SECTION 2.
Defining and Measuring Small Business Lending

Despite the importance of small businesses to the U.S. economy and the importance to small businesses of credit received from banks, there is no comprehensive measure of bank small business lending. The best quantitative measure available consists of the amount of outstanding small loans to businesses and farms that banks report on their quarterly Call Reports to regulators (see box). The Call Report uses specific definitions that are standard across banks and across time periods. Moreover, the definitions result in numbers that are accurate for what they are counting and are frequently used by regulators, bankers, and academics to describe and study small business lending. However, the strength of this measure—consistency across banks—is precisely why it likely misses important parts of small business lending: banks' definitions of small business lending may differ from one based solely on a specific loan size, and as a result, some small business lending may not be captured by regulatory reports. This section uses the survey findings to answer two important questions: First, what size businesses and what size loans do banks themselves consider to be small, and in that regard, do small and large banks differ? Second, is small business lending by banks as measured by the Call Report understated and, if so, to what extent?

Specifically, this section investigates the small commercial and industrial (C&I) loans to businesses captured by the Call Report, defined as outstanding C&I loans of $1 million or less at the time of origination. This report refers to this component of the Call Report as the "Call Report proxy" for bank small business C&I lending. While most policymakers, bankers, and academics would agree that firms receiving loans under the $1 million mark are small, the concern is that the proxy fails to pick up C&I loans of *more than $1 million* made to businesses that the banks themselves categorize as small. Therefore, the survey explores whether banks have varied definitions of small business lending that deviate from the loan-size definition used by the proxy. Another significant concern is that the definition of small business lending used in the Call Report excludes any lending secured by residential real estate, even though banks commonly accept personal real estate as collateral for small business loans (as is shown in Section 5). The box referred to above provides a richer explanation of the Call Report and the types of loans it covers under small business lending.

2.1 Defining Small Business Borrowers: Banks' Approaches

This subsection explores whether banks have varying definitions for whom they consider to be small business borrowers, and whether these definitions differ from the $1 million limit of the loan-size proxy. In particular, the coexistence in the U.S. banking industry of both small and large banks (those with assets under $10 billion and those with assets of $10 billion and over, respectively) suggests that any quantitative measure such as the proxy may coincide more with some banks' definitions than with others'. To provide insight into the variations among banks in this regard, the survey asked banks to describe their small business customers and specify whether there are certain limits by which they define small business customers and loans.

One might expect that a bank's approach to lending would affect its perception of its small business borrowers. For example, if small banks as a group are relationship lenders, as they are commonly believed to be, then individual small banks are more likely to develop a fuller picture of their borrowers by taking into account qualitative information in

The Call Report Measurement of Small Business Lending by Banks

"Call Report" refers to the Consolidated Report of Condition and Income that every U.S. bank is required to submit to regulators each quarter. The instructions for Schedule RC-C Part II define loans to small businesses and small farms as the sum of (a) the outstanding commercial and industrial (C&I) loans of $1 million or less at the time of origination, (b) the outstanding commercial real estate loans with origination amounts of $1 million or less, and (c) the agricultural production and farmland loans of $500 thousand or less. The FDIC's Small Business Lending Survey focused exclusively on small business C&I lending captured in (a), which in this report is referred to as the "Call Report proxy" (or "loan-size proxy").

The quantitative limit of the Call Report proxy with regard to C&I lending reflects the assumption that the borrowers of loans under $1 million are businesses that are small. Because of the high correlation between loan size and business size, in the early 1990s regulators adopted the $1 million loan limit as a proxy definition of small business. However, since that time, the limit has never been adjusted for inflation; if it had been, in December 2015 it would have been over $1.6 million.[a] As a result, the probability is high that loans of greater than $1 million are extended to small businesses but are not captured by the proxy.

The proxy uses loan size as the criterion rather than borrower size because all banks track loan size but not all banks track business size.[b] The value of using information that banks already record was reaffirmed during the survey development phase, when FDIC researchers visited 40 banks of various sizes, serving various geographic markets across the United States, to discuss their ability to provide the information sought. The initial draft of the survey contained multiple questions asking banks to provide data on C&I loans by both purpose and size of firm. The interviews, however, revealed that many banks, particularly smaller ones, do not track much information in their core data systems about the borrower other than loan amount for the small business loans. As a result, many were not able to report loans by size of small business (for example, as measured by firm gross annual revenue) without substantial investments of staff resources.

Aside from limiting "small business lending" by dollar amount, the proxy places a nonquantitative restriction on what is included under small business C&I lending. Loans secured by real estate are recorded in the Call Report by their primary collateral rather than by purpose, and the Call Report therefore considers a business loan secured by a 1- to 4-family residential property to be a home mortgage rather than a business loan, even if the purpose is to support the operations of a small business. Thus, the Call Report small business loan proxy does not capture small business loans that are collateralized by the owner's residence.[c]

[a] Calculations are based on the Consumer Price Index for All Urban Consumers (CPI-U) of the Bureau of Labor Statistics.

