Elektronische Handelssysteme in Europa und Entwicklungsmöglichkeiten für Russland

Electronic Trading Systems in Europe and development potentialities for Russia

Workshop:

Bank und Finanzbeziehungen in Europa und die Integration Russlands

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Chair for Corporate Governance and E-Commerce

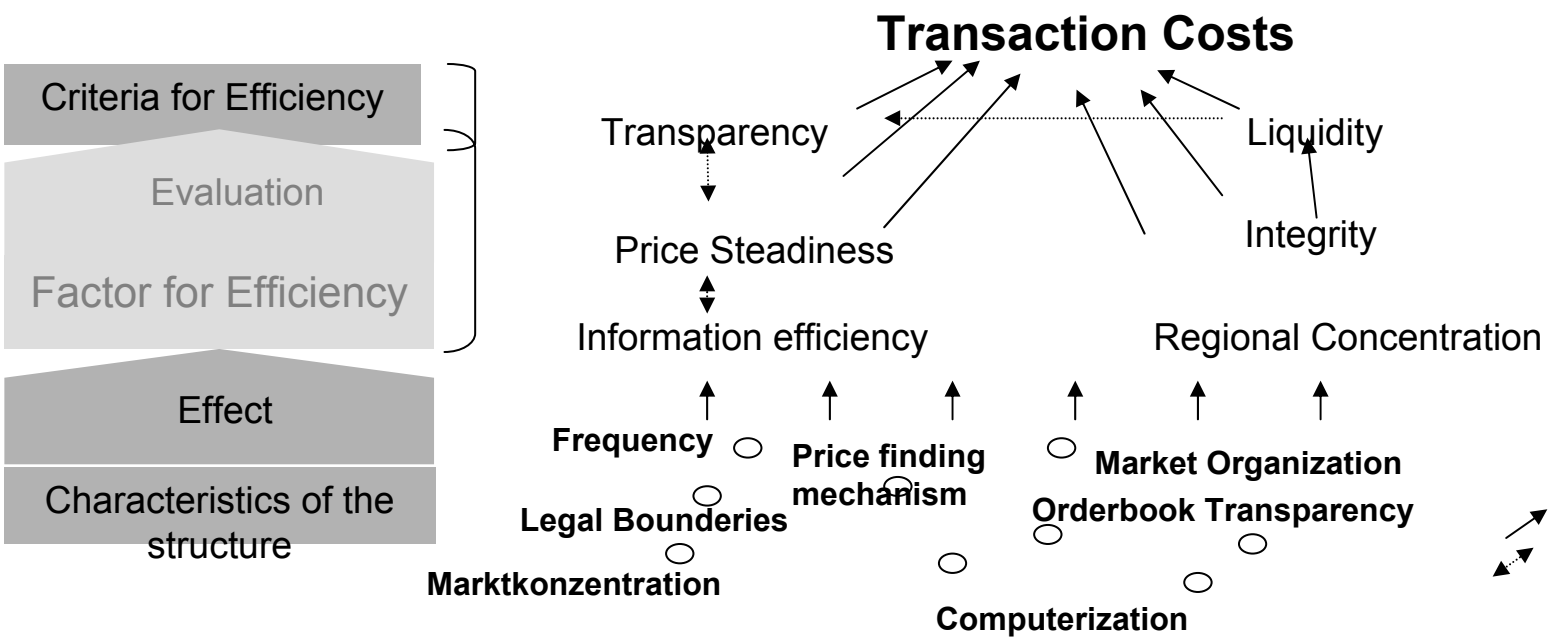
Agenda

1. Theoretical Background (Market Microstructure Theory)
2. Structure in Germany
3. Structure in Europe
4. Structure in Russia (Discussion)

Impact of Liquidity and Degree of Automation on Efficiency

- Main goal of markets: Efficient resource allocation
- Measure of the market's efficiency: *transaction and liquidity costs*
  - Development of efficient market models and trading platforms

Theoretical Background – Market Microstructure Theory

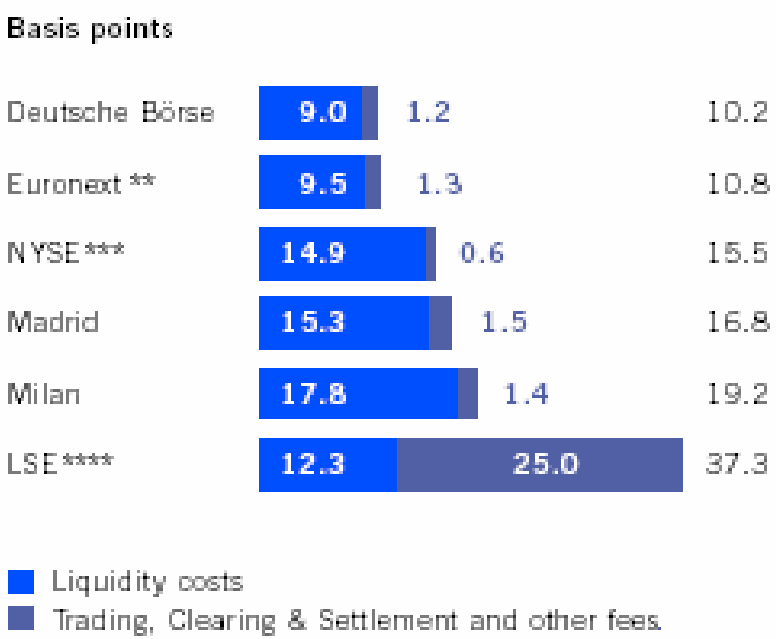


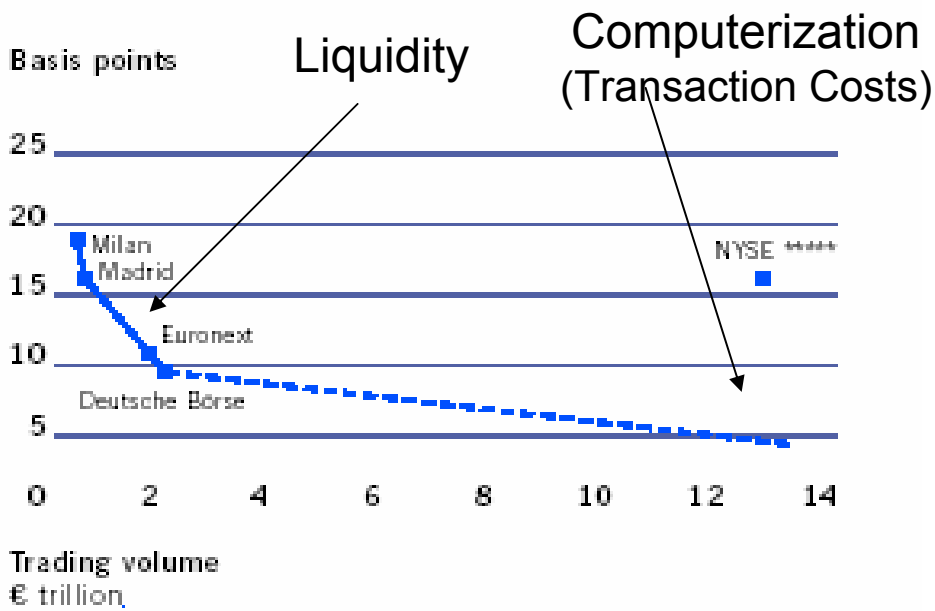
Folie 3

Picot et al. [1996]

