Bank Competition and Performance:
Tying Together the Research Papers, Highlighting Their Contributions to the Literature, and Providing Some Suggestions for Improvement

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October 5, 2017
The Three Research Papers

• Fronk paper – Determinants of community bank profitability over different time periods with different regulations.

• Marsh and Sengupta paper – Effects of competition as proxied by geographical deregulation on the risks of community banks and regional banks.

• Ballew, Iselin, and Nicoletti paper – Effects of Dodd-Frank regulation on bank M&A activity.
The Papers All Fit the General Theme of Bank Competition and Performance

- Regulation has important effects on bank competition, determining how much banks are allowed to compete against each other, and in some cases, favoring one group of banks over another.
  - All three of the papers are about the effects of regulation which has differential effects on banks that depend on size.
    - First paper looks at different regulatory time periods for community banks, second examines effects of geographic deregulation on community and regional banks, and third explores effects of the Dodd-Frank regulatory bright line of $10 billion in assets on banks in that size neighborhood.

- Three of the most important measures of bank performance measures are profitability, risk, and M&A activity.
  - The first, second, and third papers examine profitability, risk, and M&As, respectively, as key dependent variables.
All Three Papers Have Virtues over Most Bank Competition and Performance Research

• Unlike most of the literature using U.S. data, they do not simply use the Herfindahl Hirschman Index (HHI) of local deposit market concentration to measure competition.
• Of the minority of papers that use regulation to proxy for competition, these are among the very few that directly use measures of bank performance.
• They allow for differences in behavior by bank size, which very few of the competition papers do.
Background on Bank Competition and Performance Research

• Hundreds, if not thousands, of research papers since 1963 examine the effects of bank competition on performance using U.S. data.

➢ In most cases, competition is simply measured by the Herfindahl Hirschman Index (HHI) of local deposit market concentration, which is assumed to reflect competitive conditions for all banking products.
   ❑ HHI is the sum of squares of market shares, and is a complete summary statistic for competition under Cournot quantity competition.

➢ Bank competition is assumed to be independent of bank size – only the deposit HHI matters.
Background (cont.)

• The focus on local deposit market competition primarily results from the United States v. Philadelphia National Bank (1963) Supreme Court Decision.

  ➢ Established “cluster approach:” banks are assumed to offer a cluster of banking products in local markets, so that bank competition can be measured by using information on only local product – deposits.

  ➢ Under the cluster approach, complete locational data for antitrust policy need only be collected for deposits.

  ➢ Since data are usually collected for regulatory, rather than research purposes, these are the data with which researchers have to work.

    ☐ The FDIC Summary of Deposits (SoD) collects locational data on bank branches and the deposits in each branch.

    ☐ Most bank competition research using U.S. data over the last five-plus decades uses the local market deposit HHI calculated from the SoD.
Using Geographic Deregulation to Indicate Competition

• A growing literature over the last two decades uses alternative measures of competition – differences across U.S. states in the times at which they removed regulations that geographically restricted competition.

• This research mostly suggests that increased competition from deregulation has positive real economic outcomes:
  ➢ Improved state economic outcomes, such as higher state income growth.
  ➢ Mostly better outcomes for nonfinancial firms.
  ➢ Better outcomes for households.

• Many authors in this literature, but two names stand out:
  ➢ Philip Strahan is the author of many of the papers.
  ➢ Tara Rice is largely responsible for the *R&S Index*. 
Geographic Deregulation (cont.)

• The deregulation research does not generally directly measure the effects of bank competition on bank performance.
  ➢ Deregulation is not a direct measure of how banks compete, but rather of how much state governments *allow* the banks to compete.
  ➢ Real economic outcomes for state income, firms, and households are not direct measures of bank performance, but rather the indirect consequences of improved performance.

• The three papers in this session have the advantage over most of this research of addressing the second issue – they look directly at bank performance.
Differences in Behavior by Bank Size

• Some research supports the notion that there are important differences in behavior by bank size.

• Large and small banks generally use different lending technologies to serve small businesses.
  - Large banks more often use hard-information-based technologies because these banks have comparative advantages in processing and communicating hard numbers.
  - Small or community banks more often employ soft-information-based technologies like relationship lending, because of comparative advantages in collecting and communicating soft information, like the character of a small business owner.

Research on Bank Competition and Performance that Allows for Differences in Competition by Bank Size

• A limited amount of research examines the effects of the market share of small banks on small business credit availability, with mixed results:
  

• A paper I presented here two years ago uses a better outcome variable, a direct measure of financial constraints from small business managers in the local banking market.
  
  - Finds strong evidence that a higher market share for small banks is associated with fewer financial constraints for small businesses.

• The three papers in this session extend this research by examining how bank regulation affects the performance of banks in particular size classes.
Suggestions for Improving the Three Papers

• The most important suggestions for improving the papers are:

  ➢ Broaden the appeal by putting them in the context of the far-reaching literature on bank competition and performance.
  ➢ Emphasize the three big advantages over most of the competition and performance literature:

    ❑ Using regulation instead of the deposit market HHI.
    ❑ Using direct measures of bank performance instead of indirect measures of the performance of the local economies.
    ❑ Allowing for differences in behavior by bank size.
Specific Suggestions for Fronk Paper

- Add a table with variable definitions and summary statistics.
- Check if the results are robust to alternative measures of profitability.
- Include the local market deposit HHI, which is standard in the research.
- Consider including measures of geographic regulation like intrastate branching, interstate banking, and interstate branching like the Rice & Strahan Index.
- Consider adding a separate analysis of other banks to see what is unique for community banks.
- Double check which banks are included, given that there appear to be more community banks included than the total number of commercial banks.
Specific Suggestions for Marsh and Sengupta Paper

- Extend the data past 2005 by collecting data from state regulators to update the *Rice & Strahan Index*.
- Label the tables more clearly. Would make it easier to determine what the dependent and independent variables are without reading the legend (sometimes the legends are also confusing).
- See if your results are robust to excluding lagged loan growth.
- Make the paper more complete by measuring more dimensions of bank fragility besides loan growth, including bank capital and Z-score.
  - The effects on bank capital could go in the opposite direction, making the banks actually safer.
  - Berger, Klapper, and Turk-Ariss (*JFSR* 2009) finds that more competition leads to *riskier* portfolios (consistent with the competition-stability view of Boyd and De Nicolo), but the banks are actually *safer* because they hold more capital that more than offsets the higher portfolio risk (consistent with the competition-fragility view of Keeley).
Specific Suggestions for Ballew, Iselin, and Nicoletti Paper

• Clarify the reason why banks under the bright line would increase their probability of acquisitions that subject them to more regulatory burden.
  ➢ Is it that they think they will cross organically anyway?
  ➢ The paper also provides some evidence that banks below the bright line slow their deposit growth, consistent with the opposite argument.

• Run the tests allowing for difference between banks just under and just over the bright line (i.e., < $10B versus ≥ $10B), as the incentives likely differ.

• Be consistent in the size groupings (i.e., either $8B - $10B or $9B - $10B), rather than switching the cutoffs.

• Consider using the more conservative methodology of two-sided hypothesis tests throughout the paper, especially because some arguments and evidence go the other direction.
Conclusions

• The papers in the session all push forward the research literature on bank competition and performance.
• I encourage you to read these papers, to consider how to apply them in real-world applications, and to conduct further research on this important topic.