[b] See 57 Fed. Reg. 54165 (Nov. 17, 1992) 54235-54239. https://cdn.loc.gov/service/ll/fedreg/fr057/fr057222/fr057222.pdf.

[c] The survey questions did not focus on the two other Call Report components that capture other lending that supports the operations of small businesses: (b) commercial real estate loans with originations less than or equal to $1 million, and (c) agricultural production and farmland loans with origination amounts less than or equal to $500,000.

addition to quantitative measures. By contrast, if large banks as a group are transactional lenders, as they are commonly believed to be, then individual large banks are more likely to view small business borrowers in more strictly quantitative terms in order to quickly compare the borrower's information with the predetermined quantitative limits set for specific loan programs. This difference in approach could lead to substantial differences in what the two sizes of banks consider to be their small business customers and their small business loans.[8] As Figure 2.1 illustrates, there are in fact substantial differences between small and large banks in how they describe their small business customers.

Figure 2.1 shows the shares of small banks and large banks that describe their small business borrowers using answers that fall within one or another of ten broad categories.[9] The particular survey question was an open-ended one asking banks to describe their small business borrowers. Large banks generally describe their small business borrowers in terms of specific financial characteristics, especially revenue or sales, whereas small banks display much greater diversity of opinion about what makes a business "small." Here and throughout this report, differences discussed between different sizes of banks are statistically significant at the 10 percent level at least, and typically at higher levels of precision than 10 percent.

As the figure indicates, the overwhelming majority of large banks (78.9 percent) use revenue or sales to characterize their small business borrowers, and some also mention loan size or aggregate loan exposure (26.9 percent and 21.0 percent) as a defining feature of small businesses. Large banks limit their descriptions to a few key, measurable financial concepts, which is consistent with a more quantitative—or transactional—approach to small business lending.

Although revenue or sales is the most commonly referenced concept for small banks, more than half of small banks do *not* consider revenue or sales in their description of their small business customers. Further, only very small shares of small banks consider loan size or loan exposure to be a defining feature of their small business borrowers. Instead, over a quarter (26.1 percent) of small banks see ownership structure (for example, whether a company is owner operated, closely held, or a "mom-and-pop shop") as an important defining feature of small businesses. In addition, between 10 and 20 percent of small banks discuss number of employees, business focus (for example, if the business has a "local footprint," is "involved in the community," or needs "personal attention"), or owner characteristics (for example, if the owner is "local" to the community, "wears many hats," or is active in daily operations).

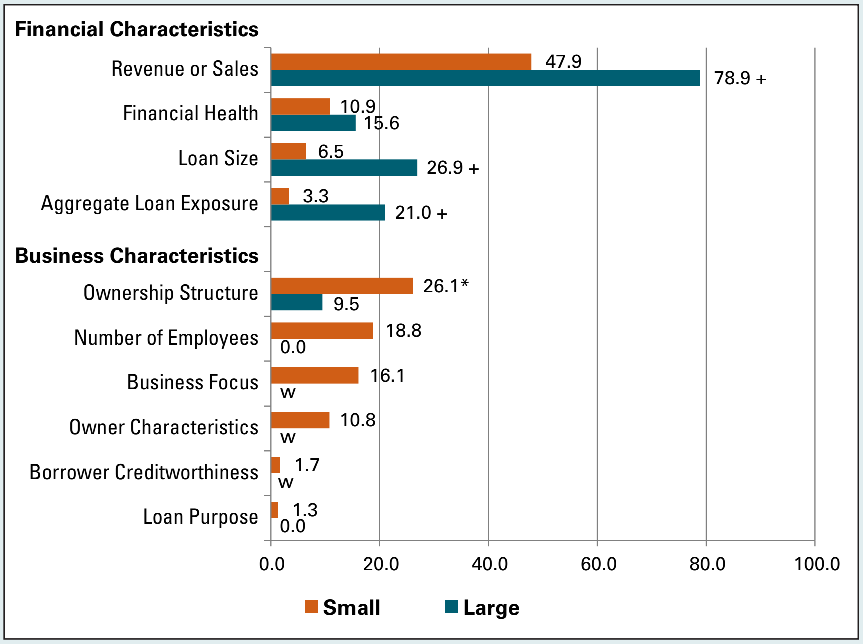
The differences between small and large banks in how they define their small business customers are further illustrated by their responses to specific survey questions asking about their use of either aggregate loan exposure (ALE) or gross annual revenue (GAR) as quantitative limits for defining small businesses. Figure 2.2 shows the shares of small and large banks that indicate they use such limits. The responses are analogous to the open-ended responses that described their small business borrowers: a substantial majority of large banks use either aggregate loan exposure (70.3 percent) or gross annual revenue (61.8 percent) as a limit to define small businesses, whereas only 20.4 percent of small banks define small businesses by a GAR limit and an even smaller share (14.7 percent) use an ALE limit.

