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Integrating Market Infrastructure: The European Experience, 1990-2012

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Overview – Integration of the Market Infrastructure

- European experience over the last 20 years
- Trading and post-trading
- Emphasis on cash equities and listed derivatives
- Focus on the drivers of integration
- Broad themes and perspectives
- Post-crisis policy agenda

Why does the Market Infrastructure matter?

- Infrastructure is created, and evolves, to solve market problems
- **Wall St. Paperwork Crisis of the late 1960s/early 1970s:**
  - Delivery of/payment for stocks entirely paper-based
  - Trading volume on NYSE topped 10 million shares a day – system became unsustainable
  - Huge backlog developed – market had to close on Wednesdays to allow post-trade settlement to catch up
- Need to solve this problem drove two innovations:
  - Immobilisation of stock certificates (DTC)
  - Introduction of multilateral netting of obligations through use of a CCP (NSCC)
- Integration is driven by similar factors

Europe's Market Infrastructure in the early 1990s

A patchwork of fragmented arrangements:

Separate exchanges, CCPs and CSDs at national level

Concentration principle

Natural barriers to consolidation: mutual ownership

Most cash equity trading was uncleared

Hybrid of manual and automated processes

Nascent Single Market legislation

Leading markets were already international

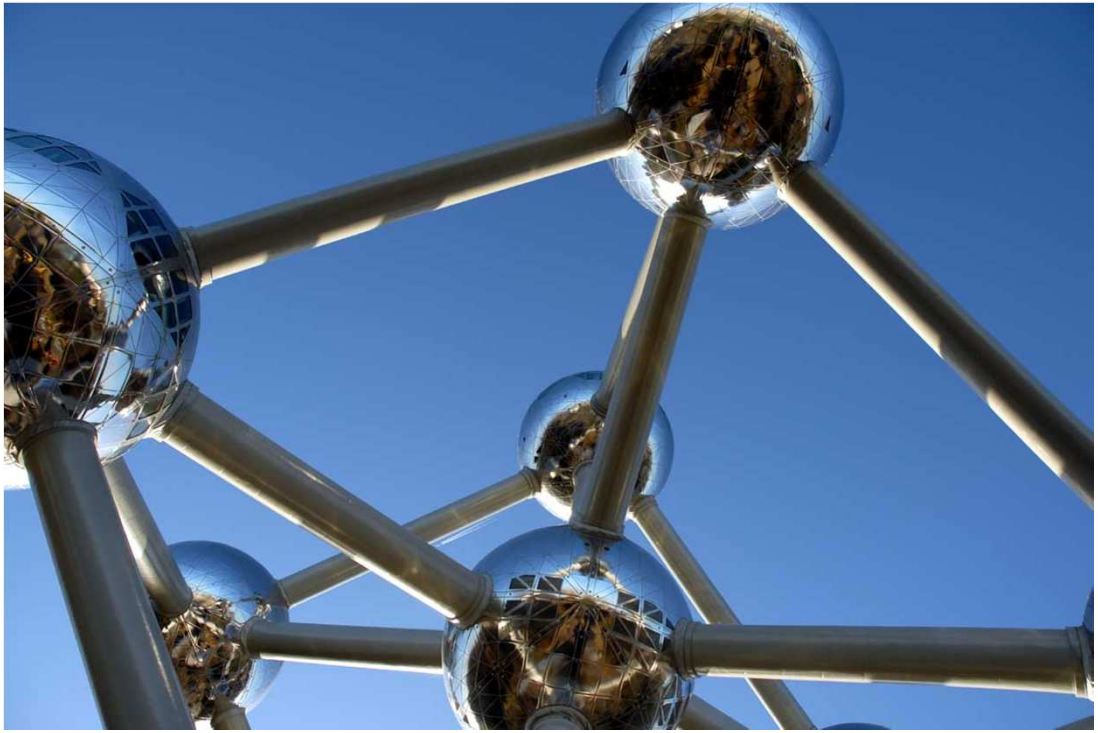
- 15 September 1982: “261 members were in possession of 373 seats…Just under 100 of the members were overseas-based, giving the market an international character right from the start.” **David Kynaston, “LIFFE: A Market and its Makers”**

