Emerging Markets Finance Conference

Paper Discussion

Volume Volatility in dual Markets: Lessons from Chinese ADRs

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What Do the Paper Do??

- Examines volume-volatility dynamics between 14 Chinese ADRs listed on NYSE and those of their underlying H-shares listed on Hong Kong Stock Exchange.
  - Uses daily closing prices from ADR listing date to October 2006
  - Tests for the support of MDH or SIA hypothesis
    - Performs Granger causality tests between volume and volatility
  - Uses Bivariate-GARCH framework to look at return and volatility dynamics between ADRs and underlying H-shares
    - Tries to capture leverage effects
    - Allows for expected and unexpected components of volume
- Overall, sounds like a good paper.
  - However, authors need to fix some methodological issues before proceeding further.

Issues / Critiques

- Mostly on methodological issues
  - Non-overlapping trading hours between SEHK and NYSE
  - Decomposition of Volume into expected and unexpected
  - Bi-variate GARCH specification

- Minor issues
  - Documentation of results
    - Model fit / Residual diagnostics
    - Little more on Institutional details and on extent of ADRs trading
    - Tables need to be self-sufficient
    - Need to fix typos and omissions in references list

Main / Critiques

- Non-overlapping trading hours
  - HongKong SExchange and NYSE don't trade at the same time. On any given day t, NYSE opens after the close of Hong Kong stock exchange.
  - Paper don't consider this.
    - Way to Fix: To model short-term dynamics between the markets, consider:
    - Decompose daily returns to Overnight and daytime returns

- Expected and Unexpected components of Trading Volume is done by fitting an ARMA model. However, its well known case that Volume is related to past returns and vice versa.

  - Fixing the issue: Expected and Unexpected components can be more precise when past stock returns are augmented in ARMA model as explanatory variable.

    - Note: Bessembinder and Seguin (1993) don't do this, but the literature has moved very far since then.

Main Issues / Critiques…

- Bi-variate GARCH specification
  - Objective of the paper is to model short run dynamics between ADRs and their underlying H-shares
  - But employs Diagonal VECH GARCH specification where it will not allow for volatility spillover effects
    - Way to Fix:

      Employ BEKK or DCC specification of MGARCH model

- Minor Issues / Critiques
  - Table 5 – Granger Causality results
    - No mention in the paper about h_t^2
    - Symbol not defined
    - How the volatility measured on daily basis

Minor comments

- Residual diagnostics of GARCH models are not included.
  - Mere reporting likelihood values don't convey much.
    - Report LB statistics for residuals as well as squared residuals
- More details need to be known for the reader
  - How large is Chinese ADRs trading relative to H-shares trading?
    - Enough trading activity need to be there for volatility spillovers across markets
- References are not complete
  - Dey and Wang (2009); Xu and Fong(2002)
- Tables need to be self sufficient and need to fix some typos