

WORKING PAPER NO. 16-08 SMALL BUSINESS LENDING: CHALLENGES AND OPPORTUNITIES FOR COMMUNITY BANKS

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Abstract

The recent decline in small business lending (SBL) among U.S. community banks has spurred a growing debate about the future role of small banks in providing credit to U.S. small businesses. This paper adds to that discussion in three key ways. First, our research builds on existing evidence that suggests that the decline in SBL by community banks is a trend that began at least a decade before the financial crisis. Larger banks and nonbank institutions have been playing an increasing role in SBL. Second, our work shows that in the years preceding the crisis, small businesses increasingly turned to mortgage credit — most notably, commercial mortgage credit — to fund their operations, exposing them to the property crisis that underpinned the Great Recession. Finally, our work illustrates how community banks face an increasingly dynamic competitive landscape, including the entrance of deep-pocketed alternative nonbank lenders that are using technology to find borrowers and underwrite loans, often using unconventional lending practices. Although these lenders may pose a competitive threat to community banks, we explore emerging examples of partnerships and alliances among community banks and nonbank lenders.

Keywords: small business lending, online lending, lending technology, shadow banking, community banks, large and small banks *JEL Classifications*: G21, G23

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I. Introduction

The ongoing evolution of the small business lending (SBL) sector presents both challenges and opportunities for community banks. A growing body of research examines how the financial crisis and new regulations have translated to a consistent decline in SBL by community banks. Beginning in the 1990s, large banks began to increase their market share at the expense of community banks. Ten years or more before the financial crisis, getting a standard commercial term loan from the bank down the street began to lose its place as the dominant choice for small businesses seeking credit.

The financial crisis served to accelerate these trends, setting the stage for a new postcrisis landscape in credit markets for small firms. Using Federal Reserve data, this paper demonstrates that before the financial crisis, small businesses increasingly used real estate as collateral for loans. During the crisis, credit available from community banks contracted. Subsequently, as the economy and housing market began to recover, large banks leveraged technology to compete for smaller commercial borrowers as they searched for lending opportunities in a low-return environment.

This paper also examines the rise of alternative and nonbank lenders over the past several years. Most recently, nonbank and alternative lenders have begun to compete with banks by introducing sophisticated technologies and new underwriting methods. These lenders typically issue small business loans electronically, with minimal processing time, across a range of sizes, terms, and borrower risk profiles. In a bellwether development, nonbank lenders — including payment processors such as PayPal and Square — have begun to harness databases of borrower sales history collected during the processing of payments to offer cash-flow loans and other credit products.

In the postcrisis environment, evidence suggests that community banks encounter a series of challenges and unique opportunities. Community banks face rising competition from large banks. Nonbank lenders are new entrants and meet fewer requirements. Despite these challenges, evidence suggests that community banks have their own opportunities in the emerging new world order for SBL. For starters, there is evidence that demand for credit is growing. This paper also examines the emerging examples of banks partnering with alternative lenders to fund qualifying loans originated through online platforms.

Section II summarizes the related literature. Section III discusses the increasing roles of nonbanks as SBL funding sources. Section IV focuses on the banking institutions as SBL funding sources and compares the roles of large versus small banks over time. Section V demonstrates evidence of the increasing role of mortgages as funding sources for small businesses. Section VI discusses the SBL market environment after the financial crisis and the associated challenges and opportunities for community banks. Finally, Section VII presents our concluding remarks.

II. Literature Review and Our Contribution

The health of SBL in the U.S. has been a prominent area of research and debate since the financial crisis. During the crisis, lending standards tightened, and many indicators suggested that small businesses had difficulty obtaining credit. As credit conditions have thawed and new competitors have entered the sector — particularly alternative and nonbank lenders — one key point of inquiry is the future role of community banks, which were until recently all but synonymous with SBL. Historically, community banks have been an important source of credit for small businesses after personal resources have been exhausted.

There is a sizable body of research portraying a two-decade period during which community banks experienced a loss of SBL market share. According to Wiersch and Shane (2013), small business loan issuance by community banks began to decline consistently during the 1990s. They demonstrate that banks' balances of commercial loans of less than \$1 million (a traditional definition of small business loans) began to fall steadily between 1995 and 2012. They argue that some of this shift was attributed to a relative decline in the profitability of SBL, including time-intensive processing for smaller-balance loans.

Even as the Internet began to change the SBL marketplace, community banks' knowledge of local markets remained an advantage. DeYoung, Frame, Glennon, and Nigro (2011) and Peterson and Rajan (2002) noted increasing distance between small business borrowers and lenders as a result of changes in lending technology, such as the adoption of credit scoring technologies by the lending banks.

DeYoung, Glennon, and Nigro (2008), however, found a significant relationship between loan defaults and the proximity of borrowers and lenders. Loans made to borrowers located closer to the lending bank perform better. Whereas borrowers at least 25 miles away from their bank lenders were 10.8% more likely to default on their loans, borrowers located at least 50 miles away were 22.1% more likely to default on their loans. The paper argues that qualitative information about borrowers is best used by small banks because they are "owned, managed, staffed, and funded by members of the community and thus have an intimate knowledge of the local area and lower transportation costs for on-site visits with new firms." This confirms findings from previous studies, such as by Berger, Miller, Petersen, Rajan, and Stein (2005) and Chakraborty and Hu (2006), that small banks have an advantage in relationship lending.

In examining the intersection of mortgage credit and SBL, Mills and McCarthy (2015) analyzed U.S. Small Business Administration (SBA) data and found that the level of exposure to the housing market by small businesses is significant. During the recent recession, households that owned small businesses held 59% of their debt in mortgages (versus 38% for other households), and they held another 7% of their debt in residential secured debt. Mills and McCarthy also report that self-employed households took on increasing amount of home equity debt during the boom period from 1998 to 2007 and that the number started declining after 2008. Kennickell, Kwast, and Pogach (2015) validated previous findings that households with small businesses tend to use home equity as collateral for mortgage loans that support their small businesses, thereby driving up their home-equity-loan-to-net-worth ratio, suggesting the need for further research on the interplay between home ownership and small business finance. In this paper, we explore the role of mortgages as funding sources for small business finance.

In addition to increasing dependency on mortgage financing for small business financing, some studies find that small businesses have increasingly depended on larger banks as their funding sources. For example, Prager and Wolken (2008), using the 2003 Survey of Small Business Finance (SSBF) data, find that whereas 70% of small businesses cite a big bank as their primary financial institution, only 25% cite a community bank (and 5% cite a nonbank). Interestingly, their multivariate analysis does not support the view that community banks are the best places to serve the smallest and youngest small businesses.

Similarly, there has been some debate about whether the long-term consolidation of community banks leads to reduced small business activity after small community banks become part of a big bank through mergers and acquisitions. Jagtiani, Kotlier, and Maingi (2015) show that mergers involving community banks (during the period 2000–2012) have not adversely impacted SBL activities. In fact, the combined banking firms tended to increase their SBL activity following the mergers compared with small business loans made by the targets and the acquirers combined (before the merger). Consistent with this finding, Hughes, Jagtiani, and Mester (2015) found that larger community banks (with between \$5 billion and \$10 billion in assets) are more efficient in offering small business loans than smaller community banks.

In addition to increasing reliance on mortgages and larger banks, there has also been evidence (from SSBF data) of significant increased dependency on the use of nontraditional credit, such as loans from nonbank institutions and business credit cards, which has grown dramatically in the past decade. For nonbank lenders, Mester, Nakamura, and Renault (2007) report that finance companies were responsible for an increasing share of loans to businesses over time, reaching onethird by 2006. For other nontraditional credit, the Board of Governors of the Federal Reserve System (2007) suggests that the rapid payment of outstanding balances by a large fraction of firms indicates that business credit cards and trade credit (borrowing from suppliers) may have been used largely for convenience rather than for long-term financing.

It should be noted that different definitions of SBL have been used in the literature, and each definition has its limitations. Examples include commercial and industrial (C&I) loans with origination amounts less than \$1 million regardless of whether the borrowers are actually small (the definition used in bank Reports of Income and Condition (Call Reports)), loans made to businesses with less than \$1 million in gross revenue (the definition used in Community Reinvestment Act (CRA) reports), loans made to businesses with fewer than 500 employees regardless of loan size (the definition used in the SSBF), and C&I loans to nonfinancial noncorporate borrowers regardless of the size of the loan and of the borrower (the definition used in the Flow of Funds data). Because of these different definitions, the results may not be comparable across studies.

We add to the growing body of SBL research by exploring various data sources in the same study, and we further explore the impacts of competition and lending conditions before and after the financial crisis. First, we find, using Federal Reserve and other sources of data, that large banks have increased their share of SBL over the past decade. Second, our work shows that as property markets began to rise before the recent financial crisis, small businesses increasingly tapped equity in real estate to fund their business, exposing them to the eventual mortgages crisis. Finally, this paper explores the growth rates and strategies among the expanding sector of alternative and nonbank lenders, some of whom have established formal lending relationships with community banks.

III. Increasing Roles of Nonbank Institutions in Small Business Lending

Some of the most frequently used data sources for SBL come from data reported by banks in their Call Reports and their CRA reports.¹ These data sources, however, only include SBL activity by banking institutions. Call Report data define SBL by the size of the loan, and CRA data define SBL by the size of the borrower. Both definitions have limitations. Another data source for SBL that includes nonbank lenders is the Flow of Funds account. The definition of SBL in this data set is loans to noncorporate, nonfinancial borrowers (e.g., partnerships or individually owned businesses). The disadvantage with this data set is that some noncorporate borrowers could be large, and some corporate borrowers could be small. By using data from all three sources, we can identify overarching trends. Using Flow of Funds data, we explore changes in the volume of small business loans (loans to noncorporate, nonfinancial companies) originated by nonbank institutions over time. Figure 1 shows that small business loans originated by nondepository institutions — that is, finance companies, Farm Credit System, and the U.S. government — increased significantly since the late 1990s and continued to rise through the financial crisis and postcrisis periods.

PayNet's Small Business Credit Conditions Quarterly Report also shows evidence supporting the increasing role of nonbank institutions in SBL. The SBL data from PayNet include loans originated by both banks and nonbank institutions that are members of the PayNet network. PayNet classifies business loans as SBL if the maximum outstanding balance that the borrower has ever obtained from all lenders in the PayNet database is less than \$1 million. In other words, it is based on the borrower's maximum receivable balance of all obligations reported to PayNet at any given point in the history.

¹ For example, Williams (2014) presents basic statistics of small business lending activities as of 2013 using both Call Report data and CRA data.

If we assume that the member institutions of PayNet are a good representation of the entire SBL market,² then Figures 2 and 3 indicate that the overall SBL origination (by banks and nonbanks) declined significantly during the financial crisis period, but the nonbank funding sources of SBL grew steadily during the same period (as shown in Figure 1). Also, using PayNet data, Table 4 compares the distribution of lender types (banks, nonbank corporations, and finance companies) as of the first quarter of 2015 for small and medium business loans (left panel) versus small businesses only (right panel). As expected, banks still hold the majority of the SBL market share as recently as 2015. However, it is interesting to note that banks' market share for SBL is significantly smaller than their lending share to larger businesses. Specifically, banks hold 56% market share in SBL compared with 61% market share in small and medium business loans combined.