- **LIFFE Membership, end-July 1982 (cross-section):**
  - Banks – 32 UK; 56 overseas
  - Investment banks – 15 UK; 17 overseas

- **LIFFE futures and options products, end-1991:**
  - Eurodollar
  - Short Sterling, Long Gilt, FTSE
  - Euromark, Bund, BTP, Euroswiss
  - Eurotrack, ECU Three Month, ECU Bond

The Drivers of Integration

- Technology
- Demutualisation
- Economies of scale and cost considerations
- Economic and Monetary Union
- Single Market policy



Technology

"The heart of an exchange – a proper exchange – is its floor. When I first saw LIFFE's current floor…my almost immediate thought, once I had recovered my senses, was that it needed the pen of a Dickens to do it justice".

David Kynaston writing in 1996.

Listed Derivatives Trading in the early 1990s

- Trading dominated by “open outcry”
- Based on the Chicago model
- Many advantages, but acted as a natural barrier to realising full potential of European integration
- All participants who want or need to trade directly must be present in a single physical location
- Difficult and costly to create links between open outcry markets in different cities and time zones

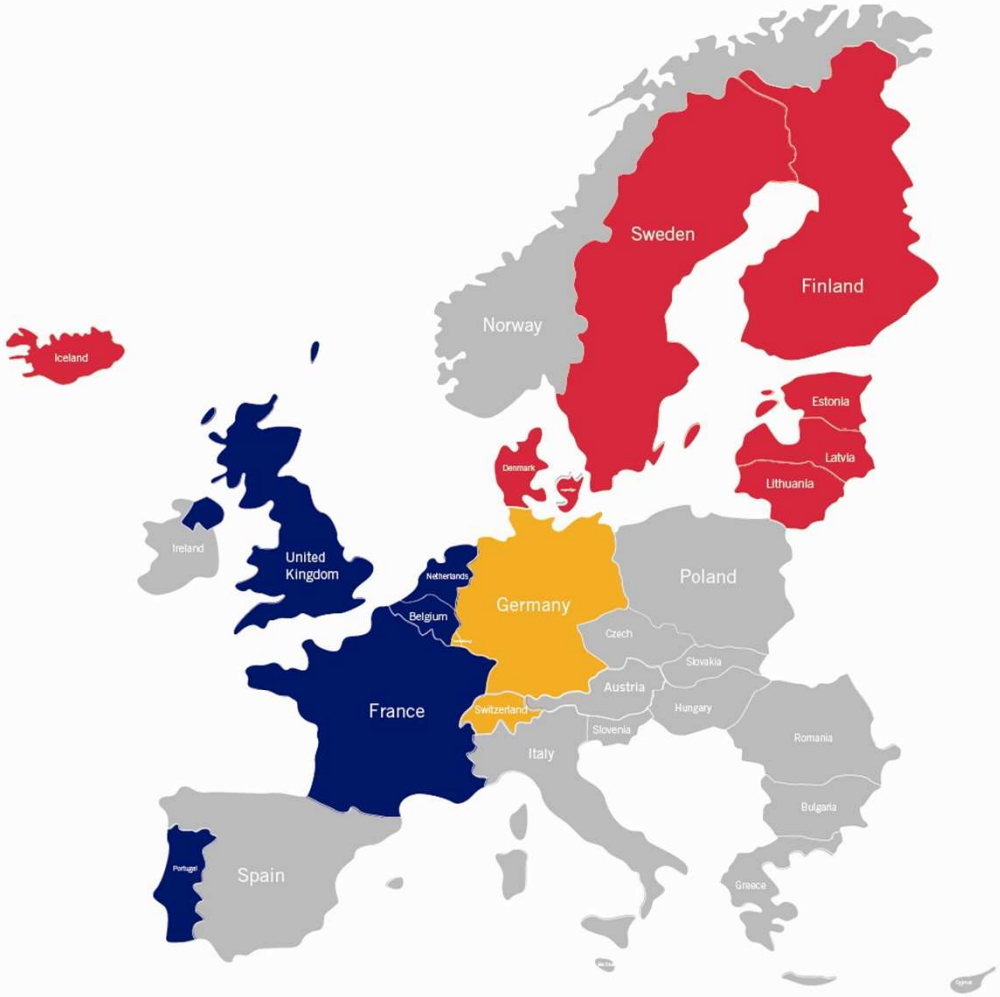
The Rise of Electronic Trading

- Momentum of electronic trading grew as the 1990s progressed
  - New exchanges were electronic from the outset
  - Encumbents began to go electronic as competitive pressures mounted
- In theory, a trader could now access a market from any well-regulated jurisdiction in the world
- Effective links between exchanges were now within reach
- These came in different forms, often ending in consolidation through M&A

