U.S. SMALL BUSINESS ADMINISTRATION
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Research Summary

Effects of Small Loans on Bank and Small Business Growth

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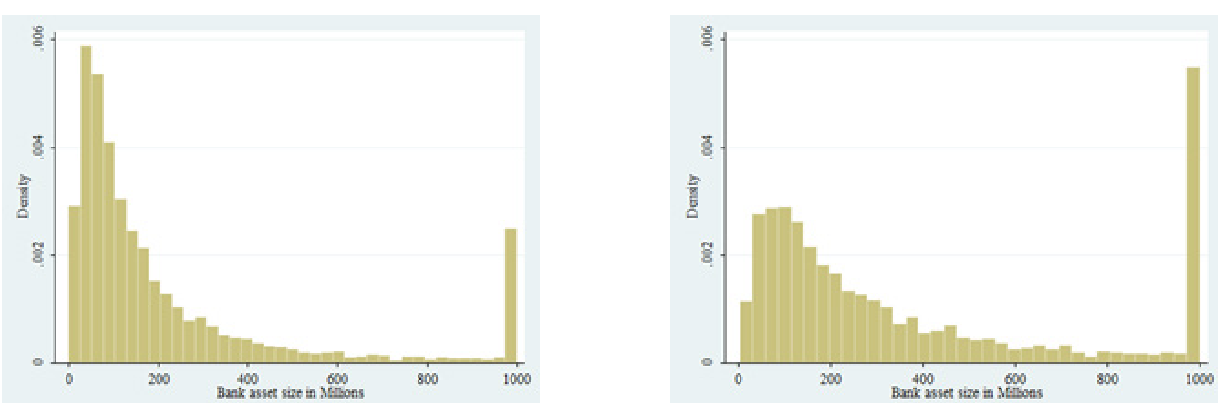
Since 1980, the total number of commercial banks has declined from 14,400 to 4,600, and only 18 new banks have started since 2000. Given the long run decline and lack of new commercial banks, it is important to understand the determinants contributing to the decline in dynamism of banks in recent years. It is also vital to recognize how the lack of new bank formation has impacted the small businesses that rely on community banks for capital. This study examines the entry, growth, and exit behavior of banks as well as the relationship between small business loan availability and business growth and entry rates. The analysis finds that small business loans are positively associated with small bank growth and small business growth, which is important to consider as policies are developed to recover from the COVID-19 pandemic and reduce small business vulnerability in future economic crises.

Key Findings

Entry and exit rates of different sized banks have evolved over time. Large banks with more than $600 million in assets have had exit rates decline since the early 1990s, while small banks with less than $100 million in assets experienced higher exit rates from 2010-2019 than they did from 1992-1999. On the bank entry side, there were 1,266 new bank charters from 2000 to 2009 but only 18 new banks in total since 2010. Figure 1 illustrates the decline in dynamism through changes in age and size distribution of banks from 2000-2019.

Most banks with less than $10 billion in assets are categorized as community banks, which are smaller lenders operating in a limited geographic area. Analysis conducted in this report highlights that higher shares of small business loans are associated with

Figure 1: Size Distribution of Banks in 2000 and 2019 (winsorized)



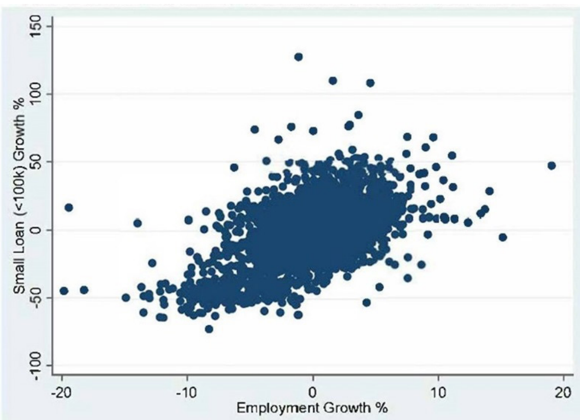
This document is a summary of the report identified above, developed under contract for the Small Business Administration, Office of Advocacy. As stated in the report, the final conclusions of the full report do not necessarily reflect the views of the Office of Advocacy. This summary may contain additional information, analysis, and policy recommendations from the Office of Advocacy.

higher observed asset growth rates for these community banks.

The report also provides evidence for the relationship between small business loan supply and small business success. The smallest loan size of less than \$100k was associated with increased employment and new firm creation. However, this relationship did not hold for loans over \$100K.

Finally, to assess the causal relationship between small loans and small business success, the authors conduct a Vector Autoregression (VAR) model to provide evidence that the loan supply is driving the increase in small business success, not the other way around. Figure 2 shows the correlative relationship between small loans and small business growth that was tested for causality.

