

Dark Pools, MTF, Algo trading & Co Impact on Investor Relations

DIRK Conference 2011

Dr. Martin Steinbach

Understanding the new trading world and their impact on investor relations

Revolution in share trading – a decade of fundamental change

- New Liquidity pools: Dark pools, MTFs & Co.
- New players: market participants and traders
- New Order books: Lit and Dark Trading
 - > Understanding the new trading world

Impact on issuers & investors and challenges for IR

- Why change affects CFOs and IR capital market agenda?
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- Liquidity providing, serving investors activity
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 - > Knowing the new challenges of investor relations

The new look in capital markets

- >TOP 5 investor relation recommendations

Change: Why the revolution in share trading directly impacts IR and CFOs capital market agenda ?

Changes in share trading directly impacts:

- Issuers cost of capital by pricing effects on shares
- Issuers ability to finance growth again
- Issuers index inclusion by new trading volume creation

- Investor targeting with new players
- Investor tracking in high speed
- Investor relations in fragmented virtual markets

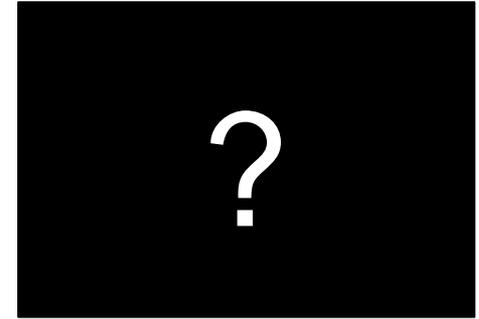
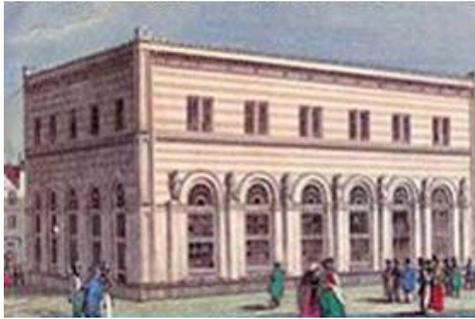


“We’ve seen a steady fragmentation of the markets, dark pools, high-frequency trading, and so on, all leading to an equally steady decline in the ability of companies to identify their shareholders.”

NIRI, 2010

Understanding important trends and impacts is essential for daily Investor Relations and CFOs capital market agenda

Major milestones: What happened in Exchange Trading ?



1980s **Electronic Trading:** Launch of the first electronic trading systems, consolidated tape and Order Handling Rules

> **Transmission from Floor trading to Electronic Trading**

1987 Crash on Wall Street due to Program Trading (Brady Report)

1990s **Decimalization:** Minimum tick size, trading with/in millicent's

> **Start of Algo-Trading with strong volumes and liquidity impact**

1999 **Regulation:** US, Reg NMS and 2007 EU, MifiD:

> **Fragmentation of Markets and Liquidity through the possibility to launch alternative trading systems (Dark pools, MTFs,...)**

2010 Flash Crash in USA

Consolidation ?

Fundamental change of the last decade in share trading: How important measures and trading activity develop ?

+ 61%	Trading volume
- 85%	Transaction volume
+ 700%	Number of Trades
1%	Today avg. probability that orders matches to a trade
- 33%	Transaction costs
0,0001€	Minimum tick size
240	Today: Number of EU trading platforms
12 h	Trading hours 3 > 12 h
+ 50%	Today: Market Share of Algo traders

Data: Australian Securities Exchange Review: Algorithmic Trading and Market Access Arrangements, Feb. 2010, FESE, 2010: FESE Position on Dark Pools and Broker Crossing Network, WFE Statistics 2000-2009.

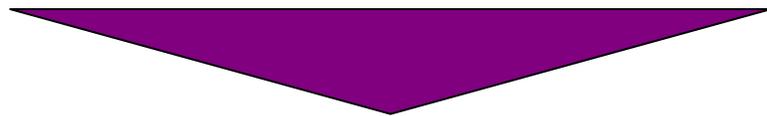
What are the forces, dynamics and drivers of the fundamental change ?