Demutualisation

- M&A activity was facilitated by demutualisation and IPOs:
  - Pre-1992, the only major operator which was publicly-quoted was OM
  - Post-1992 demutualisation spread, beginning with Deutsche Boerse
  - Followed by a spate of IPOs around the turn of the Millennium
- Separate operators could now merge through normal corporate activity
- List all of their products on a single, cross-border electronic system
- Desire to integrate post-trade infrastructure was a major driver

Exchange-group Consolidation: Listed derivatives



Nasdaq OMX

NYSE Liffe

Eurex

Our History is an Amalgam of Individual Markets

1602 – The Amsterdam Stock Exchange, first of the Euronext exchanges, starts bonds trading

1792 – Buttonwood agreement signed in Manhattan, forming the New York Stock Exchange

1928 – The London Commodity Exchange launches in London trading Cocoa contracts

1982 – LIFFE, the London International Financial Futures and Options exchange, starts trading

1996 – LIFFE acquires the London Commodity Exchange

1998 – Euronext, the pan-European exchange was formed, from a merger of the Amsterdam Brussels, Paris, and Lisbon Stock Exchanges

2000 – LIFFE demutualises to become a for-profit business. In the next two years LIFFE also migrated to its proprietary electronic platform (LIFFE CONNECT®),which won a Queen's Award for Enterprise in 2002

2002 – LIFFE joined Euronext, creating a single international market for derivatives covering five European markets, creating Euronext.liffe

2005 – Merger of NYSE and Arca, transforming NYSE into a publicly traded company

2006 – Euronext.liffe launches Bclear, a pioneering service offering clearing and processing of OTC trades

2007 – Euronext merges with NYSE, creating NYSE Euronext. LIFFE became NYSE Liffe, the group's global derivatives business

2008 – The launch of NYSE Liffe's own central counterparty, NYSE Liffe Clearing, in the UK

2009 – NYSE Euronext acquires AMEX equities and options – transferring operations to NYSE to maintain the floor trading business

NYSE Liffe launches a futures exchange in the United States. NYSE Liffe U.S. has seen the launch of a range of innovative products and services, including Eurodollar and Treasury futures, precious metals and MSCI indices

2011 – A record year for NYSE Liffe - over a billion contracts traded

Economies of Scale

- At its essence, market infrastructure is a processing business – at both the trading and post-trading levels
- High fixed costs in developing and building robust trading and clearing platforms
- Scalability offers prospect of significant unit cost reductions
- Demand to reap these benefits grew as market participants came under increased commercial pressure in the late 1990s:
  - "Not all was rosy for the big investment banks as the new century dawned. To support the expansion of their activities, they had invested heavily in computer-driven trading capacities as the 1990s progressed. Trading volumes soared, but margins shrank, in some cases close to zero… The banks looked for opportunities to cut costs and turned to their infrastructure providers to share the pain." **Peter Norman, The Risk Controllers**
- The search for the most cost-effective and capital efficient solutions - vertical v. horizontal integration models

Economic and Monetary Union

"The advent of the euro triggered intense discussions among operators and users of exchanges and market infrastructures on all manner of future possibilities, including cross-border cooperation, links, mergers and even the creation of a single European CCP".

Peter Norman, "The Risk Controllers"

The Euro

- 1 January 1999 – a truly transformational event
- Natural barrier to integration replaced by opportunity for cross-border synergies and economies of scale
- Coincided with spread of electronic trading and exchange IPOs
- National financial products replaced by pan-eurozone benchmarks:
  - Euribor
  - Bund
  - DJ EuroSTOXX and FTSE Eurotop Indices

Single Market Policy

"It is perhaps no exaggeration to conclude that inefficiencies in clearing and settlement represent the most primitive and thus the most important barrier to integrated financial markets in Europe."

