



How Important Are Local Community Banks to Small Business Lending? Evidence from Mergers and Acquisitions

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Introduction

- Important roles of community banks in SBL
 - Conventional wisdom -- community banks have comparative advantages in collecting soft information.
 - Small firms/start-ups tend to be opaque – with short credit histories – rely on relationship-based lending.
- Concerns: 1) competition from large banks and nonbank lenders; 2) declining number of community banks in the past decade.





Our Research Objectives

- What happened to funding availability to local small businesses after a local community bank is acquired by an out-of-community bank?
- We look at 2 specific questions:
 - Impact on each **specific** merged community **bank's** SBL commitment to local small businesses?
 - Overall impact on the community (**county**)'s SBL funding supply (allowing for substitution by other lenders), controlling for all the local merger activities that involved community banks?





Summary of the Results

- Previous study by Jagtiani, Kotliar, and Maingi (2016) – find that the merged banks make more SBL overall.
- This paper finds that the increased SBL actually occur in the acquirer's own community. The merged banks are likely to decrease their SBL origination in Target-Only counties.
- Reactions by other local banks (e.g. new de novo banks) do not fully compensate for this decline. The SBL credit gap is not fully covered by other lenders.





SBL Literature

- Large banks have doubled SBL market shares in the last decade.

Figure 3.1: Market Share of \$ Loans <\$1 Mil
by Bank Size Group (1997–2014)

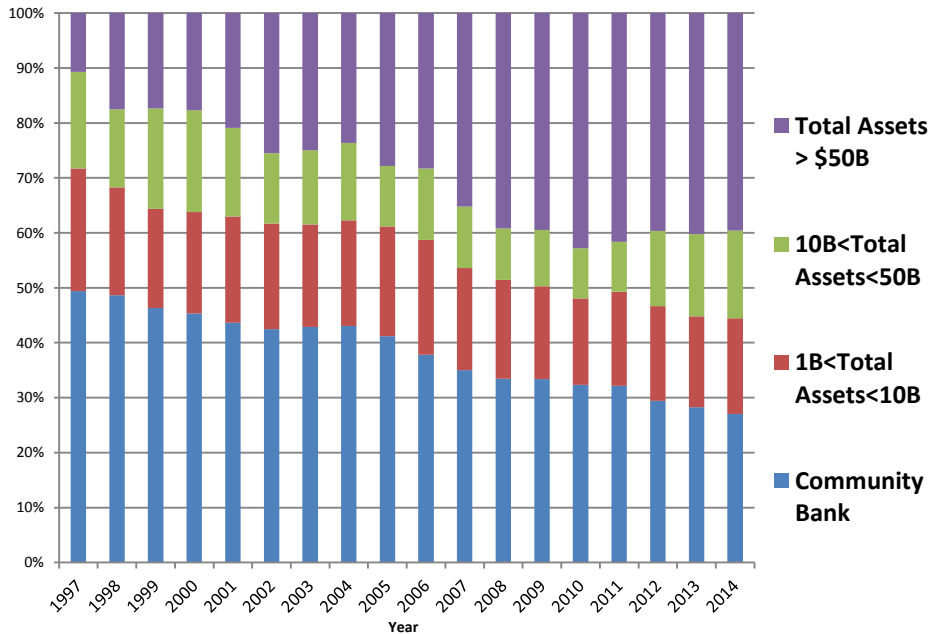
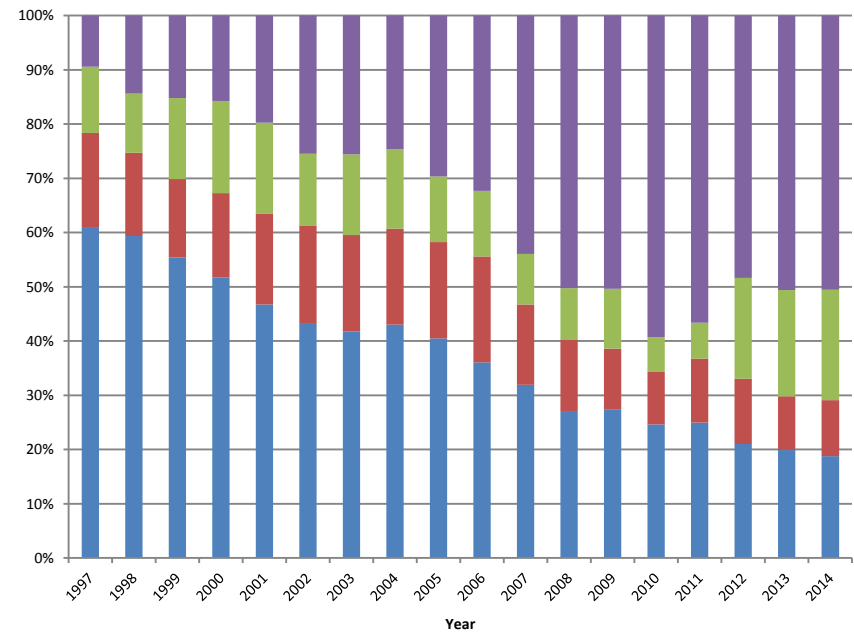


