Small Business

Credit Availability:

How Important Is Size of Lender?

by Joe Peek
and
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Working Paper Series

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Abstract

The recent relaxation of restrictions on interstate banking and branching, as well as the likely relaxation of Glass-Steagall restrictions, should encourage significant consolidation in the banking industry. Larger lenders, diversified across regions and products, will undoubtedly be less susceptible to adverse economic shocks that have buffeted the banking industry over the past decade. However, as small banks with a small business loan emphasis are absorbed into larger, more diversified lenders, which tend to focus much less on small business lending, credit availability to bank-dependent small business borrowers should be a major public policy concern.

In New England, the evidence indicates that many large acquirers have chosen not to maintain the small business loan portfolios of their smaller target banks. This reduction in small business lending as a result of acquisitions indicates that many banks have little interest in maintaining the historical lending relationships fostered by the small target banks. As consolidation reduces the number of small banks that focus on small business loans, some niches will be created that can be served by de novo entry, although the evidence suggests that de novo entry is unlikely to quickly fill any major voids in small business lending.

Small Business Credit Availability: How Important Is Size of
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With the recent adoption of interstate branching and new
legislative initiatives to relax Glass-Steagall restrictions, the
movement towards nationwide banking should accelerate the ongoing
consolidation in the banking industry. The regional shocks that
have caused financial distress in the banking industry since the
early 1980s have highlighted the costs associated with bank
specialization by region and product. In those regions that have
faced adverse shocks, significant attention has been given to
credit availability issues, particularly to small firms that tend
to be bank-dependent borrowers. While banks and consumers may
benefit from eliminating restrictions on product lines offered by
banks, the primary benefit to the macroeconomy will be the
amelioration of the local effects on credit availability of
regional or sector-specific shocks to bank capital, as bank
consolidation leads to increased geographic and product
diversification by banks.

However, the increased concentration of banking assets could
also introduce potential problems for the longer term. An area
of particular concern is the effect on the availability of loans
to small businesses. Small business borrowers traditionally have
relied on banks to satisfy their credit needs. While large
borrowers increasingly gain direct access to national credit
markets by issuing commercial paper and bonds, small business
borrowers continue to be bank dependent. Thus, these borrowers
are particularly sensitive to changes in bank regulation or in

the structure of the banking industry.

Moreover, small businesses traditionally have relied on small banks to provide a significant amount of their financing. Banks are required to limit their exposure to any one borrower to no more than 15 percent of their equity, and many choose a much smaller threshold. This limit on borrower concentration has the effect of restricting business lending by small banks primarily to small business loans. As the banking sector consolidates through purchases of many of the smaller banks, the impact of the limitations on borrower concentration, which have guaranteed that a subset of banks would specialize in small business loans, will be mitigated. As larger banks that are not constrained by borrower concentration lending limits purchase small and medium-sized banks with large portfolio shares of small business loans, the availability of small business loans may become an important public policy issue.

The extent to which large acquiring banks retain these portfolios of small loans will be affected by the motivation for the acquisition. Are the acquiring banks most interested in low-cost core deposits, an increased market share, a more balanced geographic coverage of the franchise, or expertise in particular lines of business, including the accumulated stock of private information about small loan customers at these small banks? That is, are acquirers after the asset side or the liability side of the acquired bank's balance sheet, and if the former, the wholesale or retail lines?

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Since small business lenders have accumulated a stock of private information about their small business customers, small business lending could be a profitable line of business for an acquiring bank, even if it is not currently an area of emphasis. If this is so, we may have little to fear regarding reduced credit availability to small businesses. However, if the information is not easily transferred, or if small business loans are uneconomical given the overhead costs of many larger institutions, over time the acquirer may jettison this acquired line of business. It remains an open question how readily other existing banks or de novo banks would fill the consequent void.

The 50 largest lenders to small businesses currently account for approximately 20 percent of the small business loan market nationwide. While the list includes a number of the largest banks in the country, it is dominated by the superregionals. Since these banks have been involved in a large number of recent acquisitions of small banks, it is not yet clear whether their apparent emphasis on small business lending is simply an artifact of the recent acquisitions that have not yet been digested or, instead, reflects a commitment to a longer-term business strategy that includes this as a major line of business. Because the largest bank holding companies are likely to expand their already large share of this business as a result of additional acquisitions of small and medium-sized banking organizations, it will be important to monitor how consolidation affects small business lending.

