The Evolution of Bank Lending to Small Business

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Lending to small firms traditionally has been a business served primarily by the banking industry. Banks have specialized in assessing and monitoring borrowers, particularly companies too small to access the bond and equity markets directly. In addition, because banks provide a variety of transactions services such as checking accounts, payroll operations, and cash management services, they may have had informational advantages in monitoring and advising small businesses.

Recent changes in the banking industry are likely to have a significant impact on the way banks provide services to their small business clients. The industry has undergone substantial consolidation, in part stimulated by the relaxation of barriers to interstate mergers and interstate branching. As many banks grow in size and focus more on national and international markets, it is possible that some lines of business, including small business lending, may be less profitable for them than other activities that exploit more fully the advantages arising from economies of size and scope.

The revolution in information technology has stimulated a second major change in the banking industry pertinent to small business lending. Credit-scoring models, based on relationships identified using historical data to ascertain risks associated with potential borrowers, have altered the way some banks evaluate and monitor many loans. These models enable banks to offer credit on more favorable terms to borrowers with significant assets and good credit histories, as the banks can assess the risk of the loan at far lower cost compared to the use of traditional underwriting standards. This article examines how these two developments may be reflected in recent patterns of small business lending by banks. Both appear to be strongly reflected in the data.

Subsequent to a bank merger, roughly one-half of acquirers have increased and one-half have decreased the share of small business loans in their asset portfolios. However, the pattern is sensitive to the size of the

banks involved, as well as to the degree to which the acquirer has chosen to specialize in small business lending. Acquirers tend to increase or decrease their small business lending following a merger in order to offset any change in the share of small business loans in their portfolios that results from the merger. Nevertheless, a tendency remains for small acquirers to increase and large acquirers to decrease small business lending. For example, large banks that have acquired and merged with smaller banks generally increased their small business lending less (decreased it more) than smaller banking institutions that have merged, although large banks that had already chosen to focus on small business lending are more likely to increase small business lending after a merger than are those for which small business lending had not been a focus.

Recently the banking industry has undergone substantial consolidation, in part stimulated by the relaxation of barriers to interstate mergers and interstate branching.

In addition, within the small business loan segment, banks are altering the degree of their specialization in different loan sizes in ways that differ by bank size. The major area of increased lending to small business by larger banking institutions has been the smallest loan size category. This has probably occurred because loans under $100,000 are the most appropriate for applying credit-scoring models, which use many of the same screens as models used to identify good consumer loans. While the largest banks have increased their specialization in the smallest small business loans, smaller banks are shifting their emphasis more to loans in the $100,000 to $1 million category. Mergers that have combined smaller banks may have contributed to this shift, serving to relax borrower concentration constraints that limited small banks' access to this sector of the small business loan market in the past.

The article begins with a description of the source of data on small business lending and some of the recent trends in such lending. It goes on to examine the role of mergers and highlights the finding that many mergers result in increased small business lending. The third section of the article shows how bank lending to small business has varied by size of loan across the different bank size classes. The final section offers conclusions.

I. Background on Small Business Lending

The primary source for data on bank lending to small business has been an annual survey conducted since 1993 in the June Call Reports filed by banks. The survey asks banks to report small business loans in two classes, commercial and industrial loans and nonfarm, nonresidential (commercial real estate) loans.[1] The major distinction between these two types of business loans is the use of real estate as collateral. Banks are also asked to separate their small business loans into three size categories: $100,000 and under, $100,000 through $250,000, and $250,000 through $1 million. Thus, small business loans are defined in the survey by size of loan, not by size of borrower. Such a definition is somewhat problematic, but in practice most small loans to businesses are likely to be loans to small businesses.