IV. The Changing Roles of Banks in Small Business Lending: Large versus Small Banks

The growth of SBL outside the community banking sector is a relatively new trend. For decades, community banks were the primary source of credit for small businesses. As recently as 1997, small banks, with less than \$10 billion in consolidated assets, accounted for 77% of the SBL market share issued by commercial banks. However, the market share dropped to 43% in 2015.³ This is based on Call Report data for small business loans (with origination amounts less than \$1 million) held by depository institutions. The decline is even more severe for small business loans of less than \$100,000 origination, where the market share for small banks under \$10 billion declined from 82% in 1997 to only 29% in 2015 (see Figures 4B and 5B).

² PayNet members must pay a fee to join the network. One of the benefits of membership is access to peer data. Therefore, PayNet members would be biased toward larger participants in the SBL market.

³ This is consistent with Puri, Rocholl, and Steffen (2011), who separate the supply effect and the demand effect in their analysis, using a unique data set from Germany. They find that banks tend to cut back on their lending to preserve liquidity. Small banks, in particular, tend to curtail their lending when facing more liquidity-constrained.

Again, using Call Report data, we determine the outstanding SBL held by banks in different size groups. We inflation adjust both asset size and the SBL amount to 2014 dollars.⁴ Figure 4A demonstrates that the overall outstanding SBL amount held by depository institutions has increased over the years. However, most of this increase resulted from increased lending by larger banks with total assets over \$10 billion. Figure 4B shows the market share of SBL issued by large banks versus small banks over the years. Similarly, Figure 4C shows that small business loans as a portion of total assets among small banks (under \$1 billion in assets) have been declining over the years.⁵

We observe, however, that larger banks seem to have maintained roughly the same SBL-toassets ratio over the past two decades. This rise of large bank competition is even more apparent when examining changes in smaller-balance small business loans. Figures 5A and 5B, using Call Report data, show in real terms (dollar value) a 20-plus year decline in loans under \$100,000 made by community banks compared with a rise in such loans made by large banks. Regardless of whether the data are unadjusted, inflation adjusted, or adjusted for asset size, the decline in SBL by smaller banks is evident.

In addition to examining the outstanding amount (stock data) of SBL, we also examine the newly originated SBL (flow data) over time using CRA data, which provide detailed information about newly originated (or purchased) SBL by banks at the county level. In this data set, SBL is defined as loans to businesses with gross annual revenues of less than \$1 million. Because this definition is based on the size of the company and not the size of the loan, the CRA data set is the data source that best zeros in on credit for small businesses. Figures 6A, 6B, and 6C map the

⁴ Outstanding SBL here includes small C&I loans and small farm loans with origination amount less than \$1 million. Small business loans backed by CRE are not included. Figures A1, A2, A3, A4, and A5 in the Appendix present similar plots but with small loans backed by CRE included in the SBL definition. Similar trends are observed regardless of whether or not small loans backed by CRE are included.

⁵ Despite this downward trend, banks with less than \$10 billion in total assets still provide a greater percentage of small business loans than their share of assets in the banking industry. As of March 2015, these banks account for 16.5% of all banking assets and according to these data make 43% of SBL.

proportion of newly originated (and purchased) small business loans in each county that were made by large banks (more than \$10 billion in assets) relative to smaller banks (between \$1 billion and \$10 billion) for 1997, 2005, and 2013, respectively. The maps show that large banks have been playing an increasing role in the SBL market over the past two decades. The number of counties where small banks made more than 80% of all the SBL (indicated in red color) fell by more than 70% between 1997 (see Figure 6A) and 2013 (see Figure 6C). More details of the number of counties dominated by large versus small banks over the period 1997–2013 are presented in Table 1A.

It should be noted that these heat maps are plotted based on the CRA data that exclude banks with less than approximately \$1 billion in assets; thus, the blue shade of counties dominated by large banks is likely to be overestimated. Despite this drawback in the CRA data, the dramatically increasing number of blue counties (those dominated by large bank SBL) provides strong evidence that large banks have been playing a significantly increasing role in SBL in the past decades.

Robustness Testing: To cover all banks, including small banks (with less than \$1 billion) in the analysis, we create similar heat maps using stock data (total SBL outstanding) from the Call Reports. This method allows us to look across all banks, but we focus on SBL outstanding in the banks' portfolio rather than the SBL origination data reported in CRA. Because Call Report data only provide the overall SBL amount, with no county breakdown, we use the Federal Reserve Summary of Deposit data that report deposits at each bank at the county level. We assume the same county distribution for SBL and for deposits for banks smaller than \$1 billion (that do not report CRA data). For banks with more than \$1 billion (that do report CRA data), we distribute each bank's total SBL outstanding from Call Report to each of the counties based on its newly originated SBL distribution (as reported in the CRA data). The heat maps (which include all of banks in the U.S.) for outstanding SBL are presented in Figures 7A, 7B, and 7C for the periods 1998, 2005, and 2013, respectively.⁶

Although adding the data for smaller community banks and switching to the stock data of SBL outstanding in Call Reports versus the flow data of newly originated SBL in CRA reports leads to fewer blue counties, the same trend of a declining number of counties dominated by small community banks in the SBL market still is evident. The number of counties where small banks made more than 80% of the small business loans made by banks fell by more than 40% between 1997 and 2013. More details on the number of counties dominated by large banks in the SBL outstanding over the years are summarized in Table 1B.

V. Increasing Role of Online Lending and Mortgages as a Source of Small Business Lending Funding

V.1 The Role of Online Lending

We further examine the role of large and small banks in SBL and the impact of lending technology, such as online lending, by focusing on counties where banks do not have a physical presence. We create similar heat maps as described earlier based on CRA data (newly originated and purchased SBL) over the period 1998–2014. With banks' evolving lending technologies and increasing online lending activities in recent years, we expect to observe them being better able to make more loans in counties where they do not have any physical offices. We divide the analysis into two parts — one for large banks (with more than \$10 billion in assets) and another focusing on small banks (with assets less than \$10 billion).

Figures 8A, 8B, and 8C present heat maps of proportion of SBL market share in the counties where large banks do not have branch offices. The ratios are calculated as follows. The numerator

⁶ To be consistent with the previous plots, the SBL amount here includes small C&I and small farm loans less than \$1 million in origination. Figures A6, A7, and A8 present similar plots, but SBL is defined to also include nonfarm nonresidential loans that are backed by CRE. Figure A9 presents number of counties summarizing the SBL trend shown in the plots.

includes newly originated SBL issued by large banks that do not have a branch office in the county. The denominator is total newly originated SBL in the county issued by all banks that report CRA data (regardless of their asset size and whether they have branches in the county).⁷ The darker blue color represents a large share of SBL originated by large banks that do not have branches in those counties. We observe that the maps get darker over the years, which is consistent with our technology and online lending arguments. Large banks have been better able to use new lending technologies and compete in SBL without the need for a physical location in the local market. More details on the number of counties dominated by large banks that do not have branches in the county over the years are summarized in Table 1C.

Similarly, Figures 9A, 9B, and 9C present similar heat maps for SBL originated by smaller banks (less than \$10 billion) that report CRA data and do not have branch offices in the counties. We observe that SBL market share of small banks that do not have branch offices in the counties seems to have followed the opposite trend compared with the market share of large banks. The decline in SBL market share at small banks in counties where they do not have branches is more evident from 2005 (see Figure 9B) to 2014 (see Figure 9C). More details on the number of counties dominated by small banks that do not have branches in the county over the years are summarized in Table 1D. Overall, our evidence seems to suggest that small banks have been encountering an increasingly dynamic competitive landscape over the years, with greater competition from both large banks and nonbank institutions as lending technology has advanced. Small banks have lost SBL market share in counties where they do not have branches.

V.2 The Role of Mortgage Credit

On the use of mortgage credit, we examine the role that mortgage credit played in the profile and condition of small business borrowers before and during the financial crisis. We find

⁷ Note that the denominator remains the same as those in the earlier heat maps (in Figures 6A–6C and 7A–7C).

that mortgage credit in broad terms — residential and commercial alike — rose sharply as a source of small business funding in the years preceding the financial crisis. As property values rose, businesses tapped the underlying equity.

The previous data have been from the perspective of lenders. The Flow of Funds data are benchmarked against the IRS Statistics of Income (SOI) Small Business Survey and incorporate survey data done by the Federal Reserve Board to obtain a comprehensive view of financing for small business. According to these data, Figure 10A shows the increasing role of mortgages as funding sources for small businesses (noncorporate nonfinancial business), particularly during the housing market boom period of 2000–2007. Figure 10B, shows the breakdown of mortgages used to fund SBL. Commercial mortgage balances among noncorporate nonfinancial business liabilities rose by a factor of 2.5 between 1999 and 2008, to \$1.45 trillion, the largest funding source. Multifamily mortgage balances rose 2.3 times during the same period, and single-family mortgage credit rose by a factor of 2.1. The data likewise suggest that commercial and multifamily credit experienced higher growth relative to the prior decade than did single-family mortgage balances, whose growth rate was modest over the same period. From 1990 to 2000, single-family mortgage credit originated to fund small businesses (nonfinancial and noncorporate businesses) rose by a factor of 1.3 compared with a threefold rise in commercial and multifamily balances during the same period.

VI. Postcrisis Environment for Small Business Lending: Challenges and Opportunities

Community banks engaged in SBL face a number of challenges in the postcrisis environment. The historic advantage community banks have had in making small business loans was their ability to leverage "soft" information such as knowledge of a business's cash flow from lock box and checking account relationships to make sound small business loans. Now community bank competitors have developed technology that more efficiently uses multiple sources of information to make speedy lending decisions, greatly reducing the competitive advantage of the type of information community banks have about their customers. The technology also reduces the involvement of lending staff, which reduces the cost of making these loans.

VI.1 The Rise of Alternative Nonbank Lenders to Small Businesses

The shadow lending sector has historically presented challenges for researchers attempting to gauge its size and scope; SBL is no exception. Although a variety of data sources exist, no source is authoritative. Nonbank lenders are subject to little or no regulatory oversight, including disclosure requirements, and data reporting is therefore largely voluntary. Only when these companies become publicly traded is more financial information made available. There has been substantial anecdotal evidence that the nonbank alternative SBL sector has been growing rapidly.

According to research by Morgan Stanley (2015), "In the US, marketplace loan origination has doubled every year since 2010, to \$12 billion in 2014. Meanwhile, the trend is playing out globally, notably in Australia, China and the UK. All-told, such lending could command \$150 billion to \$490 billion globally by 2020." Table 2 lists some of the better-known nonbank lenders and the information available about their lending volume. Although some of these "new" models have been established for some time (e.g., CAN Capital was founded in 1998), most entrants have appeared over the past seven to eight years. DeYoung, Frame, Glennon, McMillen, and Nigro (2008) have partially attributed the growing distance between lenders and small business borrowers shown in the SBA data to the growth in the shadow banking system. The faster application process, use of alternative data, and reduced collateral requirements continue to make nonbank lenders appealing to small business owners. Although the growth rates in the past several years are impressive, the total volume of lending by nonbank lenders (about \$190 billion overall, including about \$40 billion of loans by finance companies; see Figure 1) does not come close to about \$350 billion in small business loans made by the banking industry in 2014 (see Figure 4A). The growth rates reported by the nonbank lenders have attracted institutional investors (venture capital, hedge funds) and some private investors. For example, Kabbage (a working capital lender) was established in 2009, and it expects to issue \$1 billion in credit in 2015.⁸ The company has tripled its yearly SBL volume in less than one year (Kabbage, 2015).⁹ In addition, OnDeck Capital (2015) said its quarterly loan volume in the first quarter of 2015 was \$416 million, 83% higher than the same quarter one year earlier.¹⁰ Figure 11 shows the rapid growth of Lending Club after the introduction of its small business loan product. Moreover, payments processors PayPal and Square entered the market recently and are demonstrating strong growth rates — PayPal Working Capital has lent \$1 billion from September 2013 to October 2015 to small- and medium-sized businesses, and Square has lent more than \$100 million to 20,000 small businesses within one year of launching.

