

The Determinants of Cross- Border Equity Flows

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Gravity Model works for trade in equity

- Data set includes cross national equity transactions for 14 countries for 1989-96.
Data is Bilateral
- 70% of variance can be explained with a market size, “efficiency of transactions, distance
- But why should distance matter

- Claim: Distance is a proxy for information asymmetries
- Stronger Claim: This is not only true for gravity models of asset trade but for goods trade as well!
- Note: It is quite plausible that distance works well for equity if it works well for goods, regardless of the underlying source

Earlier Literature

- Many papers look at how information can bias equity holdings: Kang and Stulz (1994), Brennan and Kao. Considerable literature on FDI, including Ghosh and Wolf (1999) and De Menil (1999)

- Martin and Rey give a simple model of equity trade in which trade is proportional to product of country sizes, and depends negatively on the cost of trading in equity markets
- In their empirical work, they use market capitalization as a measure of country size
- $\text{Log } T_{ij,t} = C + \beta_1 \log(\text{mcap}_{i,t}) + \beta_2 \log(\text{mcap}_{j,t}) + \beta_3 \log(\text{distance}_{i,j}) + \beta_4 \text{ information} + \dots$

A closer look at the Data

- United States, Canada
- Japan, Hong Kong, Singapore
- UK, Germany, France, Netherlands, Spain, Italy, Scandinavia
- Switzerland, Australia
- Data come from “Cross Border Capital, London”

DATA

- Telephone traffic in minutes/year between countries i and j
- Number of branches in country j of banks headquartered in country i
- “sophistication of financial markets of the source country (as measured by World Competitiveness Report)
- Variance and correlation across equity returns

Basic Specification

- Table 2 is the basic specification. Dependent variable $\text{equity}(i,j)$ gives gross purchases plus sales of residents of country i in country j . Beginning of period market capitalization is used to represent size. Overall GDP growth is used for cyclical conditions. All variables in logs, White-corrected standard errors.

Simply gravity regression gets 57% of variance in 1456 observations.

Does Distance Proxy for Information?

- Telnor, ij is telephone traffic, normalized for economic size (divided by square root of product of GDPs)
- Also an index of bank branches
- Index of problem of insider trading, from the World Competitiveness report

Distance seems to proxy for information

- Column 7 of table 2 shows a specification where both distance and telephone calls are included. Both are significant but seem to have less affect than when either one is used individually.
- Table 3 uses eqnorij, which normalizes transactions by product of equity capitalizations.

Interpretation

- Do telephone calls represent information gathering associated with cultural ties?
- Why do foreign bank branches seem to matter

Robustness

- Attempt to control for “regional block effect”, financial center effect, La Porta et al measure of the legal system, and World competitiveness report on effectiveness of the legal system
- Are results dominated by outliers?
- Each country regression is run individually

Alternative explanations

- They attempt to allow for diversification motives, which are quite weak.
- Return chasing motive is allowed by including return on stock market of destination country

Information and the Gravity Model of Manufactures

- They add information variables to a standard gravity model equation for goods trade.
- Information variables enter with large significant coefficients, while distance variable becomes much less important
- Information may explain gravity model!!