Figure 3.2: Market Share of Loans<\$100K
By Bank Size Group (Period 1997–2014)



Sources: Jagtiani, Kotliar, and Maingi (JFS, 2016)

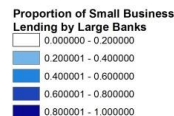
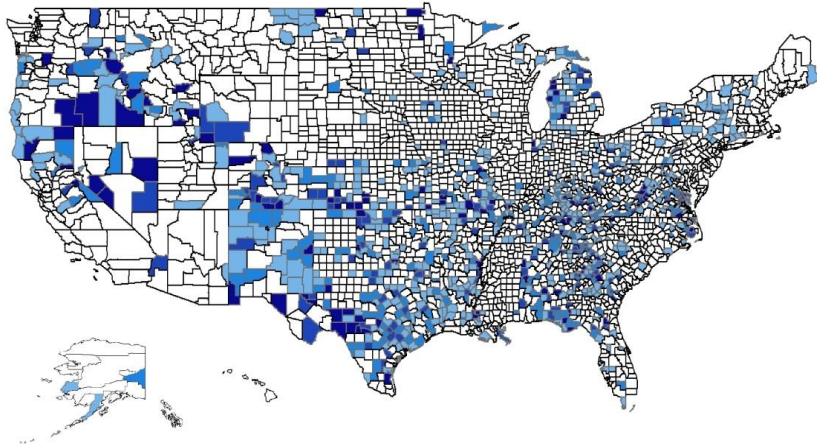




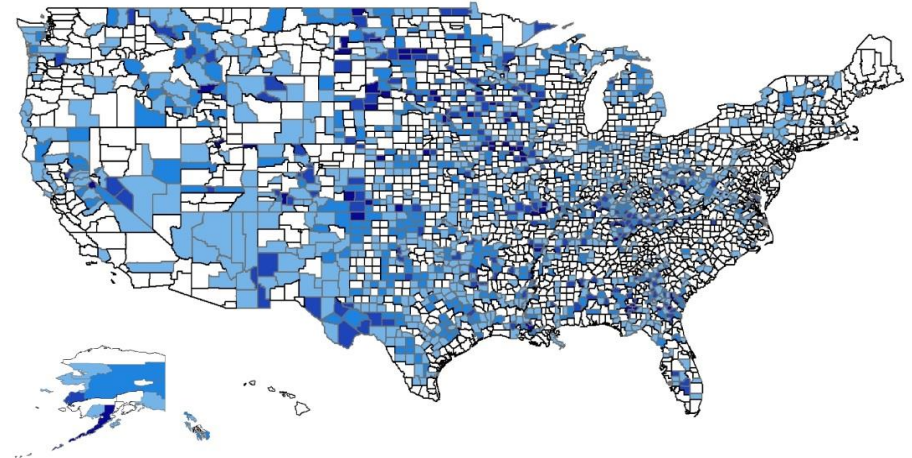
SBL Literature

- Technological advances have enabled large banks to lend to small businesses in locations far away – see 1997 vs. 2005.