VI.2 The Various Business Models Used by Nonbank Lenders

Table 3 also presents details on the various business models used by nonbank lenders. Many of the earliest nonbank entrants have historically been referred to as *peer-to-peer* (P2P) lenders. As business models have evolved and become more hybrid in nature, they are frequently referred to as *marketplace lenders*. In general, marketplace lenders use online platforms that serve as intermediaries to connect borrowers with lenders (individuals, institutions, or both). Rather than holding loans on their balance sheets, marketplace lenders generate revenue from transaction

⁸ Dahl (2015). See Darren Dahl, "The Six-Minute Loan: How Kabbage is Upending Small Business Lending -— and Building a Very Big Business," *Forbes*, May 6, 2015, available at

www.forbes.com/sites/darrendahl/2015/05/06/the-six-minute-loan-how-kabbage-is-upending-small-businesslending-and-building-a-very-big-business/www.forbes.com/sites/darrendahl/2015/05/06/the-six-minute-loanhow-kabbage-is-upending-small-business-lending-and-building-a-very-big-business/.

⁹ See Kabbage press release, "Kabbage Funding More Than \$3 Million Per Day," February 3, 2015, available at <u>www.kabbage.com/pdfs/pressreleases/Kabbage-\$3mm-Press-Release-2-3-2015.pdf</u>.

¹⁰ See OnDeck Capital Inc., FY15-Q1 Form 10-Q for the Period Ending March 31, 2015 (filed May 13, 2015).¹¹ WebBank has average total assets of \$279 million and a tier 1 risk-based capital ratio of 19.2%. Celtic Bank has total assets of \$430 million and a tier 1 risk-based capital ratio of 14.7%. Cross River has total assets of \$427 million and a tier 1 risk-based capital ratio of 9.3%. All figures are as of September 30, 2015.

fees when they match borrowers with investors wishing to buy loans. Although marketplace lenders used to be characterized by their historical focus on *consumer* credits, their focus has recently shifted toward small *business* loans.

Lending Club has shifted away from a pure P2P model in which loans were funded by individuals who purchased the loans as investments in \$25 increments. In 2014, 28% of its funding came from institutions, including banks and asset managers (Buhayar, 2015). The company received considerable attention in 2014 when it released a new product of unsecured business loans ranging between \$15,000 and \$300,000 in size.

Behind many of these marketplace lenders are banks. For example, WebBank, an insured, Utah-chartered industrial bank, makes the loans, holds them for a short time (two to three business days), and then sells them back to the marketplace lender. The marketplace lender then markets the loans to investors.¹¹ Lending Club, Prosper, and PayPal reportedly originate loans through WebBank. Kabbage originates loans through Celtic Bank, which is also a Utah-chartered industrial bank. Cross River Bank, a state-chartered bank in New Jersey, has similar arrangements with 14 different marketplace lending platforms.

Marketplace lenders benefit from having banking partners for several reasons. Some states require nonbank lenders to be licensed in state if they are making loans to residents of that state. This is more common for consumer lending, but a few states (California, Nevada, North Dakota, South Dakota, and Vermont) do require nonbank small business lenders to obtain licenses. Different states have different requirements, and it can take time for the applications to be reviewed and approved. Having a bank originate the loans removes the requirement for the nonbank lender to obtain a license. Another reason is the ability to preempt state usury laws. However, in May 2015, the U.S. Court of Appeals ruled that nonbanks could no longer override state

¹¹ WebBank has average total assets of \$279 million and a tier 1 risk-based capital ratio of 19.2%. Celtic Bank has total assets of \$430 million and a tier 1 risk-based capital ratio of 14.7%. Cross River has total assets of \$427 million and a tier 1 risk-based capital ratio of 9.3%. All figures are as of September 30, 2015.

usury laws. The decision is currently being appealed. A third reason is less tangible. Investors may have greater confidence in the underwriting process if the underwriting is done by a bank that is subject of oversight by banking regulators.

Unlike marketplace lenders that connect borrowers to investors, *nonbank balance sheet lenders* retain the loans they originate. These lenders often raise capital from private equity and debt financing. Many of these alternative lenders, including Kabbage, On-Deck Capital, and CAN Capital, focus on working capital loans. These entities generally charge a premium in return for ease of application, reduced collateral requirements, and expedited funding. The lending platforms developed by these alternative balance sheet lenders differentiate them from banks. Balance sheet lenders typically use big data to build proprietary platforms that analyze loan applications quickly; for example, Kabbage claims it can assess a loan application in minutes. They often look beyond conventional data sources such as tax returns and credit scores. Many of these entities also directly interface with QuickBooks, PayPal, Square, and IRS tax returns.

Certain payment system providers, including PayPal and Square, have created their own niche in SBL by using data they collect while processing transactions to conduct credit analyses and expedite lending decisions. Loans are issued through PayPal's existing infrastructure and then repaid automatically through deductions from incoming receipts. *Payment processors* have demonstrated an advantage in their direct access to borrowers' sales, cash flow, and other financial data. PayPal holds the loans on its balance sheet similar to OnDeck and CAN Capital. PayPal has used SBL as a means to grow its volume of payments transactions rather than as a standalone new line of business (FRBNY Panel Discussants, 2015).¹²

¹² FRBNY Panel Discussants, Session titled "New Products from New Players," at the conference on "Filling the Gaps: Summit on Small Business Credit Innovations," organized by the Federal Reserve Bank of New York, May 15, 2015. The panel included the following speakers: 1) Renaud Laplanche, president, Lending Club; 2) Andrea Gellert, senior vice president, OnDeck Capital; 3) Daniel DeMeo, chief executive officer, CAN Capital; and 4) Liezl Van Riper, director of development, Kiva. More details are available at <u>www.newyorkfed.org/smallbusiness/small-business-summit.html</u>.

Table 3 details the underwriting and terms for the loan products provided by the various nonbank lenders. As shown in Table 3, much of the focus of nonbank lenders is on smaller dollar loans for working capital. Many of the lenders only require a personal guarantee. Some take a lien on business assets, but none report taking a lien on personal assets. Interest rates can be competitive with traditional banks, but they do report the potential for much higher loan rates. OnDeck Capital reports an APR of 50% for a line of credit. All report application processing times of less than 10 to 15 minutes, and some report funding in less than three days. As far as criteria, many do use credit scores, and some state that the minimum credit score considered is 640, typically the dividing line between subprime and prime borrowers. OnDeck reports that it will consider lower credit scores for certain types of loans. An exception to the use of credit scores is PayPal, which states that it does not consider business or personal credit scores. It relies on PayPal sales history. With the streamlined credit approval process, time will tell how well these loans season.

Nonbank lenders continue to develop and adjust their business models, forming a variety of partnerships and alliances with other companies. In 2015, for example, Lending Club established formal relationships with Google and Alibaba, in which the two tech companies provide lump-sum lending capital for their small business customers through the Lending Club platform. Lending Club will handle the underwriting and servicing of those loans, and Google and Alibaba will fund the loans. Another example is RiverNorth Capital Management, which recently sought permission from the Securities and Exchange Commission to create a closed-end mutual fund focused on loans originated through P2P lending platforms (Wack, 2015).¹³

¹³ See Kevin Wack, "SEC Petitioned for First-of-Its-Kind Marketplace Lending Fund," *American Banker*, June 25, 2015, available at <u>www.americanbanker.com/news/marketplace-lending/sec-petitioned-for-first-of-its-kind-marketplace-lending-fund-1075088-1.html</u>.¹⁴ See Lending Club Corporation (2015), FY15-Q1 Form 10-Q for the Period Ending March 31, 2015 (filed May 5, 2015).

VI.3 Potential Benefits from Bank–Nonbank Partnerships

Some community banks have started to adjust to the rise in nonbank lenders, as evidenced by new partnerships between banks and alternative lenders. These partnerships are most common among marketplace lenders that generate revenue from originating loans and place them with other investors (rather than warehousing the loans). For example, in early 2015, Lending Club partnered with BancAlliance, a nationwide network of approximately 200 community banks. Under the agreement, banks direct their customers who need small dollar loans to Lending Club. In return, the bank is provided with the opportunity to purchase the loans made to their customers. If a loan does not meet the bank's lending criteria, that loan is made available to Lending Club's broader investor pool (Lending Club Corporation, 2015).¹⁴ Banks can also purchase loans from the wider Lending Club portfolio, allowing them to add loans outside their area to their portfolio.

This type of partnership has allowed banks to leverage Lending Club's proprietary platform to make small dollar loans efficiently without investing in new technology. Lending Club benefits from increased transaction volume and from having a larger pool of investors to purchase loans. Meanwhile, banks grow their loan portfolios with minimal overhead by using Lending Club's infrastructure, allowing community banks to mimic the economies of scale of larger national banks (Graham, 2015).¹⁵ These partnerships are gaining in popularity, with Lending Club's competitor, Prosper, entering into a similar arrangement with another consortium of 160 small community banks, Western Independent Bankers, in early 2015 (Prosper, 2015).¹⁶

¹⁴ See Lending Club Corporation (2015), FY15-Q1 Form 10-Q for the Period Ending March 31, 2015 (filed May 5, 2015).

¹⁵ See Brian Graham, "Opening the Consumer Lending Market for Community Banks," *BankDirector.com*, April 23, 2015, available at <u>www.bankdirector.com/committees/lending/opening-the-consumer-lending-market-for-community-banks/</u>.

¹⁶ See Prosper, "Prosper Marketplace Partnership with Western Independent Bankers Expands Credit Opportunities for Small Banks and Their Customers," Prosper, February 26, 2015, available at <u>http://blog.prosper.com/2015/02/26/prosper-marketplace-partnership-with-western-independent-bankers-expands-credit-opportunities-for-small-banks-and-their-customers/</u>.

There are also examples of community banks licensing technology directly from alternative lenders to combine cost-efficient technology with their existing borrower relationships and knowledge of their local markets (Lunden, 2014).¹⁷ Licensing soon may become a more widespread option as one market leader, Kabbage, recently announced its intent to offer licenses to banks (PYMNTS.com, 2015a).¹⁸

In addition, community banks can increase customer loyalty by referring them to nonbank lenders when the bank does not offer a product that meets the customer's needs. By providing customers with viable alternatives, it is more likely that these customers will maintain deposit and other banking relationships with the bank and return to the bank for future lending needs (Wisniewski, 2014).¹⁹ For example, BBVA Compass entered into such a referral agreement with OnDeck in mid-2014, whereby BBVA Compass' customers will get favorable pricing for loans from OnDeck (Clark, 2014).²⁰ In addition, in mid-2014, Santander Bank entered into a reciprocal referral agreement with Funding Circle whereby Santander Bank would proactively refer customers looking for small business loans to Funding Circle. In return, Funding Circle will refer its customers looking for banking services to Santander (Cummings, 2014).²¹

To summarize, nonbank lenders are growing rapidly, but they are far from approaching the volume of traditional bank lenders. However, with their technology platforms and their ability to use alternative information sources to judge creditworthiness, it is possible that they are increasing

¹⁷ See Ingrid Lunden, "Kabbage Grows: The Online Platform for Small Business Loans Raises Another \$50M," Tech Crunch, May 5, 2014, available at <u>http://techcrunch.com/2014/05/05/kabbage-50m/</u>.