Transaction Costs on Equity Markets

Figure 1: Exchange-influenced transaction costs for equity trading*

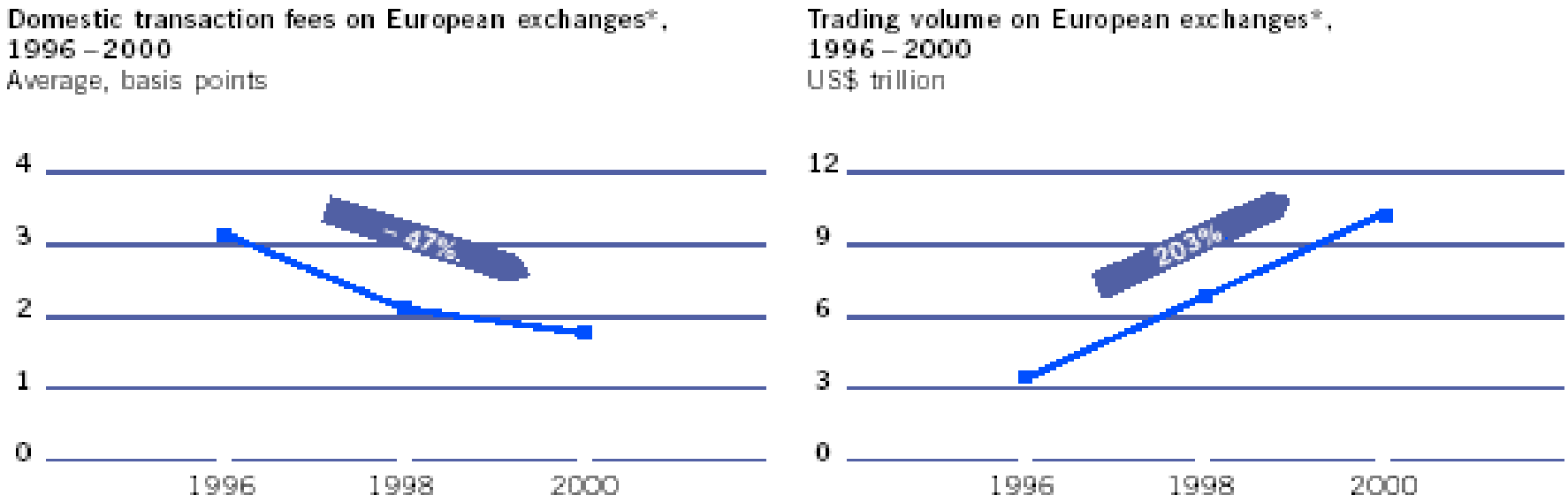




* Country data taken as proxy for a country's dominant stock exchange
** Weighted average of Paris (60 percent), Amsterdam (38 percent) and Brussels (2 percent) stock exchanges
*** Different trading system leads to low fees, but higher liquidity costs
**** Average of UK sell orders and UK buy orders; high cost of trading mainly due to stamp duty
***** Given high volume in New York, relatively high transaction costs in US

Source: Elkins/McSherry, Global Universe Market Cost Report: Quarter 1, 2001; FIBV (US$1 = €1.12).

Figure 5: Transaction fee and trading volume development in Europe



* Nine of Europe's largest exchanges; London excluded from transaction fee analysis because of the distorting effect of stamp duty.

Source: Elkins/McSherry data as reported in Institutional Investor, McKinsey analysis

„Eine Automatisierung der Informations-, Orderrouting, Abschluss- und Abwicklungsphase führt ohne Einschränkungen zu einer effizienteren Organisation des Transaktionsprozess von Wertpapieren. Entsprechend ist die Automatisierung dieser Phasen ohne Einschränkung erstrebenswert aus dem Gesichtspunkt der Effizienz.“

The computerization of the Information-, Orderoruting-, Matching-, and Settlement-Phase leads to an efficient organization of the transactions process of security trading.

Insofar, from the point of efficiency, it is desirable to computerize all processes.

Picot et al. 1996, Börsen im Wandel

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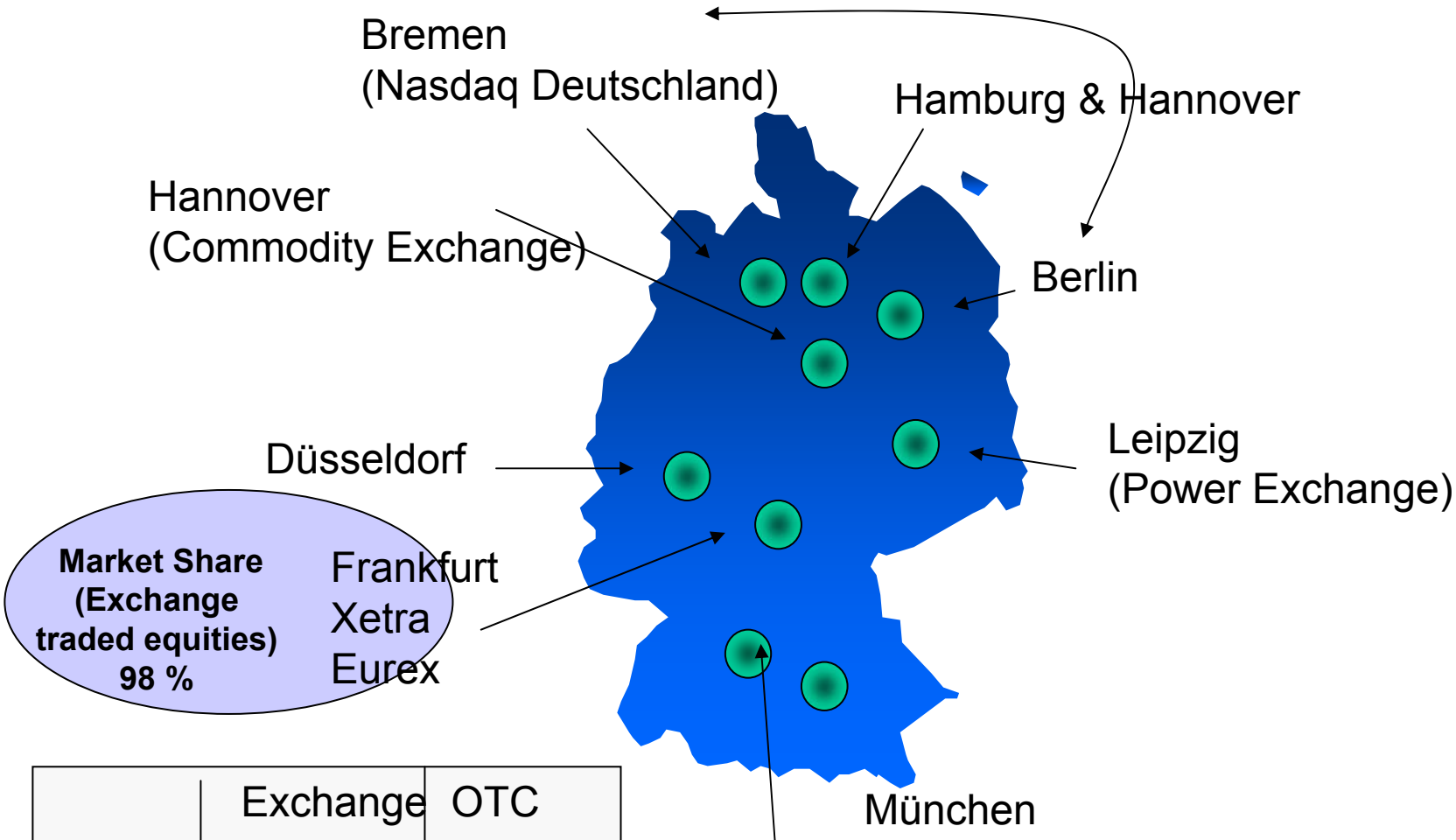
Structure in Germany



