



Discussion of

Liquidity Provision in a High-Frequency Environment

By Aggarwal, Anand, Thomas

Prachi Deuskar

Indian School of Business

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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 the 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?