First Report of the Giovannini Group, November 2001

Trading Level

Investment Services Directive (ISD) – in force from 1 January 1996:

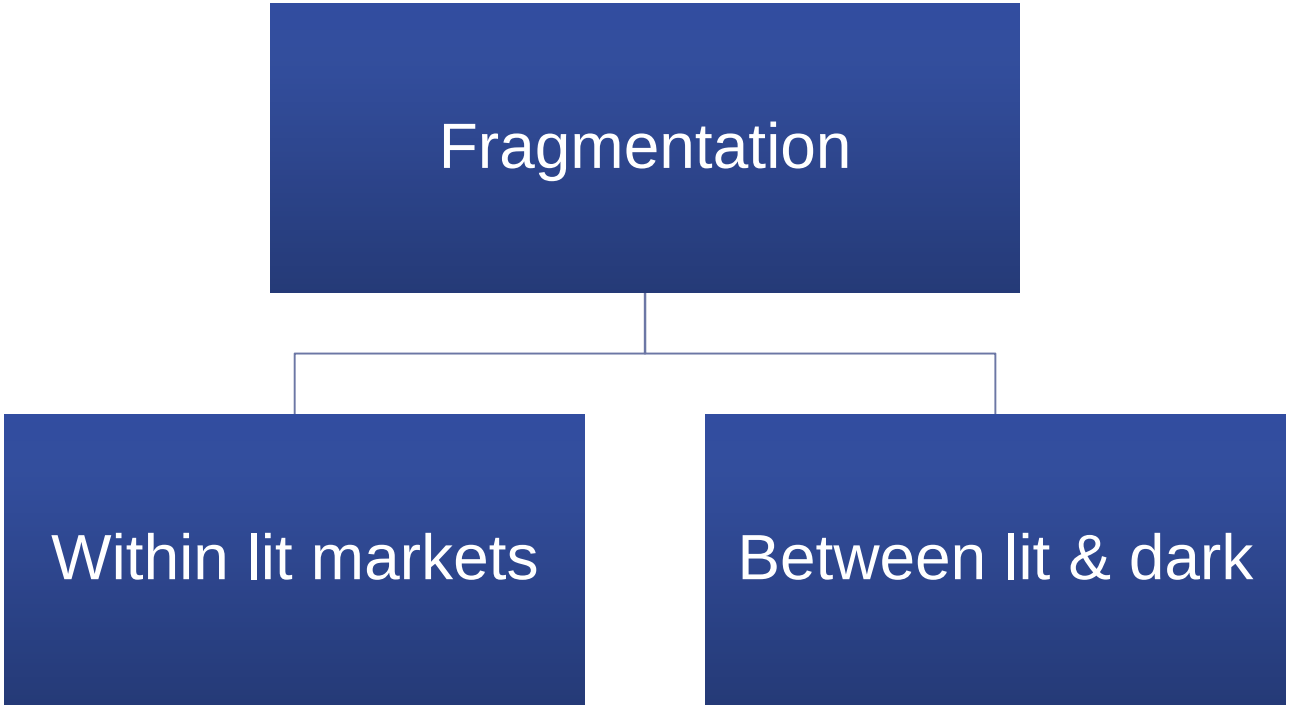
- Concept of “regulated market” created:
  - Stock exchanges
  - Futures and options exchanges
- European passport for regulated markets and investment firms, enabling cross-border electronic market access
- Concentration rules are not removed, and continue in Belgium, France, Italy, Spain, Portugal and Greece

MIFID brings further changes

- Key component of the 1999 Financial Services Action Plan - adopted in April 2004, in force by 2007
- **A new competitive dynamic in cash equities trading:**
  - Concentration rule prohibited
  - Creation of Multilateral Trading Facility (MTF) category to operate alongside existing regulated market category
  - Harmonised high-level standards, with more detail provided by FESCO
  - New category of Systematic Internaliser for firms matching business with their customers outside a multilateral venue on a regular basis
  - Harmonised pre- and post-trade price transparency requirements
- **The other side of the coin is fragmentation**