	Exchange	OTC
Equities	55 %	45 %
Bonds	10 %	90 %

The Strategy of the regional exchanges

... focus on niche markets
... and develop their own trading systems

Exchange	Specialization	Trading System
Hamburg and Hanover (BÖAG)	1500 Bonds, > 250 Stock options Funds-X Turkish Stocks American Stocks	
Munich	> 800 Asian Stocks	MAX-ONE (since May 2003)
Berlin	➢10.000 international Stocks from more than 60 Countries ➢6000 US Stocks	Nasdaq Europe (since March 2003)
Bremen	Services for small and medium sized Companies	Nasdad Europe (ab März 2003)
Stuttgart	Options	EUWAX (automatic Orderrouting via Xontro, Matching by Market Maker)
Düsseldorf	Japanese Stocks	Quotrix (Autumn 2001)

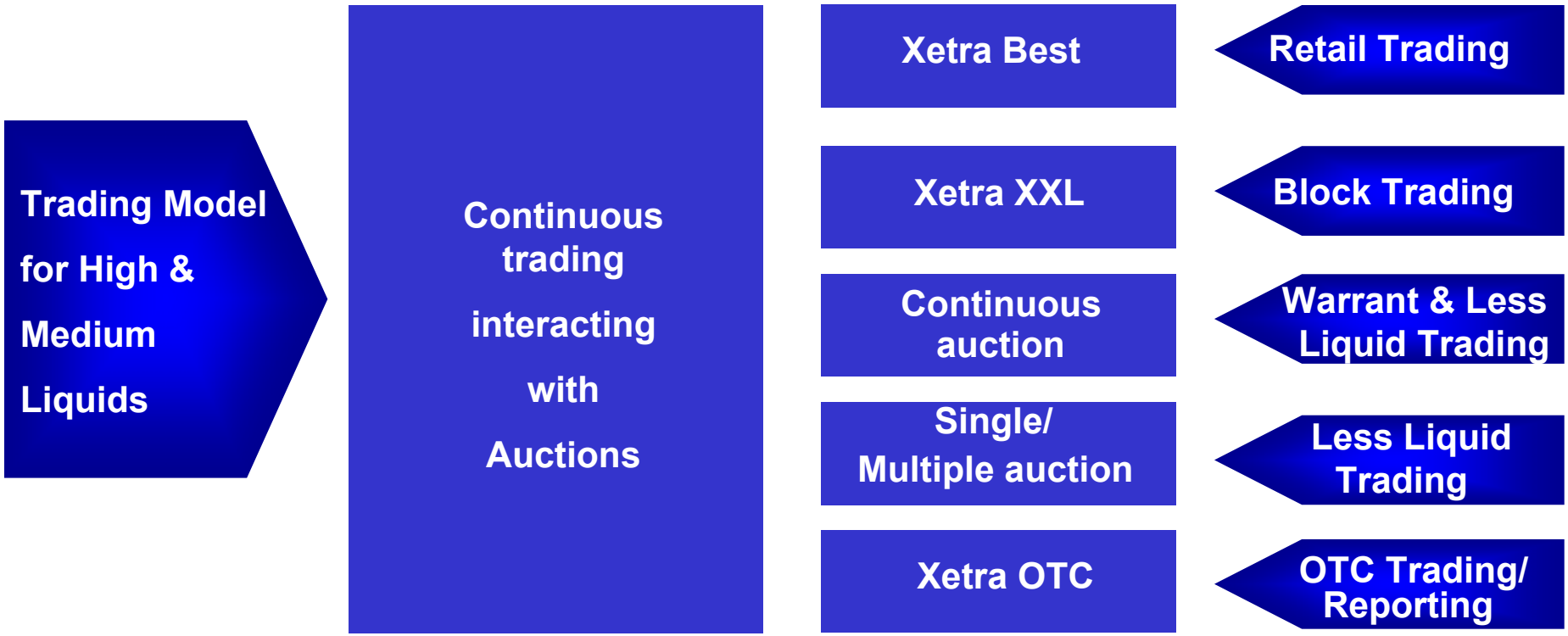
Trend toward Internalization in Germany

	Nasdaq D	Quotrix	Max-One	Xetra Best	PIP/ Maxblue	Xetra
Launch	2003	1998	2003	2002	2003	1997
Trading Hours	9-20 Uhr	8-23 Uhr	9-20 Uhr	9-20 Uhr	Referenzbörsen	9-20
Home Exchange	Bremen/ Berlin	Düssel-dorf	Munich	Frankfurt	Deutsche Bank	Frank-furt
Official Price	Yes	Yes	Yes	No	No	Yes
Access by banks	HypoV.,Dresd., Comdirekt, Consors, Commerzbank	S-Broker, Fimatex, 1822 direkt	Almost alle	Comdirekt, Commerzbank,Hypvereinsb., Santander	Max Blue	all

Competition due to Internalization

Quelle:: Faz-Sonntagszeitung, Nr. 11, 16.3.03 S. 45

Xetra provides a wide range of market models and functionalities on a single trading platform



