will provide settings for other similar studies in the future.

In a recent study, Klein (2002) showed that the performance of a country's female athletes in international competitions like the Olympic Games also reflects the relative degree of female participation in labour markets in countries, even after controlling for the effects of population and economic conditions on the performance. This paper points out a deeper relationship between success in sporting events and wider economic opportunities for females that deserves further attention from economists.

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85 Doping

Nicolas Eber

Doping in sports has a long history. First instances were recorded in the third century BC at the ancient Olympic Games. In modern times, especially since the Second World War, doping has developed considerably with a spectacular surge in revealed cases in the late 1990s.

As is well known, a first difficult problem with doping lies in its very definition. Although the general but fuzzy definition is evidently that doping is 'the use of performance-enhancing drugs in sports', more specific and *operational* definitions are needed, especially for obvious legal reasons. The first 'institutional', legal, definition of doping is due to the European Parliament, which, in 1963, defined doping as 'the administration or use of exogenous substances in an abnormal form or way to healthy persons where the only goal is to achieve an artificial and unfair improvement of the performance of the athlete'. The International Olympic Committee's (IOC) initial definition was that 'doping is the use of substances made of prohibited active ingredient groups and the utilisation of prohibited methods. A list follows'. The IOC's current definition of doping refers to the 'use or attempted use of a prohibited substance or a prohibited method', both being specified in a so-called 'Prohibited List'. The IOC's definitions clearly refer to the regulatory framework systematically used nowadays, namely the 'negative-list system'.

There are several problems with each definition. As for the definition of the European Parliament, according to which doping is a medical treatment that is not needed to serve health but rather intended solely to enhance performance, it is very difficult (if not impossible) to make a clear frontier between health and ability to perform. As for the definitions of the IOC, based on the negative list, the main problem resides in the general principle on which they are built, namely that anything not yet banned is legal. This principle is problematic both in theory and in practice, especially because it leads to an endless cat-and-mouse game between sports regulators and drug developers.

The surge in cases revealed in the late 1990s shows the limits of the negative-list system to discourage doping. According to Bird and Wagner (1997), the negative-list system is inefficient for at least three reasons. First, the negative list tacitly encourages doping. Indeed, the list advertises the drugs that seem to work and, since any athlete under the (generally quite generous) limit is considered as not violating the rules, competition incites athletes to use the drugs up to the limit. Second, as mentioned above, the principle that 'anything not yet banned is legal' encourages the development of new drugs. Third, the enforcement of the negative list implies that disputes are removed from the field of play and are resolved in a profoundly unsporting way.

According to these arguments, the traditional, purely medical, analyses of doping are insufficient. In particular, an economic analysis of the phenomenon should be of considerable interest, given the economic stakes in modern competitive sports and the obvious economic dimension in doping behaviour of athletes.¹ Several authors have recently analysed doping in sports with an economic focus. Two analytical tools have been

employed. The vast majority of articles use game theoretical arguments to explain the doping phenomenon as resulting from the strategic interaction between competing athletes. Another approach relies on the 'crime economics' literature, which views doping as an illegal activity, involving a choice based on a cost–benefit calculation by athletes. Whatever the framework, the structure of the analysis is always the same: a model of doping behaviour (generally, in game theoretical terms) is laid out, from which propositions to deter athletes from doping are then derived.

The aim of this chapter is to survey the economic literature on doping in sports. First, the different models of doping behaviour are described, distinguishing the game theoretical and the crime economics approaches. Second, the economic analysis of the anti-doping fight is surveyed. The final section concludes with a special focus on the relevance of an economic (versus medical) approach of doping.

The Economic Analysis of Doping Behaviour

As noted in the introduction, game theory has proved to be the natural tool to examine doping as an economic behaviour. Indeed, most papers use this approach. There is, however, another (complementary) approach, namely the 'crime economics' approach.

The game theoretical approach

The key idea of the game theoretical approach is that doping in sports is something like a prisoner's dilemma (Breivik, 1987; Eber and Thépot, 1999; Haugen, 2004). This idea is very simple. Assume two athletes, A and B,² with identical physical abilities and preferences.³ The typical extensive form game is in four stages. At stage 1, each athlete chooses to dope (*D*) or not to dope (*ND*). At stage 2, the season is played. At stage 3, athletes are controlled for doping use, with a positive probability of being caught. At stage 4, the prizes for all the season are delivered. If an athlete is caught by a doping test, he/she is banned and not paid for any of the events. In the case where only one athlete is caught, he/she is disqualified and his/her competitor is then awarded all the prizes allocated to the winner (that is, as if he/she had won all the events). If their situation is equal (that is, if they are both doped or both not doped), the athletes are assumed to share the market, each winning half of the events. However, if one athlete is doped while the other is not, he/she will certainly win all the events.

In this context, the game can easily be put under normal form and the strategies of the athletes be reduced to choosing between *D* and *ND*, in the first stage. Then, the typical doping game may be represented as in Table 85.1.

As shown in detail in Eber and Thépot (1999), the solution of the game depends on several parameters, especially the range of prizes, the number of events during the season, the probability of being caught by a test and the perceived cost of doping.⁴ Specifically, the incentives to use doping increase *ceteris paribus* when:

1. *The spread of the prizes between a first and a second place increases.* The larger the difference between the rewards for the winner and the loser, the higher the gain from switching from a second to a first place and, hence, from using drugs. Of course, the ongoing trend towards higher prizes and higher salaries for top-level athletes is frequently mentioned as a driving force behind the recent surge in doping cases. However, the analysis suggests that the important effect does not deal with absolute

Table 85.1 Athletes' payoffs from the doping game

Athlete B \ Athlete A	<i>D</i>	<i>ND</i>
<i>D</i>	A wins half of the events but incurs a cost for his/her health and the risk of being caught by a test B wins half of the events but incurs a cost for his/her health and the risk of being caught by a test	A wins all the events (but incurs a cost for his/her health and the risk of being caught by a test) B is always second
<i>ND</i>	A is always second B wins all the events (but incurs a cost for his/her health and the risk of being caught by a test)	A wins half of the events B wins half of the events

values of the prizes but instead with the spread of prizes between the winner and the loser.

2. *The number of events during the season increases* *Ceteris paribus*, an increase in the number of events strengthens athletes' incentives to use doping: returns from competition are increasing with the number of events while the cost of doping is constant. To some extent, this can be identified as 'increasing returns to scale' from doping.
3. *The probability of being caught by a test decreases* A less efficient test system lowers the risk for a doped athlete to be caught and, hence, the global expected costs of doping use. Hence, the rise in the incentives to doping.
4. *The perceived health cost decreases* When the athlete perceives lower costs from using drugs, he/she is obviously more prone to do it. Prevention should consequently have an important role in the anti-doping policies.