¹⁸ See Pymnts @pymnts, "Kabbage to License its Lending Platform," Pymts.com, March 24, 2015, available at <u>http://www.pymnts.com/in-depth/2015/kabbage-to-license-its-lending-platform/</u>.

¹⁹ See Mary Wisniewski, "Why BBVA Compass is Sending Customers to an Online Rival," *American Banker*, May 8, 2014, available at <u>www.americanbanker.com/issues/179_89/why-bbva-compass-is-sending-customers-to-an-online-rival-1067386-1.html</u>.

²⁰ See Patrick Clark, "OnDeck's Latest Deal Shows Banks are Ready to Outsource Some Small Business Loans," Bloomberg Business, May 9, 2014, available at <u>www.bloomberg.com/bw/articles/2014-05-09/ondecks-latest-deal-shows-banks-ready-to-outsource-some-small-business-loans</u>.

²¹ See Chris Cummings, "Funding Circle and Santander Deal Hailed as New Era for Funding," *The Yorkshire Post*, June 23, 2014, available at <u>www.yorkshirepost.co.uk/business/business-</u> <u>news/funding-circle-and-santander-deal-hailed-as-new-era-for-funding-1-6689499</u>.^a Lending Club Corp., Form 10-Q Quarterly Filing for the Period Ending March 31, 2015 (filed May 5, 2015).

the availability of credit, particularly to newer businesses that do not have the credit history required by traditional lenders. Additionally, as more millennials make up the pool of small business owners, they may be more comfortable with technology and may prefer dealing with an online lender versus an in-person loan officer. However, nonbank lenders have found it beneficial to partner with traditional banks, and nonbanks look to banks for funding and referrals. There are even some indications that nonbanks find it advantageous to originate loans through traditional banks. Banks also are interested in partnering with nonbanks. They look to nonbank lenders as sources of innovative loan platforms and of access to a wider pool of loans that can help them meet the needs of their communities and possibly reduce their concentration risk by investing in loans from a larger area. Given the speed of innovation to date, there is likely to be increased innovation in this space, allowing community banks to make small business loans more efficiently to a wider group of borrowers.

VII. Conclusions

There is little doubt that U.S. community banks, the nation's dominant source of small business loans for decades, are facing a new competitive landscape. Our research shows the emerging landscape features the entrance of fast-growing nonbank lenders as well as strong competition from large banks. The decline in SBL among community banks was well underway as long as a decade before the financial crisis, including a secular shift away from smaller-balance loans. Even so, our research adds to existing evidence showing that the crisis, combined with technological advancements, served to perpetuate the ongoing decline in community banks' market share in SBL.

Finally, our research suggests that the rise of alternative nonbank lenders represents both challenges and opportunities for community banks. By using technology and unconventional underwriting techniques, many alternative lenders are competing for borrowers with offers of faster processing times, automatic applications, minimal demands for financial documents and

funding as soon as the same day — all services most community banks would struggle to imitate. At

the same time, our research suggests that these nonbank lenders may offer growth opportunities

for community banks, most notably in the examples of formal partnerships and alliances.

Table 1ANumber of Counties Dominated by Large Banks (Larger than \$10 Billion) in Newly Originatedor Purchased Small Business Lending (1997–2013)

Sample includes banks that submit CRA reports in each year. Small banks (less than \$1 billion) that did not submit CRA reports are not included.

Source: Community Reinvestment Act Data

Year	1997	2002	2005	2007	2009	2011	2013
SBL Ratio: Less Than 20%	1,296	792	351	192	285	415	364
20% to 40%	591	831	746	451	528	570	587
40% to 60%	511	775	913	871	788	734	733
60% to 80%	419	562	837	1,085	927	829	825
Larger Than 80%	403	268	380	627	697	678	718
Total Number of Counties	3,220	3,228	3,227	3,226	3,225	3,226	3,227
			-	-			-

Table 1B

Number of Counties Dominated by Large Banks (with More Than \$10 Billion in Assets) in Total Small Business Lending Outstanding (1998–2013)

Sample includes all U.S. commercial banks.

Sources: Call Report for SBL data (small C&I and small farm loans), Community Reinvestment Act Data for the SBL distribution across counties (for banks that report CRA data), and Federal Reserve Summary of Deposits Data for SBL distribution across counties (for small banks that did not report CRA)

Year	1997	2002	2005	2007	2009	2011	2013
SBL Ratio: Less Than 20%	1,946	1,685	1,700	1,414	1,289	1,374	1,156
20% to 40%	482	675	731	757	799	709	780
40% to 60%	371	465	429	579	566	555	588
60% to 80%	226	253	254	355	435	410	497
Larger Than 80%	209	155	114	127	144	185	215
Total Number of Counties	3,234	3,233	3,228	3,232	3,233	3,233	3,236

Table 1C

Number of Counties Dominated by Large Banks in Newly Originated Small Business Lending (1997–2014)

SBL ratio is the ratio of SBL originated by large banks (with more than \$10 billion) that do not have branches in the counties to total SBL originated by all banks that report CRA data. Source: Community Reinvestment Act Data

Year	1997	2002	2005	2007	2009	2011	2014
SBL Ratio: Less Than 20%	2,245	2,214	1,764	933	1,158	1,795	1,299
20% to 40%	520	652	831	1,208	1,092	763	1,111
40% to 60%	203	223	376	627	507	326	437
60% to 80%	135	103	191	322	266	187	217
Larger Than 80%	117	36	65	136	202	155	164
Total Number of Counties	3,220	3,228	3,227	3,226	3,225	3,226	3,228

Table 1D

Number of Counties Dominated by Small Banks in Newly Originated Small Business Lending (1997–2014)

SBL ratio is the ratio of SBL originated by small banks (less than \$10 billion) that do not have branches in the counties to total SBL originated by all banks that report CRA data. Source: Community Reinvestment Act Data

Year	1997	2002	2005	2007	2009	2011	2014	
SBL Ratio: Less Than 20%	1,792	1,787	1,747	2,137	2,242	2,150	2,179	
20% to 40%	510	733	853	697	576	565	529	ĺ
40% to 60%	270	318	366	260	243	271	284	
60% to 80%	237	225	187	96	118	148	155	ĺ
Larger Than 80%	411	165	74	36	46	92	81	ĺ
Total Number of Counties	3,220	3,228	3,227	3,226	3,225	3,226	3,228	ĺ
								ĺ

Table 2						
The Growth of Nonbank and Other Alternative Lenders						
Marketplace	Lenders					
Lending Club ^{a,b}	Launched lending platform for consumer loans with balances <\$35K (including small business loans) in 2006 ^c					
	• From launch through the third quarter of 2015, issued nearly \$13.4B in consumer and small business loans ^d					
	 Small business loans with balances <\$35K grew 68.1% from 2013 to 2014^e In 2015, \$4.4Bin loans with balances <\$35K were originated through the third quarter^f 					
	Expansion of small business loan offerings					
	• March 2014: Launched new unsecured small business loan product with loans ranging in amounts from \$15K to \$300K ^g					
	• January 2015: Google partnership ^h					
	• February 2015: Alibaba partnership ⁱ					
Prosper	Established in 2007; prelaunched in 2013 ¹					
Marketplace	• Valued at \$1.9B after fundraising in spring 2015					
	• Originated more than \$5B in loans since its 2007 launch					
	• In 2015, facilitated \$2.6B in growth through the third quarter ^k					
Funding	Founded in the U.K. in 2010; expanded to the U.S. in 2013 [/]					
Circle USA	 Lending ~\$75M a month as of April 2015^m 					
	 >40K investors participating in the marketplace as of October 2015ⁿ 					
	 Originated >\$1.5B in small business loans as of October 2015 since its launch^o 					

^a Lending Club Corp., Form 10-Q Quarterly Filing for the Period Ending March 31, 2015 (filed May 5, 2015).

^b Noah Buhayer, "Lending Club Wants to Broaden Its Membership," *Bloomberg Business*, April 23, 2015.

^c Homepage. (n.d.), retrieved September 8, 2015, from Lending Club website (<u>www.lendingclub.com</u>).

^d Lending Club Corp. (2015) "1Q15 Prepared Remarks," May 5, 2015.

^e Lending Club Statistics. (n.d.), retrieved September 8, 2015, from Lending Club website (<u>www.lendingclub.com/info/download-data.action</u>).

^f See Lending Club Statistics.

^h Lending Club Corp. (2015) "Google and Lending Club Partner to Deliver New Business Financing Program" (company press release), January 15, 2015.

° See Zeitlin, 2015.

^g Lending Club Corp. (2015) FY14 Form 10-K for the Period Ending December 31, 2014 (filed February 27, 2015).

ⁱ Michael De La Merced, "Alibaba and Lending Club to Form Financing Partnership," *New York Times*, February 3, 2015.

^j Gillian Tan, Telis Demos, and Ianthe Jeanne Dugan (2015) "Prosper Marketplace's Valuation More Than Doubles to \$1.9 Billion," *Wall Street Journal*, April 8, 2015.

^k Prosper Marketplace, Inc., FY15-Q3 Form 10-Q for the Period Ending September 30, 2015 (filed November 6, 2015).

¹ Matthew Zeitlin, "Small Business Lender Funding Circle Raises \$150 Million," *BuzzFeed News*, April 22, 2015. ^m See Zeitlin, 2015.

ⁿ About. (n.d.), retrieved September 8, 2015, from Funding Circle website (<u>www.fundingcircle.com/us/about</u>).

Balance Sheet Lenders						
OnDeck	Established in 2007; IPO in 2014 [°]					
Capital	 Originated more than \$2B in small business loans since its 2007 launch 					
	• Loan originations increasing at 159% compound annual growth rate from 2012 to 2014					
	 Originated \$416M small business loans during 1Q2015, up 83% from the prior year 					
Kabbage	Founded in 2009					
	 Originated more than \$1B in small business loans since its 2009 launch^q 					
	• Tripled its daily small business loan origination volume in less than one year (2015:					
	\$3M a day vs. 2014: \$1M a day) ^r					
Payments I	Processors					
PayPal	Launched in September 2013					
Working	• As of October 2015, funded more than \$1B in credit to small and midsized businesses					
Capital	since its 2013 launch ^s					
	 Raised maximum loan amount to \$85K from \$20K^t 					
Square	Began offering loans in 2014					
	 Loaned more than \$100M to 20K small businesses within one year of launch^u 					

^p OnDeck Capital Inc., FY15-Q1 Form 10-Q for the Period Ending March 31, 2015 (filed May 13, 2015).

^q Home. (n.d.), retrieved on January 12, 2016, from Kabbage website (<u>www.kabbage.com/2</u>).

^r Kabbage Inc., "Kabbage Funding More than \$3 Million Per Day" (company press release), February 3, 2015.

^s PayPal Holdings, Inc. "<u>PayPal Reports Strong Third Quarter Results</u>," *BusinessWire.com*, October 28, 2015. ^t PYMNTS.com, "<u>Why PayPal Working Capital Was a No-Brainer</u>," *PYMNTS.com*, May 8, 2015.

^u Matt Weinberger, "<u>Square Has Advanced \$100 Million to Small Businesses</u>," Business Insider, April 16, 2015.