Technology and performance increased dramatically in all Sectors

- Networks (Communication)
- Processes (Software)
- Processors and Capacities (Hardware)

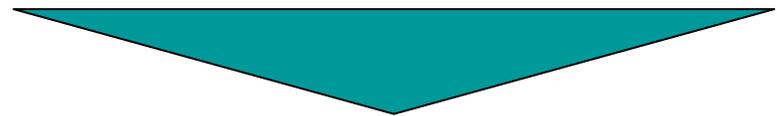
Market entry barriers for new trading platforms fall

- Decreasing cost of hardware
- Higher availability of mature professional trading software
- Communication standards allow unique data exchange globally



New liquidity pools evolve and led to a decrease in transaction costs

- High technology and higher competition
- Expansion of trading hours



New market participants create a substantial amount of volume

- Algo traders
- High frequency traders

Lost in Cyberspace: Who are the new players and their roles?

Robo Traders

Algo trader (Algorithms & Quants)

- Sniper and stealth strategies
- TWAP / VWAP Benchmark

High frequency trader

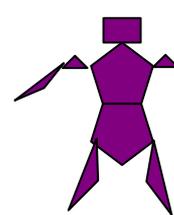
- Rapid fire bids and offers with low latency
- Quote stuffing, pinging and sniffing

Smart Order Router

- Routing in warp speed (latency)
- Looking for best execution
- Global connectivity in trading universe



In any gun fight, it's not enough just to shoot fast or to shoot straight. Survival depends on being able to do both. And a single shot isn't always enough either – you also need to be quick to load and fire again.

