

Discussion of:  
**“The Impact of Organizational  
Structure and Lending  
Technology on Bank  
Competition**

by **Degryse, Laeven and Ongena**

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# This is an interesting and useful paper because.....

- A model illustrates how the geographical reach and loan pricing of a bank (set of branches) depends on both
  - a) borrowers' distance from a lender and its competitors
  - b) the lending/organizational technology of a lender and its competitors
- The model dictates the construction of empirical measures
- Testing is conducted on a very rich dataset
- **My comments focus on:**
  - A) The Model**
  - B) Empirics**

# The Model (1)

- **Straightforward Hotelling-type set up with two branches competing for borrowers that only differ by “location”, and incur different transportation costs to contact each branch.**
- **Under the assumptions of perfect price discrimination (no communication among borrowers) each bank prices loans extracting the maximum feasible rent from each borrower, given a similar pricing strategy of the competitor.**
- **Such rent is a function of the distance of the borrower from its competitor.**
- **Hence, the rent that can be extracted by branch A is larger the larger is the distance of a borrower from branch B.**

# The Model (2)

- In the version of the model with differential marginal costs (section 3), these assumptions yield the following implications:
  - A) **Branch A's geographical reach** (or market size) increases with Branch B's transportation and marginal costs and decreases with its own transportation cost
  - B) **Branch A's lending rate** increases with Branch B's marginal and transportation costs and its own transportation cost
- **This is good: it is what you would expect to find by modeling strategic interactions among heterogeneous agents.**

# The Model (3)

- In fact, in a (non-spatial) model with heterogeneous banks, strategic interactions imply that equilibrium prices, quantities and *risk profiles of each bank* depend on the entire distribution of banks' characteristics (De Nicolò and Loukoianova, 2007)
- For simplicity, the current model assumes loans are **risk free**
- However, the authors observe that marginal costs could capture to some extent differential risks of lenders' portfolios (p.11)

# The Model (4)

- Appendix I version of the model shows that differences in borrower-specific “transportation” costs affect *both* geographical reach and pricing.
- Thus, borrower-specific differences in these costs may be also due their different risk
- To identify the separate impact of organizational form *and* borrower’s risk, the model dictates that differences in borrowers’ risk should be taken into account.

# The Model (5)

- **Suggestions for the Model part:**
  - A) **Make Appendix I model + marginal costs the benchmark model**
  - B) **Retain the simplified version with different marginal costs for illustrative purposes.**
  - C) **Discuss the possible interpretation of parameters *as indexing borrowers' risk***

# Empirics (1)

- **Impressive dataset**
- Measures of **geographical reach** ( Quartile Reach, Max Reach and # of Loans) carefully constructed
- **Loan Rate** also carefully constructed accounting for maturity
- All banks' and branches' **organizational technology measures** carefully constructed
- **Straightforward regressions**

# Empirics (2)

- **Results for Geographical Reach**
  - a) Significant impact of organizational variables (Tables 3-5, models VI-VIII)
  - b) Endogeneity of organizational structure is addressed by IV methods, OK
- But, **can we say more** about the relationship between measures of organizational structure and market characteristics? (perhaps this may be a separate paper....)

# Empirics (3)

## ■ Results for Loan Rate

- a) Lower for more distant borrowers, larger for borrowers farther away from competitors (consistent with the model in all specification except Table 6, VII ???)
- b) Interaction terms with organizational variables seem important in some specifications
- c) Why not IV tests also in this case?

# Empirics (4)

- **Suggestions for the Empirics part:**
  - a) Construct measures of loan risk to the extent feasible
  - b) Rerun with these measures both in levels and with interactions
  - c) Run IV estimation for the Loan Rate regressions