Small banks' lack of reliance on strict firm-revenue limits combined with their use of more diverse and generally less quantifiable concepts to describe their small business customers suggests that small banks have a more varied view of their small business borrowers, consistent with a greater reliance on relationship lending methods. The heavy use of limits by large banks, particularly ALE limits, suggests that the current Call Report definition of small business C&I lending by loan size may be more in sync with these banks, provided the proxy is close to the limits they use.

[8] For a fuller discussion of the differences between relationship and transactional small business lending, see the box in Section 1.

[9] More than 50 distinct concepts were mentioned that were aggregated into these 10 categories. In addition to describing their small business customers, some banks also referenced characteristics of their own bank in the response, or responded that all (or none) of their business lending is to small businesses.

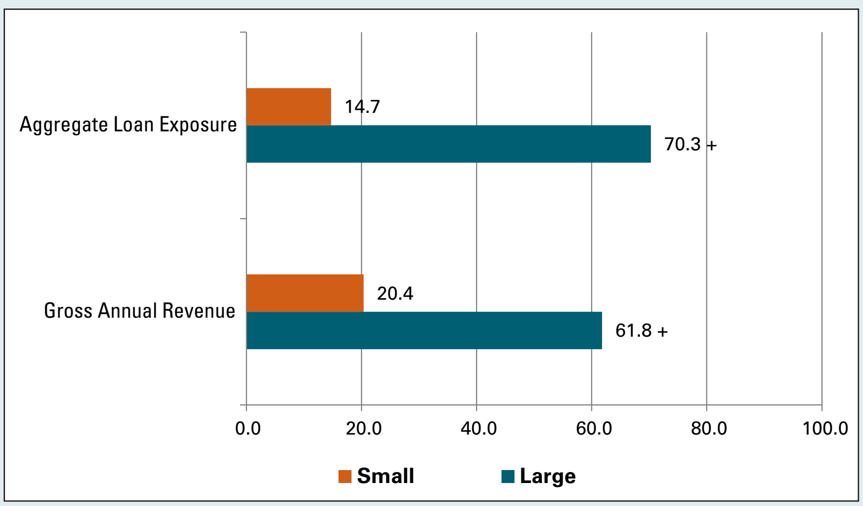
Figure 2.1: Percentage of Banks That Reference These Characteristics When Describing Small Business Borrowers



Source: SBLS Question 1.

Notes: Entries marked with a "w" indicate that the number of responses falls below the allowable reporting threshold for protecting respondents' identities. At the statistical significance of 10 percent, "*" denotes that small banks are more likely than large banks to use this characteristic to describe small business borrowers; "+" that large banks are more likely than small banks. "Characteristics" categories aggregate individual bank responses to an open-ended question; results will not sum to 100.0 percent.

Figure 2.2: Percentage of Banks That Use a Maximum Allowable Limit for Either of These Financial Measures to Define Small Business Lending



Source: SBLS Questions 3 and 4.

Notes: At the statistical significance of 10 percent, "+" denotes that large banks are more likely than small banks to use this maximum allowable limit to define small business.

Therefore, to compare how well banks' quantitative limits coincide with the proxy limit of $1 million, the survey investigated the sizes of the limits banks use in practice. The results appear in Figure 2.3. For the banks that use ALE limits, Panel A reports the shares of small and large banks that use one or another of three particular dollar limits. The fact that the limits used are often lower than or equal to the $1 million used by the Call Report proxy suggests that for banks that do use ALE limits, the proxy definition is a reasonable approximation of their practices. Specifically, of the banks that use limits, nearly 70 percent of small banks and nearly 60 percent of large banks use a limit equal to or less than $1 million. However, of the large banks that use an ALE limit—and large banks are those most likely to use ALE to define small business lending—a substantial share (41.8 percent) set their ALE limit above $1 million, which indicates that there is small business lending made by banks which is not fully captured by the Call Report proxy.[10]

The survey results also show that of banks that use a GAR limit to define a small business, nearly all use a limit of $1 million or more. Figure 2.3, Panel B, shows that of small banks that use a GAR to define a small business, only 6.1 percent set their maximum limit below $1 million, and of large banks, none do. Panel B also shows that of banks that use a GAR limit, majorities of both sizes set it above $1 million. Therefore, nearly all banks that use a GAR limit to define a small business agree that at least businesses with a GAR of $1 million or less are small businesses. In fact, 27.1 percent of small banks and 56.4 percent of large banks that use a GAR limit even set it at $5 million or more.