… and therefore enables maximum flexibility for the market provider and the market participants

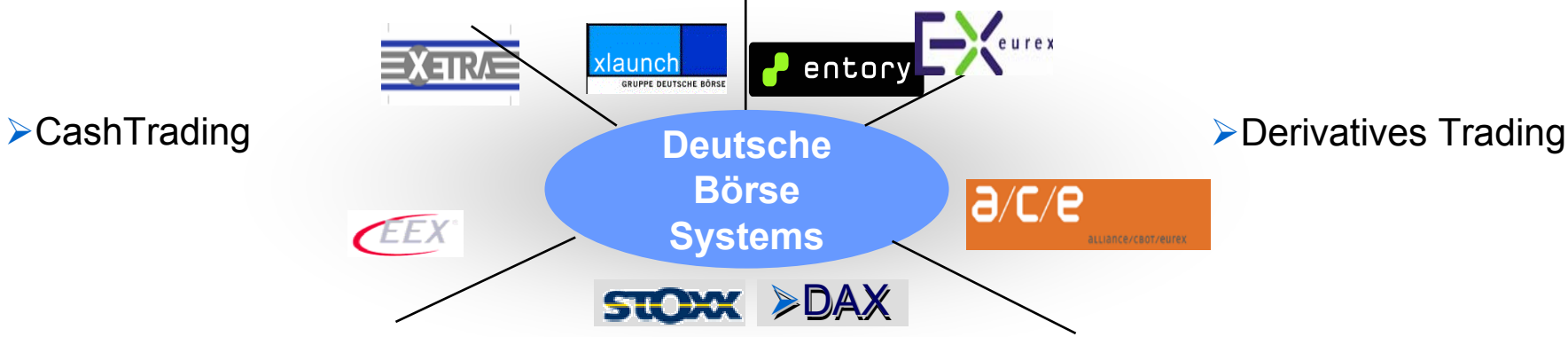
Source: German Exchange

Deutsche Börse Group – a "Markets Company"

Customers: issuers, investors, intermediaries, information vendors, exchanges

Deutsche Börse Group

- B2B Markets
- Third party technology services



- Information Products

Clearinghouse/Central Counterparty (CCP) Eurex Clearing

clearstream

Settlement and Custody

Source: German Exchange

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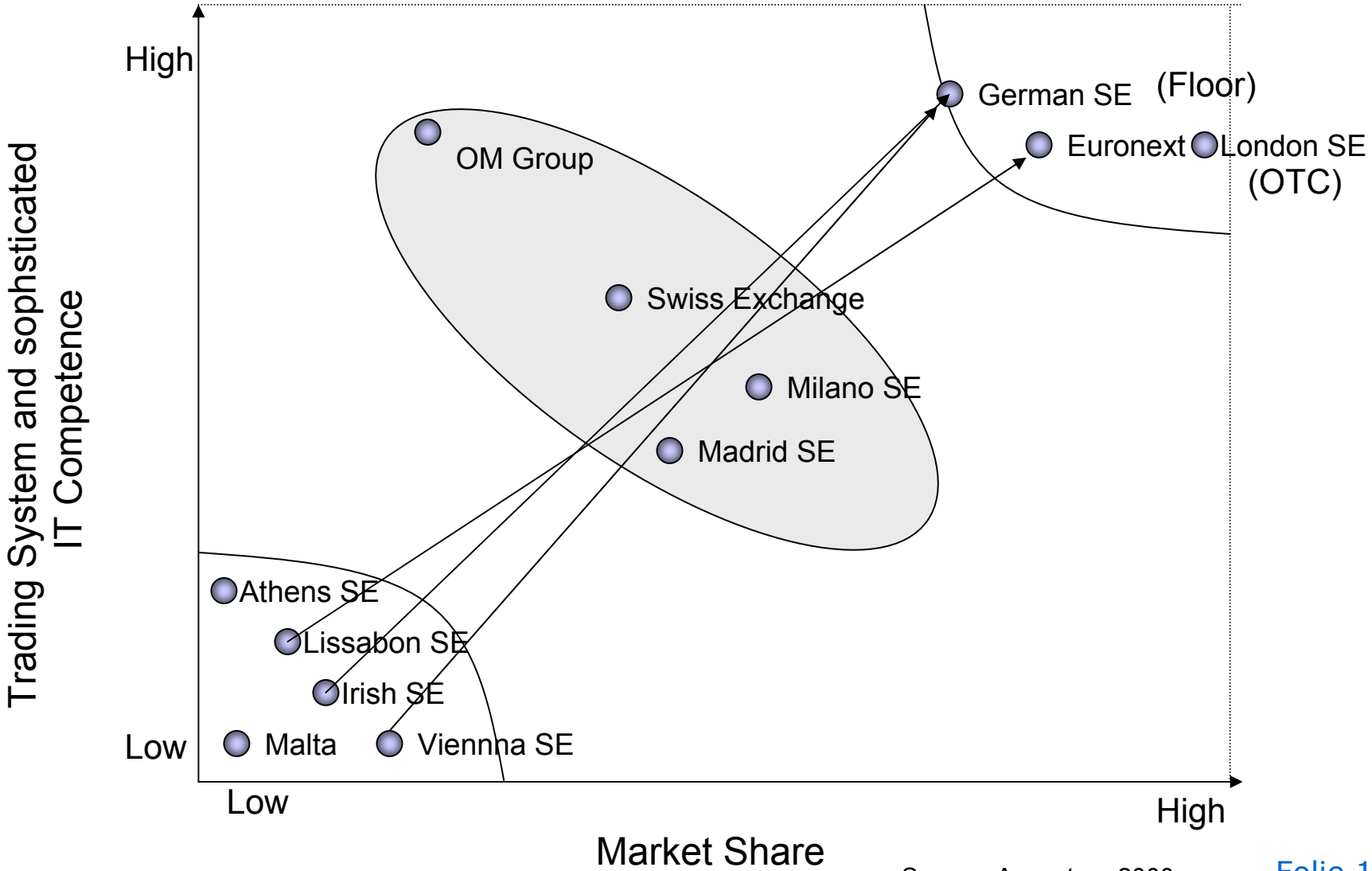
Characteristics of the European Equity Market

- ❖ High degree of fragmentation
  - Differences in market practices
  - Language differences
  - Cultural differences