This paper examines the significance of consolidation in the banking industry for the availability of small business credit. Using a cross-section data set of New England banks that includes the structure changes that have occurred in that market and a newly available survey of bank lending to small business, we examine how the small business lending market has been altered by bank acquisitions. The first section will examine who lends to small businesses nationwide. While small banks do lend primarily to small businesses, large banks account for a surprisingly large share of small business lending. The second section discusses the benefits of having large, nationwide lenders. In particular, we emphasize how increased geographic diversification by banks can reduce the costs to loan customers of the sharply reduced credit availability associated with adverse regional or local shocks to bank capital. The third section examines the potential problems associated with small banks being acquired by larger entities that may have little interest in continuing historical lending relationships. Frequently, small business loans decrease both after the announcement of an acquisition and after the acquisition is consummated. The final section provides some concluding remarks on how bank consolidation may affect small business lending.

I. Overview of the Small Business Lending Market

Despite the importance of the small business lending market to banks and borrowers alike, few data about these loans were

available in the past. Recently, however, the Congress has been concerned about the effect of credit contractions on small business. As a result, federal bank regulators now are required to collect information annually on small business loans, beginning with the second-quarter 1993 bank call reports. Banks are asked for data on two types of business loans--nonfarm, nonresidential loans and commercial and industrial loans--in three size categories: loans less than $100,000, less than $250,000, and less than $1 million. While this information is quite informative about the pattern of small business lending, it must be interpreted with caution. First, the size of the loan, rather than the size of the business borrower, is used to define "small business lending." Second, because it is a new survey, it is likely that numerous reporting errors may have been made by banks, in some instances the result of a misinterpretation of the question.

Size of business rather than size of loan is obviously a preferred measure. Presumably this question was asked in terms of size of loan for call report purposes to minimize the cost to banks of complying with the question, since loan size would be readily available, but size of business would require examining each loan file. Scanlon (1981) found that loan size did serve as a good proxy for borrower size for very large loans and for very small loans, but less so for the middle range. One might be concerned that when large firms make a partial takedown of a loan commitment or draw on a large credit line, it would be counted as

a small loan. However, this survey asks questions in terms of "original amounts" of loans, carefully defined to ascertain the size of the total credit granted to the firm rather than a particular bank's share of a participated or syndicated credit, or the size of a particular draw against a line of credit or commitment.[1]

Because this is a new survey, bank answers may have suffered from being on the early portion of a learning curve. In fact, Berger and Udell (1995) find inconsistencies between the small business survey data on the call report and the Survey of Terms of Bank Lending data. In particular, they find that banks answering the question as to whether all or substantially all of their nonfarm, nonresidential real estate loans and commercial and industrial loans had original amounts of $100,000 or less may have answered in terms of number of loans rather than volume of loans, as intended. However, this explanation accounts for only a portion of the general underreporting of original amounts found by Berger and Udell (1995). Furthermore, the underreporting is much more important for the smaller loan sizes. For our study, we have minimized the problems by using the $1 million or less loan category as our definition of small business loans; we have also carefully scrutinized the small loan data for New England, identifying what appeared to be egregious errors and following up with a phone call to the bank for an explanation or correction.

The Importance of Small Business Lending to Banks, by Size of
Bank

The upper panel of Table 1 shows small business loans as a
share of total business loans outstanding at all FDIC-insured
banks in the United States, ordered by bank asset size as of June
30, 1994. Not surprisingly, loans to small businesses account
for most business lending by small banks. Banks are required to
limit their exposure to any one borrower to no more than 15
percent of their equity, and frequently they impose even lower
internal limits. This limit on borrower concentration has the
effect of restricting small banks primarily to small loans.

Perhaps more surprising is the proportion of small business
loans held by the larger banks. For banks with assets of between
$1 billion and $5 billion, small business loans (loans under $1
million) make up 43 percent of their nonfarm, nonresidential
loans and 37 percent of their commercial and industrial (C&I)
loans. Only at the largest banks, those with assets of over $5
billion, does the share of these small business loans drop below
one-third, accounting for only 32 percent of nonfarm,
nonresidential loans and 17 percent of C&I loans. However, this
difference in the shares of small business loans held by large
compared to small and mid-sized banks may change in the next few
years, as the largest banks continue to acquire small and medium-
sized banks.