For some parameters, Table 85.1 features a prisoner's dilemma-type game. In that case, the no-doping situation is unstable. Indeed, if both athletes start from the no-doping situation, each one has an interest in switching to doping since it will ensure that he/she will win all the events (instead of winning only half of them if he/she continues to not take drugs). Expecting this behaviour from his/her competitor, the other athlete also has an interest in choosing to take drugs because, in doing so, he/she will be able to share the honours with his/her (doped) competitor rather than being always second if he/she does not take drugs. In such a prisoner's dilemma configuration, the potential gain from using drugs *unilaterally* outweighs the costs. Although each athlete would be better off in a completely undoped world, each one finds it optimal to use doping given that his/her competitor does not. Doping is here a dominating strategy, which results in a preferred outcome regardless of the strategy used by the competitor. In game theory terms, it means that the only Nash equilibrium of the game is then (*D*, *D*), each athlete choosing to take drugs.

Note that the way athletes perceive and value the benefits and the costs of doping has a key influence on the way they behave in the doping game. As put forward by Breivik

(1987, 1992), the system of values among top-level athletes is crucial for explaining how they play the doping game. In particular, fairness-orientated athletes will value far less the gains and far more the costs of doping while winner-orientated athletes will perceive the game differently and will be more prone to take drugs, *ceteris paribus*.

There are two straightforward extensions of this basic prisoner's dilemma story. First, it can be generalised to more than two athletes, thus becoming a standard common resource property dilemma (Bird and Wagner, 1997). The key idea is the same: regardless of the number of other athletes who take drugs, the athlete with strong tastes for victory will find doping optimal; yet, if all athletes dope, they all bear negative health consequences with no significant changes in each one's odds of victory.

The second possible extension deals with the repetition of the basic prisoner's dilemma game. In such a dynamic game, punishments, reputation effects or information-gathering aspects would play a key role and lead to several specific effects, such as something like an 'end-of-career effect'. Indeed, it may be more difficult to find incentives and credible punishments for athletes at the end of their career since they are very close to the end of the game. Such athletes will not suffer from a ban as strongly as young athletes for whom a two-year ban could be particularly disadvantageous.⁵

A more general game theoretical model has been proposed by Berentsen (2002),⁶ who shows that the prisoner's dilemma nature of the doping game is strongly linked to the assumption that athletes are equally matched. Specifically, Berentsen analyses the more general case where athletes do not necessarily have identical physical abilities. In such a case, the game is no longer a prisoner's dilemma, but has an equilibrium in mixed strategies with unexpected properties. In particular, the favourite (more talented) player is more likely to take drugs than is the underdog, yet, for some parameter values, he/she is less likely to win with doping opportunities than without.

The 'crime economics' approach

Another approach relies on the 'crime economics' literature.⁷ This approach views doping as an illegal activity, involving a rational choice based on a cost–benefit calculation by athletes (Bourg, 2000; Maennig, 2002).

Let us adopt the presentation of Maennig (2002). Consider a representative athlete. Let $E(U)$ be his/her expected *net* utility from doping. This utility may include both pecuniary and non-pecuniary components. More specifically, expected benefits from doping include more sporting honours and a higher income, while expected costs include the direct costs (for example, for the procurement and application of the drugs), the possible loss of honour on discovery, expected financial losses resulting from financial penalties or from being barred from sporting competitions in the event of being caught and other costs such as health risks. Let D be the individual disutility from doping; typically, the key determinant of D is the 'moral', ethical, values of the athlete. The athlete will dope if $E(U) > D$, that is, when the net utility from doping crosses a certain moral threshold.

This very simple approach leads to interesting comments and conclusions. First, the variables represent *perceived* values that may be different across individuals and periods. Accordingly, individually differing variables such as intelligence, gender, age, education, culture, wealth, or family background are implicitly included in the explanation of whether an individual has recourse to doping.⁸ For example, assume that all individuals have equal legal and illegal opportunities and also expect to incur equal penalties and

efforts. Then, the level of doping will be determined by the distribution of ethical values in the population of athletes. In this respect, the recent growth in doping could be attributed to 'moral' factors, namely to a shift in athletes' ethical values towards a more general acceptance of doping.

A second comment deals with the economic incentives of doping. Basically, we get the same results as from the game theoretical approach. In particular, rising prize moneys and marketing incomes obviously leads to an increase in the expected net utility from doping and, hence, to more doping *ceteris paribus*, that is, for a constant environment.

Third, although the structure of the athletes' implicit calculation is invariant, the expected benefits and costs elements may be significantly different across sports. More 'physical' sports, especially sports involving stamina and endurance (cycling, track and field, weightlifting and so on), offer larger returns to doping and are more likely to be 'contaminated'. We shall return to this argument in the conclusion where we shall see that the few available empirical figures seem to confirm it.

The crime economics approach of doping is a very simple framework whose main interest is to focus the analysis on the very decision of to take drugs, taking into account that it is a special economic decision in that doping deals with an illicit ('criminal') behaviour. It has, however, a major drawback, namely not to account explicitly for the strategic aspects of doping. Indeed, as the game theoretical approach highlights so well, people involved in drug taking are in a *competitive* world where strategic interactions among athletes are crucial.

The Economic Analysis of the Anti-doping Fight

Doping in sports involves negative external effects that may justify the intervention of authorities. Starting from their analysis of doping behaviour, economists have proposed solutions to improve the efficiency of the fight against doping. Many of the propositions rely (somewhat trivially) on reducing directly the economic incentives to doping. Other approaches are subtler and rest on encouraging the development of norms against unfair use of drugs. Finally, the role of the World Anti-Doping Agency may also be envisaged from an economic perspective.

The justification of an anti-doping regulation

An essential question is whether fighting against doping is socially desirable. The usual answer is yes because doping involves negative external effects. Preston and Szymanski (2003, 616) enumerate four main effects: 1) it is damaging to athletes' health; 2) it gives doped athletes an unfair advantage; 3) it undermines interest in the sport; 4) it undermines the reputation of a sport. However, each of these arguments is potentially problematic. The health argument is highly slippery. For some doctors, what is damaging to athletes' health is not doping but the very practice of high-level sports. In this perspective, doping could even be viewed as a legitimate mean for athletes to reach the biological balance of their body and would in fact lower the health dangers associated with practising high-level sports! The unfair-advantage argument is also debatable. Indeed, sport itself is not fair, some participants having better natural abilities, better coaching, and so on, and unequal access to performance-enhancing drugs and to doping methods clearly intensifies the inequality between athletes. As noted by Preston and Szymanski (2003, 616) 'if doping were legal, all athletes could do it, and therefore it is hard to see what would be unfair

about it'. As for the last two arguments, even if they are perhaps the more 'convincing' according to Preston and Szymanski, it is not clear to what extent the interest for and/or the reputation of a sport would be improved if the spectators were sure that athletes do not take drugs.