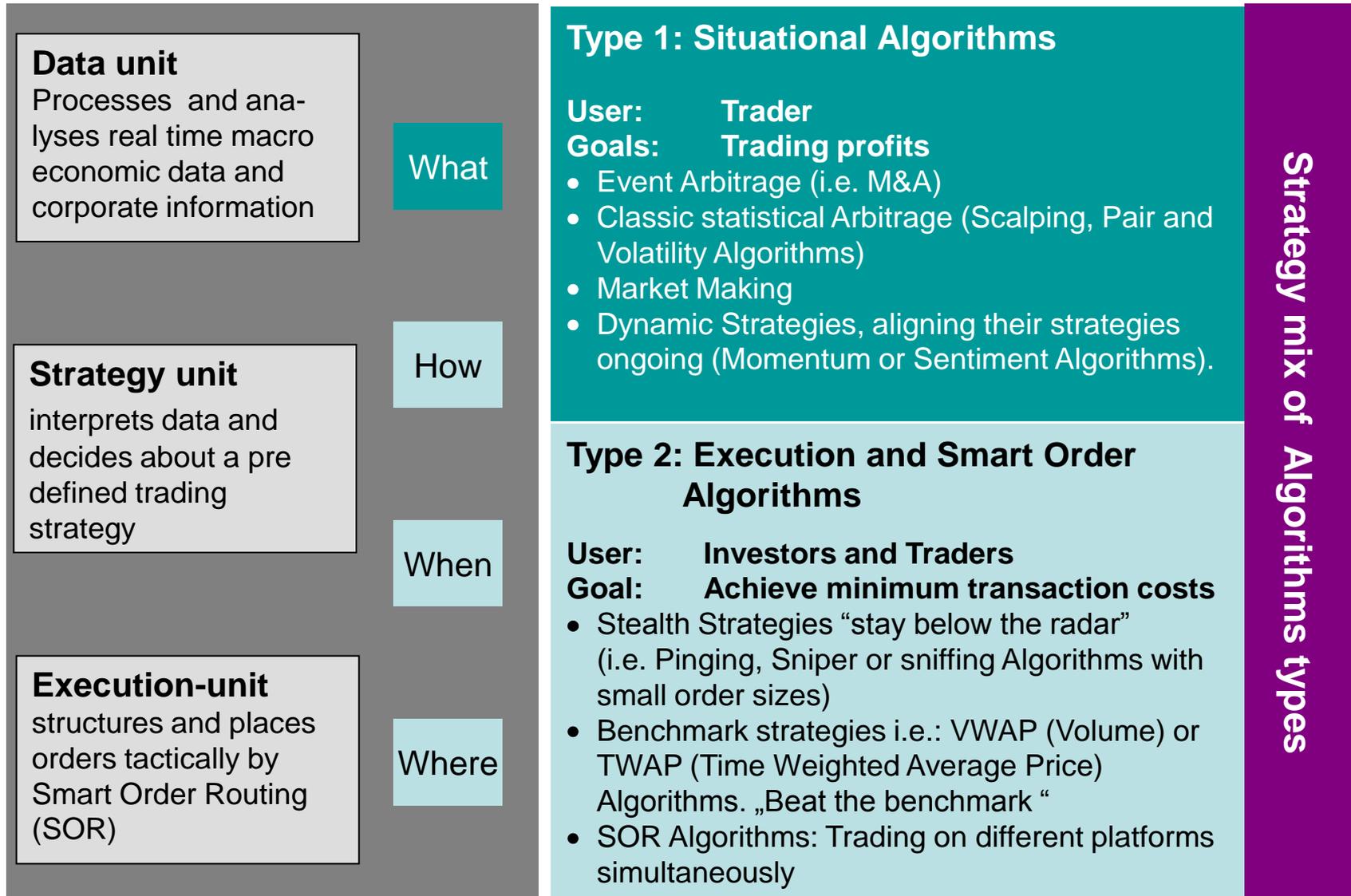


In a similar way traders on the world's financial markets are also embarking on a massive arms race. The only difference is that the lone gun-slinger of the open-outcry trading floors is rapidly being replaced by ultra-fast, computerized trading systems which are more akin to robots with machine guns.

IBM “Tackling Latency – an algorithmic arms race”

How Robo Trader and Smart Order Router decide about:
What to trade, how to trade, when to trade and where to trade ?

What is inside? Understanding the „Algo Black Box“



Lost in Cyberspace: Who are the new players and their goals?

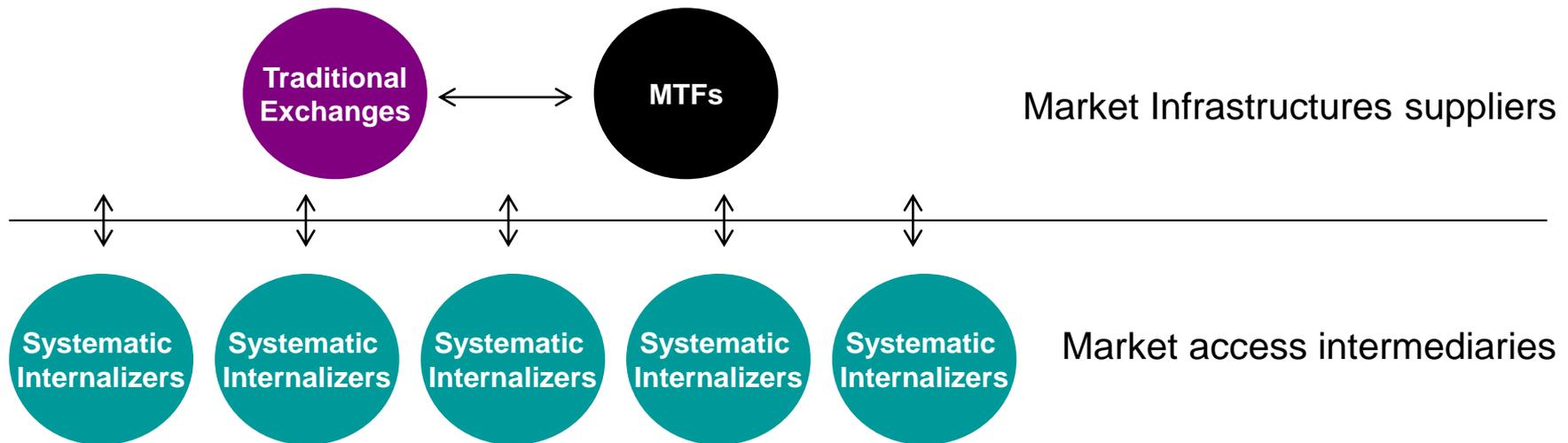
New trading platforms

Dark pools

- Dark liquidity - opaqueness
- Anonymity

Fragmented universe

- Multilateral Trading Facilities
- Systematic internalizers and crossing networks



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Impact of Algo-Trading & Co on issuers and investors: What are discussed pros and cons in the public?