Percent of Newly Originated or Purchased Small Business Loans by Large Banks (> \$10 Billion) by County
Source: Community Reinvestment Act Data 1997



Percent of Newly Originated or Purchased Small Business Loans by Large Banks (> \$10 Billion) by County
Source: Community Reinvestment Act Data 2005



Source: Jagtiani and Lemieux (2016)





SBL and Merger Literature

- Previous studies have documented that community bank mergers are associated with overall loan growth – because other local community banks tend to increase their SBL origination.
- Example, de novo banks emerge in the local community after a community bank merger – and they issue SBL to fill the credit gap.
- Our paper -- We attempt to control for this impact, by also exploring the overall net impact on SBL funding in the community.





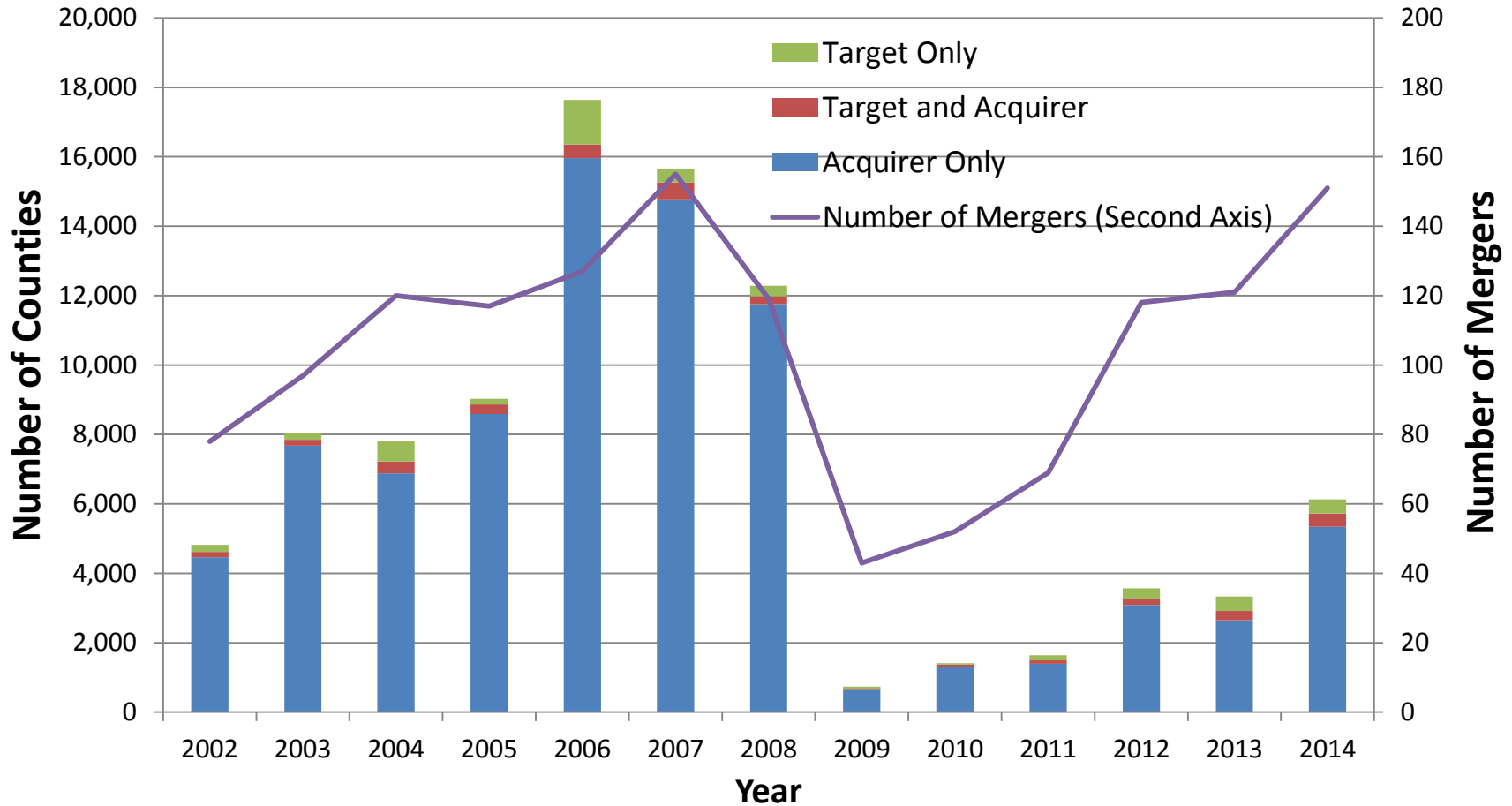
Bank Mergers Data from SNL

- All bank mergers that involved community bank targets
- Mergers took place during 2002–2014
- Community bank definition:
 - Asset \$1 billion or less (total 1,280 mergers)
 - Asset \$10 billion or less (total 1,366 mergers)
- Defining Merger Types for each county associated with the merger: based on whether the target and/or the acquirer have existing operations in the county: **Target-Only (0,1)**, **Acquirer-Only (1,0)**, or **Both (1,1)**.



