The rise of AT/HFT: Challenges for regulators

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Regulation and financial innovations

• The main challenge for regulators: Financial innovations usually are outside the scope of regulation (not anticipated; circumvention)

• Additional challenges raised by AT/HFT: it is a by-product of both regulation and of technological advances
  o Regulation NMS (National Market System) in the US (2005) and MiFID in Europe (2004) led to financial market segmentation
  o Benefits of financial technology: lower transaction costs; faster executions; greater volumes of trades; less human errors; increasing productivity

• High speed: information and execution

⇒ Far reaching consequences on market structures and dynamics...and regulatory concerns
Regulatory concern 1: market abuses

The micro-prudential focus: financial market regulation

- Spoofing/layering
- Quote stuffing
- Momentum ignition
- Last “second” withdrawals
- "Fronting”/ “front running”

⇒ May point to insufficient supervision or insufficient coordination among supervisors
⇒ migration of larger transactions to dark pools
Unintended consequences of technology: accumulation of losses at the speed of light before they are discovered and corrected by Human oversight

- August 2007: the “unwind hypothesis“
- The “Flash Crash” of May 6, 2010
- March and May 2012: The BATS and Facebook IPOs
- August 2012: Knight Capital

⇒ Operational risks can mute to systemic risk
The macro-prudential focus

- Interconnectedness and scope for contagion between fragmented exchanges
- Clustering and “herding”
- Amplification and volatility
- Financial market imperfections
  - Adverse selection
  - Asymmetric information
  - Moral hazard
- Inexistent or insufficient loss absorption capacity
Regulatory concern 4: welfare considerations

High fixed investment costs but for which economic benefits?

• Market efficiency and price discovery
• Market liquidity and market making
• Scope for the financing of the economy: impressive developments: HFT traders are accountable for 60 to 70% of trades in the US stock market (30 to 40% in Europe), 60 to 80% on some FX markets. But does a millisecond really matter for long-term finance?

⇒ How profitable is the industry? Why not more competition?
So far, the regulatory response has not been necessarily appropriate

Ex. France:

- August 2012: tax on HFT: concern here relates to the effect of the exemption on “market making”+cumulated effects of the FFT (tax evasion?)
- Current attempt to levy a transaction tax in 11 out of 27 European countries: may affect market liquidity and hedging; risk of migration of activities (tax evasion?)
- New banking law aiming at separating trading from retail activities: forbids HFT for the trading entity while attempting to protect market making; at odd with the objective to move to central clearing and trading platforms
Towards macro-prudential regulations?

The focus would be more on dealing with systemic risks

• Engage in systems oversight and promote best practices in system design, complexity management and transparency

• Promote risk safeguards

• Develop the legal entity identifiers

• Data gaps: ex. EMIR ("data Tsunami")

• Public trade repositories?