Table 3Alternative Lenders: Underwriting and Terms

Alternative Small	Loan	Interest	Application	Borrower Criteria
Business Lender	Amount	Rates	and Funding	
			Time	
Marketplace Lende	rs			
Lending Club	Consumer small	Annualized rates of 8%–	Preapproval in minutes ^y	 No collateral required for loans under \$100K^{aa}
	business	32%	Approval and	 Minimum standards for
	loans: \$1K–	(including	funding	consumer small business loans
	\$35K ^v	origination	process	include (but are not limited to)
	Small	fees, which	typically takes	minimum credit score of 660, 3
	business	are 1%–6% of	7 days ^z	years of credit history, and limited
	loans: \$15K–	balance) ^x		credit inquiries within the past 6 months ^{ab}
	\$300K ^w			• Minimum standards for other small business loans: annual sales greater than \$75K, in business for at least 2 years, ^{ac} own at least 20%
				of the business, and no recent bankruptcies or tax liens ^{ad}
Prosper	Consumer	5%–36% ^{af}	Online	 No collateral required^{aj}
Marketplace	small	Plus 1%–5%	application ^{ah}	 Minimum standards for loans:
	business	origination	Funding occurs	minimum credit score of 640,
	loans: \$2K–	fee ^{ag}	2–8 business	debt-to-income ratio of less than
	\$35K ^{ae}		days after	50%, and maximum number of

^v Lending Club Corp, FY14-Form 10-K Annual Report for the Period Ending December 31, 2014 (filed February 27, 2015).

^{aa} "Business Loans." (n.d.), retrieved January 12, 2016, from Lending Club website (www.lendingclub.com/business).

^{ad} "Business Loans." (n.d.), retrieved January 12, 2016, from Lending Club website (www.lendingclub.com/business).

^w Lending Club Corp, FY14-Form 10-K Annual Report for the Period Ending December 31, 2014 (filed February 27, 2015).

^x Lending Club Corp, FY14-Form 10-K Annual Report for the Period Ending December 31, 2014 (filed February 27, 2015).

⁹ Lending Club Corp, FY14-Form 10-K Annual Report for the Period Ending December 31, 2014 (filed February 27, 2015).

^z "How Long Does It Take to Get My Loan?" (n.d.), retrieved January 12, 2016, from Lending Club website (<u>http://kb.lendingclub.com/borrower/articles/Borrower/How-long-does-it-take-to-get-my-loan</u>).

^{ab} Lending Club Corp, FY14-Form 10-K Annual Report for the Period Ending December 31, 2014 (filed February 27, 2015).

^{ac} Renaud Laplanche, Lending Club Corp, "<u>Affordable Credit for Business Owners</u>," presented at "Filling the Gaps: Summit on Small Business Credit Innovations," Federal Reserve Bank of New York, May 15, 2015.

^{ae} "Loan Types." (n.d.), retrieved January 12, 2016, from Prosper website (<u>www.prosper.com/loans/loan-types</u>). ^{af} "Prosper Borrower Help." (n.d.), retrieved January 12, 2016, from Prosper website

⁽www.prosper.com/help/borrowing).

			investors are secured ^{ai}	inquiries in the past 6 months: 7 ^{ak}
Funding Circle USA	\$25K– \$500K ^{al}	5.49%– 22.79% ^{am} Plus 1%–5% origination fee ^{an}	Loan application takes less than 10 minutes ^{ao} Funding in fewer than 10 days ^{ap}	 Collateral required: lien on business assets and a personal guaranty from primary business owners are required^{aq} Factors considered in application: credit score; real-time cash flow; 3 years of business tax returns; 1 year of personal tax return; 6 months of business bank statements; online customer reviews; for loans over \$200K: balance sheet and income statement and outstanding loans and credit profile^{ar}
Balance Sheet Len	ders			
OnDeck Capital ^{as}	Term loans: \$5K– \$250K ^{at} Lines of credit:	Term loans: APR ranged from 8.9%– 98.4% Line of	Application and approval in minutes ^{aw} Funding within 1 business	 No collateral required; lien on business assets and a personal guaranty are required^{ay} Underwriting standards: minimum credit score of 500,

^{ag} Prosper Funding LLC and Prosper Marketplace, Inc., FY14-Form 10-K Annual Report for the Period Ending December 31, 2014 (filed April 6, 2015).

^{ah} "Prosper Borrower Help." (n.d.), retrieved January 12, 2016, from Prosper website (<u>www.prosper.com/help/borrowing</u>).

^{aj} "Get a Personal Loan for Your Small Business." (2015), retrieved January 12, 2016, from Prosper website (<u>www.prosper.com/loans/loan-types/personal-loans-business</u>).

^{ai} "Prosper Borrower Help." (n.d.), retrieved January 12, 2016, from Prosper website (<u>www.prosper.com/help/borrowing</u>).

^{ak} Prosper Funding LLC and Prosper Marketplace, Inc., Prospectus dated August 13, 2015.

^{al} "Business Loans." (n.d.) Retrieved January 12, 2016, from Funding Circle website (<u>www.fundingcircle.com/us/small_business_loans</u>).

^{am} "Loan Rates and Fees." (n.d.), retrieved January 12, 2016, from Funding Circle website (<u>www.fundingcircle.com/us/rates_and_fees</u>).
 ^{an} "Business Loans." (n.d.), retrieved January 12, 2016, from Funding Circle website

^{an} "Business Loans." (n.d.), retrieved January 12, 2016, from Funding Circle website (<u>www.fundingcircle.com/us/small_business_loans</u>).

^{ao} "Business Loans." (n.d.), retrieved January 12, 2016, from Funding Circle website (<u>www.fundingcircle.com/us/small_business_loans</u>).

^{ap} "Compare Us." (n.d.), retrieved January 12, 2016, from Funding Circle website (<u>www.fundingcircle.com/us/compare</u>).

^{aq} "General Q&As." (n.d.), retrieved January 12, 2016, from Funding Circle website (<u>www.fundingcircle.com/us/support</u>).

^{ar} "General Q&As." (n.d.), retrieved January 12, 2016, from Funding Circle website (www.fundingcircle.com/us/support).

^{as} On Deck Capital Inc., "OnDeck Reports First Quarter 2015 Financial Results" (company press release), May 4, 2015.

^{at} "Frequently Asked Questions." (n.d.) Retrieved January 12, 2016, from OnDeck website (<u>www.ondeck.com/faqs</u>).

	\$20K maximum ^{au}	credit: APR ranged from 13%–50% ^{av}	day ^{ax}	 \$100K in annual revenue, and in business for at least 1 year^{az} Average borrower has been in business for 10 years and has at least \$1 million in annual revenue^{ba}
Kabbage ^{bb}	Lines of credit: \$2K-\$100K	Loans are paid off over 6 or 12 months No "interest" charged Fees are 1%– 12%, and the disclaimer third-party partners may charge an additional 1.5% fee each month	Application and funding in minutes	 No collateral is required; personal guarantee is required Minimum requirements: must be in business for more than 1 year and have over \$50K in revenue Kabbage performs verification by automatically obtaining business data and instantly verifying bank account information Factors considered in application: proprietary model that looks at real-time business data (e.g., IRS, QuickBooks, eBay, PayPal, Amazon, Etsy, Square), credit score, average monthly revenue, seller rating, time in business, and other unconventional metrics (online reviews and Facebook and Twitter followers)^{bc}

^{aw} On Deck Capital Inc., FY15-Q1 Form 10-Q Quarterly Report for the Period Ending June 30, 2015 (filed August 11, 2015).

^{ay} "Frequently Asked Questions." (n.d.), retrieved January 12, 2016, from OnDeck website (<u>www.ondeck.com/faqs</u>).

^{au} "OnDeck Line of Credit." (n.d.), retrieved September 8, 2015, from OnDeck Capital website (<u>www.ondeck.com/business-loans/line-of-credit</u>).

^{av} On Deck Capital Inc., FY15-Q3 Form 10-Q Quarterly Report for the Period Ending September 30, 2015 (filed November 10, 2015).

^{ax} "OnDeck Line of Credit." (n.d.), retrieved September 8, 2015, from OnDeck Capital website (<u>www.ondeck.com/business-loans/line-of-credit</u>).

^{az} "Are You a Small Business in Need of Fast Funding?" (n.d.), retrieved January 12, 2016, from OnDeck website (<u>www.ondeck.com/business-loans/loan-qualifying</u>).

^{ba} Andrea Gellert, OnDeck Capital, (2015) <u>Conference presentation</u> presented at "Filling the Gaps: Summit on Small Business Credit Innovations," Federal Reserve Bank of New York, May 15, 2015.

^{bb} "How Kabbage's Small Business Loans Work." (n.d.), retrieved January 12, 2016, from Kabbage website (<u>www.kabbage.com/how-it-works</u>).

^{bc} Darren Dahl, "The Six-Minute Loan: How Kabbage Is Upending Small Business Lending — And Building a Very Big Business," *Forbes*, May 25, 2015.

Fundation ^{bd}	Working capital loans: \$20K– \$150K Business expansion loans: \$20K– \$500K	APR from 8%–30% inclusive of origination and closing fees	Application takes 10 minutes ^{be} Funding can occur in as little as 3 business days ^{bf}	 No specific collateral required; lien on business assets and a personal guaranty are required^{bg} Factors considered in application: credit score, 2 years of business tax returns, 3 months of business bank statements^{bh} Minimum standards for loans: annual sales greater than \$100K, in business for at least 2 years, and have at least three employees^{bi}
Payments Processo	rs			
PayPal Working Capital ^{bj}	Maximum loan of 15% of annual PayPal sales, up to \$85K	Single fixed fee based on PayPal sales history, loan amount, and daily repayment deduction	Application and funding in minutes	 No personal guarantee required Factor considered in application: PayPal sales history of the business; personal and business credit scores are not considered Minimum standards for loans: \$20K annual PayPal receipts
Square Capital ^{bk}	Cash advance of \$2K–\$50K ^{bi}	Fixed percentage (estimated at 10%–14%) taken out of sales in addition to processing fees Effective APR	Approval time of 1 business day ^{bn}	 Eligible to Square merchants only with a history of processing volume; no publicly released data on minimum requirements available^{bo} No personal guarantee or collateral required^{bp}

^{bd} "The Best Product on the Market." (n.d.), retrieved January 12, 2016, from Fundation website (www.fundation.com/how-much-can-i-borrow).

be "Experience." (n.d.) Retrieved January 12, 2016, from Fundation website (www.fundation.com).

^{bf} "Frequently Asked Questions." (n.d.), retrieved January 12, 2016, from Fundation website (www.fundation.com/faq). ^{bg} "Our Product Details." (n.d.), retrieved January 12, 2016, from Fundation website

⁽www.fundation.com/how-much-can-i-borrow). ^{bh} "Our Product Details." (n.d.), retrieved January 12, 2016, from Fundation website

⁽www.fundation.com/how-much-can-i-borrow).

bi "Working Capital Loans to Help Achieve Stability" (n.d.), retrieved January 12, 2016, from Fundation website (www.fundation.com/small-business-loans/type/working-capital-loans). ^{bj} "Working Capital Tour." (n.d.), retrieved January 12, 2016, from PayPal website

⁽www.paypal.com/us/webapps/workingcapital/tour). ^{bk} "Square Capital." (n.d.), retrieved January 12, 2016, from Squareup website.

⁽https://squareup.com/capital?gclid=CNTIzf7spMoCFZODaQodsMcBUw&pcrid=45557294377&pdv=c&pkw=square +capital&pmt=e).

