

# The rise of AT/HFT: Challenges for regulators

**Laurent Clerc**  
Director Financial Stability

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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
    - Regulation NMS (National Market System) in the US (2005) and MiFID in Europe (2004) led to financial market segmentation
    - 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

# Regulatory concern 2: The ghosts in the machine

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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 mutate to systemic risk

# Regulatory concern 3: systemic risk

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## 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?

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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?