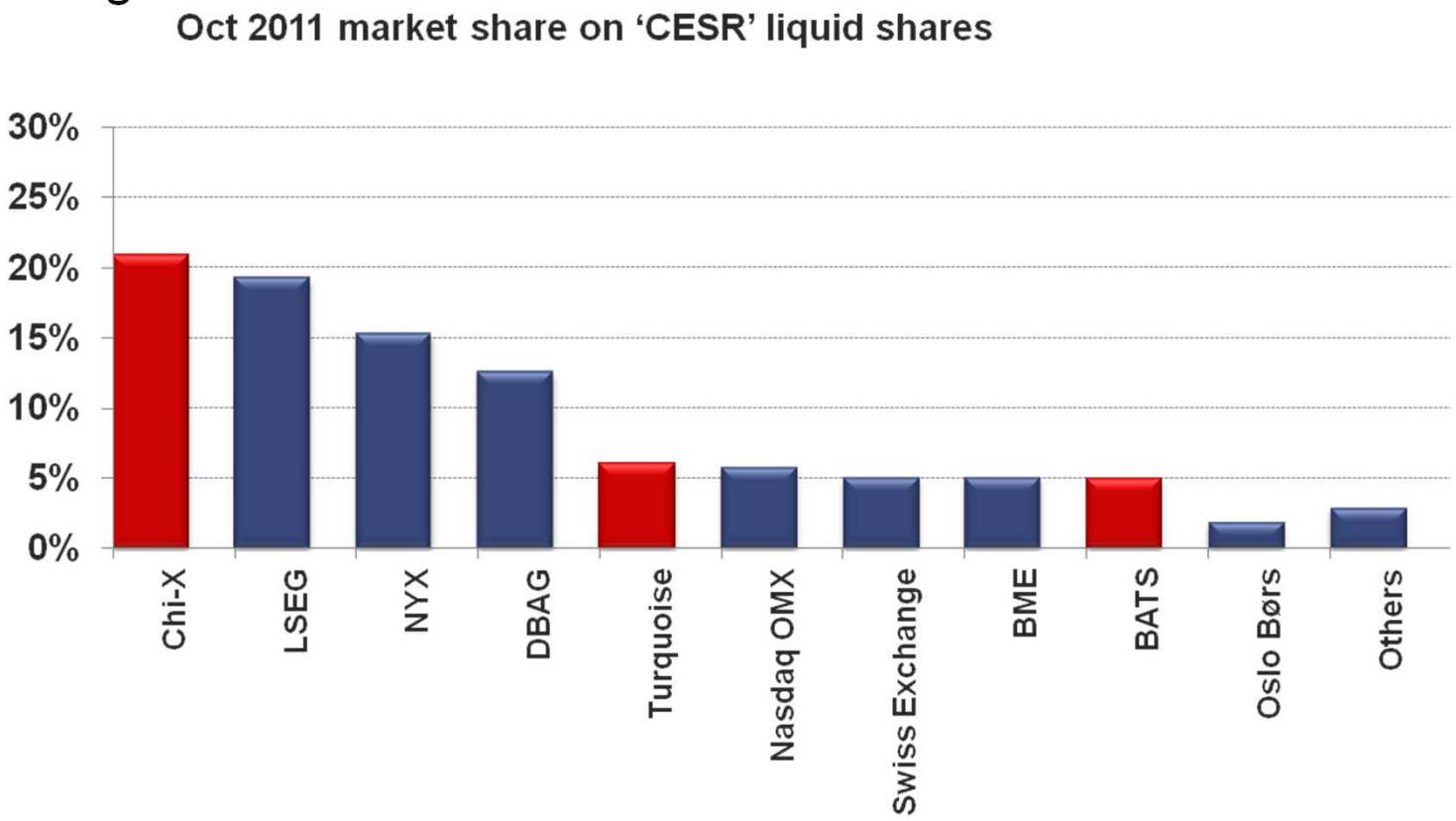
Dis-integration: Fragmentation in the Post-MIFID market

- Cash equities: fragmentation has occurred within lit markets and between lit and dark



Fragmentation within lit markets (post-MIFID)