Market Shares of Business Loans, by Size of Bank

The lower panel of Table 1 shows the 1994:II distribution of small business loans among FDIC-insured banks, grouped by the size of the bank. Mid-sized banks continue to hold large shares of total outstanding bank loans to small businesses. Bank asset size categories from $300 million to $1 billion and $1 billion to $5 billion each account for approximately 16 percent of the market.

While small loans do not constitute a particularly large part of the portfolios of the largest banks, a large bank's share of total loans to small businesses can be relatively large because of the size of the overall institution. Banks with assets over $5 billion hold 29 percent of all small business loans held by banks. This is a significantly smaller market share than their holdings of total business loans, but still a major market share, given that loans to small business make up only 22 percent of total business loans held by the largest banks.

The Largest Small Business Lenders

Table 2 lists the top 25 small business lenders in the country, which include four of the ten largest banks in the country based on total assets. These four banks account for 7.1 percent of all business loans, but only 2.5 percent of all small business loans.

This group of 25 banks is somewhat heterogeneous. While a

bank must be large to qualify for this list (all are included in the top 86 banks in the country based on assets), size alone is not sufficient. Among the large money center banks located in New York and Chicago, only Citibank, the largest bank in the country, is included. Nor is a focus on small business lending sufficient, for the small business share of business loans of banks on this list ranges from 54.4 percent down to as little as 7.5 percent. Still, half the banks on the list are also in the top 25 banks by asset size, and half have small business loan shares in excess of 25 percent.

Many of the largest small business lenders are superregionals. Five Nationsbank subsidiaries and two Key Bank subsidiaries are included in the top 25. Many of the large superregionals have grown rapidly over the past 10 years, as they acquired smaller banks following regional compacts that relaxed restrictions on interstate banking. While the acquisition of small banks that focus on small business loans may have accounted for their status as major small business lenders, it remains to be seen whether this concentration in small business loans will be retained as these banks continue to grow.

While some holding companies appear to have a corporate strategy that focuses on small business lending, many of the other major lenders to small business are less clearly targeting small business lending. For example, the Key Banks have focused on small business lending, with the two subsidiaries in the top 25 small business lenders each having more than 40 percent of its

business loans of a size below $1 million. In contrast, among the Nationsbank subsidiaries, the percentage of small business loans to total business loans ranges from 10.8 percent in Texas to 44.5 percent in South Carolina.

II. Potential Benefits of Large Lenders: Diversification across Regions and Products

To examine the potential benefits and costs of universal banking, we focus on the recent experience of banks in New England for a number of reasons. First, the region has recently experienced significant problems with credit availability to small businesses. Thus, the lack of large, well-diversified national lenders insulated from regional economic downturns is most starkly apparent in this region. Second, we have a comprehensive bank structure file for this region, enabling us to identify mergers, failures, and asset transfers at these banks. Third, New England has experienced significant consolidation and de novo entry, making it an ideal region in which to examine the effects of consolidation and new entry on small business lending.

The upper panel of Table 3 shows small business loans as a share of total business loans outstanding at all FDIC-insured banks in New England, ordered by bank asset size as of June 30, 1994. The share of small business loans (less than $1 million) relative to total business loans is similar to that of the United States, as shown in Table 1. However, the shares for smaller loan sizes, particularly at the smaller banks, do show larger

differences compared to the nationwide sample. In the bottom
panel, the shares of small business loans held by New England
banks compared to the national sample again differ more the
smaller the bank size class and the smaller the size of loan.
However, for loans of less than $1 million, the primary
difference is that New England banks with less than $100 million
in assets hold a share that is substantially lower than that for
banks nationwide, 17 percent nationwide but only 7 percent in New
England, with the offset appearing in the $300 million to $5
billion bank asset classes.

Ameliorating the Consequences of Regional Capital Shocks

One of the major benefits of having large, well-diversified
lenders is that bank capital shocks will be ameliorated. The
costs of having geographically specialized lenders have been made
particularly clear by the recent experience in New England.
Figure 1 shows aggregate capital-to-asset ratios for commercial
banks in New England and the United States from 1960:IV through
1994:II, with shading indicating recession periods.[2] From 1960
to the mid 1970s, bank capital ratios declined steadily, showing
relatively little sensitivity to recession periods. Both series
temporarily rebounded in 1975 and 1976. The national series then
rose gradually throughout the 1980s and at an accelerated pace in
the early 1990s. In New England, however, the decline continued
until 1983, when the ratio began to rise. This rise was then
interrupted by a dramatic, but temporary, decline in 1989 and

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1990, followed by a sharp rise in the early 1990s.