At a more philosophical level, it is sometimes even argued that performance-enhancing drugs should be allowed for athletes as it is allowed for musicians, politicians and so on.⁹ Manifestly, the frontiers of doping are fuzzy. For instance, for Savulescu et al. (2004, 668), 'there is no difference between elevating your blood count by altitude training, by using a hypoxic air machine or by taking EPO, but the last is illegal'. According to them, performance enhancement is the spirit of sport and we should therefore embrace drugs in sport rather than fearing them. For these authors, the focus should be on athletes' health and fitness to compete rather than on testing for drug use: 'what matters is what is a safe level of growth hormone – not whether that is natural or artificial'. In other words, detecting unsafe drugs is important because they are harmful not because they enhance performance. Moreover, they argue that, paradoxically, allowing performance-enhancing drugs in sport may protect athletes because it would allow to switch from the current situation where the incentives are to develop undetectable drugs with little concern for safety to a new regime where the pressure would be to develop safe drugs.

To sum up, the question of why doping should be fought is a very serious and difficult one. Now, if we assume that the fight against doping is socially desirable, another problem arises, namely that of the optimal level of the anti-doping fight. For doping as well as for other illicit activities, social welfare is not maximized by minimizing only the social costs of crime. Indeed, the fight against doping is very expensive.¹⁰ Obviously, social welfare in sports will be maximized by minimizing the social costs of doping *plus* the social costs of the fight against doping (tests, law enforcement and so on). Accordingly, the social objective may not be to reduce doping to zero, given that excessively high costs would result.

Reducing the economic incentives to doping

From the economic analyses of the doping behaviour, the fight against doping should obviously be organised so as to lower the athletes' economic incentives to use drugs. It deals with both lowering the gains from doping (for instance, by reducing the spread of the prizes between a first and a second place and/or by reducing the number of events) and increasing the costs (for instance, by increasing the financial penalties).

Several authors put forward solutions specifically designed to reduce the economic incentives to doping. Eber and Thépot (1999) argue that what is needed is a *global* reform of the competitive sports encompassing lower spreads in the prizes from events, fewer events during the season,¹¹ an improvement of the test system and more prevention.¹² According to Maennig (2002), the crucial point is to increase the expected costs of doping and the simpler and more effective way to do that is to increase the financial penalties.¹³ As for Berentsen (2002), he proposes a new, ranking-based, punishment scheme: in his two-athlete model, the winner risks a sanction S_1 , the loser a sanction S_2 , with $S_1 > S_2$.¹⁴ Berensten shows that this ranking-based punishment scheme is more effective than the IOC sanction scheme because it makes it easier and cheaper (fewer tests) to reach the no-doping equilibrium.

Of course, all these solutions, based on the basic idea of reducing directly the economic incentives to doping, may be very difficult to implement and probably insufficient

to deter athletes from using drugs. Indeed, the key determinants of the doping behaviour are not the economic incentives in themselves but rather the way athletes perceive them, that is, athletes' values and, more generally, the social norms shared by athletes as a community.

Encouraging the development of athletic norms against doping

According to Bird and Wagner (1997), informal self-enforcement institutions, such as the development of social norms of fair competition, would be far more efficient at controlling the doping behaviour than formal regulatory measures. In other words, what is fundamentally needed is a change in athletes' system of preferences with the development of athletic norms against doping.

This principle leads Bird and Wagner to propose a new, very original, system that they call the 'drug diary system'. This system relies on the principle that no drugs would be explicitly forbidden but that athletes are obliged to publish a 'drug diary' in which they record all the drugs they take. Doping would then be defined as the secret use of any undeclared drug (including 'harmless' drugs). The athletes are randomly tested for substances not mentioned in the diary. If a substance not mentioned is found, the athlete is considered as 'doped' and is then sanctioned. In that system, the definition of doping becomes a matter for each athlete: as noted by Bird and Wagner (p. 757), 'the term doping would now refer not to the use of a drug on a negative list but to any drug used in secret'. In fact, the use of any drug to increase performance in such a way that athletes would be ashamed to admit it is classified as doping.

According to Bird and Wagner, this system has several virtues. Generally speaking, it encourages honesty, transparency and equal access to doping, that is, the development of athletic norms against unfair use of drugs. Moreover, it allows us to solve the three problems of the negative-list system mentioned in the introduction. First, it no longer advertises drugs. Second, it does not encourage the development of new drugs, since no substances are forbidden. Third, the system may be implemented by the athletes themselves.

Indeed, Bird and Wagner also propose a collegial enforcement system according to which any two athletes who are currently registered by the sports association are allowed to demand a drug diary test of any third registered athlete. The test could be demanded at any time and there would be sanctions for false accusations in order to prevent frivolous challenges intended only to impeach other competitors. According to Bird and Wagner (p. 759), 'a system in which athletes are allowed to challenge one another's integrity in public creates a situation in which mutual trust and respect are beneficial'. Thus, the collegial enforcement system may strongly encourage the development of internalised norms of fair competition.

Finally, a drug diary system enforced by the athletes themselves should lead to the development of social norms of fair competition among athletes that is actually 'the only real hope for ending the practice of doping' (p. 755). Although the theoretical arguments of Bird and Wagner are appealing, there are obvious practical limits to their propositions.¹⁵ In particular, the drug diary system becomes profoundly unfair as soon as athletes have different ethical values with respect to doping. In other words, the system could be efficient only if all the athletes share the same values. If this is not the case, the system 'certifies' an athlete who chooses to use all the possible performance-enhancing drugs and who has the 'courage' to declare or even claim it. Thus, the system would favour

unscrupulous people who cynically declare the use of performance-enhancing drugs, to the detriment of both dope-free athletes and doped athletes who do not want to claim the use of drugs. As for the collegial enforcement system, it rests on suspicion and informing and this seems far from the fair-play norms put forward by Bird and Wagner.

In a somewhat similar vein, other authors have focused on the key role of athletes' values. Starting from the game theoretical analysis of doping and from a field study on Norwegian athletes, Tangen and Breivik (2001) classify different types of athletes. They show that two types of athletes with winner-orientated preference systems, based on a Lombardian¹⁶ or Machiavellian ethic, were willing to dope and actually used doping means to a much greater extent than fairness-orientated, Coubertinian, athletes and process-orientated, Naessian, athletes. The authors conclude that 'sport ethos preference rankings and available strategies are important predictors of doping behaviour'. This type of study is particularly promising: it offers empirical insights to the general (but finally crucial) principle, put forward by Breivik (1992), and according to which what is fundamentally needed is the development among top-level athletes of a new system of preferences based on fairness-orientated values. In this respect, placing more emphasis during the education of athletes on the pleasure in attaining one's goals, the joy of an honest victory, and so forth, is crucial (Bourg, 2000, p. 176).¹⁷

The role of the World Anti-Doping Agency (WADA)

The role of the WADA is crucial in the fight against doping. The very nature and functioning of this institution may also be viewed as an economic problem because the underlying stakes are economic in nature. More specifically, Eber (2002) draws a (somewhat curious) parallel between the WADA and a central bank. Indeed, the anti-doping policy faces a credibility problem very similar to that identified for the conduct of the monetary policy. From the literature on monetary policy, it is well known that public authorities lack credibility in the fight against inflation because of their short-term incentive to reduce unemployment. Eber argues that, in a very similar vein, institutions like sports federations or the IOC may lack credibility in their actions against doping in sport. The reason is that such institutions may find it optimal to slacken their anti-doping policy in order to preserve stars from disqualification and, hence, to preserve the economic value of the professional sport shows. If athletes form rational expectations about the anti-doping effort by the anti-doping authorities, they understand this 'low-effort bias', expect a low level of effort and, finally, choose a high level of doping.