Using the Call Report survey, Peek and Rosengren (1998) found that banks with less than $100 million in assets and those with more than $3 billion each experienced asset growth of approximately 24 percent from June 1993 to June 1996. Yet the growth in their small business lending (loans of $1 million or less) diverged sharply, with such loans growing by 42 percent at the small banks and by only 3 percent at the largest banks.[2] Consistent with these findings, several recent studies have found that small business lending is growing more rapidly at small banks than at large banks, and that large acquirers are less likely than small acquirers to expand small business lending (Zardkoohi and Kolari 1997; Peek and Rosengren 1998; Keeton 1996).[3] Evidence provided by Strahan

[1] The survey also asks questions related to agricultural loans, which were not included in this study.

[2] Numerous studies (Berger, Kashyap, and Scalise 1995; Keeton 1995; Peek and Rosengren 1995) have also noted that smaller banks have a much higher proportion of their assets in small business loans than large banks.

[3] These studies examined only the direct impact of the merger. Berger, Saunders, Scalise, and Udell (forthcoming) have found that other banks in the same market offset much of the decline in small business lending induced by mergers. While most studies have used ordinary least squares regression techniques, Craig and dos Santos (1997) have noted that results can be sensitive to estimation techniques.

and Weston (1996, 1998) suggests that organizational complexity does not account for these differences, although Keeton (1995) finds that banks purchased by out-of-state institutions tend to lend a smaller proportion of their funds to small businesses.

Peek and Rosengren (1998) argue that an important factor in the willingness of banks involved in mergers to subsequently expand their small business lending is the degree to which the acquirer banks already specialize in small business lending. Both Peek and Rosengren (1998) and Walraven (1997) have shown that banks involved in mergers tend to at least partially offset the initial effects of mergers on the share of their portfolios devoted to small business loans by subsequently increasing or decreasing that share to move it closer to its pre-merger level.

These results suggest that no single factor, such as bank size, is likely to capture the propensity of an acquirer institution to continue to engage in small business lending. The motivations for engaging in acquisitions, as well as the motivations for focusing on small business lending, are likely to be related to a variety of characteristics of both the acquirer and the target banks. Presumably, management that believes that small business lending can be a profitable line of business is more likely to continue to pursue the business aggressively after an acquisition is consummated.

Banks that become substantially larger through acquisitions (as well as through internal growth) have more potential business opportunities. Because of prohibitions against an undue concentration of loans with a single borrower, small banks have no alternative—their loans must be small. Large banks can extend much larger loans without concern that any one borrower could pose a significant risk to the financial health of the organization. In addition, larger size enables a bank to exploit economies of size and scope that may not be available to small banking organizations. Thus, trading activities, international operations, derivatives activities, and credit card operations that are not feasible for smaller banks may provide profitable opportunities for large banks. But while high-volume, low-margin businesses are likely to be exploited profitably only by large banks, this need not imply that lending to small business will be unprofitable for large banks.

Large banks may profitably engage in small business lending in a variety of ways. One way is to focus on loan markets where larger institutions have a comparative advantage. Many large institutions have significant experience in making relatively small home mortgage and credit card loans, then repackaging the loans in order to securitize and sell them. Such services may be provided more economically by larger institutions, since the use of sophisticated risk and underwriting models, the adaptation of recent innovations in information technology to monitor the loans, and the acquisition of expertise in asset securitization are more likely to characterize the larger banks.

Some small business loans also may be attractive candidates for credit scoring and possibly securitization, to the extent that they exhibit characteristics similar to other types of loans for which banks have adapted credit-scoring models. For example, small business loans to high-net-worth borrowers may provide an opportunity to use traditional credit-scoring models based primarily on the characteristics of the borrower rather than on the characteristics of the project. By treating this type of loan more like a consumer loan than a business loan, banks avoid the costs of obtaining balance sheet and income statements for the firm and evaluating the underlying collateral. These cost savings may permit large banks to offer more favorable terms than banks that treat these loans as more traditional business loans.

