



# The Changing Role of Small Banks in Small Business Lending

Lamont Black (DePaul)

Michal Kowalik (Boston Fed)



SINCE 1902

CONFERENCE OF STATE BANK SUPERVISORS



# Bank Competition

- Community banks face increasing competition from large banks
- This competitive pressure has grown due to advancements in information sharing and lending technologies
- How does large bank competition affect community banks' C&I lending?



SINCE 1902

CONFERENCE OF STATE BANK SUPERVISORS



# Hypothesis

- Exposed to competition from large banks, small banks concentrate on borrowers of intermediate size
  - The smallest and largest borrowers choose large banks
- Premise related to DeYoung, Hunter, and Udell (2004) and Berger and Black (2011)
- Theoretical model adapted from Kowalik (2014)



# Theory

- Small and large banks differ in their lending technologies
  - Small banks observe risks taken by their borrowers
  - Large banks do not observe risks, but they have a lower marginal cost
- Borrower sorting
  - Borrowers of intermediate size benefit the most from the monitoring of small banks
  - The smallest and largest borrowers benefit the most from the lower marginal cost of large banks





# Data

- Collect data from bank Call Reports and FDIC Summary of Deposits
- Create sample of banks with total assets below \$1 billion, operating in one urban market (MSA)
- Use deposit data to identify entry of a large bank (>\$10B) into the small bank's market
- Large bank entry =1 if a new large bank establishes (*organically*) a branch in the market in a given year (as of June 30)



SINCE 1902

CONFERENCE OF STATE BANK SUPERVISORS

## Data (2)

- C&I lending in the June Call Reports
  - Three categories: 0-100K, 100-250K, 250K-1M
  - Average allocation of 30%, 20%, 34%, 16% respectively
  - We construct >1M as remaining amount
- Data reported annually on June 30 between 1993 to the present (quarterly from 2010)
- Time span of sample: 1994 to 2007 (pre-crisis)
- We use shares of each category relative to bank's total C&I



SINCE 1902

CONFERENCE OF STATE BANK SUPERVISORS

# Testing the Hypothesis

$$C\&I \text{ share} = a * \text{Large bank entry} + b * \text{Bank controls} + c * \text{Market controls}$$

Dependent variable: Small bank C&I loan shares

Hypothesis:

- Shares of smallest and largest shares decline
- Shares of intermediate loan sizes increase

With competition, small banks specialize in intermediate loan sizes.





# Testing the Hypothesis (2)

- Bank controls
  - Log of assets
  - Loans-to-assets ratio
  - Deposits-to-assets ratio
  - Leverage ratio
- Market controls
  - Log of population
  - Unemployment rate
  - Market rents
- Bank fixed effects
- Year fixed effects
- Clustered errors



SINCE 1902

CONFERENCE OF STATE BANK SUPERVISORS





## Baseline Results

- Small banks' share of C&I loans with sizes between \$250K and \$1M **increases** following large bank entry
- Share of largest loans (>1M) declines
- These are about 10-15% changes relative to average shares.



SINCE 1902

CONFERENCE OF STATE BANK SUPERVISORS



# Additional Results

- Effect is magnified by proximity of large bank entry to small bank's branches
- In general, proximity of large banks reduces small banks' share of C&I in smallest loans
- Endogeneity? Interstate deregulation predicts large bank entry. In general, results are robust.



SINCE 1902

CONFERENCE OF STATE BANK SUPERVISORS



# Ongoing Research

- Teaser – Also see an effect of competition on CRE lending, but appears to move small banks into smallest loan category
- What is the future of small bank lending?
- How will the “high-touch” community banking model be affected by technology and growing competition from large banks (and non-banks)?



SINCE 1902

CONFERENCE OF STATE BANK SUPERVISORS