The solution to restore the credibility of the monetary policy has been identified as granting a real independence to the central bank. Similarly, the solution to make the fight against doping credible rests on WADA, as established on 10 November 1999 in Lausanne under the initiative of the IOC, but only if this agency is really *independent* of the federations and of the IOC itself. Indeed, only an independent institution can be credible in the fight against doping, provided that its president has either a very strong aversion to doping or a wage contract which incites him/her to implement the announced level of effort.

The problem is that WADA is a product of the IOC and is probably far from being independent of it. Thus, WADA may be tempted to slacken its anti-doping effort when confronted with doping affairs in order to preserve the economic value of sporting spectacles (for example, of the Olympic Games organised by the IOC). In sum, WADA needs to be strictly separated from the IOC if it is to be seen as independent and credible. In this

respect, the fact that, by international agreement, national governments agreed to fund its activities (in place of the IOC) is clearly good news.

Conclusion

The economic stakes in modern competitive sports and the economic nature of the decisions made by different agents (such as athletes and WADA) legitimise an economic analysis of doping that could be a useful complement to the other approaches of the problem (medical, legal, ethical and so on).

However, this point is itself debatable. According to some doctors, what is harmful for health is not doping in itself but rather high-level sports. In fact, elite sports have become physically more demanding and potentially health damaging. Many top-level athletes suffer from important problems (such as hormonal imbalance and sports traumas) for which medical support is needed. In this respect, athletes would need doping to 'survive': it would allow a biological balance of the athlete's body and would therefore reduce the danger of practising high-level sports! In such a vision, doping becomes a purely medical issue. Of course, the question of equity (fair play) between athletes remains. But the problem is no longer how to deter athletes from doping but instead how to guarantee equal access to drugs for all athletes.

At first glance, the few empirical figures available on doping may seem to favour this purely medical approach. Available figures on the rate of offences are reported in Table 85.2.¹⁸

According to the table, the key determinant of the doping rates seems to be the physical nature of the sport rather than the economic stakes. Doping is high in very physical sports with relatively low financial stakes (weightlifting, triathlon) and lower in more technical sports with very high financial stakes (football, tennis). However, such a conclusion does not contradict the economic analysis of the doping behaviour. As noted above, the returns to doping are higher for physical sports so it is not surprising to find higher doping levels in these sports. Thus, the figures in Table 85.2 do not necessarily contradict the general idea that doping is primarily a rational, 'economic', behaviour and, hence, an actual (though very difficult) economic issue.

Table 85.2 *Categorisation of sports according to the percentage of positive cases*

Sport	Positive cases (%)			
	>4	2.5–4	1.5–2.5	<1.5
Individual	Cycling Boxing Weightlifting Powerlifting	Athletics Triathlon	Swimming Skiing Rowing Judo	Tennis Badminton
Team		Ice Hockey Rugby	Basketball Handball	Football Volleyball

Source: KPMG (2002) 'Aren't we all positive? A (socio) economic analysis of doping in elite sport', Report for the European Commission (Directorate-General of Education and Culture Section Sport), p. 87, http://europa.eu.int/comm/sport/action_sports/dopage/studies-reports/2002-study-socioeconomic_en.pdf.

Notes

1. We shall return to this somewhat debatable point in the conclusion. In fact, some doctors seem to think that doping may be necessary for athletes to support the increasing physical pressure of elite sports and, hence, that doping is ultimately a purely medical issue. At least until the conclusion, we shall of course consider that an economic analysis of doping may have some relevance.
2. The two-player model fits duel sports (boxing, tennis, etc.) well. It also applies to team sports (where the decision of the team manager is whether to dope or not his/her team) and to other individual sports such as cycling or athletics when dominated by two clear leaders. The model can easily be generalised to more than two athletes (see Bird and Wagner, 1997).
3. The implications of heterogeneous physical abilities are carefully studied by Berentsen (2002).
4. Another important factor is athletes' risk aversion: *ceteris paribus*, it is all the more difficult to deter athletes from doping as they have less aversion to risk.
5. Of course, this end-of-career problem may be spectacularly illustrated by recent positive cases concerning older athletes, such as sprinters Linford Christie and Merlene Ottey, or the long-distance runner Dieter Baumann.
6. Berentsen and Lengwiler (2004) have recently developed Berentsen's (2002) model. In particular, they define a general class of games called 'doping games' that fit well not only the use of performance-enhancing drugs in sports but also other illicit activities such as fraudulent accounting.
7. The seminal article of this literature is by Becker (1968).
8. In this respect, Maennig (2002, p. 63) quotes Becker (1968, p. 176): 'Some persons become "criminals", therefore, not because their basic motivation differs from that of other persons, but because their benefits and costs differ'.
9. For example, classical musicians commonly use drugs (beta blockers) to control their stage fright and it has been shown that they actually improve their musical performance when they take these drugs.
10. It is of course difficult to give a relevant estimation. However, a number of recently published figures provide some indications. For the year 2000, WADA had at its disposal a budget of \$2 500 000 for anti-doping tests, from which a total of 5500 tests were financed. With the rate of positive cases of about 0.5 per cent announced by WADA (corresponding approximately to 27 cases), we get a cost of at least \$93 000 per doped athlete caught (Maennig, 2002, p. 65)!
11. Note that, in France, one of the recent changes (enacted in 1999) in the general sports law is that 'sports federations must each year publish an official calendar that allows sufficient recovery time for athletes in order to protect their health'.
12. They note (p. 445) that, with respect to their analysis, tennis is a good illustrative example: 'the ATP has designed the worst package, with a small probability that a doped athlete will be caught by a test (few tests), a large number of events (never-ending season) and a huge spread of prizes (in Grand Slam tournaments, the winner earns twice as much as the finalist). One may suspect that (as rumoured) incentives to dope are strong in this sport'.
13. Note that, in 1999, the IOC proposed penalty schemes including fines up to US\$100 000.
14. The IOC punishment scheme is not ranking based, so $S_1 = S_2$.
15. Bird and Wagner (1997, pp. 761–3) give indirect empirical evidence that the development of norms may be powerful. They note that, in golf, norms of conduct (called 'gamesmanship') successfully enforce many rules regulating unobservable aspects of play.
16. In reference to Vince Lombardi, the famously tough football coach, to whom has been attributed the well-known quote 'winning isn't everything, it's the only thing'.
17. Unfortunately, it seems that there is a long road ahead. In 1995, Chicago physician and author Bob Goldman surveyed 198 US top-level athletes on the following question: 'You are offered a performance-enhancing substance, with two guarantees: (1) You will not be caught. (2) You will win every competition you enter for the next five years, and then you will die from the side effects of the substance. Would you take it?'. More than half of the respondents (52%) answered yes!
18. Note that, according to the statistics of the IOC, the total rate of positive cases (for all sports) is about 1.6 per cent.