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All this suggests that larger banking organizations may be most willing to focus on loans small enough to be similar to consumer credits. Consequently, while most studies have defined small business lending as all loans with a value of $1 million or less, this article also focuses on the three loan size categories that constitute such small business loans, loans with original amounts of $100,000 or less, loans from $100,000 through $250,000, and loans from $250,000 through $1 million, in order to establish more clearly whether the adaptation of credit-scoring models to the underwriting of small business loans may have become an important factor in large bank lending to small businesses.

Table 1
Differences between Acquirer and Non-Acquirer Banks in Specialization in Small Business Lending
Loans of $1 Million or Less, June 30, 1993 to June 30, 1997

	Number of Banks		Small Business Loans ≤ $1 Million as a Percent of Assets	
Asset Size	Acquirer	Non-Acquirer	Acquirer	Non-Acquirer
< $100 Million	333	26,044	18.78	16.25
$100 Million to $300 Million	297	7,755	18.98	17.32
$300 Million to $500 Million	123	1,372	16.86	14.66
$500 Million to $1 Billion	112	806	15.10	12.79
> $1 Billion	246	967	6.08	5.69
Total	1,111	36,944	6.97	9.73

Source: Call Reports and authors' calculations.

A second possibility is that some large banks may find ways to mimic the information advantages that accrue to small institutions with close community ties. These banks may still rely primarily on traditional underwriting standards, but may be able to process information more efficiently. Such banks could have a degree of specialization in small business loans substantially greater than would be typical for a large bank, with the high margins in this line of business more than compensating for the underwriting costs. If so, then large acquirers that specialize in small business lending would be more likely to continue to engage in small business lending following mergers.

Table 1 provides some evidence on differences in the degree of specialization in small business lending between acquirer and non-acquirer banks across asset-size categories. The observations were constructed and summed over the four one-year intervals between June call reports for which small business loan data have been collected (June 30, 1993 to June 30, 1994; June 30, 1994 to June 30, 1995; June 30, 1995 to June 30, 1996; and June 30, 1996 to June 30, 1997). For each one-year subperiod, U.S. banks were classified as acquirers or non-acquirers and by asset size.[4]

Two patterns emerge. First, in each asset-size category, acquirer banks have larger shares of their portfolios devoted to small business loans than non-acquirer banks. For the four smaller asset-size classes, the difference averages nearly 2.2 percentage points. If acquirer banks continue to specialize in small business lending after a merger, the result is frequently an increase in the small business lending of the combined institution. Second, larger banks tend to have a smaller share of small business loans in their asset portfolio. This suggests that the larger size of a bank due to a merger may mitigate any increase in small business lending associated with the tendency of acquirer banks to be more specialized in small business lending than non-acquirer banks.

II. Patterns of Small Business Lending after Mergers

Table 2 shows the set of mergers between U.S. banks from June 1993 to June 1997, disaggregated along two dimensions: (1) the asset size of the acquirer relative to the average for the banks it acquires during one of the four one-year subperiods between small business lending surveys; and (2) the acquirer's share of small business loans relative to its assets compared to those for the bank (or sum of banks) it acquires during a given one-year subperiod.[5] For example, the first cell in Panel 1 contains the observations in which the acquirer is larger than its merger target(s) and the acquirer has a smaller share of small business loans in its portfolio than its target(s). For this set of

[4] Non-acquirer banks are those banks that reported at both the beginning and end of the one-year subperiod and made no acquisitions during that subperiod. The set of "acquirer banks" are those that reported both at the beginning and the end of the subperiod and were involved in at least one merger, with none of the acquired entities being failed institutions, bridge banks, or partial acquisitions, and for which bank call report data were available for all acquired entities. For this classification and throughout the remainder of the study, in each interval banks that experienced an ownership change not associated with a bank merger were eliminated.

[5] Tables 2 and 3 update tables that appear in Peek and Rosengren (1998).