- Huge success in creating choice, competition and pan-European trading



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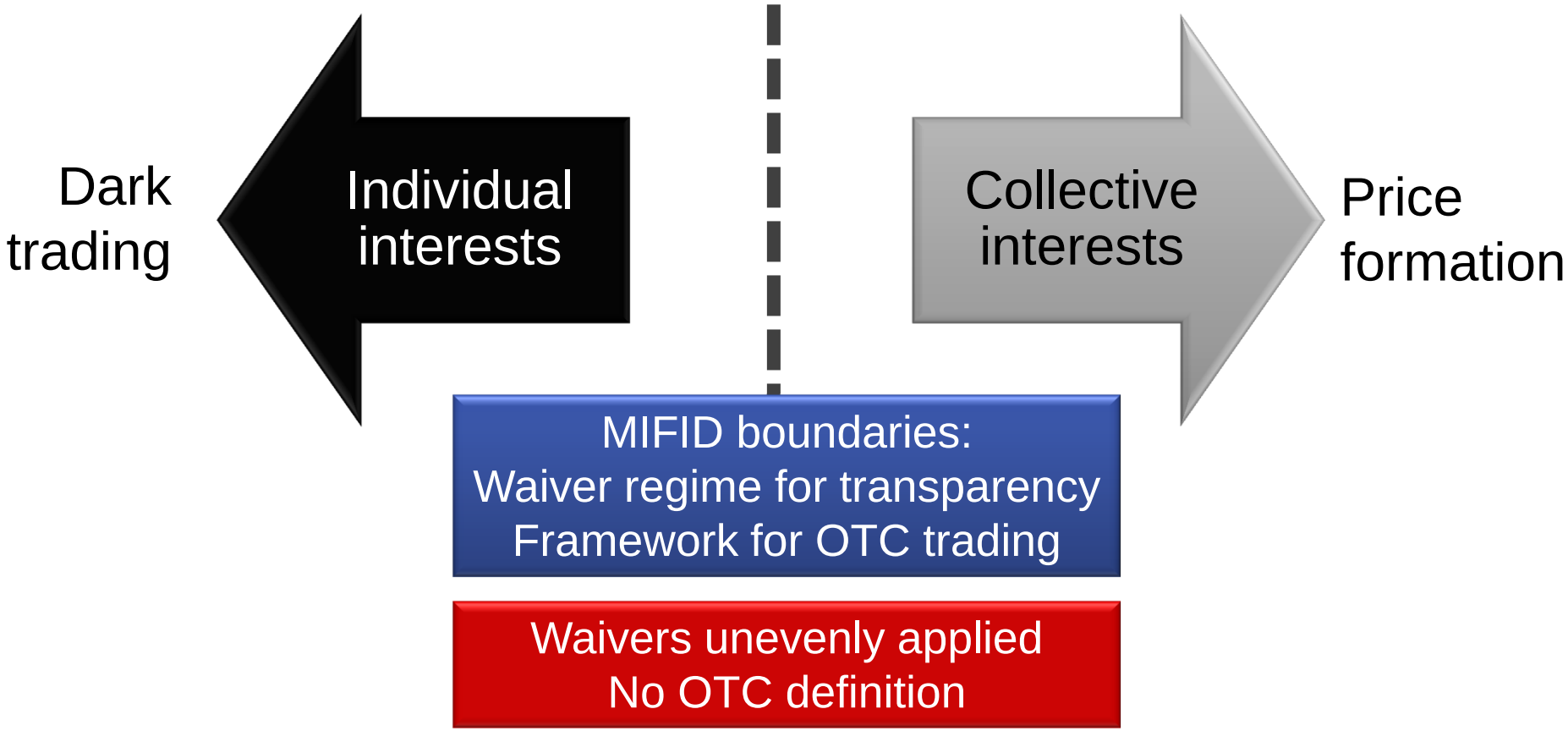
Fragmentation between lit and dark (post-MIFID)