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86 Corruption

Wolfgang Maennig

Corruption is no new phenomenon in international sports. In the first documented case, the athlete Eupolos of Thessalia bribed three of his competitors in the fist-fighting tournament at the Olympic Games of AD 388, among them the reigning Olympic champion Phormion of Halikarnassos. The next documented case is from AD 332, at the 112th Olympics, where Kallippos of Athens tried to buy the victory in the pentathlon. The case of Damonikos of Elis is also worth reporting here, because it is an instance of bribery undertaken by a non-athlete. In AD 12, Damonikos, father of the Olympic wrestler Polyktor, tried to bribe Sosandors, in order for him to persuade his homonymous son to concede victory in the Olympic wrestling competition to Polyktor. In sum, a handful of cases of corruption in the ancient Olympic Games, which were held over a period of about a thousand years, are documented. Nevertheless, according to the account of Philostratos, corruption seemed to be quite widespread in contemporary sports, at least outside of the ancient Olympics.

In modern sports there are a number of well-documented cases of corruption such as the college basketball scandal in the United States in 1951, the scandal in the German Bundesliga in 1971 and in 2005 concerning corrupt athletes and officials, the performance of the umpires in the boxing final (under 71 kg) of the Seoul Olympics in 1988, and the case of the International Olympic Committee (IOC) in 1998/99, concentrated, albeit not exclusively, around the bidding process for the Olympic Winter Games of 2002 in Salt Lake City, USA.¹

In addition there have also been accusations of corruption in the case of the bidding process for the soccer World Championship 2006, where Bayern München and the German national team were willing to arrange 'friendship matches' with teams of selected FIFA Member States which had a delegate in the decision body. In the last case, those responsible rejected the accusations with the argument that arranging friendship games is common practice and does not infringe any of the FIFA rules, as well as stating that no money was ever given to delegates or their federations.

The last case points to a first preliminary note, namely that it is difficult to provide a clear definition of what constitutes corruption. The concept of corruption is interpreted differently from nation to nation and from continent to continent; there are different types and degrees that need to be analysed in a differentiated way. In the following analysis, corruption is described as the use of a position by its occupant in such a way as to fulfil the tasks required of the occupant by the employing institution in a manner consciously at variance with the objectives of that institution; such activity results from a desire for advantages for the position's occupant (or, if that occupant is acting as principal agent, for acquaintances, relatives, associated organisations, parties or nations) from the person or institution benefiting from the actions.

As a second preliminary note, corruption is present in all walks of life and it is almost impossible to exaggerate its extent. Set against this background, its extent in sports seems

to pale: for example, after intensive investigations just under 10 per cent of the IOC members received a warning or punishment; the vast majority of the members were considered to have behaved correctly.

Third, it is noticeable that – in spite of the obviously high degree of economic determination of the problems – in all cases relatively little use has so far been made of economic instruments during the elaboration of countermeasures. The usual, most prominent reactions were bans for officials and/or athletes, for a limited time or for life. These bans were accommodated by other policy measures, for example, in the case of the IOC scandal, membership in the IOC was limited to eight years (with the possibility of re-election), the age limit was lowered to 70, the host-city election procedure was overhauled to ensure that only cities adequately prepared would be authorised to go forward into the full bidding process, and there is now a ban on members travelling to the applicant cities. Furthermore, since 2003, the IOC ethics code now also applies to bidding cities.

Most of the cases mentioned above, including the one of the IOC, are good ones to show that although the sports federations in general underwent transformations in a short time which would seem almost impossible for any other comparable national or international organisation, the measures might be criticised and enhanced from an economic point of view.

Supply of Corruption

According to the classical approach as elaborated by Becker (1968), corruption (and any other intentional or negligent perpetration of an illicit activity) can generally be regarded as a choice made by an individual in the face of a number of legal and illegal alternatives for action, whereby the course of action is chosen which promises the greatest expected net utility for the individual at the time of deciding. A microeconomic modelling which regards the individual's weighing of the alternatives of illicit behaviour and legal activity as an optimisation of behaviour under specific given constraints makes it possible simultaneously to take into account such apparently fundamentally different behavioural determinants as additional income, reputation effects and moral qualms. Within the framework of this model, the rational calculation can be based on the assessment of the corresponding net utility (Maennig, 2002):

$$E(U_i^n) = (1 - p_i)[U_i(p_j Y_i - DC_i - POC_i) + p_j NPB_i - NOC_i] + p_i[U_i(-F_i - DC_i - POC_i) - LR_i - NOC_i], \quad (86.1)$$

where $E(U_i^n)$, the expected net utility of corruption, is equal to the difference of gross utility in the case of not being detected, convicted and punished² (the expression in brackets after $(1 - p_i)$) and the gross (dis)utility in the case of conviction (expression in the brackets after p_i). p_i is the probability of timely detection and conviction with $0 \leq p_i \leq 1$. 'Timely' is important in this context. Corruption was detected for the Winter Games of 2002 – but too late. This meant that Salt Lake City nevertheless enjoyed all the gross benefits associated with the Games. p_j is the probability of 'success' of corruption with $0 \leq p_j \leq 1$. For example, in the case of corruption in the IOC, because of secret voting, the briber could not be absolutely sure that the recipient would vote for him/her – and that enough other members would vote for him/her to reach the necessary majority. As long

as the briber cannot fully control his/her success, $p_j < 1$. p_j might be positively influenced by affording higher DC_i (paying higher bribes). U_i is the utility function of the individual, Y_i the (present value of) gross pecuniary income from 'successful' cheating, and DC_i the direct cost for the preparation and realisation of corruption, including the bribes and the costs of self-protection to escape. POC_i are the individual's or institution's pecuniary opportunity costs, that is, the pecuniary income of a legal behaviour which has to be abandoned on the occasion of illicit behaviour. NOC_i is the corresponding non-pecuniary opportunity cost. For example, a well-trained team will have significant pecuniary and non-pecuniary benefits from training and competing even without corruption. For a correct optimisation of behaviour within a with-and-without analysis, the net 'fair-play' utility from price moneys and honours (minus the costs in the form of the efforts of this strategy) have to be subtracted from the expected gross utility of illicit behaviour in both cases, that is, conviction and non-conviction. NPB_i is the non-pecuniary utility from the illicit behaviour. F_i is the level of the financial penalty or the financial loss, for example arising in the case of limited competition bans in the form of lost starting and prize moneys as well as reduced sponsoring incomes. LR_i is the loss of utility in the form of reputation in the case of conviction.