Table 2

Number of U.S. Bank Mergers between June 30, 1993 and June 30, 1997, Showing Relative Size and Relative Portfolio Shares of Small Business Loans of Acquirers and Targets

Panel 1

Small Business Loans / Assets	Asset Size[a]		
	Acquirer > target(s)	Acquirer < target(s)	Total Observations
Acquirer < target(s)[b]	522	36	558
Acquirer > target(s)[b]	497	56	553
Total Observations	1,019	92	1,111

Panel 2

Small Business Loans / Assets	Acquirer > Target and Target Asset Size < $100 Million[a]		
	Acquirer < $100 million	Acquirer: $100 million – $300 million	Acquirer > $300 million
Acquirer < target(s)[b]	110	99	106
Acquirer > target(s)[b]	162	147	84
Total Observations	272	246	190

[a]If an acquirer merges with more than one target bank during a subperiod, target bank size is measured as the average asset size of the targets acquired during the subperiod.

[b]If an acquirer merges with more than one target bank during a subperiod, the target bank small business loan portfolio share is calculated as the ratio of the sum of small business loans held by the targets to the sum of target bank assets.

Source: Call Reports and authors' calculations.

banks, combining or force-merging the balance sheet data for the two (or more) banks, each measured as of the beginning of the one-year window in which the merger occurs, will cause the consolidated bank's concentration in small business loans to rise above the acquirer's pre-merger share.[6]

The typical merger pattern that one might expect would be an acquirer that is larger than its target bank, with the target having a larger percentage of small business loans in its portfolio than the larger acquirer bank. In fact, most observations (over 90 percent, 1,019 of 1,111) are accounted for by the two cells in the first column of Panel 1 of Table 2, in which the acquirer is larger than its target(s). Surprisingly, however, these two cells show that only slightly more than one-half of the acquirers (522 of 1,019) actually have a smaller share of small business loans in their portfolios than their targets. In part, this reflects the tendency of acquirers to have larger concentrations of small business loans than non-acquirers, as shown in Table 1.

Most of the "atypical" observations in the second cell of the second column of Table 2, where the acquirer is smaller than its target(s) and has a larger concentration of small business loans (56 of 92), are accounted for by affiliate mergers, where the holding company has some latitude in determining which of the affiliates is designated the surviving bank. While the designation is not entirely arbitrary, it may be influenced by such factors as the preferred geographical location for the bank headquarters or the type of charter (when charters differ across affiliates), rather than by the size or primary lines of business of the affiliates.

In just over half (558 of 1,111) of the observations is the target's small business loan portfolio share larger than that of the acquirer. Thus, in nearly half the cases (553 of 1,111), the merger will, at least initially, lower rather than raise the share of small business loans in the portfolio of the surviving bank, compared to its pre-merger share. To the extent that the acquirer bank was at, or near, its desired concentration in small business loans prior to the merger, the consolidated bank presumably would prefer to raise rather than lower its small business lending subsequent to the merger. Given the large number of observations where the acquirer had a larger share of small business loans than its target(s), it is not clear that bank consolidation necessarily will reduce lending to small business.

Much of the concern with mergers has arisen from the fear that large banks will acquire small banks but will not maintain the target banks' lending relationships with small firms that are dependent on bank credit. Panel 2 of Table 2 shows how the patterns of relative specialization in small business lending differ between acquirers and targets, by size of acquirer, when the acquirer is larger than the target bank and the target bank is small (assets less than $100 million). The first point of the panel is that the primary acquir-

[6] To make the beginning-of-subperiod balance sheet data of the surviving bank from a merger comparable to its consolidated end-of-subperiod data, we force-merge (combine) the beginning-of-subperiod balance sheet data of the acquirer and any targets merged into the acquirer during the one-year subperiod.