^{bl} Priyanka Prakash, "Square Capital Reviews: Affordable Merchant Cash Advances," *FitSmallBusiness.com*, June 12, 2015.

estimated	
around	
35% ^{bm}	

^{bn} Priyanka Prakash, "Square Capital Reviews: Affordable Merchant Cash Advances," *FitSmallBusiness.com*, June 12, 2015.

^{bo} Priyanka Prakash, "Square Capital Reviews: Affordable Merchant Cash Advances," *FitSmallBusiness.com*, June 12, 2015.

^{bp} Priyanka Prakash, "Square Capital Reviews: Affordable Merchant Cash Advances," *FitSmallBusiness.com*, June 12, 2015.

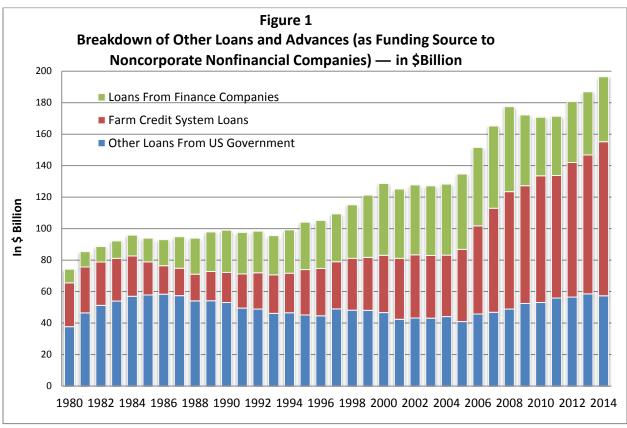
^{bm} Priyanka Prakash, "Square Capital Reviews: Affordable Merchant Cash Advances," *FitSmallBusiness.com*, June 12, 2015.

Table 4

Lender Type Distribution for Small Business vs. Small and Medium Business Loans As of 1Q2015

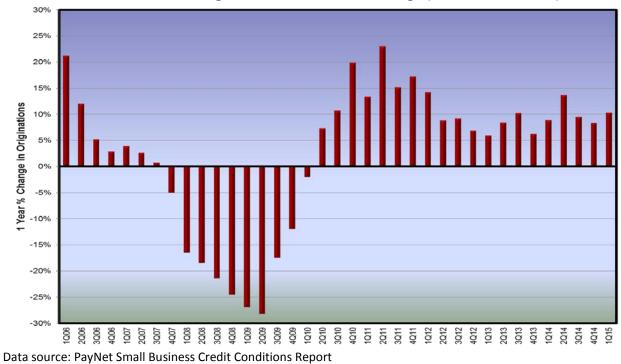
Small and Medi	um Loans (2015Q1)	Small Business Loans Only (2015Q1)		
Lender Type	% Share	Lender Type	% Share	
Banks	61.3%	Banks	56.3%	
Corporations	26.9%	Corporations	28.3%	
Finance Companies	11.8%	Finance Companies	15.4%	
Total	100%	Total	100%	

Data source: PayNet Small Business Credit Conditions Report



Data source: Flow of Funds Data

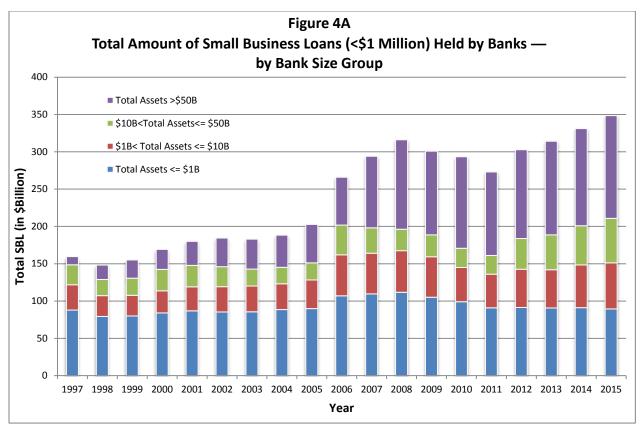
Figure 2 Small Business Lending Index: Year-Over-Year Change (1Q2006 to 1Q2015)



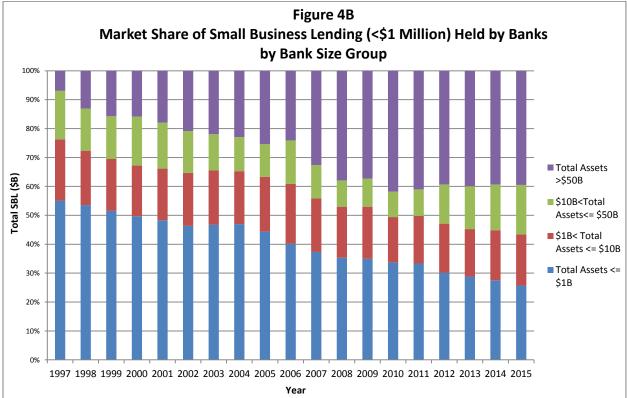
Small Business Lending Index: National (1Q2006 to 1Q2015) Index (1Q05 = 100)

Figure 3

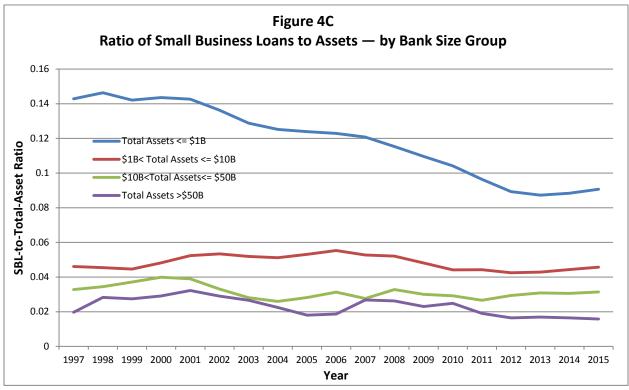
Data source: PayNet Small Business Credit Conditions Report



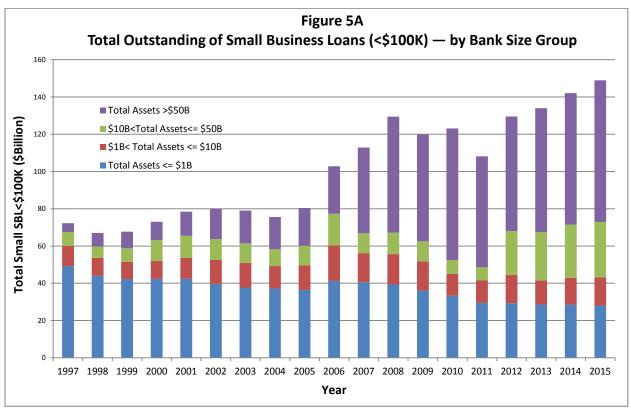
Data source: Call Reports. Size and SBL are inflation adjusted to 2014 dollar value.



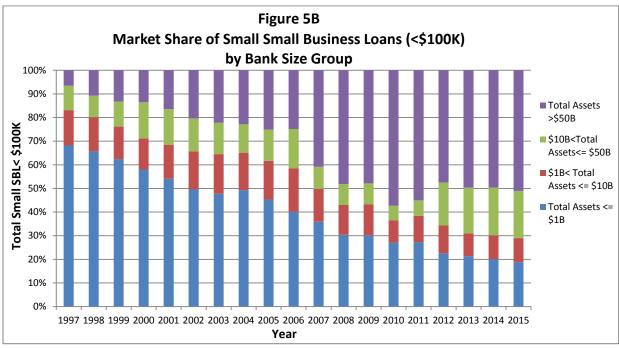
Data source: Call Reports. Size and SBL are inflation adjusted to 2014 dollar value.



Data source: Call Reports



Data source: Call Reports. Size and SBL are inflation adjusted to 2014 dollar value.



Data source: Call Reports. Size and SBL are inflation adjusted to 2014 dollar value.

Figure 6A

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

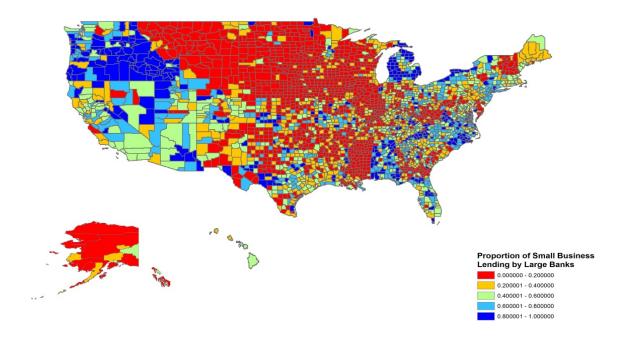


Figure 6B

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

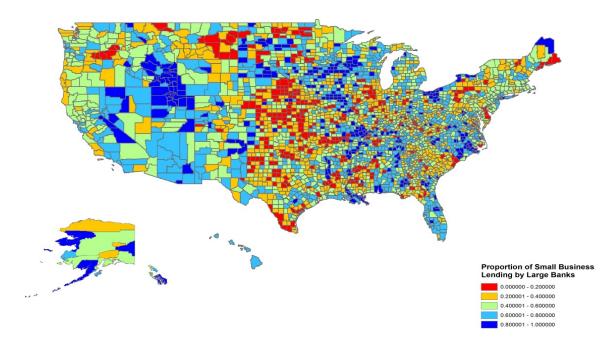


Figure 6C



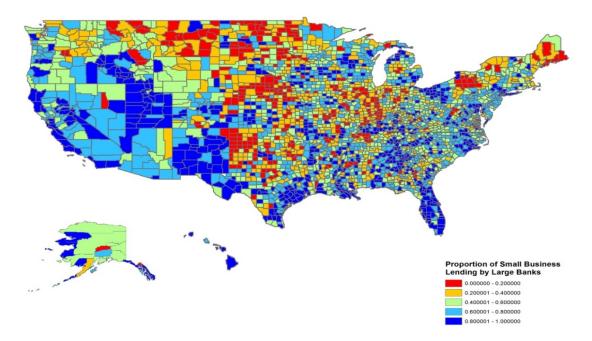
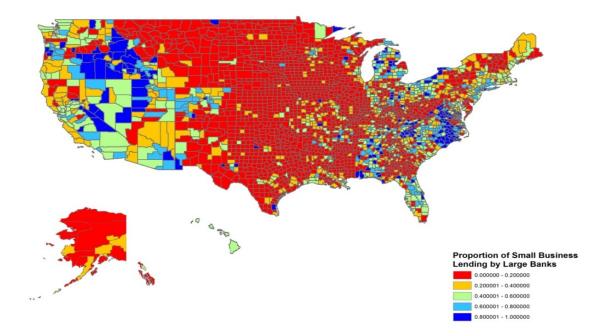


Figure 7A

Percent of Small Business Loans Held by Large Banks (> \$10 Billion) by County Source: Call Report Data 1998



Percent of Small Business Loans Held by Large Banks (> \$10 Billion) by County Source: Call Report Data 2005

Figure 7C

Percent of Small Business Loans Held by Large Banks (> \$10 Billion) by County Source: Call Report Data 2013