- ❖ Less developed equity culture as in the U.S.
  - Lower market capitalization

The European Landscape of Exchanges



Source: Accenture 2000

No common platform and no common architecture in Europe

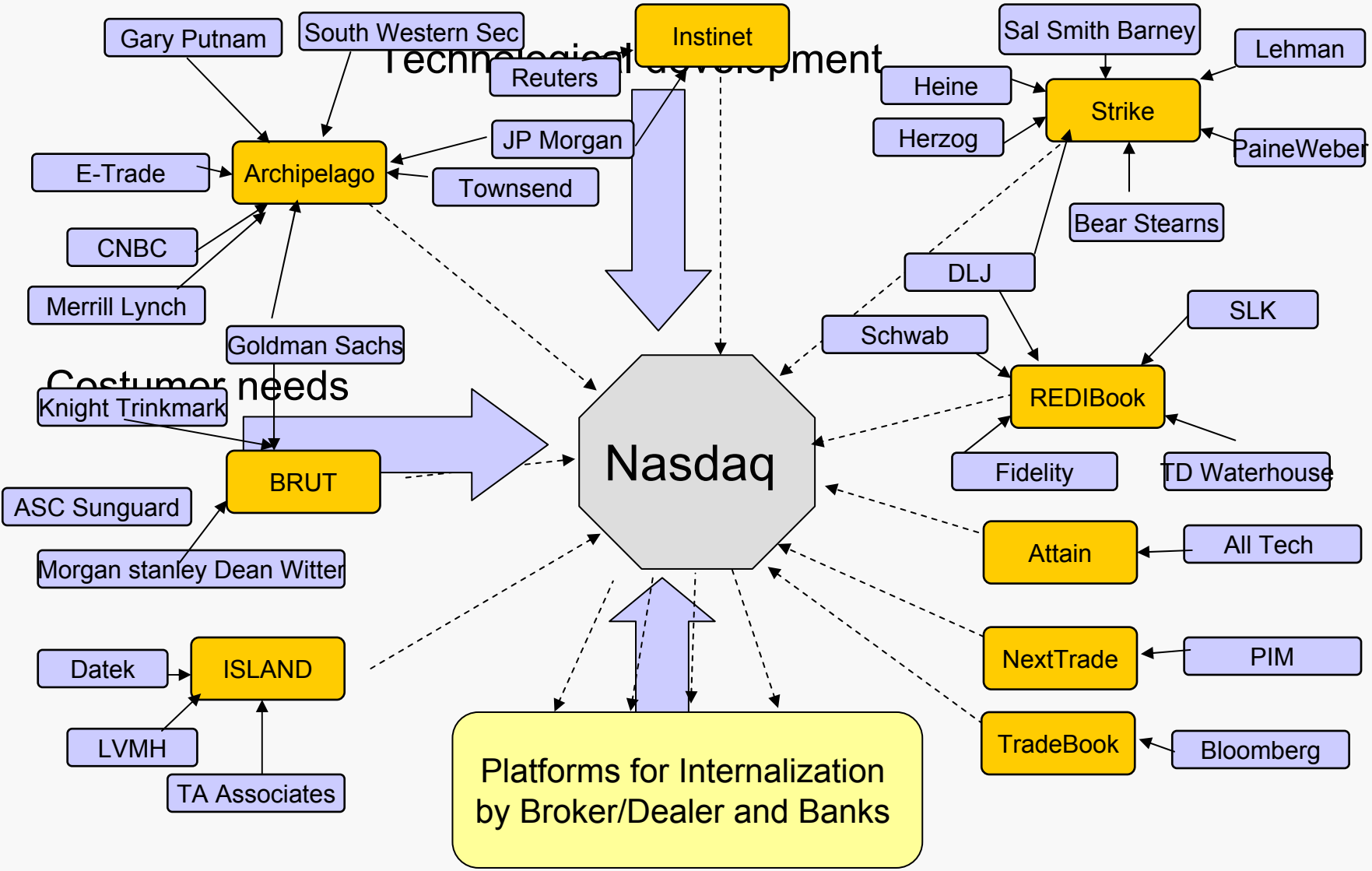
	Derivative Exchange	Cash Exchange
Belgium	NSC - VF	NSC
Denmark	OM	SAX
Germany	Eurex	Xetra
Finland	Eurex	HETI
France	NSC-VF(evtl.Connect)	NSC
Greek	Own	Own
UK	Connect	SETS
Irland		Xetra
Italy	OM	Own
Netherlands	Floor (later Connect)	NSC
Norwegian	OM	Own
Austria	OM	Xetra
Portugal	MEFF TRACS/QUOTE	Own
Sweden	OM	SAX
Spain	MEFF TRACS/QUOTE	SIBE
Swiss	Eurex	EBS

⌦ **There are 6 different trading platforms at the European derivative markets and 12 at the European Cash Exchanges**

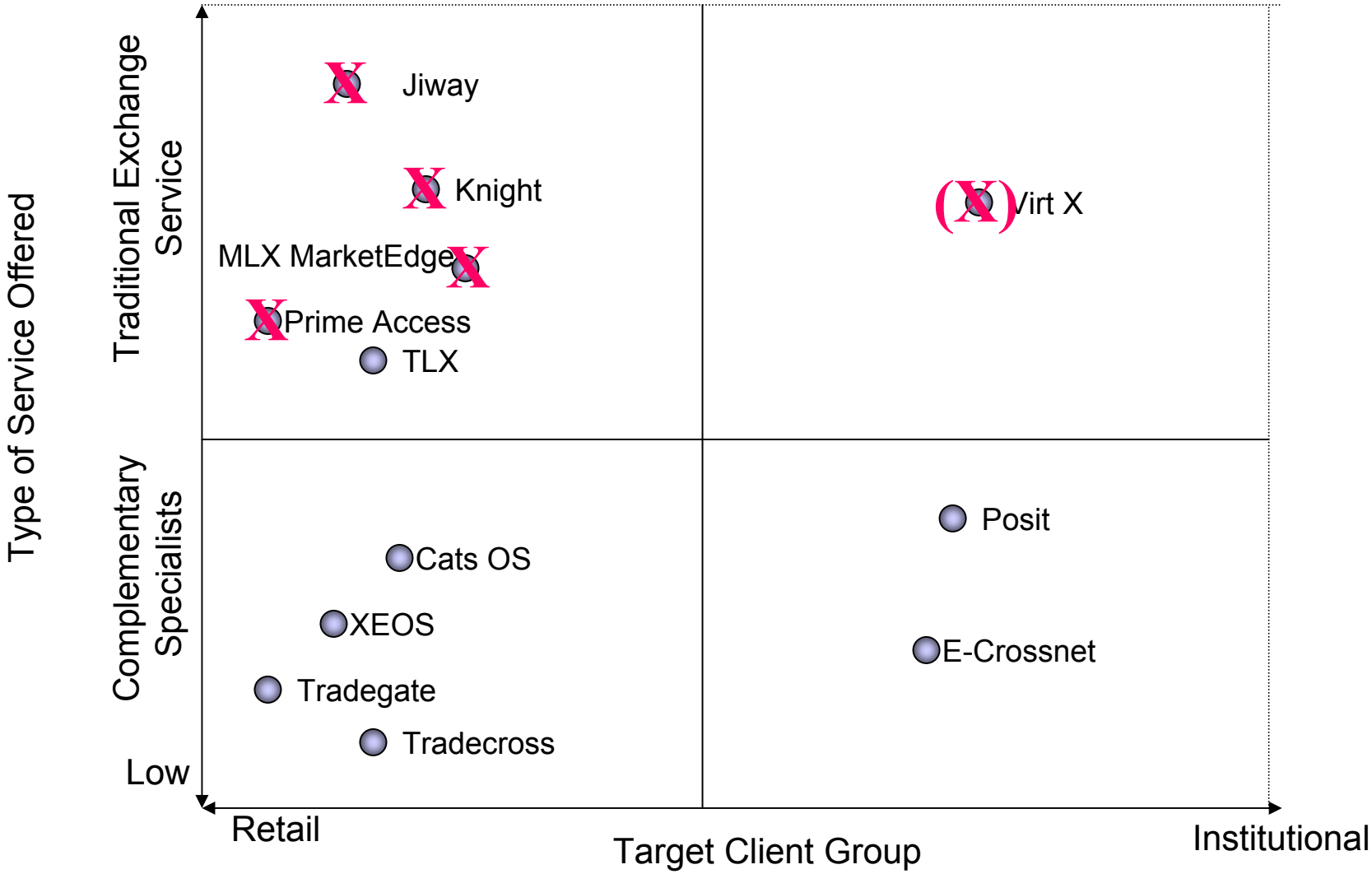
Drivers of Efficiency & Innovation
Trends in Europe