Table 3
Number of Banks Increasing or Decreasing Share of Small Business Loans Subsequent to Merger
Measured from beginning to end of one-year subperiods, June 30, 1993 to June 30, 1997

Panel 1

Small Business Loans Assets		Asset Size[a]: Acquirer > target(s)	Asset Size[a]: Acquirer < target(s)	Total Observations
Acquirer < target(s)[b]	Increase Share	251	14	265
	Decrease Share	271	22	293
Acquirer > target(s)[b]	Increase Share	261	28	289
	Decrease Share	236	28	264

Panel 2

Small Business Loans Assets		Acquirer > Target and Target Asset Size < $100 Million[a]: Acquirer < $100 million	Acquirer: $100 million – $300 million	Acquirer > $300 million
Acquirer < target(s)[b]	Increase Share	75	51	40
	Decrease Share	35	48	66
Acquirer > target(s)[b]	Increase Share	102	74	41
	Decrease Share	60	73	43

[a]If an acquirer merges with more than one target bank during a subperiod, target bank size is measured as the average asset size of the targets acquired during the subperiod.
[b]If an acquirer merges with more than one target bank during a subperiod, the portfolio share of the target bank is calculated as the ratio of the sum of small business loans held by the targets to the sum of target bank assets.
Source: Call Reports and authors' calculations.

ers of these small institutions are other small institutions. Only 27 percent of the mergers shown in Panel 2 have an acquirer with more than $300 million in assets.

Second, consistent with the evidence presented in Table 1, acquirer banks tend to emphasize small business lending more than similarly sized non-acquirer banks. When both acquirer and target have less than $100 million in assets, the acquirer has a larger concentration in small business loans than its target in 60 percent of the mergers (162 of 272). Even the larger acquirers frequently have larger concentrations than their smaller targets: 60 percent (147 of 246) of the acquirers in the $100 million to $300 million asset class, and 44 percent (84 of 190) of the acquirers with over $300 million in assets.

Changes in Small Business Loan Portfolios Following Mergers

Panel 1 of Table 3 shows the changes in the shares of small business loans in the portfolios of the consolidated acquirer banks during the one-year window in which the merger occurs. To ensure consistency, the end-of-subperiod share for the surviving bank is compared to that for the beginning of the one-year subperiod for the consolidated bank formed by force-merging the data of the acquirer and its targets. For three of the four cells in Panel 1, the observations are roughly evenly split between those with a positive change in their portfolio shares and those with a decline, subsequent to the merger. Still, the deviations from a balanced split are in the direction consistent with acquirers reestablishing their pre-merger portfolio shares after the mergers are consummated. For example, consolidated banks in which the acquirer had a larger small business loan concentration than its target, so that the merger caused a decline in the share of small business loans in its portfolio, are more likely to increase small business lending following the merger.

The upper cell in the second column of Panel 1 is the only cell that deviates very far from an even split between the number of banks increasing and the number of banks decreasing their concentration in small business loans following a merger. However, this cell suffers from having only a small number of

observations (36) and, in any case, contains observations that might be deemed to be atypical, insofar as the average size of the targets is larger than that of the acquirer and they have a small business loan portfolio share that is larger than that of the acquirer bank. Moreover, when only nonaffiliate mergers are considered, most of the dissimilarity within this cell disappears.

Panel 2 of Table 3 explores more fully the relationship between the acquirer's size and small business orientation and changes in small business lending following the merger. The proportion of acquirers of small banks that increase their concentration in small business loans following mergers declines as the size of the acquirer increases, falling from 65 percent for the under $100 million asset-size acquirer to just over 50 percent for the $100 million to $300 million asset-size acquirer, and to less than 50 percent for the largest banks. However, the only cell where substantially fewer than 50 percent of acquirers showed an increase in concentration following the merger is composed of acquirers with more than $300 million in assets and a smaller pre-merger concentration in small business loans than their target(s). This suggests that these acquirers may be attempting to offset at least part of the initial rise resulting from the merger, in order to move back toward their pre-merger portfolio share. Thus, this table suggests a tendency for the small business lending orientation of the acquirer to influence the subsequent behavior of the consolidated entity. However, when the acquirer is large, the small business lending of the consolidated bank is more likely to fall, especially if the acquirer was less oriented to small business lending than its targets.