2.2 Measuring Small Business Lending (I): Loans That Exceed the Proxy Limit

As just noted, the definitions that banks set for small business loans are often paired with amounts that are above the $1 million limit of the Call Report proxy. This loan amount discrepancy between banks' practices and the proxy is a potential source of the proxy's understatement of small business lending. To explore this source of potential understatement, the survey asked banks about the quantity of outstanding loans of different origination amounts made to businesses of different sizes, as measured by the businesses' GAR. The information is used to calculate the fraction of C&I loans *above* the proxy limit that are made to businesses considered to be small. Because of data constraints, results can be reported only for banks with $1 billion to $10 billion in assets.[11]

The survey finds (as just noted, only for banks with $1 billion to $10 billion in assets) that a substantial share of the outstanding C&I loans greater than $1 million—loans not captured by the proxy—are made to businesses with GAR of $1 million or less that are generally understood to be small (Figure 2.3, Panel B, shows that virtually all banks that use GAR limits use one of $1 million or above). Figure 2.4 presents, for Q4 2015, the ratio of outstanding C&I loans originated at amounts greater than $1 million allocated by the borrower's GAR, to total outstanding C&I loans originated at amounts greater than $1 million. For these banks, 21.2 percent of all loans originated at amounts greater than $1 million are made to businesses with a GAR of $1 million or less. An additional 38 percent of these loans are made to businesses with a GAR of between $1 million and $10 million. Given that the GAR limits used by some banks to define small businesses are above $1 million, it is very likely that the share of loans over $1 million made to businesses with a GAR of between $1 million and $10 million also includes loans to small businesses. Thus, for banks with assets between $1 billion and $10 billion, at least one-fifth and possibly more than one-half of the loans they originated above the proxy limit are actually made to small businesses.

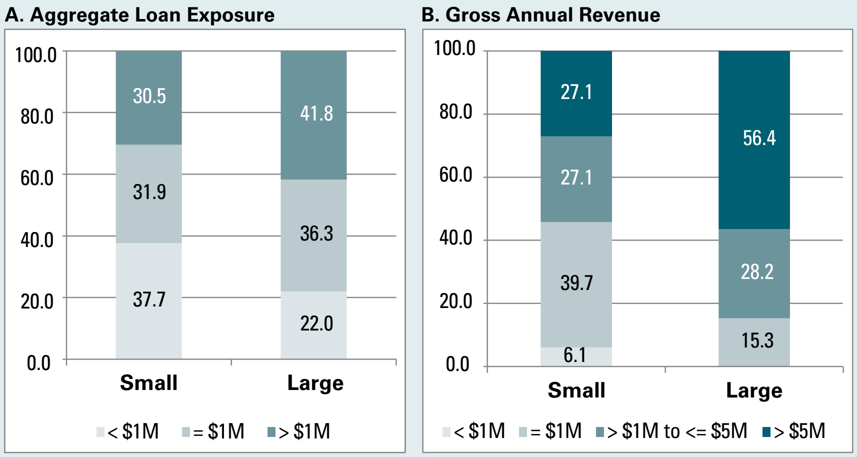
2.3 Measuring Small Business Lending (II): Loans by Banks That Specialize Their C&I Loans to Small Businesses

Small business lending at amounts over the $1 million mark made by banks with under $1 billion in assets was explored as well. The established understanding of small business lending is that small banks (banks with assets under $10 billion) focus most of their C&I lending on small businesses. This may be partly because the relationship lending orientation of small banks gives them an informational advantage in small business lending, compared with large banks. In addition, very small banks may not have the resources to meet the credit needs of larger businesses without taking on excessive risk. Thus, if these banks indeed lend

[10] It should be noted, however, that slightly over one-fifth of large banks that use an ALE limit use limits under $1 million, which could potentially indicate overreporting of small business lending.

[11] Because of the limitations of the core data systems at most banks with less than $1 billion in assets, only banks with more than $1 billion in assets were asked these questions in the survey. Unfortunately, however, the number of banks with assets greater than $10 billion that answered these questions falls below the reporting threshold for protecting respondents' identities.

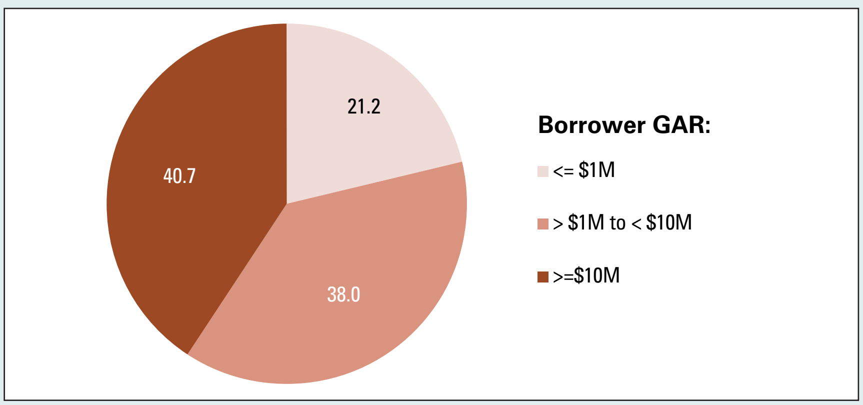
Figure 2.3: Percentage of Banks That Use These Limits to Define Small Business Lending



Sources: SBLS Questions 3A and 3B.