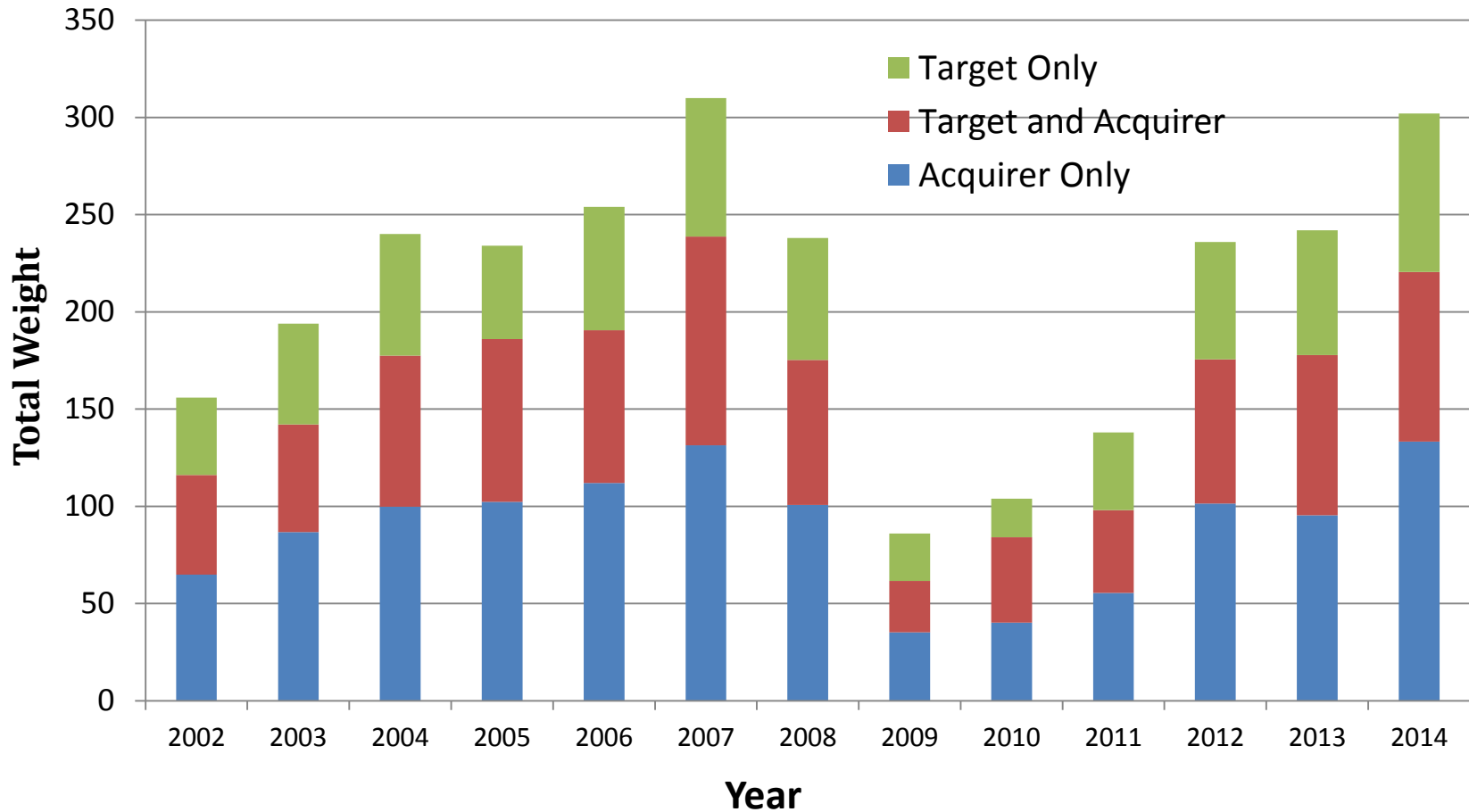


Number of Community Bank Mergers and Counties Involved





Counties Associated with the Community Bank Mergers (Weighted)





Small Business Lending (SBL) Data

- Data period 2001-2015 (including 1-year before and 1-year after the mergers).
- Call Reports -- SBL Outstanding as of June
- Use SBL Ratios from CRA and Deposit Ratio from FDIC to allocate a bank's outstanding SBL to each county:
 - CRA Data -- SBL originations and purchase -- by each bank, in each county, and in each year
 - FDIC Summary of Deposits and Bank Structure Data – by bank, county, and year (for banks that do not submit CRA reports)





Control for County-Level Economic Factors

- **Population** – larger counties with higher population density can support more small businesses
- **Unemployment** -- to observe the general macroeconomic health of the county and to capture variation across the business cycle
- **Per-Capita Personal Income** -- proxy for how relatively well off the county is
- **Per-Capita Business and Personal Bankruptcy** -- to capture the credit risk exposure in each county on the aggregate level.





I. Changes in SBL Lending Behavior by the Merged Firms

- We measure the differences between pre-merger SBL (target and acquirer combined) and post-merger SBL (merged firm) – looking at two changes in each county:
 - Change in \$ volume SBL in pre- and post-merger
 - Change in % of total SBL in pre- and post-merger
- We estimate:
 - Probability of SBL Increased for each Merger_i in County_j
 - Magnitude of SBL Change for each Merger_i in County_j





I. Empirical Results: Firm-County SBL

- The coefficients of the Acquirer-Only county are consistently significantly positive relative to the Target-Only counties across all model specifications.
- The combined firms tend to increase SBL funding in their own counties (Acquirer-Only) relative to target counties, even after controlling for other economic and risk factors. We find even stronger results for large acquirers.
- Target-Only counties experience a decline in SBL origination (by the merged firm) after the merger.