- Horizontal cross-border competition
  - Increasing competition across the entire Securities Industry
    - Cash equity markets (Dt. Börse; LSE)
    - Derivatives markets (Eurex; Liffe)
    - Cash bond markets (Eurex Bonds;BrokerTec;others)
- Competition between market organizers and intermediaries
  - Disintermediation policy of Market Organizers (Exchanges, CDSs, Clearing Houses)
  - Internalization policy of Intermediaries (Brokers,Custodians)
- Advanced technology and high innovation
  - Early introduction of electronic trading systems
  - Development of central counterparty for equity trading (ECPP) as the new industry standard
- Demutualization

Electronic Communication Networks and Internalization as Competitors for Exchanges

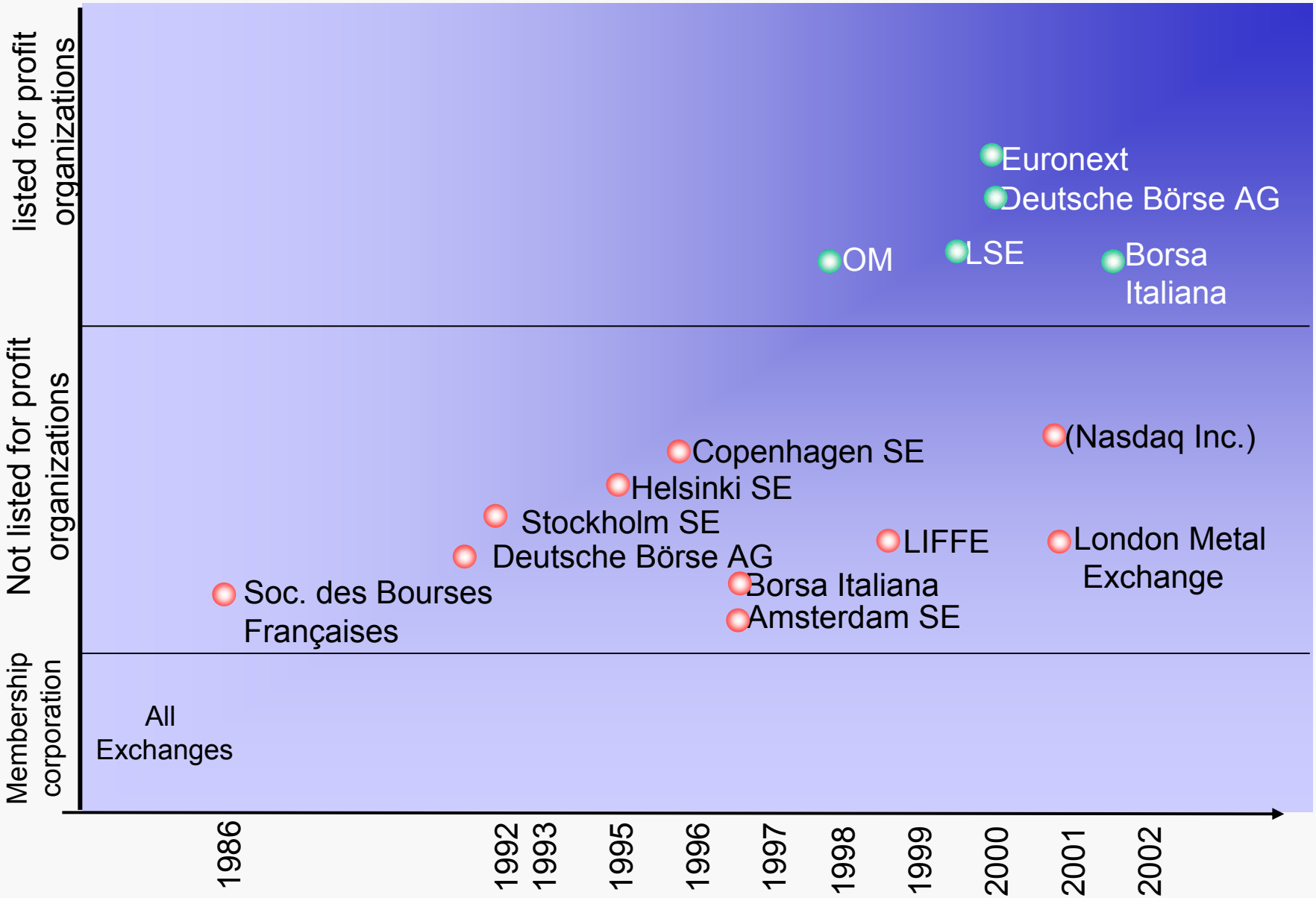


The Development of ECN´s in Europe



Source: Accenture 2000

Demutualization– Change in the Governance Structure



Trend Toward Cooperation and Mergers

Most projects were not successful in Europe

– Failure of merger between LSE an German Stock Exchange (iX, September 2000)

– Failure of „pan-European“ Exchange for „young“ Companies (Easdaq, Brussels; Spring 2001)

– Failure of „ pan-European“ Market-Maker-Exchange Jiway, London, Autumn 2002)

