Trading Activity of Foreign Institutional Investors and Volatility

Discussion at NIPFP-DEA Conference

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What Does The Paper Do?

- Investigates the volume-volatility relationship in the Indian stock market.

- Focuses on identifying foreign institutional investors' (FIIs) impacts on stock return volatility. Do they increase or decrease stock return volatility? Big implications for policy.

- Their methodology closely follows Bessembinder and Seguin (1992).

- Employs data from 2006 to 2009 from SEBI and NSE to conduct the analysis.

- First, using return data for the Nifty, and aggregate investor-classified volume.

- Second, using stock-specific investor-classified volume.
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This is an important question, focus of a longstanding debate! Closely related to another question.

Why do FII flows forecast equity returns?

- Price pressure. FIIs trade in a manner that pushes prices away from fundamental value.
- Information. FIIs are better informed than domestic investors about movements in fundamental value.

Answers to these questions get us to the heart of the debate – are FIIs a stabilizing or destabilizing influence in emerging equity markets?

Essentially the same question that the authors are asking.
What Do We Know?

- Evidence:

  - FII flows are contemporaneously correlated with returns at the quarterly frequency (Brennan and Cao (1997), Bohn and Tesar (1996), Tesar and Werner (1994, 1995)).
  - Domestic investors are smarter than FIIs, implicitly destabilizing (Kang and Stulz (1997), Choe, Kho and Stulz (2001), Griffin, Nardari and Stulz (2004), Dvorak (2005)).
  - FIIs are smarter than domestic investors, stabilizing (Froot, O'Connell, Seasholes (2001), Seasholes (2004), Froot and Ramadorai (2008)).
  - FII flows predict dividend yields (fundamentals), stabilizing (Clark and Berko (1997), Bekaert, Harvey and Lumsdaine (2002)).
  
  No definitive results in sight (so far).

Different studies have used different data samples, over different time periods, from different countries. But important methodological lessons have emerged.
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- **Source of volatility**: Separate the fundamental components of returns from non-fundamental components when analyzing the effects of FIIs on returns.
- **Volume and returns**: Can’t assume volume and returns arise independently, since they are equilibrium outcomes.
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Stock-specific data with ‘who trades with whom’ information is a potential goldmine.

Main issues/critiques:
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**Specific Suggestions**

- Paper is motivated by regulators’ desire to understand ‘abnormal’ stock return movements. But ‘total volatility’ is used as the LHS variable. What (time-varying) fraction of this is abnormal?

  **Suggestion:**
  Think about a (basic) model of fundamentals, stock returns and volume and disentangle ‘normal’ from ‘abnormal.’ Time-varying beta single-factor model, or time-series model like a GARCH. (Note: this comment is for the stock-specific model).

  Trading activity decomposition into ‘expected’ and ‘unexpected’ components is done using an ARMA model. But volume is related to past returns and vice versa.

  **Suggestion:**
  Expected and unexpected trading activity can be better identified if stock returns also used in the decomposition, rather than fitting a univariate time-series model for volume.

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- Suggestion: The specifications need to contain lagged stock returns as well, to account for this well-documented feature of volatility.

- Note: Bessembinder and Seguin (1992) implicitly do this, since their measure of volatility includes the residual from a return equation which is jointly estimated.

- The specifications employed in the paper seem to use rupee volume, which may be trending over the sample period.

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A Few Smaller Suggestions

1. Why are the specifications estimated separately for FIIs, DIIs etc?
   
   1. Descriptive statistics show that volume from these different market participants is correlated.
   2. So, any specification explaining volatility should include all measures simultaneously. Otherwise omitted variable bias affects the results.

2. It would be useful to see the volume and volatility measures simply plotted against each other in the aggregate study.
   
   1. This is a useful visual check to see the relationship you are fitting.
3. I didn’t clearly understand the trading process underlying the counterparties referred to in the second section of the paper. Do you know who initiates the trade?

4. The standard errors need to be nonparametric (or at least robust) since there are jumps, volatility clustering etc.

   Are they? If not, statistical significance is in doubt.