

# Liquidity provision, information and inventory management in limit order markets: An analysis of order revisions

Vikar Raman

Pradeep K. Yadav

Discussant: Rajat Tayal

5<sup>th</sup> Emerging Markets Finance Conference,

December 19, 2014

## Summary of the paper

- ▶ The paper analyses an important class of order submission strategies, namely order revisions in the context of an electronic limit order book market.
  - ▶ Which category of market participants undertake order revision strategies?

## Summary of the paper

- ▶ The paper analyses an important class of order submission strategies, namely order revisions in the context of an electronic limit order book market.
  - ▶ Which category of market participants undertake order revision strategies?
  - ▶ What factors motivate such participants to undertake such activities?

## Summary of the paper

- ▶ The paper analyses an important class of order submission strategies, namely order revisions in the context of an electronic limit order book market.
  - ▶ Which category of market participants undertake order revision strategies?
  - ▶ What factors motivate such participants to undertake such activities?
  - ▶ Do the participants which engage in order revision strategies make gains from doing so?

## Summary of the paper

- ▶ The paper analyses an important class of order submission strategies, namely order revisions in the context of an electronic limit order book market.
  - ▶ Which category of market participants undertake order revision strategies?
  - ▶ What factors motivate such participants to undertake such activities?
  - ▶ Do the participants which engage in order revision strategies make gains from doing so?
- ▶ The main findings of the paper are:
  - ▶ Institutions and defacto (or voluntary) market makers undertake order revisions the most (H3a, H5a).

# Summary of the paper

- ▶ The paper analyses an important class of order submission strategies, namely order revisions in the context of an electronic limit order book market.
  - ▶ Which category of market participants undertake order revision strategies?
  - ▶ What factors motivate such participants to undertake such activities?
  - ▶ Do the participants which engage in order revision strategies make gains from doing so?
- ▶ The main findings of the paper are:
  - ▶ Institutions and defacto (or voluntary) market makers undertake order revisions the most (H3a, H5a).
  - ▶ Inventory imbalances and adverse market conditions explain the incidence of order revision activities (H1a-1c, H2a-2c).

# Summary of the paper

- ▶ The paper analyses an important class of order submission strategies, namely order revisions in the context of an electronic limit order book market.
  - ▶ Which category of market participants undertake order revision strategies?
  - ▶ What factors motivate such participants to undertake such activities?
  - ▶ Do the participants which engage in order revision strategies make gains from doing so?
- ▶ The main findings of the paper are:
  - ▶ Institutions and defacto (or voluntary) market makers undertake order revisions the most (H3a, H5a).
  - ▶ Inventory imbalances and adverse market conditions explain the incidence of order revision activities (H1a-1c, H2a-2c).
  - ▶ Emprically show that informed traders “make” the market by providing strategic liquidity in LOB markets.

# Summary of the paper

- ▶ The paper analyses an important class of order submission strategies, namely order revisions in the context of an electronic limit order book market.
  - ▶ Which category of market participants undertake order revision strategies?
  - ▶ What factors motivate such participants to undertake such activities?
  - ▶ Do the participants which engage in order revision strategies make gains from doing so?
- ▶ The main findings of the paper are:
  - ▶ Institutions and defacto (or voluntary) market makers undertake order revisions the most (H3a, H5a).
  - ▶ Inventory imbalances and adverse market conditions explain the incidence of order revision activities (H1a-1c, H2a-2c).
  - ▶ Emprically show that informed traders “make” the market by providing strategic liquidity in LOB markets.
  - ▶ Order revisions help reduce adverse selection risks as market participants are actively able to manage the high information uncertainty during earnings announcements (H4a).

# Summary of the paper

- ▶ The main contributes to the literature in many ways.
  - ▶ Provide evidence in favour of existence of inventory management effects (Ho & Stoll (1983)) in the case of LOB markets.
  - ▶ Order revisions help institutions 'time' their trades thereby reducing costs of execution, more than individuals can (H6a).

# Comments

- ▶ The “Who” of order revisions.
  - ▶ NSE voluntary dealers not the same as the designated market makers (NYSE) nor the same as “defacto” market-makers.
  - ▶ Equity trading as an agency business, and not risk business, implies low closing ratios.
  - ▶ Evidence of financial institutions having higher rates of execution. Trader category wise OTR ratios?

# Comments

- ▶ The “Who” of order revisions.
  - ▶ NSE voluntary dealers not the same as the designated market makers (NYSE) nor the same as “defacto” market-makers.
  - ▶ Equity trading as an agency business, and not risk business, implies low closing ratios.
  - ▶ Evidence of financial institutions having higher rates of execution. Trader category wise OTR ratios?
- ▶ The 'Why' of order revisions.
  - ▶ Each 'defacto' market maker provides liquidity to more than one stock. Shared capital and information within the market maker firm makes the order revisions in his portfolio of stocks correlated. (Coughenour & Saad(2004))
  - ▶ The risk of providing inventory should be negatively related to the degree of market maker's portfolio diversification.
  - ▶ Coughenour and Deli (2002) show that the specialist firm organizational structure influences liquidity provision.
  - ▶ Financial institutions having maximum modifications - access to low cost capital and having the ability to bear the risk.
  - ▶ The relative importance of market conditions versus inventory management for different kinds of trader categories.

# Comments

- ▶ The 'Who benefits' from order revisions.
  - ▶ What effect does the order revision activity of financial institutions have on the execution probability of other traders' orders?

# Suggestions

- ▶ The 'Where' of order revisions: What is the position profiles of the order revisions done by financial institutions and by dealers:

# Suggestions

- ▶ The 'Where' of order revisions: What is the position profiles of the order revisions done by financial institutions and by dealers:
  - ▶ What price level in the order book are order modifications done?

# Suggestions

- ▶ The 'Where' of order revisions: What is the position profiles of the order revisions done by financial institutions and by dealers:
  - ▶ What price level in the order book are order modifications done?
  - ▶ What is the position of the order being modified in the queue at each price level?

# Suggestions

- ▶ The 'Where' of order revisions: What is the position profiles of the order revisions done by financial institutions and by dealers:
  - ▶ What price level in the order book are order modifications done?
  - ▶ What is the position of the order being modified in the queue at each price level?
  - ▶ What price level in the order book are order cancellations being done?

# Suggestions

- ▶ The 'Where' of order revisions: What is the position profiles of the order revisions done by financial institutions and by dealers:
  - ▶ What price level in the order book are order modifications done?
  - ▶ What is the position of the order being modified in the queue at each price level?
  - ▶ What price level in the order book are order cancellations being done?
  - ▶ What is the position of the order being cancelled in the queue at each price level?
- ▶ Comparison of results using data post 2010.

Thank You