Notes: Banks that responded "yes" to using maximum allowable limits for either of these two measures in order to define small business lending were asked the amount of the limit they used. At the statistical significance of 10 percent, small banks are more likely than large banks to use an aggregate loan exposure (ALE) limit of less than $1 million and to use a gross annual revenue (GAR) limit of exactly $1 million; large banks are more likely than small banks to use a GAR limit of greater than $5 million.

Figure 2.4: Percentage of Total Outstanding C&I Loans of $1 Million or More at Origination, by Borrower's Gross Annual Revenue, 2015 Q4
(Banks with $1 Billion to Less Than $10 Billion in Assets)



Source: SBLS Question 14.

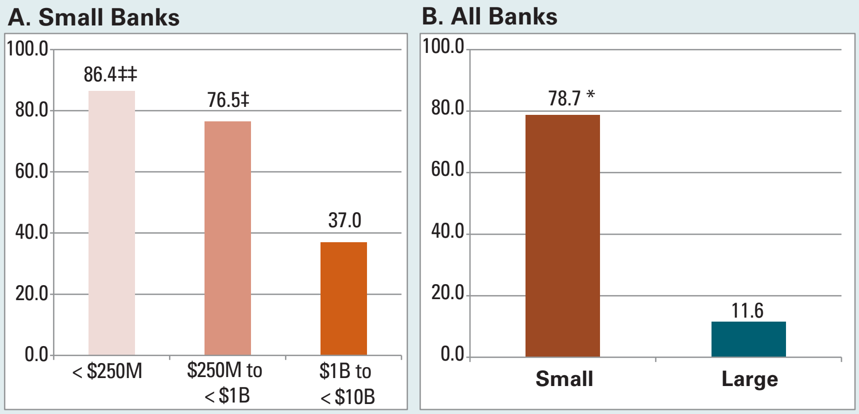
Notes: Question 14 was asked only of banks with assets of greater than $1 billion, because of the limitations of core data systems encountered at smaller banks during the survey development phase. However, the number of responses from banks with assets greater than $10 billion falls below the allowable reporting threshold for protecting respondents' identities.

almost exclusively to small businesses, the loan-size proxy would understate small business lending at small banks—and in fact, the Call Report shows that over one-half of outstanding C&I loans in Q4 2015 made by banks with less than $1 billion in assets were originated at amounts greater than the proxy limit of $1 million. To provide insight into this possible source of understatement by the proxy, the survey included a simple yes or no question, answered by banks of all sizes, on whether the bank considers "largely all" of its C&I lending in 2015 to have been made to small businesses.[12]

The established understanding that small banks specialize in small business lending is supported by the findings of the survey, which show that an overwhelming majority—86.4 percent—of the smallest banks (banks with less than $250 million in assets) make C&I loans almost exclusively to

[12] The wording of this question was informed by the discussions with the 40 banks interviewed during the survey development phase. Few were willing to respond affirmatively to a question that asked if "all" of their C&I lending was to small businesses because they were concerned that there might be a small number of loans that did not fit their small business definition and they did not want to misrepresent themselves to a bank regulator. Modifying the question using the words "largely all" instead of "all" assuaged the banks' concerns.

Figure 2.5: Percentage of Banks That Make "Largely All" of Their C&I Loans to Small Businesses



Source: SBLS Question 2.

Notes: At the statistical significance of 10 percent, "‡‡" denotes that banks with less than $250 million in assets are more likely than banks with $250 million to less than $1 billion in assets and more likely than banks with $1 billion to less than $10 billion in assets to make "largely all" of their commercial and industrial (C&I) loans to small businesses; "‡" that banks with $250 million to less than $1 billion in assets are more likely than banks with $1 billion to less than $10 billion in assets; "*" that small banks are more likely than large banks.

small businesses (see Figure 2.5). Of banks with assets between $250 million and $1 billion, more than three-quarters (76.5 percent) also say that their C&I loans are almost exclusively to small businesses. On the basis of these results, one simple way to comprehensively capture small business lending by banks with assets of less than $1 billion would be to count their entire C&I loan portfolio, regardless of the size of the original loan amount.[13] Doing so would have increased by around 75 percent the amount of small business lending reported for these banks in the Q4 2015 Call Report proxy.[14]

Larger small banks (banks with assets between $1 billion and $10 billion) are much less likely to be as overwhelmingly small-business oriented in their C&I lending. Although a substantial share (37.0 percent) of these banks do make largely all their C&I loans to small businesses, that constitutes a 40 percentage point or more drop compared with the smaller banks. Overall, 78.7 percent of small banks make largely all their C&I loans to small businesses. The contrast with large banks (those with $10 billion or more in assets) is not surprising: only a small share (11.6 percent) makes largely all their C&I loans to small businesses. As banks grow in size, the decreasing shares of banks that focus their commercial lending on small businesses is consistent with the established understanding that smaller banks specialize their C&I lending to small businesses.