Figure 1 also shows that the overall decline in bank capital ratios was greater in New England than in the rest of the country. And, unlike the national trend, a final sharp decline preceded the most recent recession. Not only was the overall decline sharper in New England, but the subsequent recovery appears more dramatic. In fact, the particularly sharp initial rise in the capital ratio in New England was accomplished in large part through reductions in assets. Had large nationwide banks been active in New England, the repercussions of the loss in bank capital in the region would have been significantly ameliorated. Thus, one of the major features of large nationwide lenders, diversification across regions and products, should act to ensure that regional recessions no longer affect such institutions to the same degree, significantly softening the regional effects on loan supply of a shock to bank capital in that particular region.

The extent of the recent reduction in credit availability as a result of loan supply shocks has been documented in two studies by Peek and Rosengren (1995a, 1995b). The first study (1995a) finds that large New England banks shrank as a result of formal regulatory actions, with the shrinkage generally occurring in loans rather than securities holdings. The second study expands the analysis to include an explicit test that is able to identify a regulatory-induced constraint on bank loan supply, unlike recent credit crunch studies that rely on bank capital-to-asset

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ratios to proxy for supply constraints, which have difficulty disentangling the loan supply and loan demand components of the observed reduction in loans.

The evidence surrounding this regulatory-induced event is inconsistent with the hypothesis that regulatory actions serve as a proxy for loan demand shocks. In the quarters immediately prior to a regulatory action, loans were increasing. Then, in the precise quarter of the regulatory action, loans decreased abruptly and then continued to decrease. These regulatory actions occurred at individual institutions at different times over the entire sample period. Their effects were found to be significant, even though the estimated equation included a variety of other variables to proxy for loan demand shocks, including variables to capture portfolio concentrations of the individual banks and over 100 time and location dummy variables. In addition, these loan supply constraints were found to be particularly important at small banks and in lending categories likely to be dominated by borrowers dependent on bank financing.

To determine the magnitude of the effect of formal actions on this study's sample of all New England banks, the following regression taken from Peek and Rosengren (1995b) was reestimated:

$$\frac{\Delta LN_{i,t}}{A_{i,t-1}} = \alpha_1 + (\alpha_2 + \alpha_3 \frac{K_{i,t-1}}{A_{i,t-1}}) FA_{i,t} + \alpha_4 \frac{K_{i,t-1}}{A_{i,t-1}} (1 - FA_{i,t}) + \beta X_{i,t-1} + \epsilon_{i,t} \quad \textbf{(1)}$$

The dependent variable is the change in total loans of bank i scaled by total assets of bank i. The equation includes a dummy variable for formal actions (FA) with a value of one for any

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quarter the bank is under a formal regulatory action and zero otherwise.

Because formal actions specify a leverage ratio, usually 6 percent, that the bank is legally required to achieve, the most poorly capitalized banks have the greatest incentive to shrink. Thus, the magnitude of the effect of formal actions on the change in loans may differ across banks, in particular because it is related to a bank's beginning-of-period (end-of-previous-period) leverage ratio. Consequently, the coefficient on FA has been specified to be a function of the leverage ratio, with α_3 predicted to be positive. We also have included the leverage ratio for banks not under a formal action as an argument in the equation to allow for the possibility that a bank would respond by voluntarily rebuilding its capital ratio even in the absence of a formal action. That is, this specification allows one to distinguish between bank responses that are voluntary and those that are imposed by regulators. We anticipate that being below minimum capital requirements may not in itself generate a bank response to restore its capital position in the absence of formal regulatory actions, implying that $\alpha_3 > \alpha_4$.

While many of the differences across banks in the demand for loans will be ameliorated by concentrating on banks in one geographic region, this study also includes a series of classification variables intended to control for any remaining differences in loan demand shocks arising from a bank's size, its specialization in particular types of lending activities, volume

of troubled loans, and bank charter type, as well as a set of

dummy variables for each of the six New England states interacted

with a set of quarterly time dummy variables, one for each

quarter in the sample. The estimation technique is a variance

components model. For a more detailed description of the

estimation technique and variables, see Peek and Rosengren

(1995b).