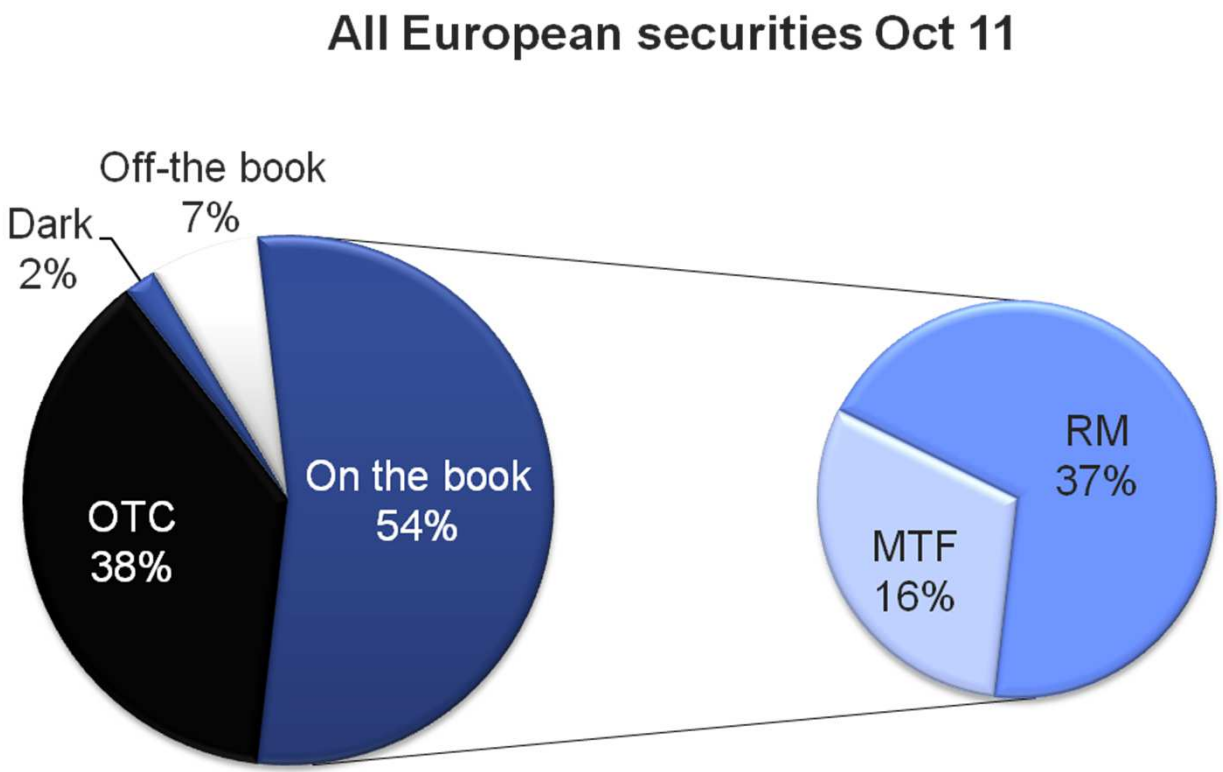
- It was not the intention of MiFID to create competition between lit and dark



Need to strike balance between legitimate dark trading needs and preserving price formation

Fragmentation between lit and dark

- At what point is the price formation process damaged?



Data: Reuters

Clearing and Settlement Levels: Building blocks of post-trade integration policy

- Lamfalussy Reports: November 2000, February 2001
- Private sector should bear most responsibility for sectoral restructuring
- Public policy to focus on:
  - Reducing excessive cost of cross-border clearing & settlement
  - Ensuring fair competition in post-trade services
  - Soundness of technical links between CSDs
  - Considering whether there should be harmonised EU standards for CCPs and CSDs

Building blocks continued

- Followed by the Giovannini Group (Reports in November 2001 and April 2003)
- Main focus was settlement
- Identified 15 barriers to integration, in 3 categories:
  - Divergent technical requirements and market practices
  - Differences in national tax procedures
  - Differences relating to legal certainty
- Plan to replace these with harmonised standards over 3 years
- In parallel, international work on harmonised standards for CCPs:
  - CPSS/IOSCO – November 2004
  - ESCB/CESR – May 2009 (covered CSDs too)