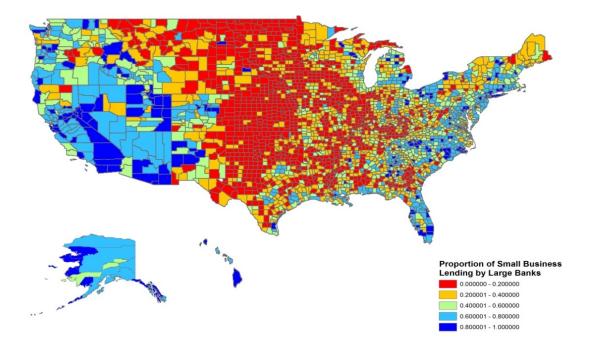


Figure 8A

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

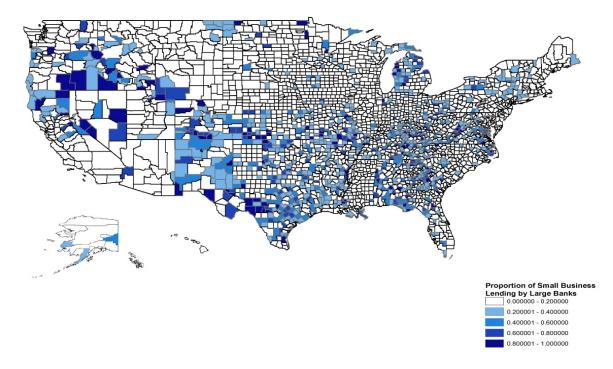
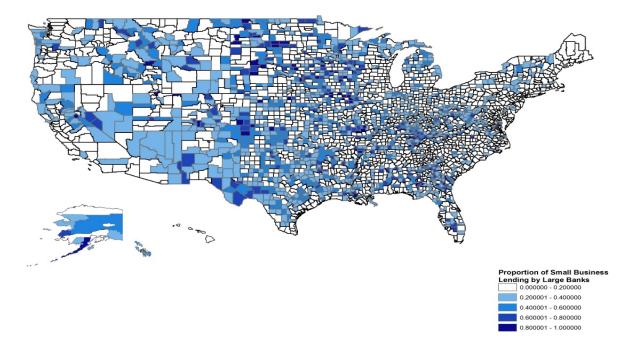


Figure 8B

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





Percent of Newly Originated or Purchased Small Business Loans by Large Banks (> \$10 Billion) by County Source: Community Reinvestment Act Data 2014

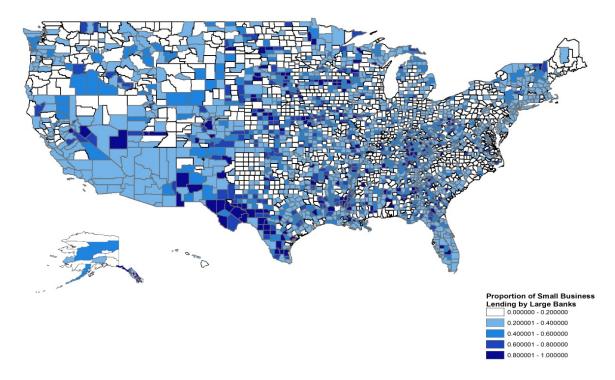
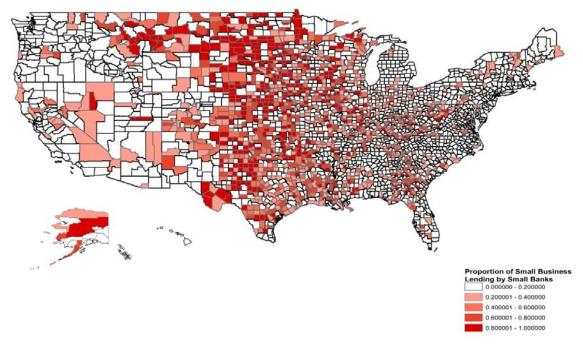


Figure 9A

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





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

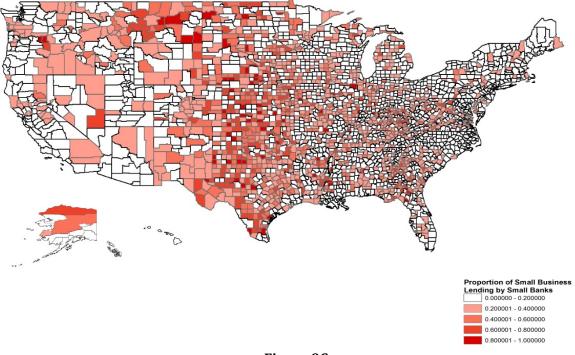
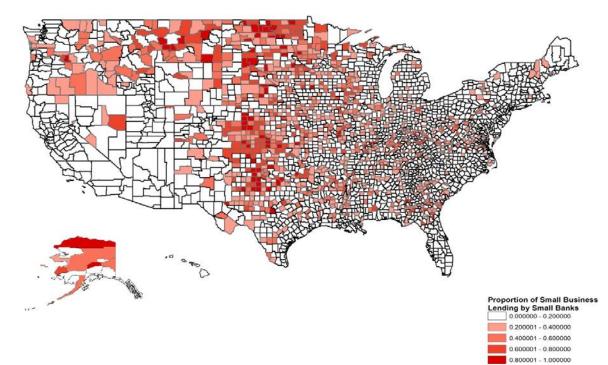
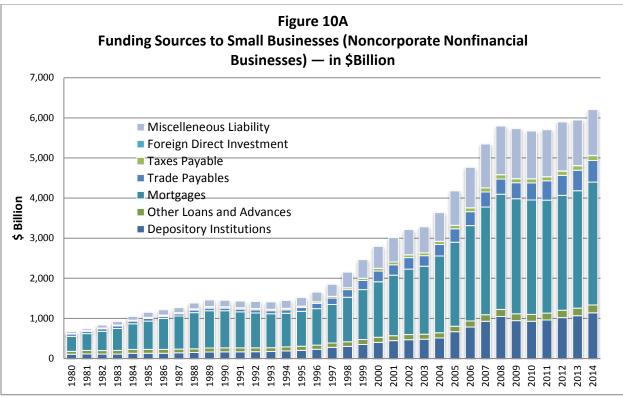


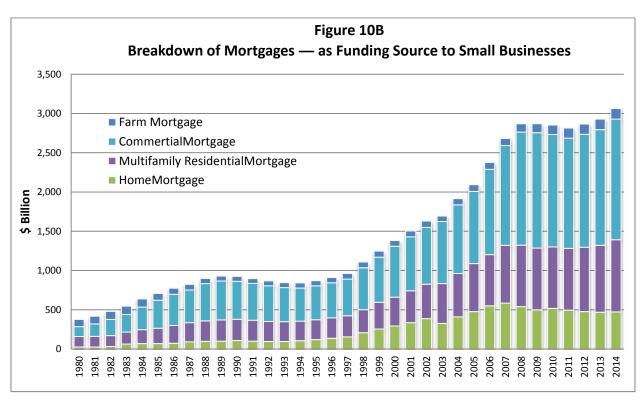
Figure 9C

Percent of Newly Originated or Purchased Small Business Loans by Small Banks (< \$10 Billion) by County Source: Community Reinvestment Act Data 2014





Data source: Flow of Funds Data (in \$Billion)



Data source: Flow of Funds data (in \$Billion)

Figure 11 Lending Club Small Business Loan Annual Originations Small Business Loans with Maximum Balances of \$35,000



Source: Lending Club

References

Berger, Allen, Nathan Miller, Mitchell Petersen, Raghuram Rajan, and Jeremy Stein (2005) "Does Function Follow Organizational Form? Evidence from the Lending Practice of Large and Small Banks," *Journal of Financial Economics* 76(2), 237–269.

Board of Governors of the Federal Reserve System (2007) "Report to Congress on the Availability of Credit to Small Businesses," October, www.federalreserve.gov/boarddocs/rptcongress/smallbusinesscredit/sbfreport2007.pdf.

Buhayar, Noah (2015) "Lending Club Wants to Broaden Its Membership," *Bloomberg Business*, April 23, <u>www.bloomberg.com/news/articles/2015-04-23/lending-club-expands-into-business-loans-with-google-alibaba-help.</u>

Chakraborty, Atreya, and Charles Hu (2006) "Lending Relationships in Line-of-Credit and Nonline-of-Credit Loans: Evidence from Collateral Use in Small Business," *Journal of Financial Intermediation* 15, 86–107.

Clark, Patrick (2014) "OnDeck's Latest Deal Shows Banks are Ready to Outsource Some Small Business Loans," *Bloomberg Business*, May 9, <u>www.bloomberg.com/bw/articles/2014-05-09/ondecks-latest-deal-shows-banks-ready-to-outsource-some-small-business-loans.</u>

Cummings, Chris (2014) "Funding Circle and Santander Deal Hailed as New Era for Funding," *The Yorkshire Post*, June 23, <u>www.yorkshirepost.co.uk/business/business-news/funding-circle-and-santander-deal-hailed-as-new-era-for-funding-1-6689499.</u>

Dahl, Darren (2015) "The Six-Minute Loan: How Kabbage is Upending Small Business Lending—and Building a Very Big Business," *Forbes*, May 6. <u>www.forbes.com/sites/darrendahl/2015/05/06/the-six-minute-loan-how-kabbage-is-upending-small-business-lending-and-building-a-very-big-business.</u>

De La Merced, Michael. (2015) "<u>Alibaba and Lending Club to Form Financing Partnership</u>," *New York Times,* February 3, 2015.

DeYoung, Robert, Scott Frame, Dennis Glennon, Daniel McMillen, and Peter Nigro (2008) "Commercial Lending Distance and Historically Underserved Areas," *Journal of Economics and Business* 60, 149–164.

DeYoung, Robert, Dennis Glennon, and Peter Nigro (2008) "Borrower-Lender Distance, Credit Scoring, and Loan Performance: Evidence from Informational-Opaque Small Business Borrowers," *Journal of Financial Intermediation* 17(1), 113–143.

DeYoung, Robert, Scott Frame, Dennis Glennon, and Peter Nigro (2011) "The Information Revolution and Small Business Lending: The Missing Evidence," *Journal of Financial Services Research* 39(1), 19–33.

FRBNY Panel Discussants (2015) "New Products from New Players," Filling the Gaps: Summit on Small Business Credit Innovations, Federal Reserve Bank of New York, May 15. www.newyorkfed.org/smallbusiness/small-business-summit.html.

Gellert, Andrea; OnDeck Capital (2015) <u>Conference presentation</u> at "Filling the Gaps: Summit on Small Business Credit Innovations," Federal Reserve Bank of New York, May 15.

Graham, Brian (2015) "Opening the Consumer Lending Market for Community Banks," *BankDirector.com*, April 23, <u>www.bankdirector.com/committees/lending/opening-the-consumer-lending-market-for-community-banks</u>.

Hughes, Joe, Julapa Jagtiani, and Loretta Mester (2015) "Does Scale Define the Winners in Community Banking?" Working paper, presented at the IAES conference, October 8–11.

Jagtiani, Julapa, Ian Kotliar, and Raman Quinn Maingi (2015) "The Evolution of U.S. Community Banks and Its Impact on Small Business Lending," Federal Reserve Bank of Philadelphia, Research Working Paper.

Kabbage (2015) "Kabbage Funding More than \$3 Million Per Day" (company press release), February 3, 2015. <u>www.kabbage.com/pdfs/pressreleases/Kabbage-\$3mm-Press-Release-2-3-2015.pdf</u>.

Kennickell, Arthur, Myron Kwast, and Jonathan Pogach (2015) "Small Business and Small Business Finance During the Financial Crisis and Great Recession: New Evidence from the Survey of Consumer Finances," Federal Reserve Board of Governors, Working Paper 2015-039 (February).