Pros: > New vs. old trading world or high tech vs. human touch

1. Reduction of implicit and explicit trading cost
2. Higher Liquidity
3. Speed of execution & information and higher capacities
4. Lower human risk

Cons: > Possible negative impacts on market integrity

1. Fairness: Technological arbitrage impacts investors without access to algo-trading (Speed of transmission lines and access, real time data and availability of high technology)
2. Speculation: Supports volatility and speculation more than investment
3. Investor confidence:

“These algorithms are designed to add and remove liquidity from the market, though they can sometimes flood the market with orders that far exceed a stock's normal value. When this happens, firms that use computer trading algorithms can incur major losses, Schapiro said. She added that algorithms that have gone out of control can also cause major disruptions to trading that can hurt the stability of markets and rattle investor confidence”

Source: Dow Jones Newswires: SEC's Schapiro Hints at New Controls for Trading Algorithms, 2010.

4. Pot. micro- und macro-market manipulation of prices & cost of capital

Investors:

What are the impacts on investment behavior ?

Many liquidity pools evolve > Fragmentation of liquidity and information

- Increasing capacity of computer systems allow new execution strategies
- Implementation of automated trading tools due to fragmentation of liquidity into various execution venues

Challenge to get real time price information about all trading venues

- Less visibility of prices on all trading platforms
- No consolidated tape requirement - lack of whole market view
- Price sensitivity of strategies as profitability decreases but consolidated price data is prohibitive

Investors are struggling to:

- Identify the trading venues for best execution
- Locate and access liquidity
- Route orders to many places

The challenge: Investor Relations to follow and serve investors in new tasks

Issuers liquidity is not sticky anymore: Who are my new/old IR contacts to get transparency?

Dark Pools & Crossing Networks

- **Block Trading Dark Pools** (Block Cross, CovergEx Cross, ITG Posit, Liquidnet, Pipeline)
- **Agency Dark Pools** (Fortex, Instinet CBX, Knight March, NYFIX Millenium, SIG RiverCross, Sungard Assent ATS)
- **Internalization Dark Pools** (Citi Match, Credit Suisse Cross-finder, GETCO Execution Services, Knight Link, Barclays Liquidity Cross, BOA Meryll Lynch MLXN, Morgan Stanley Pool, UBS PIN, Goldman Sachs SigmaX)

Broker-dealer-owned dark pools

- Barclays Capital – Liquidity Cross
- BNP Paribas
- BNY ConvergeX Group
- Citi - Citi Match
- Credit Suisse - CrossFinder
- Fidelity Capital Markets
- GETCO - Execution Services
- Goldman Sachs SIGMA X
- Knight Capital Group - Knight Link, Knight Match
- Deutsche Bank - DBA
- Merrill Lynch
- Morgan Stanley
- Nomura - Nomura NX
- UBS Investment Bank
- ATS Ballista Securities
- BlocSec
- Bloomberg Tradebook