Acquirers tend to recast the portfolio shares of the consolidated bank to converge toward the pre-merger portfolio share of the acquirer.

This tabulation highlights the fact that paired comparisons that do not control for differences in bank characteristics can be misleading, because factors such as bank size and the degree of specialization in small business lending may be important in determining whether a bank's portfolio share of small business loans increases or not after a merger. Regressions described in Peek and Rosengren (1998) confirm that acquirers tend to recast the portfolio shares of the consolidated bank to converge toward the pre-merger portfolio share of the acquirer, controlling for other factors that may affect post-merger lending patterns.

The data shown in both panels of Table 3 suggest that some of the current concerns with bank mergers may not be well-founded. First, in roughly one-half of the commercial and savings bank mergers over the past four years, the portfolio share of small business loans in the consolidated bank rose rather than fell during the period immediately following the merger. Second, in slightly less than half the cases, the acquirer already had a larger portfolio share of small business loans than its target(s). Third, most acquisitions of small banks are carried out by small, not large, banks. Finally, only when the acquirer is larger and less active in small business lending than its target(s) is the small business share of the loan portfolio of the consolidated bank much more likely to decline immediately following the merger.

III. Small Business Lending Patterns by Size of Loan

Large banks have recently begun to consider nontraditional lending activities, seeking those that could benefit from innovations in credit scoring and securitization. Small business lending has provided such an opportunity, and several of the largest lenders to small business have conducted nationwide campaigns offering loans based on credit-scoring models borrowed from consumer finance (Mester 1997).[7]

Table 4 shows the changes in small business lending by acquirer and non-acquirer banks, disaggregated by loan size and by bank asset-size classes. In each one-year subperiod, banks are classified as acquirers or non-acquirers, as in Table 1.[8] The results

[7] As reported in Mester (1997), surveys have indicated that the use of credit-scoring models by banks for small business lending has essentially been limited to the larger banks. However, small business loan scoring models are now being made available to banks that have not had sufficient loan volume to develop their own models. Thus, eventually one might expect the use of such credit-scoring models to become more widespread.

[8] For acquirers, the beginning-of-subperiod data for the acquirer and target(s) are force-merged to produce beginning-of-subperiod balance sheet information consistent with the end-of-subperiod data for the surviving (consolidated) bank. For each loan

Table 4

Changes in Small Business Loans at Acquirer and Non-Acquirer Banks Measured as a Percentage of Assets, June 30, 1993 to June 30, 1997

	ΔLoans ≤ \$100,000 / Assets$_2$		ΔLoans \$100,000 to \$250,000 / Assets$_{-1}$		ΔLoans \$250,000 to \$1 Million / Assets$_{-1}$		ΔLoans < \$1 MIllion / Assets$_{-1}$	
Asset Size	Acquirer	Non-Acquirer	Acquirer	Non-Acquirer	Acquirer	Non-Acquirer	Acquirer	Non-Acquirer
< \$100 Million	−.37	.30	.63	.56	1.45	1.11	1.70	1.98
\$100 Million to \$300 Million	−.86	−.50	.44	.52	.70	1.25	.28	1.27
\$300 Million to \$500 Million	−.46	−.66	.04	.40	.23	.97	−.20	.72
\$500 Million to \$1 Billion	−.37	−.16	.22	.15	.51	.56	.36	.55
> \$1 Billion	.11	−.03	.02	.02	.04	.11	.18	.11
Total	.05	−.10	.05	.20	.10	.49	.20	.59

Source: Call Reports and authors' calculations.

show that patterns of small business lending have varied by size of loan and by size of bank. For total lending to small business (loans of $1 million or less), the smallest banks have had the largest increases (scaled by assets). And at all but the largest banks, growth in small business loans is higher for non-acquirer banks than for acquirer banks in the same size class. This suggests that acquirer banks are less aggressive lenders to small business following a merger compared to similar-sized banks not involved in mergers, even though acquirers tend to be more specialized in small business lending than non-acquirers (see Table 1).