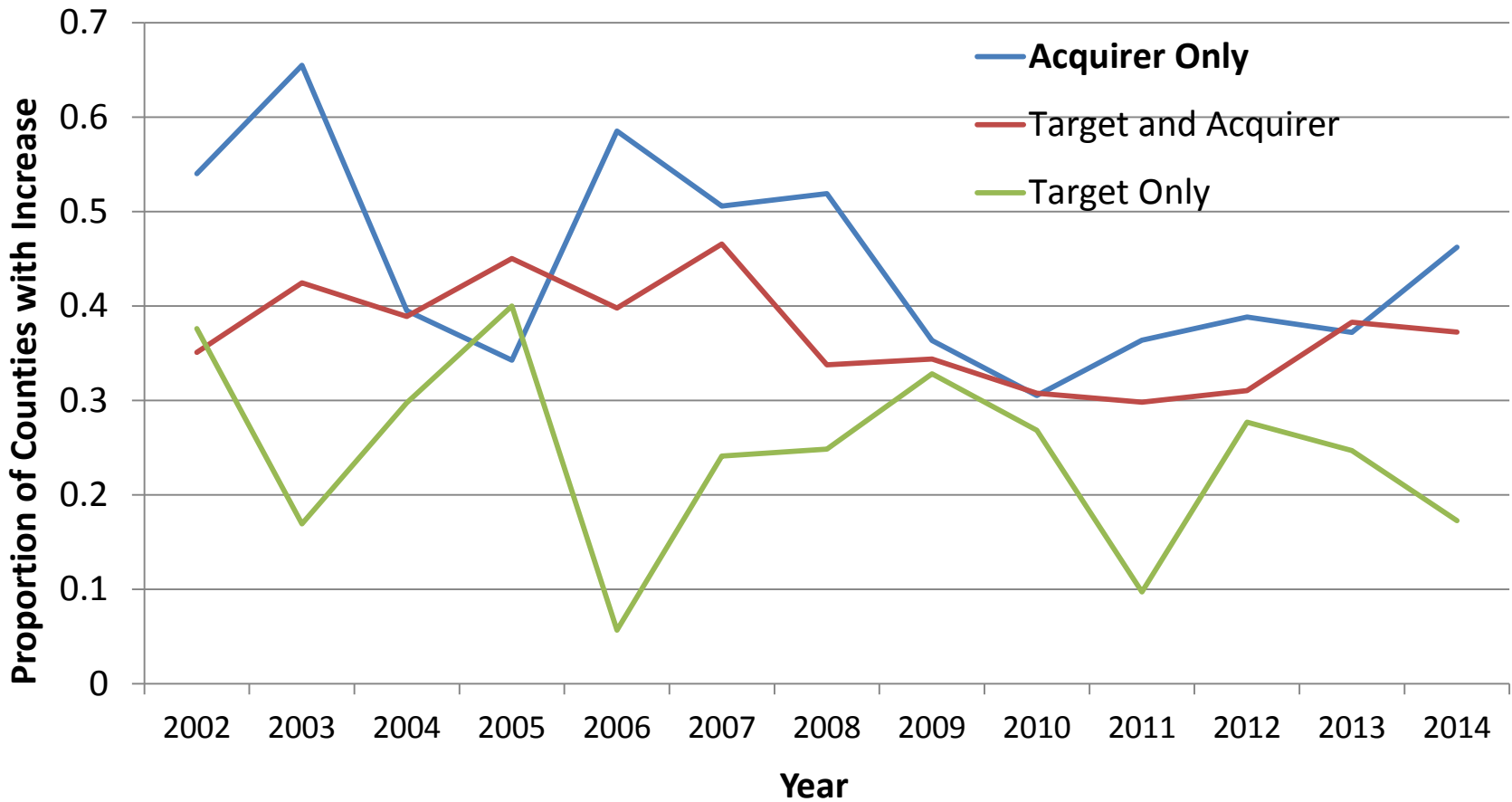
I. Results: Firm-County SBL (Continued)

- The magnitude of the effect varies based on the acquirers' asset size – large vs. small acquirers
- On average, community bank acquirers tend to increase their SBL lending by about \$5 million more in Acquirer-Only counties than in Target-Only counties.
- For large bank acquirers, the increase in SBL is estimated to be \$8 million to \$13 million more in the Acquirer-Only counties than in the Target-Only counties.



