

(Inter-state) Banking and (Inter-state)
Trade: Does Real Integration Follow
Financial Integration?

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Objective

- Whether financial sector integration leads to real sector integration through trade.
- Banking integration between two regions leads to higher trade flows between them.
- In the formal model, banks with presence in the two regions are better able to assess risks and charge the appropriate premiums for trade-related projects pertinent for the two markets.
- In the empirical part, the deregulation of the inter-state banking in the U.S. as a natural experiment to test the implication of our theory model with the state-level Commodity Flow Survey data.

Empirical Results

- The trade share of state-pairs that have opened their banking market to each other's financial institutions increases by 9.2% relative to the trade shares of state-pairs that did not.
- Looking at actual entry data, bank entry within a state pair increases trade among them by 54% relative to state pairs that do not have such a bank link.

Contributions

- The finance-growth nexus literature through trade
- Mostly an empirical contribution theoretical model is given to motivate the idea
- The paper is well-placed in the literature and is quite well written
- Valuable contribution is the idea to benefit from the natural experiment of US deregulation
- Theoretical and Empirical Models are set quite well

Theoretical Model

- Theoretical gravity equation is derived in the model with referring to the information advantage of the banks operating in both states about the success of the project.
- Fixed and variable costs are separately financed
- Variable cost needs trade financing

Limitations

- At least anecdotal evidence for the need for trade credits considering especially that the final data set does not just cover manufacturing export in 1993 CFS
- The model can be motivated with the collateral constraint arguments as well. When a bank operates in two states then the bank has more advantage again not just in the success likelihood of the projects but also other advantages like in liquidating the collateral of the firm in other state as well
- Declining costs of the banks may stem from economies of scale sort of arguments as well
- However in the model, banks are price takers in the deposit market

Certain Data Issues

- it is fortunate that the 1977 precedes the first inter-state banking deregulation by Maine in 1978. It is also fortunate that the next survey comes in 1993, a year before the enactment of the IBBEA which deregulated inter-state banking and branching at the federal level.
- The 1977 CFS survey covered approximately 19,500 **manufacturing establishments** (plants) in the 50 states plus the District of Columbia with one or more employees using a stratification scheme based on the population of such establishments.
- The 1993 survey, on the other hand, covered approximately 100,000 **mining, manufacturing, wholesale and retail establishments**
- *Some states are more manufacturing states while others rely on wholesale and retailing.*
- *This is also likely to change over time.*

As stated by the authors

- Dependent variable is at the state level (and not establishment, firm, county or metropolitan area level).
- 1993 survey sample is more than five times larger than the 1977 sample, leading to larger sampling errors for the latter survey, especially for the smaller states.
- Starting with the 1993 survey CFS includes wholesalers' shipments alongside manufacturers' data (but not in the 1977 survey).

But most importantly

- 1993-1977=16 years period is long enough to expect structural changes in trade patterns
- Most likely, more intra-industry trade over time not merely emanating from the financial integration
- For example, the increasing role of the firms operating in many states like Walmart, Home Depot etc.

Empirical Model

- Two types of estimations in order to test our hypothesis that financial integration is associated with real integration, as measured by trade flows.
- First, a difference-in-differences estimator with the treatment effect being the fact that at least one of the states in a trading pair had deregulated its banking system by or in 1993.
- Then, fixed-effects instrumental variables (IV) regressions with two-stage generalized method of Moments (GMM2S-IV).
- Endogeneity issue is treated at the end: In case banks were to follow trade flows to enter different markets, banking market integration would be endogenous to trade flows.
- Logic behind the instrument: Morgan, Rime and Strahan (2004)