Illicit behaviour will come about, however, when the total expected net utility exceeds the individual disutility or non-pecuniary cost from illicit behaviour NPC_i because of moral values and the like. But as is true for all the other determinants in (86.1), these perceived disutilities may have different sizes for different individuals.

The individual or institution will only behave illicitly, if :

$$E(U_i^m) > NPC_i, \quad (86.2)$$

that is, when the net utility crosses a certain moral threshold. Equation (86.1) and (86.2) help us to understand why under equal conditions some individuals or institutions behave in a corrupt way, while others refrain from such activity. Thus for example an individual who is less educated and talented (and who hence has lower opportunity costs), is more likely, *ceteris paribus*, to choose corruption. Individuals or institutions with extensive moral qualms, that is, greater NPC_i , reject illegal behaviour across a greater range of realisations of the other variables.

The variables do not necessarily represent objective data, but rather the perceived values, which may be subject to individual distortion. Hence, according to economic calculations, individually differing variables such as intelligence, age, education, wealth and family background are included in the explanation of whether an individual has recourse to corruption: 'Some persons become "criminals", therefore, not because their basic motivation differs from that of other persons, but because their (perceived) benefits and costs differ' (Becker, 1968, 176).

Finally it should also be noted that the corruptive action takes place only if the above described calculation is positive for a briber and a recipient. The fact that two persons or institutions have to hope for advantages makes corruption different from many other forms of delinquent behaviour.

It is straightforward to aggregate the microeconomic calculus of from (86.1) and (86.2) into a macroeconomic 'supply' of corruption during a given period. If, for example, all individuals have equal legal and illegal opportunities and also expect to incur equal

penalties and efforts (that is, if equation (86.1) were to be identical for all individuals and/or institutions), the supply of illicit behaviour will be determined by the distribution of ethical values in the population. If this distribution is bell-shaped, the total supply function for illicit behaviour is an increasing function of the actual net utility per corruptive offence.

Demand for Corruption, Market Equilibrium and Preliminary General Conclusions

It is possible to produce an economic analysis not only of the ‘supply’ of corruption, but also of the readiness to tolerate it, which can also be described as the ‘demand for corruption’. To deduce this demand, it has to be taken into account that the decision makers acting on this side of the corruption market tend to minimise the total costs of corruption (Ehrlich, 1973, 1996).

Within the first block of these total costs, the social costs of corruption in the more closely defined sense, the damages incurred by the victim as the direct result of corruption are, by the way, not usually in the forefront of economic analysis: the costs incurred by the victims are usually approximately balanced by the gains of the perpetrators of the illicit behaviour. For example, in the case of IOC corruption, the victims are those cities which would have won the voting for host city if no corruption had occurred. Of greater significance here are the external costs of the ‘transfer’ produced by corruption which arise by an intentional infringement of social attitudes towards forced wealth redistribution. Costs of this kind become practically tangible and pecuniarily measurable at the latest by the time that (potential) athletes (or their parents) turn their backs on sport, fans and TV spectators are frustrated and/or the sport suffers a loss of income caused by sponsors turning away from a sport tainted by corruption.

The public good character of a large number of suitable countermeasures hinders individuals from being prepared to utilise private resources in order to combat corruption. It provides legitimisation for sports federations to engage in expenditure in the second block of social costs, which can be divided into costs for the avoidance of corruption (for example, in the form of the costs for the development of legal penalties and for ‘policing’ services) and costs for law enforcement (for example, in the form of costs for trials).

By providing additional resources to combat increased corruption, the decision makers increase the direct costs DC_i for those individuals (potentially) indulging in corruption as well as reducing their expected net utility from such behaviour. To this extent the readiness to tolerate corruption represents a negative ‘demand’ function between the crime rate and the net utility of illicit behaviour.

The market equilibrium between supply and demand for corruption results in a number of initial general conclusions.

First, a secular rise in corruption could be explained via this model without necessarily having recourse to ‘tastes’ or ‘morals’ as explanatory factors (although this is possible, see the determinant NPC_i in equation (86.2)). Rising prize moneys and marketing incomes Y_i for example, increase the expected net utility for athletes who (potentially) make use of corruption. If protection efforts as well as the distribution of legitimate earning opportunities remain constant, this means an increased expected net utility from corruption for a given corruption rate – hence an increased readiness to tolerate or demand corruption. Rising national economic and commercial profits from the hosting of the Olympic Games will *ceteris paribus* lead to increased corruption.

Second, assuming that effective countermeasures are not complementary but are rather substitutive in character, the countermeasures should be used so that the relation of their social marginal costs corresponds to the relation of their social marginal benefit (in the form of avoided social costs of crime according to the more restrictive definition).

Third, countermeasures as a whole are only to be used to the extent that their social marginal costs do not exceed the social marginal benefit resulting from them. For this reason the social objective may *in general* not be to reduce corruption to zero, given that (excessively) high costs of corruption avoidance and law enforcement would result: some level of corruption could remain socially optimal – that is, tolerable.

Economically Efficient Countermeasures

Increasing the probability of discovery

To fight corruption directly at its roots, discretionary powers should be abolished as far as possible. To make this point clear, simple decisions which are easy to understand run little risk of corruption. Decisions such as today's awarding of big sporting events are by contrast complex ones involving a wealth of incomplete and asymmetrical information. A large number of decision parameters of varying 'comprehensibility' have to be weighed. Well-prepared decision makers automatically attain greater insight than unprepared 'outsiders' and gain discretionary powers. In terms of equation (86.1) a high lack of transparency leads in the risk assessment of the bribe recipient to a low probability of discovery p_i . (At the same time, low transparency can also reduce direct costs DC_i , based on the relatively low expenditure on self-protection measures to escape detection, conviction and punishment.) In this context it seems sensible to strip off political affairs and to reduce the evaluation criteria for big sporting events such as the Olympics in favour of greater orientation towards sport. Finally, in order to increase levels of responsibility and improve control, voting for the location of large-scale sporting events should in general remain secret, although it should be open to inspection for a small circle of notaries who, while sworn to silence, would be able to match names to voting if necessary. If an allegation of corruption should arise it would be a simple matter to check how any suspects may have voted or whether their votes were decisive for the vote as a whole.

With regard to umpires and referees, the examples of boxing and ice dancing, where the umpires' method of decision making has been reformed towards a more independent and clearly recorded voting procedure, could also be followed by other sports.

While reducing discretionary powers for officials (and umpires) is a straightforward option (although not easy to accomplish), it is difficult to imagine measures to reduce discretionary powers in the case of corrupt athletes, whose performance is in any case both subject to high variance and difficult to monitor conclusively.