Exchange-owned dark pools

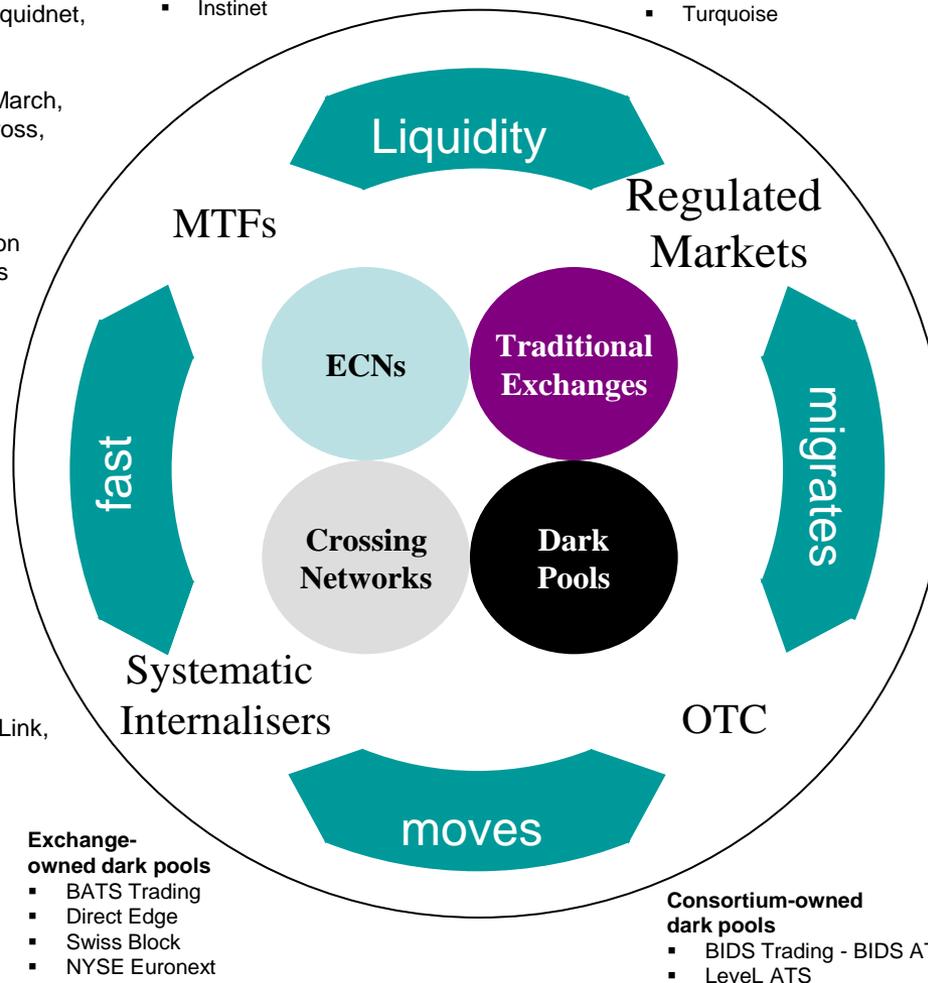
- BATS Trading
- Direct Edge
- Swiss Block
- NYSE Euronext
- ISE, NY

Electronic Communication Networks

- NYSE ARCA (Archipelago)
- Instinet

Other dark pools

- Chi-X
- Turquoise



Consortium-owned dark pools

- BIDS Trading - BIDS ATS
- Level ATS

Systematic Internalisers

- ABN AMRO BANK N.V.
- BNP Paribas Arbitrage
- Danske Bank Finanstilsynet
- Goldman Sachs International
- Nordea Bank Danmark A/S
- Knight Capital Europe
- Nomura International Plc
- Citigroup Global Markets
- UBS Credit Suisse Securities

Multilateral Trading Facilities

- Chi-X Europe
- BATS Europe
- NYFIX Euro Millenium
- ITG Posit
- Liquidnet
- NASDAQ OMX Europe
- Turquoise
- Freiverkehr deutscher Börsen

Dark Pool Aggregators

- SuperX - Deutsche Bank
- QUOD FINANCIAL
- Progress Apama
- ONEPIPE - Weeden & Co
- Xasax Corporation
- Crossfire - Credit Agricole Cheuvreux

Independent dark pools

- Instinet
- SmartPool
- Posit/MatchNow (ITG)
- Liquidnet
- NYFIX Millennium
- Pulse Trading BlockCross
- RiverCross
- Pipeline Trading Systems

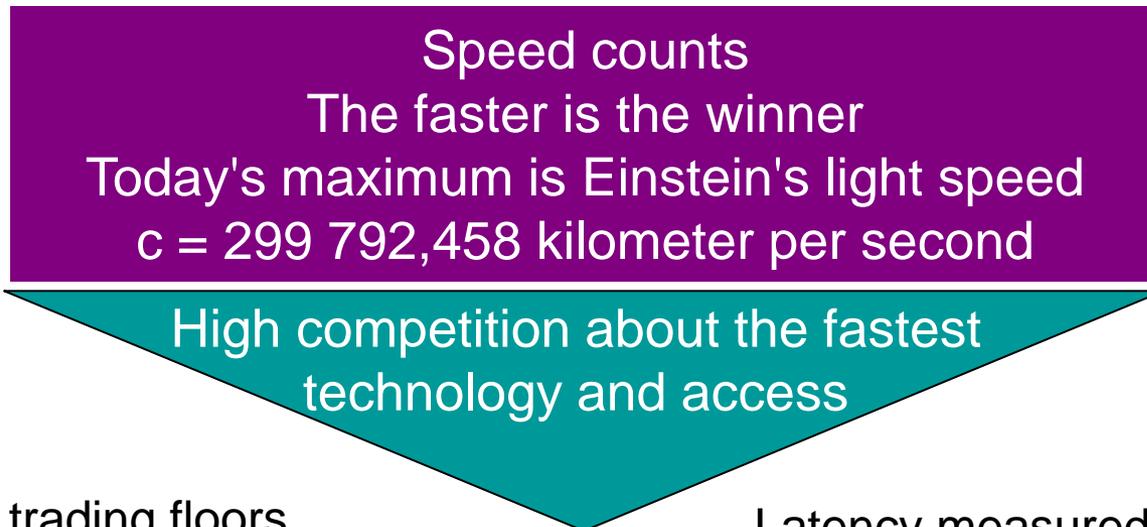
Data: Aite: Dark Pools 2009, Sep. 2009 und European MTFs, June 2009, CESR MiFiD Database 2010.