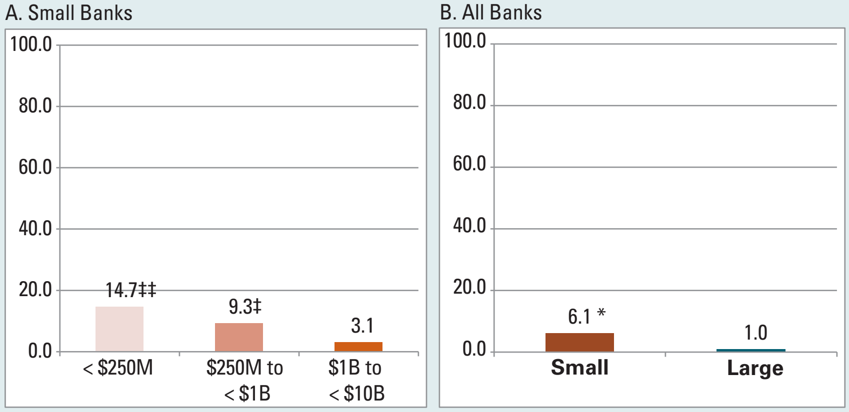
2.4 Measuring Small Business Lending (III): Loans Secured by Residential Mortgages

A second potential source of the proxy's understatement of small business lending involves the use of residential mortgages to secure small business loans. The Call Report small business C&I loan proxy does not capture small business loans that are collateralized by the owner's residence. Loans secured by real estate are recorded in the Call Report by their primary collateral rather than by purpose. Thus, the Call Report considers a loan secured by a 1- to 4-family residential property to be a home mortgage rather than a business loan, even if the purpose is to support the operations of a small business. The survey provides an opportunity to investigate any understatement of small business

13 Note, however, that this simple method is not used in the extrapolations presented in Section 2.5. That section is focused on extrapolating a lower bound of the understatement of small business lending by the proxy, and therefore a more conservative method was used.

14 Specifically, the Q4 2015 Call Report shows that the *combined* outstanding C&I loans for all banks with assets less than $1 billion totaled $108.7 billion; of that amount, $46.8 billion was originated above $1 million and $61.9 billion below $1 million.

Figure 2.6: Percentage of Total C&I Originations Secured by 1- to 4-Family Residential Properties



Source: SBLS Questions 8 and 9.

Notes: At the statistical significance level of 10 percent, "‡‡" denotes that banks with less than $250 million in assets are more likely than banks with $250 million to less than $1 billion in assets and more likely than banks with $1 billion to less than $10 billion in assets to have their total C&I loans to small businesses be secured by 1- to 4-family residential properties; "‡" that banks with $250 million to less than $1 billion in assets are more likely than banks with $1 billion to less than $10 billion in assets; "*" that small banks are more likely than large banks.

lending that may be due to the use of personal real estate as collateral.[15]

Personal residential property is in fact an important source of collateral for small business lending. For many households, the most valuable asset is a home, and the equity may be used by small business owners to secure a business loan.[16] There is evidence, both in the survey and elsewhere, that for banks and small businesses alike, the acceptance (by banks) and use (by small businesses) of 1- to 4-family residential properties for collateral is common. Section 5 of this report shows that a majority of banks, particularly small ones, commonly accept 1- to 4-family residential properties as collateral for small business loans, and other studies estimate that over one-third of small businesses use personal assets to secure loans.[17]

For small banks—and particularly for the smallest of the small—the findings of the survey show that C&I loans secured by 1- to 4-family residential properties are an important part of the overall C&I portfolio. Banks of all sizes were asked for the volumes of their total C&I originations and for their C&I originations secured by 1- to 4-family residential properties for the calendar year 2015. Figure 2.6 presents the ratio of C&I originations secured by 1- to 4-family residential properties to total C&I originations, which indicates whether the proxy may not capture small business C&I lending for the reason that the loan is secured with personal residential collateral. Overall, just over 6 percent of the C&I loan originations made by small banks are secured by 1- to 4-family residential properties. Such loans make up a much smaller part of large banks' C&I lending—only 1 percent.

Among all small banks, the use of 1- to 4-family residential properties as small business lending collateral is correlated with size: those loans make up nearly 15 percent of the C&I portfolio of banks with less than $250 million in assets, but only 3.1 percent of the portfolio of banks with $1 to $10 billion in assets. This relationship between bank size and C&I lending secured by 1- to 4-family residential properties likely reflects the findings presented above that the smallest banks are more likely than larger small banks to specialize their C&I lending to small businesses. In addition, as discussed further in

15 In this report, all C&I loans that are secured by 1- to 4-family residential properties are assumed to be loans to small businesses, on the basis that large firms are not considered likely to use these assets as collateral.