Using estimates of equation 1 for total loans on the sample

of FDIC-insured New England commercial and savings banks, it is

possible to calculate the total effect of the formal actions on

bank lending. Because leverage ratios with and without formal

actions have different estimated impacts, the effect of the

leverage ratio also must be incorporated in order to calculate

the net impact of formal actions on loan shrinkage. That is, it

is necessary to calculate the magnitude of the effect over and

above what would have occurred because of low leverage ratios in

the absence of formal actions. The total effect of formal

actions is thus calculated as $\alpha_2 + (\alpha_3 - \alpha_4)*K/A$ (here, the

calculation is $-1.33 + (.16 - .03)*K/A)$ summed over all banks

under formal actions.

Figure 2 shows the path of actual bank loans in New England

during the 1989:II to 1994:II period, compared to this study's

estimate of the magnitude of bank loans in the absence of formal

actions. The latter path is derived by adding to actual loans

this study's measure of the reduction in bank loans attributable

to formal actions. The figure shows that from the peak in

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1989:III to the trough in 1993:I, loans held by New England banks dropped by 30 percent. Of that $55 billion decline in bank loans, 18 percent can be attributed to formal actions. The magnitude of the decline that can be attributed to formal actions indicates that these regulatory actions may have been an important contributor to the credit crunch that occurred in New England during this period.

If New England had had banking institutions that were diversified across regions and products, the credit availability problems would have been significantly diminished. Capital for banks in the region would not have been as dependent on the local economy, and many banks would have been in a position to fill the voids created as some of the less diversified banks were forced to shrink.

III. Potential Costs of Universal Banking

While many large banking institutions have chosen to focus on small business lending, it remains an open question whether large banks will find small business lending profitable in the long run. Evidence from acquisitions in New England indicates that small business lending portfolios frequently are not retained by large banks that acquire smaller banks. Large banks have been less aggressive in attracting small business loans, and when they acquire small banks with large shares of small business loans, these loans generally decline.

Small Business Lending in New England

Table 4 shows the changes in small business loans for FDIC-insured banks in New England that were neither an acquirer nor a target of an acquisition from 1993:II to 1994:II and neither purchased nor sold branches during this period. For each bank asset size category, we include the mean share of small business loans relative to total assets in 1993:II (Share93), the mean share of small business loans relative to total assets in 1994:II (Share94), the change over the year in the mean share of small business loans relative to total assets (CHShare), the mean of the change in small business loans divided by assets (CHSmallbus/Assets), and the percentage change in total bank assets (CHAssets/Assets).

For this sample of banks unaffected by acquisitions during this one-year window, small business loans increased at the smallest institutions and decreased at the largest institutions. While small business loans increased at banks with assets under $300 million, the mean share relative to assets at these banks declined somewhat, reflecting even faster growth of total assets. However, in each of the three largest size categories, small business loans decreased, both absolutely and as a share of total assets. In the case of the five banks with assets above $5 billion, holdings of small business loans decreased despite a 15 percent increase in total assets. Thus, the smallest banks that focus on small business lending showed increases in small business loans, while the larger banks, some of which expanded

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quite rapidly, contracted their lending to small business customers.

Acquisitions and Small Business Lending

Table 5 provides information on the set of FDIC-insured New England banks that acquired other FDIC-insured institutions during the 1993:II-1994:II period, ordered by their beginning-of-period assets.[3] To compare shares of small business loans at the beginning and end of the period, it is necessary to adjust the surviving institutions for acquisitions that occurred between 1993:II and 1994:II. To make the data comparable, we force merged the institutions so that any bank acquired during the window is treated as if the acquisition were consummated in 1993:II. In this way, we are able to compare data for the same "institution" across time. For example, to compare the small business loan shares at a given bank, we would compare Merged Share94 with Merged Share93, not with the premerger Share93. Thus, all changes are calculated with the forced-merged data. However, Share93 does provide useful information by serving as a premerger benchmark for the small business loan share of assets at the acquiring bank. This can be interpreted as an indicator of the longer-run desired share to which the bank may return after digesting new acquisitions.

We also highlight several factors that would influence the merged shares. Three institutions acquired branches or non-bank subsidiaries during this period. However, because of data

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limitations these asset acquisitions could not be incorporated into the forced-merger procedure. Formal regulatory actions are also highlighted for the reason described earlier: Formal actions tend to retard the overall growth of institutions. The termination of a formal action is noted as well, because its removal may eliminate a supply constraint on that bank's lending. We also note acquisitions that occurred in 1992 or the first half of 1993, because the bank may still be digesting the earlier acquisition(s), affecting the ability of the (premerger) Share93 variable to serve as an accurate benchmark. For example, if an acquiring bank had not yet fully readjusted its loan portfolio from a recent acquisition of a bank with a high share of small business loans, the premerger Share93 would overstate the bank's longer-run desired small loan share.