In addition, to increase p_p , one ought to consider whether an anti-corruption unit in international sports would be meaningful in this context. It may also be particularly effective to introduce a ruling offering immunity from or decent remission of punishment to those willing to act as prosecution witnesses in corruption cases, even if they themselves were involved in the corruption.

The connections between systems of control on the one side and corruption on the other are, however, more complex than initial inspection may suggest. On the one hand, an important role in the system of control is played by the formation of a clear code of behaviour, against which any infringements can be measured. Furthermore, it is also

important that the system should be made up of several layers. This also requires systematic internal revision and control measures by superiors, appropriate systems of incentives for the controllers, independent complaints bodies, assurances of anonymity for useful information, less strict rules on secrecy and a free press. For systematic controls it has also proved efficient when superiors bear direct responsibility for any possible irregularities on the part of the people working for them.

Reducing the expected utility of corruption

The danger of corruption increases if sufficiently large payments (Y_i in equation (86.1)) can be made to potentially corrupt individuals. To finance such payments, certain limitations to competition need to be in place, which produce considerable rents or benefits of other kinds. Thus, corruption is primarily found in sports with high pecuniary incomes. And in the case of the Olympics, the problem of corruption has only emerged since it has been possible for the organisation to be financed via profits and economic surpluses.

A similar calculation applies to the recipient of the bribe. The bribes, which in this assessment enter positively into the calculation in the form of increased income Y_p , must be sufficiently high in order to render the utility higher than expected disutilities plus the value of the moral threshold.

While earlier studies on 'rent seeking' assumed that the rents would be completely transferred to bribes via a competitive process, it has now been shown that bribes are often small in comparison to the advantages they convey. This can in part be explained by equation (86.1), according to which the briber incurs, in addition to the direct costs in the form of bribes, further pecuniary and non-pecuniary (opportunity) costs. In addition there are clearly a number of entry barriers, transaction costs, risk assessments and coordination problems in the rent-seeking sector which prevent a complete siphoning off of rents by corrupt athletes or officials. In all publicised, above-mentioned cases, advantages being granted to individuals were still ultimately small in comparison to the benefits generated by the event.

The rents arising in connection with sporting events result largely from the fact that individual events often have a unilateral monopoly which can hardly be contested by other events. A tendency towards stronger competition among sports and sports events would reduce rents and incentives for corruption. Deliberate measures in this direction are not particularly desirable from the point of view of the sports involved, so that according to our second preliminary conclusion a search for anti-corruption measures with a lower cost–benefit relationship should be undertaken.

A far-reaching measure to squeeze rents out of organising sport events would thus be to auction off big sporting events, once certain minimum standards for the technical and organisational details had been established. There would then no longer be any room for corruption: officials would have few opportunities for making decisions (beyond establishing the standards), and rents would be eliminated or transferred to the sports federation. In spite of its efficiency, and in spite of its opportunities to provide subsidies to poorer countries in order for them to have a realistic chance in the procedure – this measure has no political chance of implementation at the present moment. And with regard to corruption among athletes, the auctioning of the results of a competition is obviously not particularly advisable!

Nevertheless, for large-scale sporting events with (too) many applicants such as the Olympic Games, it seems appropriate to increase the percentage allocated to the Olympic Family from the TV and marketing profits produced by the Games, in order to reduce the prospect of rents. A continuously (excessively) high number of applicants shows that the respective sporting event is still (too) profitable for the host cities.

Concerning measures to reduce Y_i for potentially corrupt athletes, a particularly radical step would be to reintroduce the amateur regulations (ban on payments to athletes). Another measure would be a reduction in the number of competitions and a limitation to the range in the prize money paid to the victors. Such a reduction in range would also be useful with regard to successful athletes' incomes from marketing activities. It should, however, be noted that these measures are of only limited relevance: the first would make little sense from an economic point of view if applied in a pure form. The attractiveness of sport leads to a high level of value creation in the chain athlete–competition organisers–media–sponsors. The re-amateurisation of athletes would primarily increase the profits of the others and exclude the major actors from added value. And as far as the second measure is concerned, it may be a matter of debate as to whether the international sports associations would be in a position to control the prize or competition money adequately, since these are in many cases increasingly organised outside of the associations. Given that nowadays sport is increasingly accepted as an economic activity, the international principles on economic regulations would probably be opposed to strict regulations in this field.

There appears to be little point in intentionally reducing the second gross utility component, the non-pecuniary benefits NPB_i . This could be achieved mainly via a devaluation of the image of the sporting events and performances and would hence be associated with high social costs which do not occur with the other measures.

Finally, the expected utility of corruption can be reduced by decreasing the value of p_j , which is highly determined by the social climates, cultures and general value judgements in the particular sport. It is therefore of the utmost importance to reinforce an attitude of fundamental opposition to corruption in international sport. It cannot be the job of economists alone to find appropriate measures in this direction. However, it is certain that the measures discussed under the heading 'increasing probability of discovery', and all the further measures discussed below, have the effect of reducing p_j : by steering the risk assessment of each individual involved in the direction of non-corrupt behaviour, the number of cases of corruption which still occur is reduced.

Increasing the expected costs of corrupt behaviour

This field ought to offer particular potential for increasing efficiency, given that hardly any of the measures passed by international sports federations point in this direction. This is surprising, because it is clear that the possibility of a ban from the federation or the competition for corrupt officials and athletes – a possibility which existed from the inception of almost all federations – was obviously not a serious enough punishment. In the cases of older athletes with a limited expected duration of their remaining sporting life, or of officials with a limited time remaining in office, or of bidding cities with little chance of nomination without resorting to corruption, this is no wonder.

To start with economically based anti-corruption measures, it should be recalled that corruption arises if the (opportunity) costs and so on of the corrupt strategy appear

relatively low. Hence a clearly superior soccer team, an applicant for the hosting of a large-scale sporting event, or a sports umpire who can, respectively, be relatively sure of victory, nomination, or fair compensation for work without resorting to corruption, all have high opportunity costs POC_i and NOC_i and will therefore refrain from choosing the strategy of bribery.

The pecuniary opportunity costs POC_i can in general be increased by measures that enhance legal earning opportunities from alternatives to corruption. This kind of measure, often referred to as ‘positive incentives’, include in particular measures to lower disparity in distribution. The POC_i of athletes or of applicant cities could be increased by closing the gap between the legal chances of success for the individual applicants. With athletes, this could be done by providing more evenly distributed training and competition opportunities. With applicant cities and the like, it could be achieved by undertaking an appropriate review of the selection criteria, or by bringing about a greater separation between the profits expected by the host cities and their regional specificity.

As far as the direct costs of corrupt behaviour DC_i are concerned, an initial – although somewhat limited – effect could be achieved by increasing the costs of the concealment measures for both sides. All measures which serve to increase transparency have this kind of effect, both in the calculations of individuals prepared to bribe as well as in those of potential recipients. Also office rotation and/or the limitation of terms of office are in some cases regarded as meaningful measures against corruption because they prevent the level of trust between potential providers and recipients of bribes from becoming too great and because they increase the cost for the preparation/realisation and of self-protection to escape detection.

