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 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