However, the patterns in aggregate small business loans mask interesting differences in the behavior between large and small banks across loan size categories. For loans of $100,000 or less, only the largest acquirer banks show an increase in lending. Among the non-acquirer banks, loans in this category increased for the smallest banks while shrinking in all the other bank size classes, although the largest banks show the least shrinkage. For small business loans of $100,000 to $250,000 and loans of $250,000 to $1 million, the changes are generally positive, with growth much higher for smaller banks than for the largest banks.

This evidence is consistent with changes in the size composition of small business loan portfolios as a result of both the easing of borrower concentration limits at small banks as mergers increase their size and the increased use of credit-scoring models by large banks. For the smallest set of banks, acquirers actually reduced their loans of $100,000 or less, even as non-acquirer banks of the same size were increasing such loans. At the same time, these acquirer banks were increasing their lending in both the $100,000 through $250,000 category and the $250,000 through $1 million category faster than similar-sized non-acquirer banks.

At the largest banks, the change in the size composition of small business loans was shifting in the opposite direction, consistent with an increased use of credit-scoring models for the origination of business loans in the smallest size category. However, because the use of credit-scoring models is related directly to bank size, rather than to any increase in the bank's size, we have no reason to expect any difference in behavior between acquirer and non-acquirer banks in this case, other than any difference that might arise from the tendency of acquirer banks to be more predisposed to make small business loans, based on the evidence in Table 1. In fact, the evidence is

size class, the change in loans scaled by assets is calculated as the difference between the sums of loans to small business at the beginning of the subperiod and at the end of the subperiod, divided by the sum of assets at the beginning of the subperiod, with the sums including all banks in that asset size class for any one of the one-year subperiods.

Table 5

Percentage-Point Changes in Portfolio Shares of Small Business Loans at Acquirer and Non-Acquirer Banks, June 30, 1993 to June 30, 1997

	Δ{Loans≤$100,000 / Assets}		Δ{Loans $100,000 to $250,000 / Assets}		Δ{Loans $250,000 to $1 Million / Assets}		Δ{Loans < $1 Million / Assets}	
Asset Size	Acquirer	Non-Acquirer	Acquirer	Non-Acquirer	Acquirer	Non-Acquirer	Acquirer	Non-Acquirer
< $100 Million	−.71	−.40	.50	.36	1.21	.79	1.02	.75
$100 Million to $300 Million	−1.14	−.94	.29	.27	.40	.73	−.46	.06
$300 Million to $500 Million	−.64	−.91	−.09	.18	−.06	.46	−.80	−.26
$500 Million to $1 Billion	−.58	−.36	.08	−.04	.19	.09	−.30	−.32
> $1 Billion	.07	−.09	−.01	−.03	−.04	−.04	.03	−.16
Total	.00	−.29	.01	.08	.01	.23	.02	.03

Source: Call Reports and authors' calculations.

consistent across both sets of banks, with the largest bank size class showing the smallest increases in both the $100,000 through $250,000 loan category and the $250,000 through $1 million loan category. And, for loans of $100,000 or less, the only group of acquirers that increased their loans were those in the largest asset-size class. While non-acquirer banks with less than $100 million in assets also showed an increase in such loans, the other size classes showed declines. However, consistent with the pattern for acquirer banks, the extent of the decline tended to be less for the largest bank-size classes.