It should also be noted that in general, projects involving a small number of decision makers are particularly susceptible to corruption. If the number of decision makers is high, attempts at bribery become relatively expensive: if the host cities for big sporting events were decided by global plebiscite, attempts at bribery of the type recently discovered would hardly be possible.

Concerning losses of reputation in the case of conviction LR_i , economic analysis hints to the big influence of structures which have developed historically and which form the basis for a culture of fundamental *behaviours and values* that can determine the current degree of corruption: a historically high level of corruption reduces the expected costs of corrupt activity perceived by the corrupt official in question LR_i . In addition, such structures might reduce the threshold NPC_i . A central approach in such sports should be to increase the quality and the image of the officials and umpires involved.

Negative incentives such as increasing F_i and LR_i in (86.1) directly affect the expected disutilities of corruption. With regard to the penalties in the form of a financial sanction F_i for corrupt officials, athletes, and umpires, an examination should be made of the possibility of claiming damages against corrupt individuals. Claims of this kind tend, however, to amount to nothing if those caught have relatively low incomes, as was usually the case in the recent past. From a theoretical point of view, the incentive for non-corrupt behaviour would be reinforced if officials and/or athletes were to be paid a recompense for their work which is above the market wage for comparable activity. However, only a part (for example, half) would be paid out on a regular basis, with the rest being paid into a pension fund. All claims to payments from the fund would be annulled if the official or athlete is found to behave in a corrupt manner. This approach would have two effects

which would be positive from an incentive point of view. First, general susceptibility to corruption would be reduced on the basis of the improved income situation. Second, dishonourable discharge would be connected with increased financial disadvantages. The fund solution has the effect of making the punishment effective, largely independently of the age or seniority of the individual. Exclusion for a younger member would be associated with an extensive loss of future income. Long-standing officials or older athletes, would view the loss of their high accumulated pension rights with some trepidation. Alternatively, previously agreed penalties could be collected from the cities in the form of a deposit at the time of application. Furthermore, it might also be worth considering excluding guilty cities from further nomination procedures.

Summary and Conclusions

Corruption already existed at the time of the 'good old' ancient Olympic Games. And it continues to exist in modern competitive sport. Yet even if a considerable level of undiscovered cases are taken into consideration, there is still no proof that corruption in sport is on the increase or is more widespread in sport than corruption in other areas of human endeavour.

This relativisation should not be taken as a plea for less stringent measures to combat corruption in sport. To do so, economic insight offers a number of ways of supplementing the measures already undertaken by international sport in case they prove insufficient to reduce corruption.

To start with, obtaining a total sanction equal to optimal sanction in general requires coordination of all anti-corruption measures to avoid over- (or under-)deterrence of corruption. Not contradicting the correctness of this, a number of factors indicate that the general insights gained from the economy of delinquency, whereby the optimal level of delinquency does not have to be zero, is not necessarily applicable in this general form in the case of corruption in sport. Indeed, one case of corruption alone can cause significant social marginal damage, since in general it may result not only in a considerable loss of image for the perpetrator, but also for the sporting discipline as a whole and even for sport in general, and may not necessarily stop at the borders of the individual country involved. For example the damage incurred by world sport as a whole from the allegations of corruption against the IOC is particularly striking. Moreover, an analysis of the measures already undertaken by sports associations and the potential further measures resulted in the conclusion that the social marginal costs of avoiding corruption in sport could be kept relatively low, given a skilful combination of measures. The calculation that the fight against corruption should be extended until its social marginal costs correspond to its marginal utility, should result in a rate of corruption that differs only insignificantly from zero.

However, the central general economic insight remains that when a policy mix of anti-corruption measures is composed, the relation of the marginal utility of the individual measures to their marginal costs must be identical. In other words, anticorruption measures with relatively high social marginal costs should be replaced by more cost-efficient alternatives.

From this point of view, the international sports federations have sometimes taken actions which can be regarded as problematic. For example, the IOC Evaluation Commission, an institution which systematically collates the decisions of the IOC members,

remains a meaningful institution. However, the enlarged role of the Evaluation Commission and the IOC Executive in the pre-selection of applicant cities for Olympic Games would seem to be problematic. The IOC thus implicitly builds on a high degree of social control in smaller groups. According to the insights discussed above, there is little advantage in a reduction of the number of decision makers, even in the pre-selection processes. In future it may even be easier for potential providers of bribes under certain conditions to achieve the necessary majorities, at least in the first rounds of the application process. It would hence be better to leave the IOC general assembly to choose from among all the bidding cities. Second, there are good arguments in favour of the travel ban for IOC members, because it makes it difficult for applicant cities to build up an atmosphere of friendship towards IOC members which might provide a basis for inefficient decision making. On the other hand it also means that most decision makers have fewer sources of information at their disposal. The quality of the decisions of the IOC members is likely to suffer due to the reduction in the flow of information.

This does not deny that the international sports federations in general have reacted swiftly in taking countermeasures against corruption, and that these measures can, for the most part at least, be regarded as steps in the right direction. The economic analysis nevertheless shows that the following measures could help to reduce further the danger of corruption:

- create clear codes of conduct, with unambiguous definitions of undesirable and punishable behaviour;
- decrease the expected financial benefits associated with (sporting) success;
- reform selection processes with a view to greater transparency by placing more emphasis on sports-related criteria and less on non-sports-related ones;
- provide financial incentive mechanisms for athletes and/or officials to increase the opportunity cost of corruption by paying them a recompense for their efforts which is above the market wage for comparable activity; and
- enhance controls and determine greater potential punishments, including financial penalties.

Financial penalties might appear wide of the mark for many contemporary sport enthusiasts. A look back at the classical history shows that this proposal or measure is as old as corruption in international sports. In the ancient Olympics, the corrupt athletes were heavily punished by financial means. Each of them had to pay for the construction of a *zanes* (column of shame), which was then placed directly at the entrance of the Olympic Stadium. These columns cost a fortune because they were made of the very best materials and manufactured by the best artisans. A high F_i was assured by this, and if the athlete could not pay, his city had to. The *zanes* were to be installed ‘for eternity’, and today the foundations at least can still be seen in Olympia. The inscriptions included the name of the corrupt athlete, his illicit behaviour, and a message of moral guidance. In the case of the above-mentioned case of the four fist-fighters the inscription reads: ‘one cannot buy victory in the Olympics with money, but only with swiftness of foot and strength of body’. A loss of reputation (LR_i) near to infinity was assured.

Notes

1. For a detailed survey on corruption in modern sports see Maennig (2005).
2. Below there is no more differentiation between these three steps; the three terms are used synonymously. This ignores that detection does not lead to conviction in all cases.

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