Only the two smallest institutions increased their (merged) shares of small business loans during this period. These two banks increased their shares of small business loans both relative to their initial shares and relative to their shares after force merging. In each instance, the change in small business loans was dramatic, 2.95 and 4.67 percent of assets, respectively. And, in the case of the smallest institution, this increase occurred even though the bank was shrinking its assets, presumably because it was under a formal regulatory action.

Among the 11 larger acquirers, each decreased its (merged) share of small business loans, with only three banks showing increased holdings of small business loans. Eight of the 11

banks initially increased their share of small business loans as a result of the acquisition, consistent with acquiring smaller banks with a higher share of small business loans. However, of the eight banks, by 1994:II five had reduced their shares of small business loans to or below their premerger 1993:II values. And of the three acquirers that made acquisitions that reduced their small business loan shares, each had a share of small business loans in 1994:II below that prior to the acquisition. Thus, while the smallest acquirers were aggressively increasing their shares of small business loans, the larger acquirers did not retain the acquired small business loan portfolios. Of the three larger acquirers that actually increased their small business loan holdings, each had large increases in assets, but only a small increase in small business loans.

Table 6 shows the three FDIC-insured New England banks that remained independent after being acquired and the 12 FDIC-insured New England banks that had mergers announced but not consummated during the 1993:II-1994:II period. Of the three banks that remained independent, only the smallest increased its small business lending and all three banks decreased their share of small business loans relative to assets. For acquisitions that were announced but not consummated, three of the four smallest institutions increased their small business loans, while the eight largest institutions decreased their small business loans. Only two of the 12 institutions actually increased their shares of small business loans, with one a case of a substantial

decrease in assets overwhelming a slight decline in small business loans.

This case study of New England banks raises issues of whether larger institutions will retain small business loans. Unfortunately, it is impossible to distinguish whether these decreases in small business loan shares reflect the choices of lenders or of borrowers. On the one hand, a target bank may be adjusting its portfolio composition to conform to the wishes of its eventual acquirer. On the other hand, small firms value lending relationships and perhaps the flexibility and personal attention often less available at larger banks, and thus tend to have, and benefit from, banking relationships at small banks (see, for example, Petersen and Rajan 1994; Berger and Udell 1994; Elliehausen and Wolken 1990). Consequently, the reductions in small business loans at these banks may reflect a desire among small business borrowers to terminate their relationship with the target bank in order to establish a lending relationship with another small bank. In this way, a small firm would avoid having its primary banking relationship switched to the larger acquiring bank that may be less able to satisfy its needs and, at the same time, avoid the uncertainty associated with having its primary lending relationship with a bank faced with the upheaval of an acquisition.

By absorbing small bank loan portfolios into larger banks, the borrower concentration constraint associated with the acquired portfolio is relaxed, freeing the acquiring bank to

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reallocate portfolio shares away from small loans if it so chooses. Small banks, on the other hand, have little choice. Because of their small capital base, their business is, for the most part, limited to small loans. To be successful, they must be able to exploit their information advantages to offset any loss in economies from their small size. Given that numerous studies have documented that small banks are generally more profitable than large banks, apparently many small banks are able to do this well (for example, Boyd and Graham 1991). If the larger acquiring bank retains the acquired small loan portfolio, it must be because the larger bank believes it can maintain the business line's profitability. However, to keep a small loan portfolio viable, a large bank must hold down the fixed costs associated with making these loans, while at the same time being more flexible in its loan underwriting procedures than may have previously been the case.

This case study of small business loans in New England indicates that most acquisitions by larger banks actually result in a shrinkage of small business loans. Thus, it appears that most of these acquisitions are driven by reasons other than acquiring the small business loan portfolios of smaller banks. It is possible that acquiring core deposits, greater geographic diversity, or potential cost savings, rather than the small business loan portfolios and the associated business expertise and private information about loan customers, drive these acquisitions. Consistent with this view, Whalen (1994) argues

that mergers are, in part, driven by gains in operational efficiencies, since he finds that intracompany mergers of subsidiary banks by multibank holding companies result in significant, positive abnormal stock returns. Similarly, Cornett and Tehranian (1992) find that merged banks tend to have better than average performance, perhaps associated with being better able to attract loan and deposit customers as well as attaining gains in efficiency.