16 See tables 5 and 8 of Federal Reserve System, Board of Governors, *2016 Survey of Consumer Finances,* https://www.federalreserve.gov/econres/files/scf2016_tables_public_real_historical.xlsx.

17 See Federal Reserve System, "Report on Employer Firms," *Small Business Credit Survey*, April 2017, https://www.newyorkfed.org/medialibrary/media/smallbusiness/2016/SBCS-Report-EmployerFirms-2016.pdf.

Section 5, small banks (banks with assets under $10 billion) are somewhat more likely than large banks to accept personal real estate as collateral for small business lending.

2.5 Extrapolating a Lower Bound on the Proxy's Understatement of Small Business Loans

As the introduction to this section explains, the survey investigates whether the best available measure of small business C&I lending—the Call Report proxy—understates actual bank lending to small businesses in two ways. The survey results show, first, that the proxy does not capture loans to small businesses that are originated at amounts above $1 million and, second, that it does not capture loans that are secured by residential real estate. To extrapolate a lower bound for the understatement produced by these two exclusions from the proxy, the survey's nationally representative estimates are combined with the Q4 2015 Call Report amounts of bank C&I lending.[18] It should be noted that since outstanding loans are a stock measure, the Q4 figures reflect all outstanding C&I loan dollars for a bank at that moment in time.[19]

As discussed in Section 2.2, of the outstanding C&I loans originated at amounts above $1 million by banks with assets between $1 billion and $10 billion, at least one-fifth were made to small businesses—that is, businesses with GAR of $1 million or less, which by common agreement are considered small businesses. These loans are not captured by the proxy because they are above the proxy's dollar limit of $1 million. Extrapolations presented on Table 2.1 using survey results and the Q4 2015 Call Report indicate that the lower bound of the small business lending understatement caused by not counting outstanding loans originated above $1 million that are made to businesses with GAR of $1 million or less—by banks with assets between $1 billion and $10 billion—is at least *$19.1 billion*. It should be noted that businesses with GAR of *greater* than $1 million that receive outstanding C&I loans originated with amounts greater than $1 million can also be small businesses, but the level of fineness of the information collected in the survey does not allow for the calculation of this potential understatement.

In addition, the survey results discussed in Section 2.3 show that the vast majority of the small banks with assets of under $1 billion specialize their C&I lending to small businesses. These are the banks with assets of less than $250 million and with assets of between $250 million and $1 billion. Of these banks, 86.4 percent and 76.5 percent, respectively, consider largely all of their C&I lending to be to small businesses. For these banks as for all banks, C&I loans originated at amounts of less than $1 million are included in the proxy as small business lending, yet the C&I loans originated at amounts above $1 million are not. Combining the survey results and the Q4 2015 Call Report, Table 2.1 shows that the lower bound for the understatement of loans originated above $1 million made by the two groups of the smallest banks is extrapolated to be $60.2 million for banks with fewer than $250 million in assets, and $32.3 million for banks with assets between $250 million and $1 billion. The understatement is therefore extrapolated to be at least $92.5 million in total for banks with assets of less than $1 billion.[20]

The second source of understatement by the Call Report proxy, as discussed above in Section 2.4, is that 1- to 4-family residential properties secure a nontrivial share of C&I loan originations,

18 For the reader's convenience, the details of how the extrapolations are calculated are provided in Appendix B.

19 "Stock" values are snapshot values observed at a point-in-time, such as current assets and current liabilities.

20 The lower bound extrapolation is substantially more conservative than an extrapolation using the simple method of counting as small business lending all C&I loans made by these banks, regardless of origination amount, as discussed in Section 2.3. The conservative method used in this subsection is discussed in Appendix B. If instead the simple method is applied to the bottom 86 percent of banks with assets of less than $250 million, when ranked by total C&I lending, and the bottom 76 percent of banks with assets of between $250 million and $1 billion, then the Q4 2015 Call Report shows that their combined C&I lending for loans with origination amounts above $1 million was $16.9 billion, which generates a substantially larger potential understatement than the one yielded by the conservative method.

Table 2.1: Dollar Amount Understatement of Call Report Proxy for Small Business Lending, 2015 (Extrapolated Lower Bound)