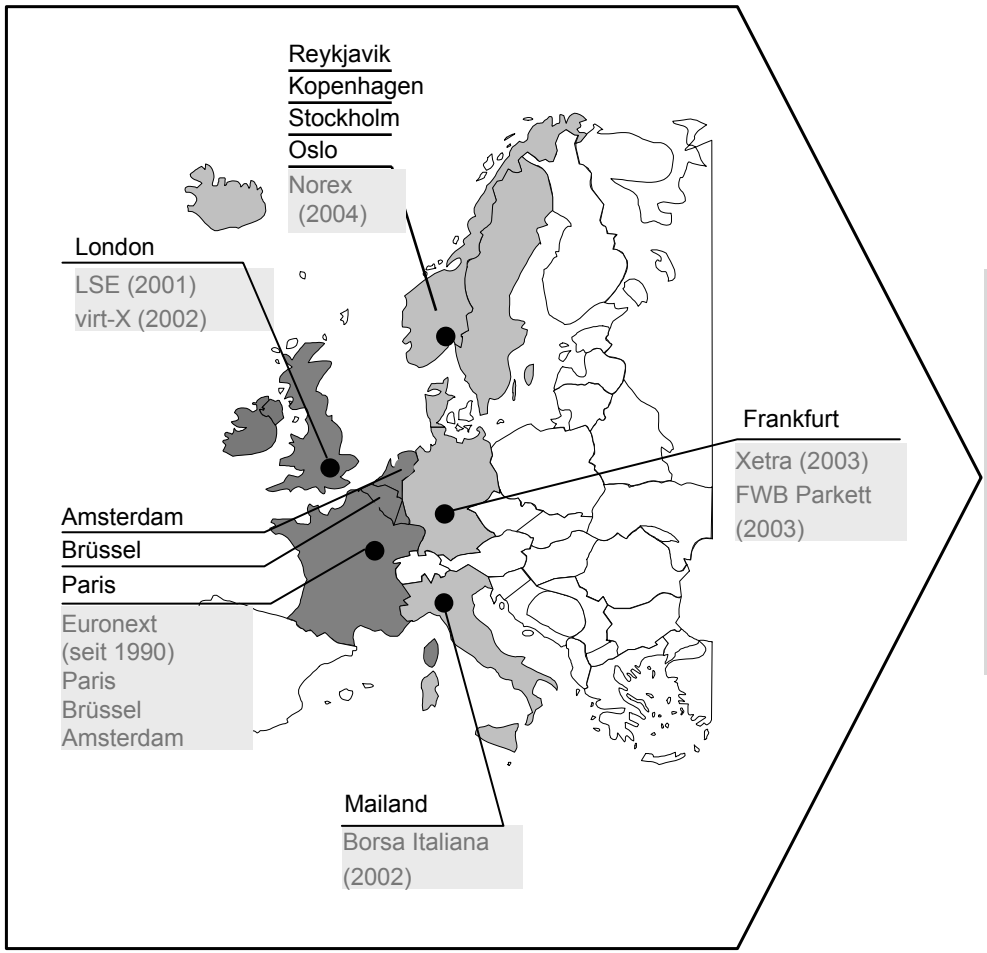
– Failure of the Merger of the biggest European Settlement Institutions (Euroclear and Clearstream) (Spring 2002)

– Merger of Crest – LCH successful
– Merger of Cedel– German Kassenverein successful
- Merger of Suffix-DTB successful

3 Networks cover 75 % of the Settlement volume in Europe

Settlement institution	Trans-action volume in 2000 in Mio. €	Assets in Mrd. €	%-share in Europa	Operation Costs in Mrd. € (Operation Costs /Transactions)	Ownership Structure
Euroclear plc	145	7.424	31 %	Ca. 420 Mrd € (EUR 2,9 each transaction)	83,33 % Euroclear 16,67 % Sicovam AG with over 1500 Stockholders
Clearstream	153	7.420	31 %	Ca. 420 (EUR 2,75)	100% Deutsche Börse AG
The Settlement Network	88	4.000	16 %	Ca. 140 (EUR 1,6)	SIS und CrestCo AG with each over 100 stockholders
Rest of Europe (1999)	62,6	5.382	22 %		

The New Trend: Concept of Central Counterparty on Cash Markets in Europe



- Central Counterparty is established for long time at derivative markets
- At first at U.S. Cash Market (1977 NSCC)
- Now Proactive Initiatives for the introduction of CCP in Europa

CCP Introduced
Introduction is planed

Quelle: Deutsche Börse 2003

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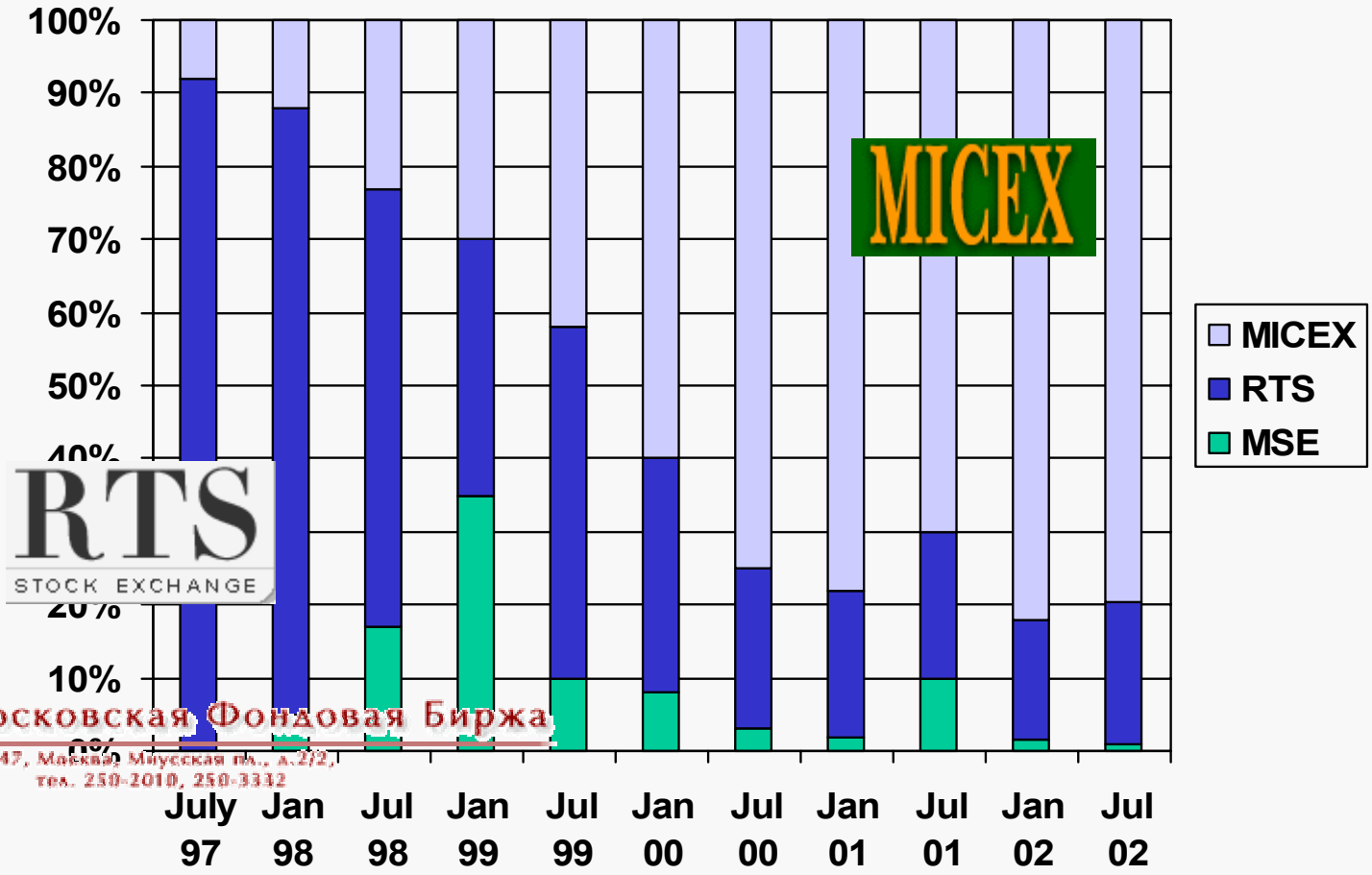
Market Capitalization