The challenge: Investor Relations to look at many pools

Issuers tracking of investors: Why the need for speed in share trading ?

Speed is an integral part in matching and pricing mechanism of trading platforms

1. Price priority: Best bid > < Best ask
2. Time priority: First come first serve !



The new trading floors

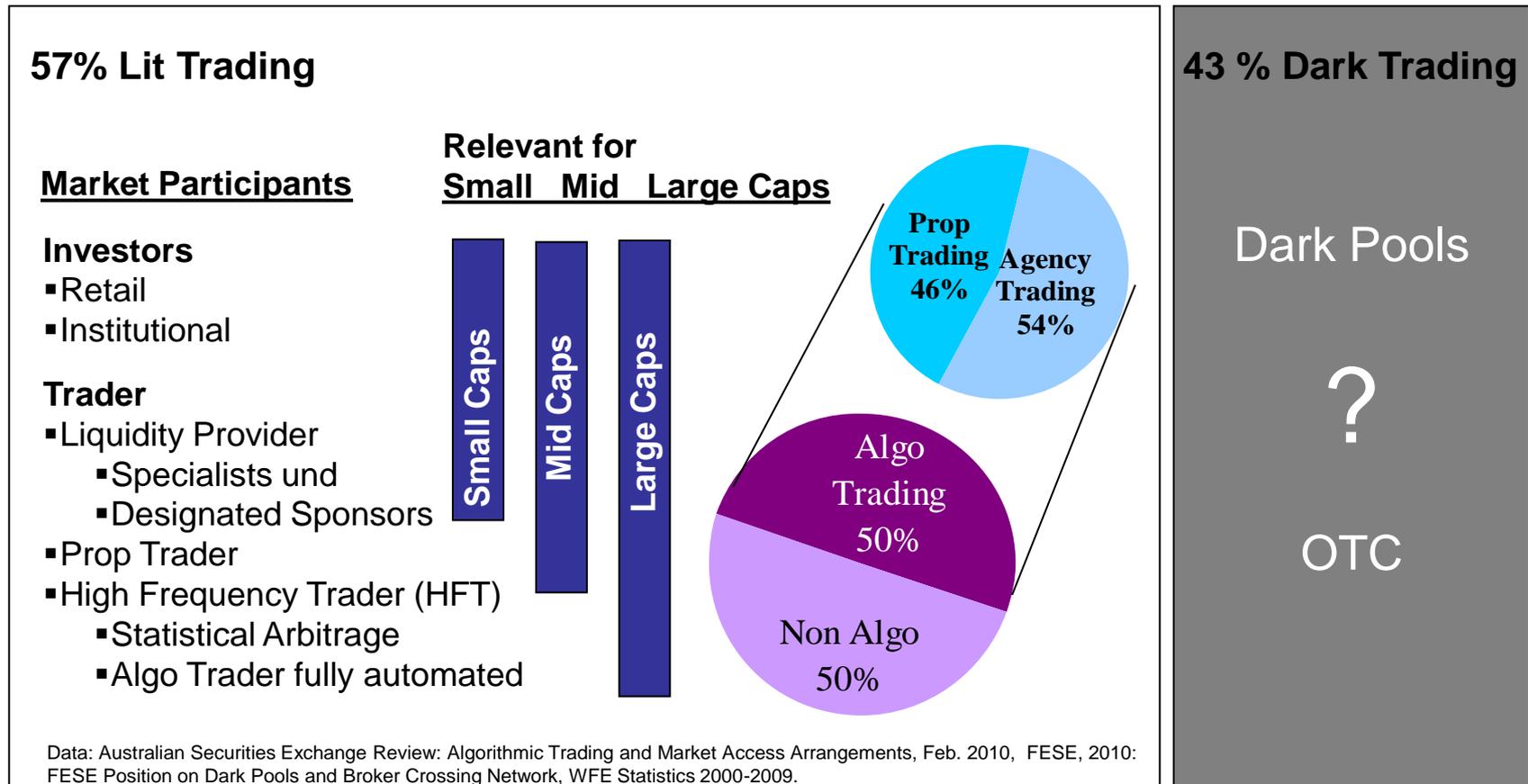
- Speed by co-location nearby exchanges server farm
- Speed physically by glass fiber lines
- Speed by high efficient interfaces