If larger institutions choose not to maintain a significant presence in small business lending, it becomes critical for small business borrowers to find other small banks interested in having small business loan customers. As consolidation continues, borrowers in some areas may have few viable alternatives for satisfying their small business borrowing needs. This will require existing small business lenders to increase their market share or de novo entry to fill the gap.

Can De Novo Banks Fill the Void?

If a void in small business lending were to occur as a result of acquisitions by large lenders, would de novo entry be able to fill the gap? Some guidance may be provided by examining the experience in New England over the past decade, a period of unusually active de novo entry. During that time, 80 new FDIC-insured banks were created in New England. As can be seen in Table 7, most new entries occurred during a boom period in New England, with 56 banks started from 1985 through 1988. With the

collapse in real estate prices and the accompanying increase in
nonperforming loans at most banks, de novo entry dramatically
declined during the subsequent years of widespread banking
problems, with only seven new entrants over the past four years.
Thus, while research has documented diminished credit
availability in New England in the early 1990s, it resulted in
relatively little entry. Instead, entry occurred during a period
characterized by rapidly expanding loan portfolios at most banks
in New England.

Although spawned by a boom period, fewer than half of the
New England banks started from 1985 through 1988 are still in
existence as independent banks, and not one has yet grown to be a
large bank. Of the 56 banks, 20 had failed by 1994 and another
11 were acquired in non-assisted transactions (five of which were
mergers within the same holding company), leaving only 25 of the
de novo banks started between 1985 and 1988. The average size of
these survivors remains quite small, despite their being in
existence for more than five years. One might suspect that this
is a consequence of selection bias, perhaps with the faster-
growing de novo banks being more successful and thus becoming
attractive acquisitions for larger banks, or perhaps just the
opposite, with the faster-growing banks accomplishing their
growth through excessive risk-taking and consequently failing.
However, this is not apparent from the data. The assets of both
failed and acquired banks from this set of de novo banks averaged
well under $100 million.

Similarly, the average size of the more recent de novo banks remains well below $100 million. Thus, de novo banks could fill any void created by a credit crunch or bank consolidation only to a limited extent, given the small number of recent new entrants and their small average size. And the timing appears such that entry occurs in the good times, rather than in periods when banks are under severe pressure and, thus, more likely to be contracting lending than expanding it.

The second panel of Table 7 provides an indication of the areas of specialization of the surviving new entrants. The average size of the small business loan portfolios (defined as loans of less than $1 million) of de novo entrants operating for at least two years averages well above the 22.6 percent of assets for small commercial banks and significantly above the 13.9 percent for all small banks.[4] Thus, the de novo banks have been targeting small business lending, although perhaps not totally by choice, given the borrower concentration limits. In general, these banks have also had a smaller exposure in residential mortgages and securities than that for small commercial banks.[5]

The capital-to-asset ratios show the typical pattern for de novo banks, high capital ratios at the outset and much lower capital ratios as the new banks lend sufficiently to reach their target capital ratios. Surprisingly, de novo banks created prior to 1989 all have average capital ratios below the average for existing small commercial banks in general. Thus, significant further expansion of these de novo banks is unlikely in the

absence of an infusion of additional capital. Consistent with the pattern of capital ratios, the nonperforming loan ratios shown in the final column indicate that the older de novo banks have more loan problems and, again, are less likely to be in a position to step in and increase lending to fill any void in small business lending created by bank consolidation.

The third panel of Table 7 shows the growth in capital and in asset categories from 1993:II to 1994:II. The de novo banks created after 1988 have grown much faster than the average for all small commercial banks, and this growth has been particularly rapid in the loan categories. While the growth in total assets has been typical for those de novo banks created during the 1987-88 period, their growth rates of total loans and small business loans were more than twice the all-banks average, although their growth in total business loans was only slightly larger. For those banks created in the 1985-86 period, the growth in capital was much slower than average and the growth in total assets and small business loans somewhat slower than average. This likely is a consequence of this subset of banks having lower than average capital ratios and higher than average nonperforming loan ratios.

In summary, de novo banks are unlikely to fill any major void in small business lending. De novo entry has occurred during boom periods, when alternative sources of funds are most likely to be available. While de novo entrants have focused on small business loans, their small size and the observation that

most de novo entrants remain small institutions after as long as a decade indicate that such entries can fill niches, but not voids.