<table>
<tr><th rowspan="2">Areas of Understatement</th><th colspan="3">Small Banks</th><th colspan="3">All Banks</th></tr>
<tr><th><250M</th><th>250M to <1B</th><th>1B to <10B</th><th>Small</th><th>Large</th><th>Total</th></tr>
<tr><td>Unsecured C&I Loan Dollars with Origination Amounts of Greater $1 Million to Businesses with Gross Annual Revenues of:
$1 Million or Less</td><td rowspan="2">$60.2M</td><td rowspan="2">$32.3M</td><td>$19.1B</td><td rowspan="2">$19.2B</td><td>Not Available[ψψ]</td><td rowspan="2">$19.2B</td></tr>
<tr><td>Greater than $1 Million</td><td>Not Available[ψ]</td><td>Not Available[ψ]</td></tr>
<tr><td>Secured by 1- to 4-Family Residential Properties, Actually for C&I Loan Purposes</td><td>$4.4B</td><td>$6.5B</td><td>$4.8B</td><td>$15.6B</td><td>$2.7B</td><td>$18.3B</td></tr>
<tr><td>Total</td><td>$4.5B</td><td>$6.6B</td><td>$23.9B</td><td>$34.8B</td><td>$2.7B</td><td>$37.5B</td></tr>
</table>

Notes: [ψ] Extrapolations for the lower bound of the part of the understatement of small business loans that is due to the proxy's exclusion of loans with origination amounts of greater than $1 million to businesses with gross annual revenues of greater than $1 million cannot be calculated because it is unknown what portion, if any, of these loans is made to businesses that banks consider to be small. [ψψ] The number of large banks that answered the questions used for the extrapolations falls below the allowable reporting threshold for protecting respondents' identities.

particularly for banks with less than $1 billion in assets, yet loans secured by such properties are recorded on the Call Report as residential mortgages, even though the loan purpose is commercial and industrial. Table 2.1 shows that the extrapolated lower bound of the understatement of outstanding small business loans that is due to the proxy's exclusion of loans secured by 1- to 4-family residential properties is $15.6 billion for small banks (under $10 billion) and $2.7 billion for large banks ($10 billion or above), or at least *$18.3 billion* total for calendar 2015.[21]

The sum of lower-bound extrapolations presented in this subsection suggests that relying on the Call Report proxy understates total bank small business C&I lending by at least $34.8 billion for small banks and by $2.7 billion for large banks, for the reason that the proxy does not include loans to small businesses that either were originated at amounts greater than $1 million or were secured by 1- to 4-family residential properties. The amounts of small business C&I lending recorded by the proxy in Q4 2015 totaled $121 billion at small banks and $199 billion at large banks, for a combined $320 billion. Thus, the extrapolated lower bound of total C&I small business loans in Q4 2015 made by small banks is $156 billion, or 28.8 percent larger than what is captured by the proxy, and by large banks, $201 billion, or 1.4 percent larger than the proxy. For the industry, the survey findings show that total bank small business C&I lending was likely at least $357 billion in Q4 2015, or 11.7 percent larger than the proxy.

2.6 Conclusions

Banks are the most common source of external credit for small businesses, yet there is no comprehensive measure of small business lending by banks. The best existing measure of small business C&I lending extended by banks is the Call Report proxy, which uses a loan-size measure to identify small business lending. But banks may define small businesses differently from the proxy. Therefore, this section first reports banks' answers to questions on how they define their small business customers and

[21] Refer to Appendix B for the assumptions used to relate the survey question to the Call Report proxy. The survey question asks about loan originations (a flow), whereas the Call Report proxy collects information on outstanding loan dollars (a stock). See footnote 19 for a definition for "stocks." In contrast, flow values are quantities observed over a specified time period. For example, quarterly income statements contain flow values.

small business loans. Then, if the answers to these questions indicate there is small business lending that the proxy does not capture, the section analyzes specific areas of uncaptured lending. Finally, the section extrapolates to derive the lower bound of the understatement.

The survey shows that small and large banks differ in how they define small businesses. As expected, small banks draw on many different characteristics, including those that are qualitative, whereas large banks rely primarily on the size of the loan and the revenue of the firm. And of the small share of small banks and large share of large banks that use specific limits to define their small business loans, substantial portions use limits of greater than $1 million. Thus, the survey provides evidence that the best existing measure of bank small business C&I lending, the Call Report proxy, is unable to fully capture all loans made to small businesses. In addition, the survey documents that portions of banks' C&I loan originations are secured by personal real estate, which demonstrates another way in which the proxy understates small business lending.

The survey finds that the vast majority of small banks with assets of less than $1 billion consider largely all of their C&I lending to have been made to small businesses—a finding that confirms the common understanding that these banks specialize this lending to small firms. These are also the banks most likely to have their C&I loans secured by residential real estate. Both findings show that the proxy potentially understates the contribution of the smallest banks to small business lending relatively more than it understates the contribution of other banks. Thus, the understatement that the survey is able to document reinforces the importance not only of banks generally, but more particularly of small banks, as providers of small business credit in the United States. A conservative estimate shows that in Q4 2015, small banks held *at least* 28.8 percent more outstanding loan dollars to small businesses than the Call Report proxy captured, whereas large banks held at least 1.4 percent more.

In sum, the survey results document that the Call Report proxy substantially understates the true amount of small business lending by banks. A lower-bound estimate of the understatement based on the survey results indicates that for calendar year 2015, the proxy is at least 11.7 percent below the actual volume of small business C&I lending extended by all banks.