Latency measured in nanoseconds

- Speed of orders: round-trip times below 1 Millisecond
- Speed of information: real time prices

The challenge: Investor Relations welcome new investors in nanoseconds

Issuers order book: How types of issuers are affected in their order books?

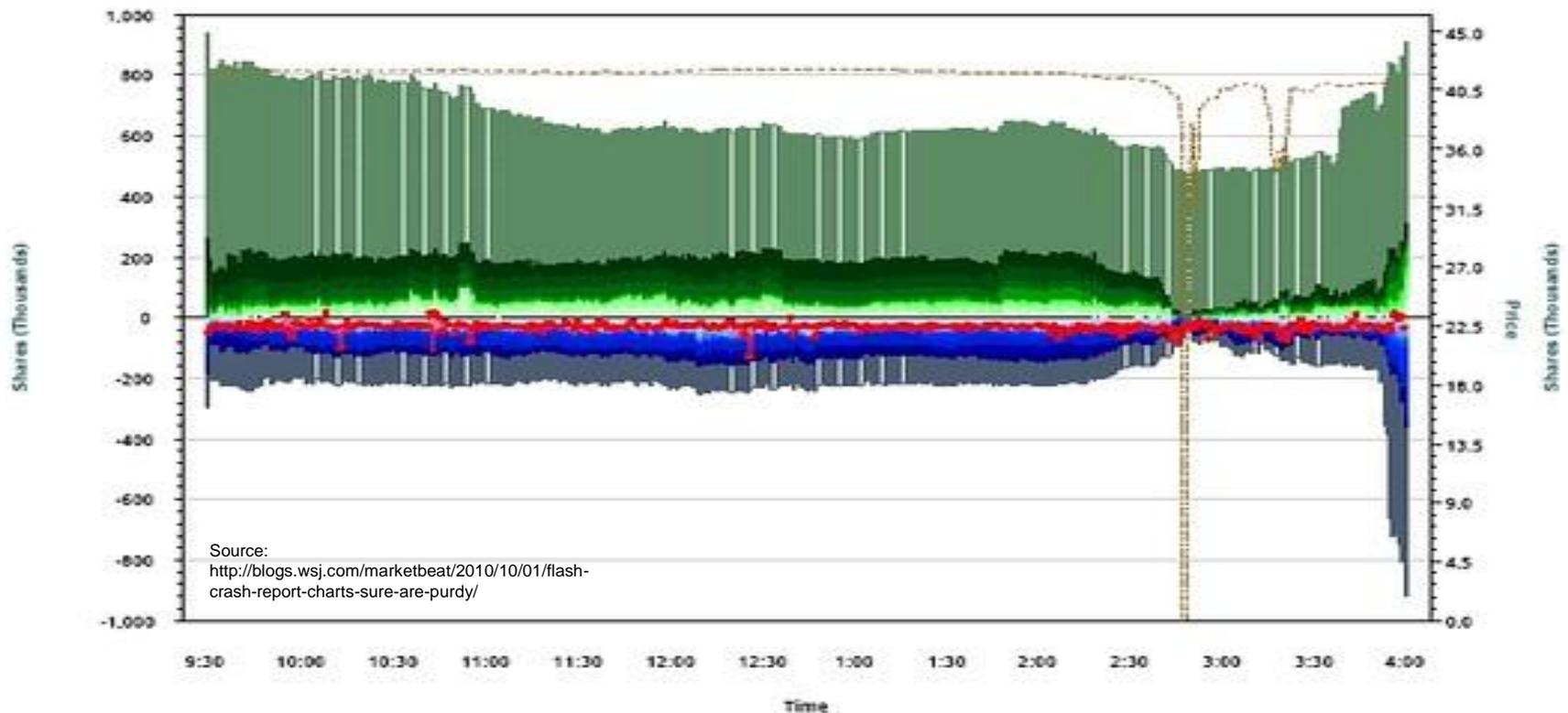


The challenge: Investor Relations to analyze the order book serving CFO and Investors

