Discussion of

Liquidity Provision in a High-Frequency Environment

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Summary: Data

• High-frequency data from NSE
  – Equity spot and futures
  – Orders and trades
  – Algorithmic traders (AT) clearly identified
  – Compare two 2-months periods – 2009 and 2013
Summary: Results

• Distribution of order types different for ATs and non-ATs
• ATs supply as much liquidity as they demand
• ATs cancel orders a lot but most of the cancellations away from the best quotes
Comment # 1: A priori hypotheses

• Current research questions – exploratory in nature
  – For example, are order types by ATs and non-ATs different?
  – A priori, what do we expect to find?
  – Better motivation needed
Comment # 2: Comprehensive Framework

• Potential benefits and costs of high frequency trading
  – For example, Biais and Wooley (2011)
  – Frame tests to provide evidence about various costs and benefits
Comment # 2: Comprehensive Framework

• Potential Benefits
  – Price discovery
  – Price efficiency across multiple markets
    • Exploit data across spot and futures to see if this is true
  – Liquidity provision
Comment # 2: Comprehensive Framework

• Potential Costs
  – Risk of adverse selection for non-ATs
    • Comparison of permanent component of price impact of market orders by ATs and non-ATs
  – Price manipulation
    • Smoking, Spoofing, Stuffing
    • Finding: large number of cancellations away from best quotes – stuffing?
Comment # 2: Comprehensive Framework

• Potential Costs
  – Imperfect competition - small number of traders controlling large share of volume
    • Trader id available in the data?
    • Do small number of ATs generate large fraction of activity?
  – Systematic risk – correlated strategies
    • Do strategies by different ATs show higher correlation than strategies by non-ATs?
    • Is the pattern different across time?
Comment # 3: Averages vs When, Where

- On average ATs supply as much liquidity as they demand
  - But when and where do they supply and when and where do they demand?
  - High and low volatility
  - High and low liquidity periods
  - Demand in one market and supply in another market depending on price of liquidity?
Comment # 4: Competition on time and price

• Yao and Ye (2015): ATs compete on time when they can’t compete on price
  – i.e. when the minimum tick size is binding
  – Non-ATs can’t compete on time and are then forced to demand liquidity
  – Is that the case in India? How often are bid ask spreads at the minimum tick size?
  – Does behavior of ATs change based on tick size relative to stock price?