Table 5 shows the changes in the banks' portfolio shares of small business loans by loan size, disaggregated by acquirer and non-acquirer banks.[9] The patterns here are consistent with those in Table 4. For total small business loans, the only substantial increase in portfolio share occurs at the smallest banks. However, this growth is concentrated in the two loan-size classes between $100,000 and $1 million. In fact, this set of the smallest banks is shrinking its portfolio share of loans of $100,000 or less. Interestingly, only one group of banks shows an increase in its portfolio share of loans of $100,000 or less, acquirer banks in the largest asset-size class.

The evidence in Tables 4 and 5 is consistent with a number of the largest banks focusing increasingly on the smallest loan categories. This is likely the result of larger banks' investments in information technologies that enable them to use credit-scoring models to service small business borrowers at lower cost than more traditional loan underwriting methods. Because the credit-scoring models focus more on the characteristics of the borrower than on those of the business, they require much less information, and the information can be acquired more quickly and accurately than business-specific information. Comparisons across borrowers are also easier.

Many of these credit-scoring models for small business lending have yet to be tested in a recession. The major assumption made when using these models is that the performance of small business loans is more closely tied to the characteristics of the business owner than to those of the business itself. Their use means that borrowers with substantial assets and good credit ratings are likely to be able to borrow more inexpensively than in the past. In

[9] Consistent with the previous table, the portfolio shares are calculated using the sums of loans and of assets for all banks in an asset-size class. Thus, the calculations in Table 5 are changes weighted by assets, rather than simple averages of changes in the portfolio shares of the individual banks in the size class. Tables 4 and 5 differ in that a negative entry in Table 4 indicates that the banks decreased small business loans. However, in Table 5 a negative entry does not necessarily indicate that banks decreased small business loans. It could also occur if banks increased small business loans, but at a rate slower than they increased assets. That is, the signs on the entries in Table 5 indicate whether portfolio shares increased or decreased, while those in Table 4 indicate whether the volume of small business loans at banks increased or decreased.

contrast, borrowers with a good idea, but a poor credit rating and little collateral, are likely to face higher costs than borrowers whose loan qualifies under a credit-scoring model.

The fact that banks in the smaller asset-size classes show a shift away from the smallest loans and healthy growth in $100,000 to $1 million loans probably reflects the consequences of the widespread consolidation of small banks. As the smallest banks merge, the constraint on borrower loan concentration that limits the size of loans that they can make is eased.[10] The relaxation of this size constraint allows them to enter the markets for larger loans that were previously unavailable to them. As this segment of the small business loan market becomes more competitive, borrowers should benefit.

IV. Conclusion

The market for small business lending has been substantially influenced both by the wave of bank consolidations and by banks' adoption of efficiency-enhancing information technologies. The wave of bank mergers has occurred primarily among the smallest banks. These mergers often involve acquirers that specialize in small business lending, as their concentration in small business loans often exceeds that of their target. By relaxing borrower concentration limits on the size of loans that banks can hold, these acquisitions enable small banks to make larger loans. As a consequence, the growth in small business lending by small banks has been concentrated in the category of $100,000 to $1 million, even as these banks have reduced their portfolio concentrations in loans of $100,000 or less.

In contrast, some banks are competing more actively in the loan category of $100,000 or less, consistent with the adoption of credit-scoring models to originate such loans. Credit-scoring models reduce the cost of processing these loans, relative to traditional underwriting. As such models are adopted more widely, borrowers with good credit ratings and collateral are likely to be able to borrow at lower costs than in the past.

Both trends are likely to continue to shape the small business lending market. Consolidation will continue to produce larger "small banks," capable of providing increased services to small business borrowers. Extending the use of credit-scoring models to larger denominations of small business loans should provide lower-cost loans to additional small businesses. Both trends are likely to result in the availability of more and lower-cost options to small business borrowers.

[10] Banks' internal guidelines and varying federal and state regulations limit the size of loan that a bank can make to a single borrower, measured relative to the bank's capital. The Office of the Comptroller of the Currency limits loans to a single borrower by national banks to no more than 15 percent of the bank's unimpaired capital. For more details see Peek and Rosengren (1997).

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