Figure 2: Small Loans vs. Employment Growth, MSA Level Pooled, 2006-2014



Source: Authors calculations

Policy Implications

The results of this study show that small business loans are important for the success of small businesses and small banks. The authors recommend several policy approaches to strengthen the small business and community bank sector, such as:

- Placing a high priority on small business loans, especially ones less than \$100K and loans to small businesses with less than 100 employees.
- Monitoring the small business lending of large banks. Both academic studies cited and econometric analysis in this report illustrate the risks of relying on large banks to fill the role of small banks in the small business lending arena. Stronger monitoring of large banks' small business lending behavior is necessary to maintain the healthy functioning of the small business loans market.
- Increasing the availability of small business lending and incentivizing banks to make small business loans. Potential policy solutions include increasing loan guarantee programs or gamification strategies to create and publish impact scores for banks to give more small business loans to their customers.

Discussion

Community banks and small businesses rely on each other to flourish. The capital provided by community banks are particularly important for small businesses in rural areas as well as minority-owned businesses with traditionally limited avenues to obtain credit.

This paper quantifies the stark decline in dynamism in the banking industry and provides evidence for the strong relationship between community bank success and small business success. It also illustrates the positive relationship between small business loans and community bank asset growth, especially for banks with less than \$10 billion in assets.

Particularly at a time when small businesses are at a historic disadvantage, the events of 2020 make the findings of this paper more relevant. According to [a recent Advocacy report using Federal Deposit Insurance Corporation Call Report data], smaller banks provided an outsized contribution to the Paycheck Protection Program (PPP) compared to larger banks during the period of PPP funding that ended in August 2020. Lenders with assets of \$1 to \$10 billion held 16.1% of total business loans and yet allocated \$126 billion of PPP loans, or 26.2%, which was 62.4% more than expected. Banks with less than \$50 billion of assets allocated substantially more PPP loans than expected, while lenders with \$50 billion or more of assets allocated 30.8% less PPP loans than expected. These PPP loans were lifelines to help small businesses pay employees, pay rent on time, keep the lights on, and remain in businesses. Policies are needed to create an environment where community banks can be successful to ensure that they can be there for small businesses when the next crisis occurs.

Scope and Methodology

This study uses data from several publicly available sources. The primary source is the FDIC Consolidated Reports of Condition and Income (Call Report). The Call Report is a quarterly dataset that provides bank information such as the bank's income statement, balance sheet, loan information, deposit information, investment information, changes in the bank's capital, asset sale information, and several other sections discussing aspects of the bank's viability and financial health. The FDIC Call Report was used to examine banks' asset trajectory up to 2019 Q4. The Business Formation Statistics (BFS) provides the number of business formations and applications at the State level for the period 2004-2019 quarterly. This dataset was analyzed in conjunction with small business loan amounts to understand how loan availability impacts business creation.

The FFIEC Community Reinvestment Act (CRA) data is an annual dataset compiled at the bank level for financial institutions regulated by the Office of the Comptroller of the Currency, Federal Reserve System, Federal Deposit Insurance Corporation, and the Office of Thrift Supervision. While the Call Report provides the amount of outstanding loans by financial institution, CRA data provides location and size of small business borrowers. This dataset was used to further understand small loan availability and was compared to Business Dynamic Statistics (BDS) data.

The BDS contains measurements of business dynamics through variables such as job creation, establishment births and deaths, as well as firm startups and shutdowns from 1977 to 2014. This data was compared to the CRA data to understand the relationship between the supply of small business loans and overall small business dynamism at the MSA level.

The study uses transition matrices, univariate, multivariate, and time series analysis tests on the data. Consistent with the Office of Advocacy's data quality guidelines, this report was peer reviewed. More information on the process can be obtained by contacting the director of economic research by email at advocacy@sba.gov or by phone at (202) 205-6533.

Related Research

Part of the Office of Advocacy's statutory mission includes researching small business access to capital:

- "Small Business Lending in the United States, 2019" Office of Advocacy, September 2020. This report examines FDIC data to determine the state of bank lending to small businesses. Between June 2017 and June 2019, small business lending remained positive, though below the increase in lending to large businesses.
- "Minority-Owned Employer Businesses And Their Credit Market Experiences In 2017" Office of Advocacy, July 2020. This report analyzes 2017 Federal Reserve survey data and finds disparities in credit outcomes persisted for minority-owned businesses in 2017.
- "Research From Advocacy: Bank Lending To Rural Vs Urban Firms In The United States, 2007-2016" This report used FDIC data to examine differences between urban and rural lending from 2007-2016. It concluded that rural firms have a more difficult time accessing credit than their urban counterparts.
- "Spotlight on Community Bank Lending" Daniel Brown, September 2019. This fact sheet examines trends and provides an overview of community banks, a critical source of capital for small businesses.
- "Change in Small Business Loans Outstanding During the COVID-19 Pandemic" Victoria Williams and George Haynes, December 2020. This report examines the small business lending activity during December 2019 and June 2020 by lender size covering trends of the initial onset of the pandemic.

READ THE FULL REPORT ONLINE

This report is available on the Office of Advocacy's webpage at **https://advocacy.sba.gov**. To stay informed of Advocacy's research, visit **https://advocacy.sba.gov/subscribe.** By selecting the Small Business Regulation & Research category, you can choose to receive email notices of Advocacy research, regulatory communications, or The Small Business Advocate newsletter.

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