

# Financial Markets and HFT

## An Information Management Perspective

**Babis Theodoulidis**

Manchester Business School

The University of Manchester, England

# Background

- BIS Foresight project “The Future of Computer Trading in Financial Markets”
- Financial Markets and High Frequency Trading: An Information Management Perspective, SSRN Report <http://dx.doi.org/10.2139/ssrn.2178944>

# Financial Markets and HFT

- need to re-examine financial markets from ground-up
- draw knowledge from other domains
  
- Dimensions
  1. Speed and Acceleration
    - circuit breakers, tick sizes, resting times and order cancellation rules, colocation
  2. Compliance of market operators and trading systems
    - certification, notification of algorithms, market making role, data access and market monitoring

# Financial Market Data - BIS

- *Making timely and detailed data across financial markets easily available to academics, but recognising the possible confidentiality of such data*
- What do we mean by
  - Timely
  - Detailed
  - Across financial markets
  - Available to academics
  - Confidentiality

# Financial Market Data - EU

- *“Market data should be easily and readily available to users in a format as disaggregated as possible to allow investors, and data service providers serving their needs, to customise data solutions to the furthest possible degree.”*
- What do we mean by
  - Easily and readily
  - Disaggregated format
  - Investors and data providers
  - Customized data solutions

# Financial Data Management

- Single-point of truth
- Magical Reality of Financial Information Management

Getting the *right information* to the *right person/place*  
at the *right time*

# Financial Data Management (I)

- Data dimensions
  - Trader ids, product ids, order data, timestamps
  - Pre Trade, post trade and settlement data
  - Asset classes
- Data granularity
  - Trader vs broker
  - timestamp granularity
- Timestamp synchronisation
  - Cross-market, cross-jurisdiction

# Financial Data Management (II)

- Data disclosure
  - Legal issues in relation to personal data and IPR
  - Format (data disclosure maturity levels)
- Data aggregation/disaggregation
  - Cross-referencing
- Data context
  - Order types
  - Rules and regulations applicable