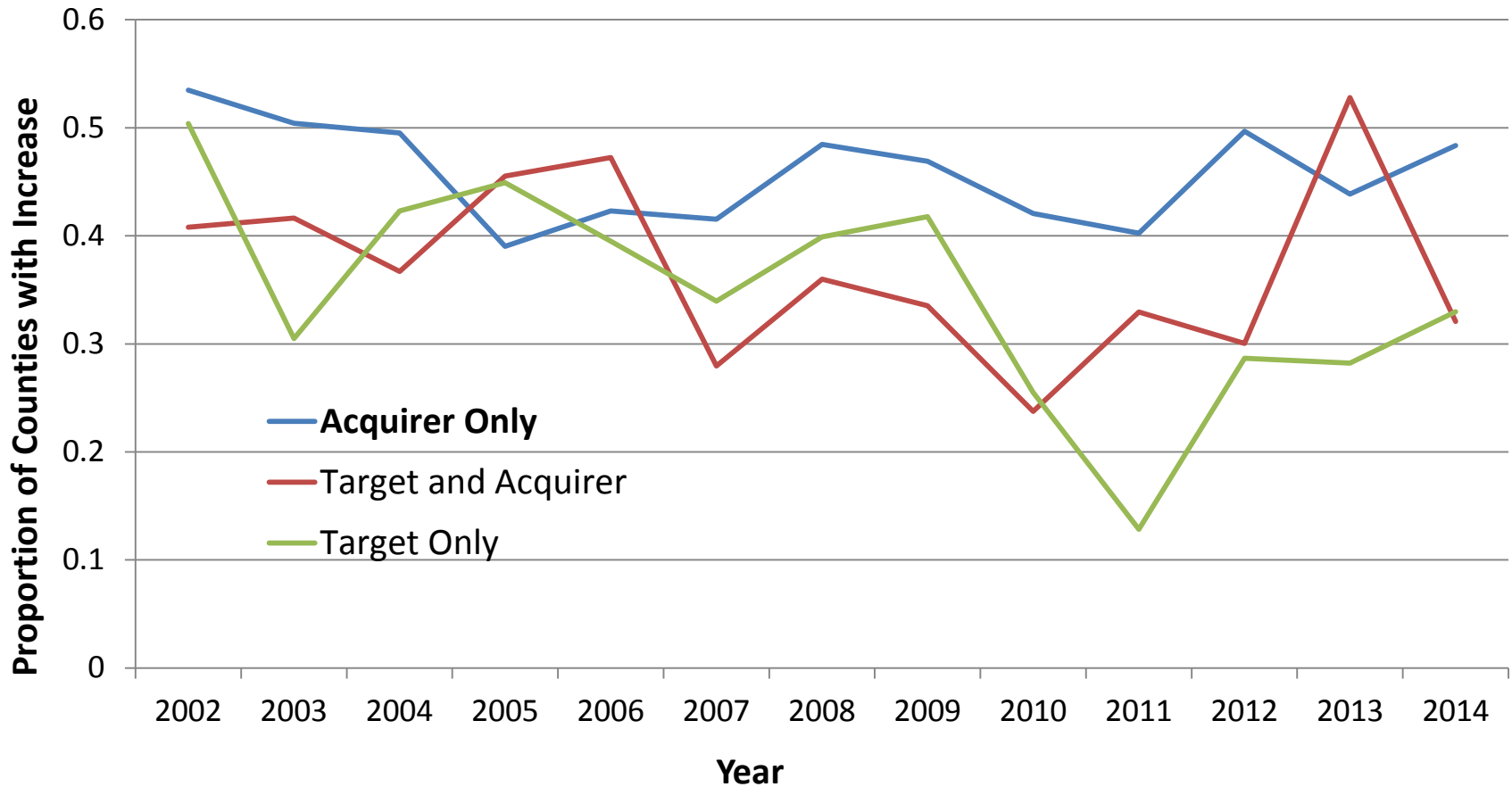


Compare % of Counties with an Increased SBL After the Merger (unweighted) -- by Year of Merger Announcement





Compare % of Counties with Increased SBL After the Merger (weighted) -- by Year of Merger Announcement





II. Overall Impact on Local Community

- We measure shares of county's total SBL (originated by all banks in each year) that are associated with each type of mergers that took place in previous year – Target-Only, Acquirer-Only, Both.
- We include these market shares as explanatory variables to determine how the change in county-level SBL activities may be influenced by the various types of community bank mergers that took place in the county.





II. Empirical Results: County-Level SBL

- For counties with significant exposure to **Target-Only** merger type, we find strong **negative** impacts on the SBL volume in the county after the merger, regardless of size of the acquirers or sample period.
- Results overall are consistent with the conventional belief that there would be an adverse impact on SBL credit availability to local small businesses in the counties where small community banks are acquired by large banks (especially those that operate mostly outside the target's local community).





Conclusions

- Jagtiani, Kotliar, and Maingi (2016) find increase in **overall** SBL activities, suggesting that community bank mergers would not cause reduction in SBL funding availability.
- This paper – the significant increase in the SBL after the mergers actually occur mostly in **Acquirer-Only** counties.
- We find a corresponding post-merger decline in SBL in **Target-Only** counties -- even after controlling for the general market trends. Larger decline in SBL (Target's county) is observed when the acquirer is large.





Implications and Caveat

- Our results are consistent with the hypothesis that community banks have continued to play an important role in SBL funding to local small businesses.
- The SBL credit gaps that emerge in Target-Only counties (after the mergers) are not filled by other banks (even after accounting for local de novo banks).
- **Caveat:** it is possible that the credit gap is filled by nonbank lenders, such as Fintech platforms. Our data is limited to SBL lending by banks that file Call Reports.