Laplanche, Renaud; Lending Club Corp. (2015) "Affordable Credit for Business Owners" (conference presentation), "Filling the Gaps: Summit on Small Business Credit Innovations," Federal Reserve Bank of New York, May 15, 2015.

Lending Club Corporation (2015), FY15-Q1 Form 10-Q for the Period Ending March 31, 2015 (filed May 5, 2015).

Lunden, Ingrid (2014) "Kabbage Grows: The Online Platform for Small Business Loans Raises Another \$50M," *Tech Crunch*, May 5, <u>http://techcrunch.com/2014/05/05/kabbage-50m.</u>

Mester, Loretta, Leonard Nakamura, and Micheline Renault (2007). "Transaction Accounts and Loan Monitoring," *Review of Financial Studies*, 20, 529–556.

Mills, Karen Gordon, and Brayden McCarthy (2015) "The State of Small Business Lending: Credit Access During the Recovery and How Technology May Change the Game," Harvard Business School, Working Paper 15-004 (July).

Morgan Stanley (2015) "Can P2P Lending Reinvent Banking?" June 17, 2015, www.morganstanley.com/ideas/p2p-marketplace-lending.

OnDeck Capital Inc. (2015) FY15-Q1 Form 10-Q for the Period Ending March 31, 2015 (filed May 13, 2015).

Peterson, Mitchell, and Raghuram Rajan (2002) "Does Distance Still Matter? The Information Revolution in Small Business Lending," *Journal of Finance* 57, 2533–2570.

Prager, Robin, and John Wolken (2008). "The Evolving Relationship Between Community Banks and Small Businesses: Evidence from the Surveys of Small Business Finances," Finance and Economics Discussion Series Working Paper 2008-60.

Prosper (2015) "Prosper Marketplace Partnership with Western Independent Bankers Expands Credit Opportunities for Small Banks and Their Customers," *Prosper*, February 26, and <u>http://blog.prosper.com/2015/02/26/prosper-marketplace-partnership-with-western-independent-bankers-expands-credit-opportunities-for-small-banks-and-their-customers.</u>

Puri, Manju, Jorg Rocholl, and Sascha Steffen (2011). "Global Retail Lending in the Aftermath of the US Financial Crisis: Distinguishing Between Supply and Demand Effects," *Journal of Financial Economics* 102(2), 344–362.

PYMNTS.com (2015a) "Kabbage to License Its Lending Platform," *Pymts.com*, March 24, 2015. www.pymnts.com/in-depth/2015/kabbage-to-license-its-lending-platform.

PYMNTS.com (2015b) "Why PayPal Working Capital Was A No-Brainer," PYMNTS.com, May 8.

Wack, Kevin (2015) "SEC Petitioned for First-of-Its-Kind Marketplace Lending Fund," *American Banker*, June 25, <u>www.americanbanker.com/news/marketplace-lending/sec-petitioned-for-first-of-its-kind-marketplace-lending-fund-1075088-1.html.</u>

Weinberger, Matt (2015) "<u>Square Has Advanced \$100 Million to Small Businesses</u>," Business Insider April 16.

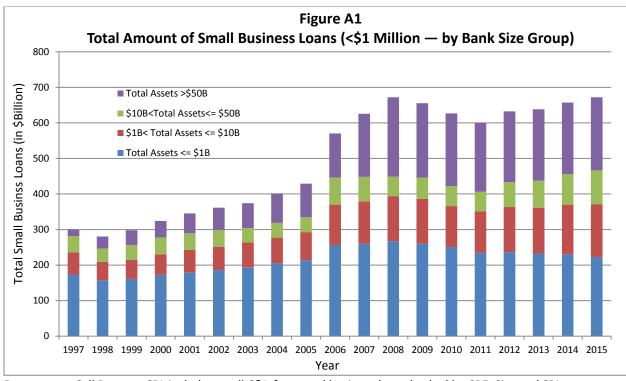
Wiersch, Ann Marie and Scott Shane (2013) "Why Small Business Lending Isn't What It Used to Be," Federal Reserve Bank of Cleveland, *Economic Commentary*, 2013-10 (August 14).

Williams, Victoria (2014) "Small Business Lending in the United States 2013," Office of Advocacy, U.S. Small Business Administration (SBA), December.

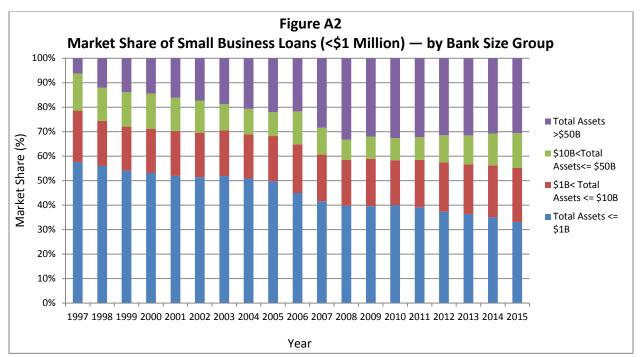
Wisniewski, Mary (2014) "Why BBVA Compass is Sending Customers to an Online Rival," *American Banker*, May 8, <u>www.americanbanker.com/issues/179 89/why-bbva-compass-is-sending-customers-to-an-online-rival-1067386-1.html</u>.

Zeitlin, Matthew (2015) "<u>Small Business Lender Funding Circle Raises \$150 Million</u>," *BuzzFeed News*, April 22.

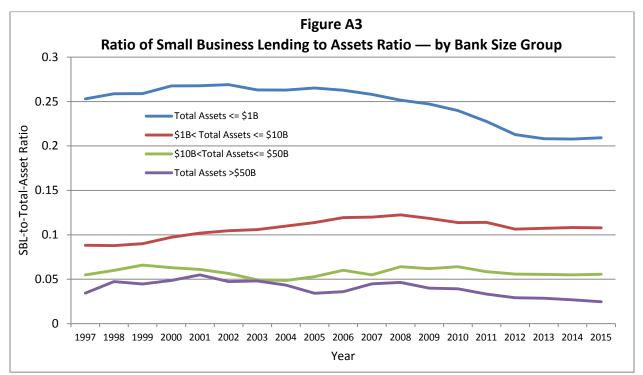
Appendix

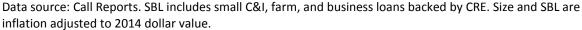


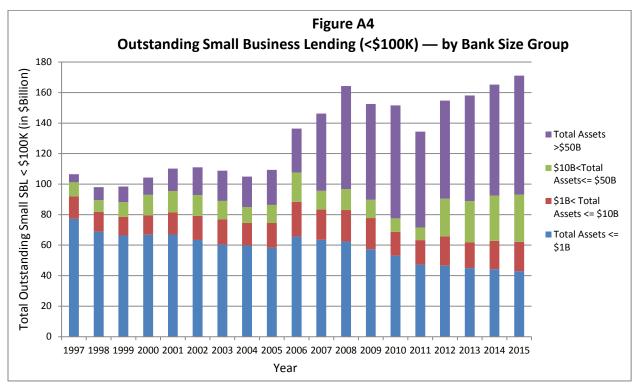
Data source: Call Reports. SBL includes small C&I, farm, and business loans backed by CRE. Size and SBL are inflation adjusted to 2014 dollar value.



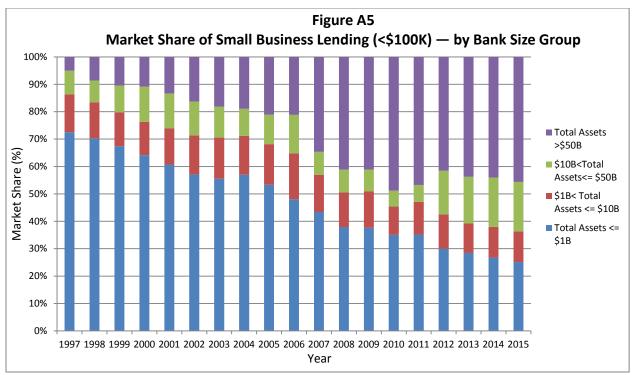
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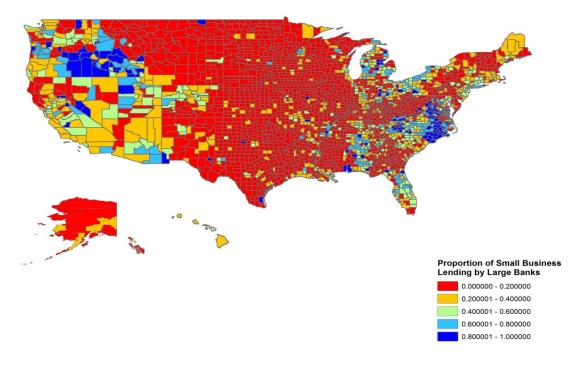
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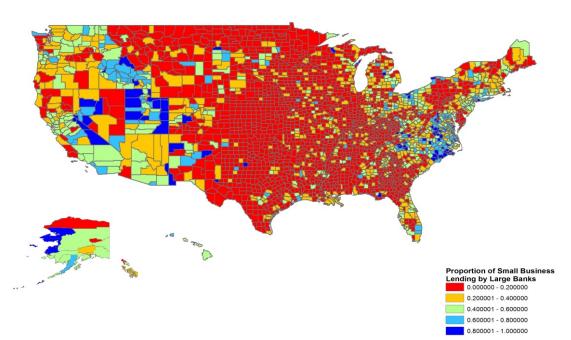


Data source: Call Reports. SBL includes small C&I, farm, and business loans backed by CRE. Size and SBL are inflation adjusted to 2014 dollar value.

Figure A6

Percent of Small Business Loans Held by Large Banks (> \$10 Billion) by County Source: Call Report Data 1998





Percent of Small Business Loans Held by Large Banks (> \$10 Billion) by County Source: Call Report Data 2005

Figure A8

Percent of Small Business Loans Held by Large Banks (> \$10 Billion) by County Source: Call Report Data 2013

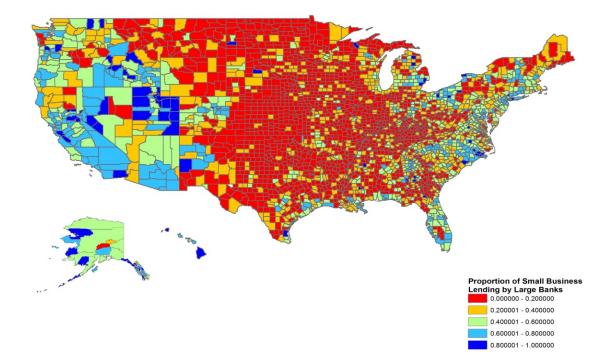


Table A1

Number of Counties Dominated by Large Banks in Small Business Lending Outstanding (1998–2013)

(Call Report SBL — with nonfarm nonresidential)

Sources: Call Report data for outstanding SBL (SBL includes small C&I, small farm, and small business backed by CRE); CRA data and Federal Reserve Summary of Deposits data for SBL Distribution across counties.

% of SBL Originated							
by Banks > \$10 Billion	1998	2002	2005	2007	2009	2011	2013
<= 20%	2,121	1,920	1,938	1,692	1,605	1,654	1,623
20%-40%	489	649	654	724	748	732	734
40%-60%	284	340	352	483	523	468	476
60%-80%	179	194	187	234	272	277	290
> 80%	161	130	97	99	85	102	113
Total Counties	3,234	3,233	3,228	3,232	3,233	3,233	3,236