The Commission speaks

- Communications in 2002 and 2004:
  - Called for elimination of the Giovannini barriers
  - Users to have fair access to the post-trade systems of their choice to enhance integration, protect investors and lower costs
- November 2004 – Commissioner McCreevy is appointed:
  - Pressure grows for an industry-led solution
  - “We will decide whether any European legislation or other intervention is necessary…As far as I am concerned, the clock is ticking.” (November 2005)
- A year later, DG Comp estimates that the cost of post-trade processing of cash equities is 8 times greater in Europe than in the US

The Code of Conduct

- Signed by CEOs of exchanges, CCPs and CSDs - November 2006
- Aim: “to offer market participants the freedom to choose their preferred provider of services separately at each layer of the transaction chain (trading, clearing, settlement) and to make the concept of “cross border” redundant for transactions between EU Member States”.
- Cash equities focus in initial iteration. Three elements:
  - Price transparency in post-trade services
  - Rights of access on a fair, transparent and non-discriminatory basis, including interoperability between CCPs
  - Separate accounting for providers’ main activities and service unbundling

FESE

EACH
European Association of CCP Clearing Houses

ECSDA
European Central Securities Depositories Association

The Crisis breaks

Paradigm Shift:

o Systemic risk reduction eclipses competition as the primary policy objective.

o Opportunity to achieve other policy objectives - "You never want a serious crisis to go to waste".
Rahm Emanuel, White House Chief of Staff, 9 February 2009

Integration and the current regulatory agenda

- G20 trading and clearing mandates for standard OTC derivatives
- CPSS/IOSCO Principles for Financial Market Infrastructure
- EMIR
  - Clearing obligation
  - Harmonised standards for EU CCPs
- MIFID/MIFIR
  - Trading obligation
  - Open access provisions for CCPs and trading venues
- CSD Regulation

Role of the European Supervisory Authorities

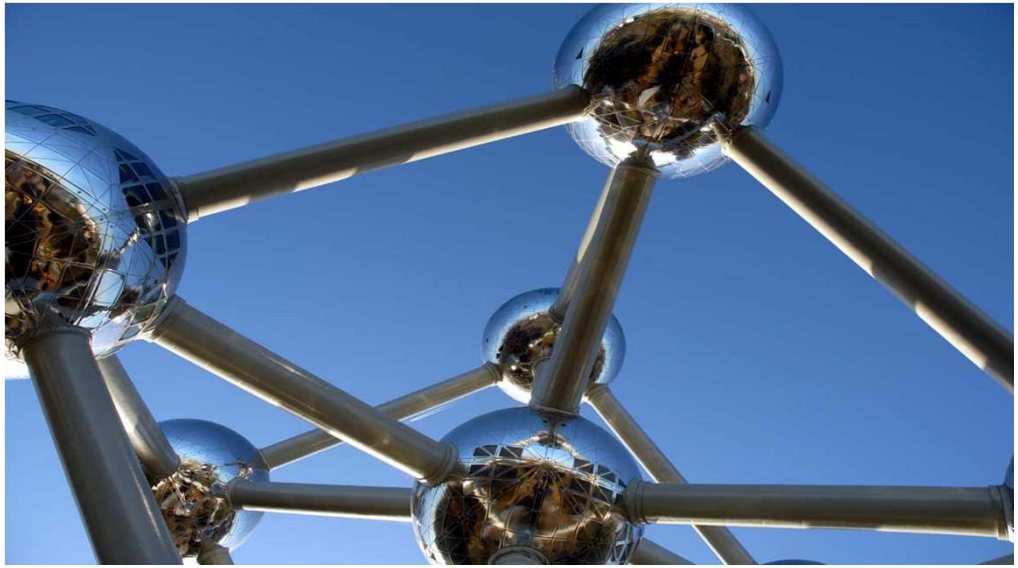
- Draft Technical Standards
- Guidance to competent authorities and regulated entities
- College structure for CCP authorisation and supervision
- Binding mediation role

EBA European Banking Authority
European System of Financial Supervision

esma

Taking stock

- Integration since 1990 has changed the face of the markets
- Driven by commercial factors and public policy
- Counterveilling factors have also had a major impact:
  - Benefits of more competition in cash equities
  - Costs of greater fragmentation
- That trade-off will be a major factor as the current policy debate unfolds



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