Issuers cost of capital: How flash crash 2010 affects companies value?

- Dow Jones - 9% in 6 minutes
biggest one-day point decline in history: 998.5 points
- Some shares down to -90%: i.e. Accenture plummeted from above \$40 at 2:47 pm. to \$0.01 at 2:48 p.m.

9:30am - 4:00pm



Issuers cost of capital:

Were all companies small to large caps were affected ?



Quelle: <http://etfdb.com/2010/ten-shocking-etf-charts-from-the-flash-crash/>

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Top 5: Investor relation recommendations

Reboot knowledge about the new trading world

- CFOs capitals market agenda: cost of capital
- IROs daily work: understanding cyberspace, new rules, explaining movements, ...

Integration of new books in investor activity analysis

- New view in the lit order book(s) and liquidity providers
- Consolidated view of all markets to get whole order book

Re- setting up IR capital market tools

- Accessibility to new players in liquidity providing
- Speed of anything IR does (i.e. @-ad hocs)supporting trading velocity for investors

Questioning displayed volumes and liquidity

- Liquidity providing, serving investors activity
- Trading volume as criteria for index participation

Knowing the new challenges & pitfalls of investor targeting and tracking

- Identification and targeting of new shareholders in high speed
- Tracking Investors for AGM and special situations needs

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Thank you for your attention !

For more Investor Relation recommendations:



Dr. Martin Steinbach has spent over seventeen years in the Corporate Finance field. He held different management positions in the Investment Banking (Head, GZ Bank AG), Private Equity (GM, SG Capital), the IT industry (Head of Corporate Finance and IR, entory AG) and Securities Exchange (Head of Issuer and Investor Markets, Deutsche Börse AG) sector. His area of expertise includes IPO's and SPO's, mid-cap M&A transactions, Investor Relations and technology focused Private Equity deals. His unique professional background brings together experience from the investor, issuer, banking, advisor and from a leading securities exchange point of view. Since April 2011 he joined Ernst & Young responsible for IPO and listing services



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Qualification

- ▶ Following an apprenticeship at SGZ-Bank AG he has a degree in banking, graduated as Master of Business Administration (Diplom Kaufmann) and holds a Ph.D. (Dr. rer. pol.) from the Johann Wolfgang Goethe-University, Frankfurt/Main.
- ▶ His practical experience is also founded on memberships in supervisory boards of listed and non listed companies and investment committees of Private Equity firms.
- ▶ He has published various articles and contributions to books about stock markets, IPOs, Investor Relations and REITs and is a frequent speaker on international seminars.

Projects:

- ▶ IPOs of Small, Mid and Large Caps
- ▶ Capital Market Coaching of listed companies
- ▶ Emerging Market IPOs from China, CIS/Russia and India
- ▶ Listing Segments: Creation and Promotion
- ▶ Investor Targeting (Roadshows, Conferences) and Campaign Management
- ▶ Launch of SPACs und REITs
- ▶ Investor Relations Support (Equity Story, Education, Toolsets)
- ▶ Strategic Peer and Industry Group Positioning (Indices, Derivatives)
- ▶ Liquidity management of traded shares
- ▶ Exchange Readiness with regards to Custody, Clearing & Settlement, liquidity Providing, Indices and derivatives
- ▶ Depository Receipts

Well known Exchange Expert:

- ▶ From 2002-2011 Martin was Executive Director, Head of Issuer & Investor Markets of Deutsche Börse AG
- ▶ Responsible for sales, marketing and product development in the IPO and listing business and campaign management towards Retail and Institutional Investors.
- ▶ By internationalizing of the IPO platform of Deutsche Börse he has experience in Emerging Markets working across China, Russia/CIS and India.