	Marktkapitalisierung in Mrd. USD in 2001
New York Stock Exchange	**10 247,0**
NASDAQ	**2 517,5**
Tokyo Stock Exchange	**2 504,5**
London Stock Exchange	**2 060,0**
EURONEXT	**1 692,7**
Deutsche Börse	**993,1**
Swiss Exchange	**596,3**
Toronto Stock Exchange	**556,6**
Russia	**37,2**

Russian Equity Market at the MICEX, Moskau Stock Exchange and RTS



OTC Market is dominating the Stock Market

Main Problems in Russia – Discussion

- Efficient Settlement Procedures
- No Central Depository
- Investors Behavior (2% - 3% of population are investing in shares)
- Legal Framework
- Consolidation of markets
- Solution:
  - Cooperation with European Exchanges, Depositories (Xetra, Euronext, Clearstream) ?
  - Development of innovative Market Models (like RTS)

Innovative Market Models by RTS

Clearing der GAZPROM Aktien

Reuters

Bloomberg

RTS Plaza Trading Sys

Guarateed Trading System

nsaktionen sind ert durch Geld/Depots)

RTS STOCK EXCHANGE

(elektronisches Handelssystem der Broker NAUFOR = NPO)

DCC

DCC-Abwicklungs-system

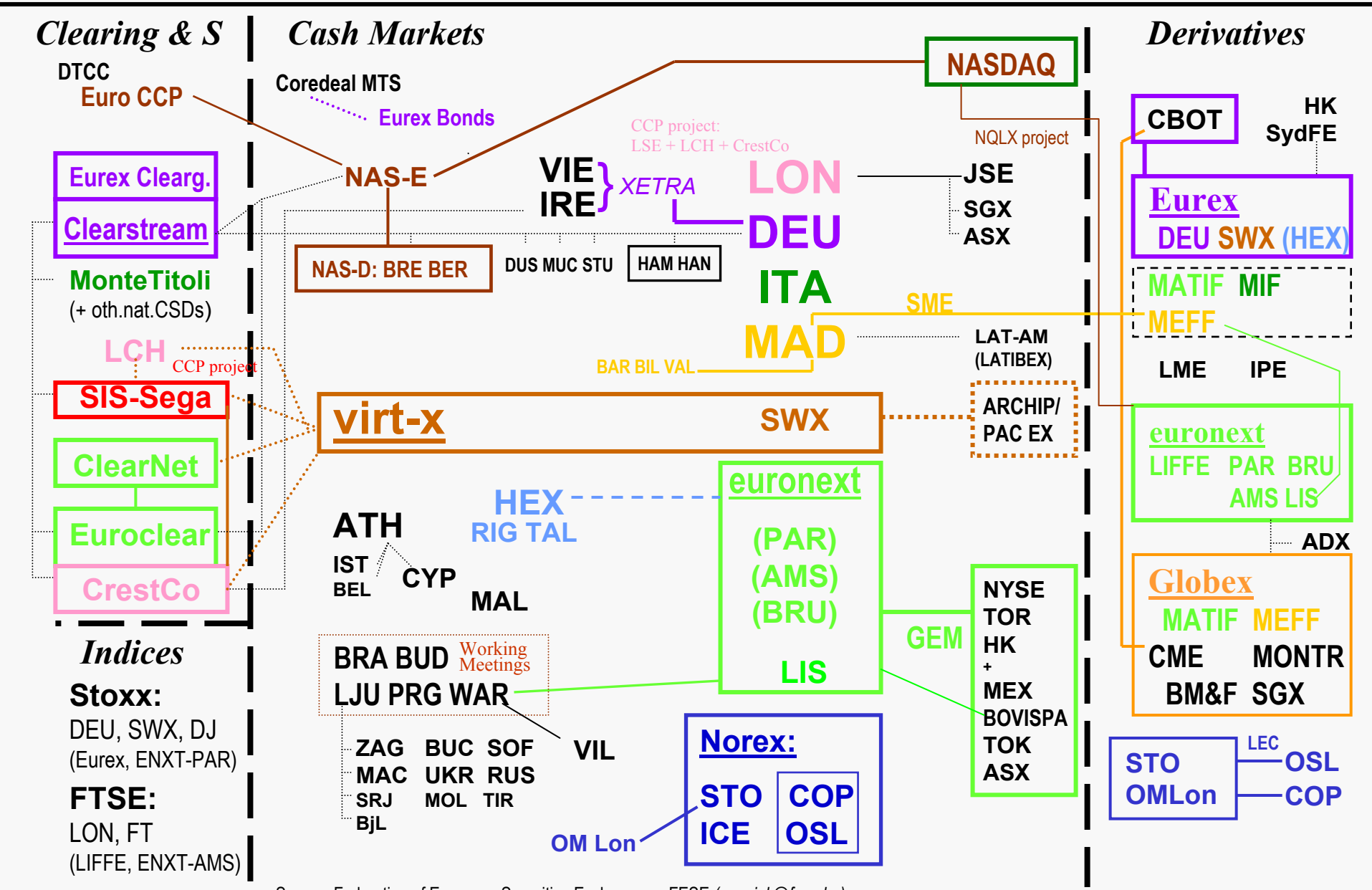
400 Aktien

50 Anleihen

500 Wechsel

10 Derivate

The European Landscape of Exchanges (incl. Clearing & Settlement)



Source: Federation of European Securities Exchanges – FESE *(pozniak@fese.be)*