IV. Conclusion

Bank consolidation that leads to larger lenders could make small business borrowers less dependent on the vagaries of local banking markets, if the merged institutions maintain the acquired small business lending line of business. During the recent period of reduced credit availability, bank-dependent borrowers in New England had few borrowing alternatives because both large and small banks had portfolios dependent on New England economic conditions. Greater diversification across geographic regions and across product lines would have ameliorated the problems faced by small businesses as a result of the shocks to bank capital and the consequent reduction in loan supply to bank-dependent borrowers.

Nonetheless, the move towards large consolidated institutions carries some risks for bank-dependent borrowers. Much of the recent growth in small business loans has been at small banks. Banks engaged in acquisitions in New England have not fostered the small business loan segment of the market, with both the share and the amount of small business loans declining after most acquisitions. While this may be an artifact of examining data in New England over a short period of time, it raises questions about the availability of credit to small

business in areas that become dominated by large lenders.

The potential benefits of bank consolidation are clear: in particular, we have evidence that a lack of sufficient bank diversification has been a problem for credit availability when banks have been subjected to local shocks that reduced capital. The potential costs are less certain, but nonetheless they deserve the attention of policymakers. We have not yet attained a level of bank consolidation that would produce a shortage of viable lenders to small business. However, the New England evidence does suggest that as restrictions on both product and geographical diversification are eliminated, potential problems for small business credit availability will be an important issue. It is possible that other sources of credit to small businesses will become available if bank consolidation leads to a reduction in small business credit availability. However, it is likely that, at the very least, there will be transitional problems.

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Footnotes

1. The "original amount" of a loan is the size of the loan at origination, rather than its current size, unless the latter is larger. For a line of credit or loan commitment, it is the size of the line of credit or loan commitment when most recently approved, extended, or renewed. For loan participations and syndications, it is the entire amount of the credit originated by the lead lender.

2. The ratio used is equity capital divided by unweighted assets, which most closely resembles the leverage ratio. Because some items used in capital ratio calculations were not detailed in the past, it is impossible to replicate exactly the current definition of the leverage ratio.

3. We do not include transactions that involve institutions that are not insured by the FDIC, since the call reports include data only for FDIC-insured institutions.

4. The lower average percentage for the total of all New England small banks is due to the prevalence of savings banks, traditionally residential mortgage lenders. However, in recent years they have been expanding their business lending, particularly to small businesses.

5. Among the existing de novo banks are a few savings banks. This has the effect of understating the small commercial loan numbers when compared to the sample of all small commercial banks.

Table 1
Small Business Lending by FDIC-Insured Banks in the United States, 1994-II[a]

		Percent of Loans Classified as Small Business Loans								
		Nonfarm, Nonresidential			C&I			Total		
		Loan Size								
Bank Size	# of Banks	<100,000	<250,000	<1mil	<100,000	<250,000	<1mil	<100,000	<250,000	<1mil
<100 Mil	7803	45.22	62.76	94.12	66.78	80.20	96.16	56.23	71.67	95.19
100-300	2364	23.78	41.15	81.53	42.09	58.36	85.62	32.19	49.10	83.59
300-1Bil	761	10.02	23.70	60.04	23.01	35.93	62.73	16.21	29.66	61.84
1Bil-5Bil	302	6.00	15.58	43.13	11.65	19.29	37.04	9.15	17.70	39.89
>5 Bil	132	3.77	10.71	32.33	4.86	8.18	17.29	4.55	8.94	21.75
All Banks	11362	11.95	22.92	51.49	14.03	20.40	34.05	13.26	21.43	40.89

		Share of Total Small Business Loans Held (percent)								
		Nonfarm, Nonresidential			C&I			Total		
		Loan Size								
Bank Size	# of Banks	<100,000	<250,000	<1mil	<100,000	<250,000	<1mil	<100,000	<250,000	<1mil
<100 Mil	7803	35.97	26.03	17.38	29.59	24.45	17.56	31.81	25.10	17.47
100-300	2364	28.76	25.96	22.89	22.76	21.71	19.08	24.86	23.47	20.94
300-1Bil	761	12.14	14.97	16.88	13.01	13.98	14.61	12.70	14.39	15.72
1Bil-5Bil	302	10.04	13.60	16.75	12.92	14.72	16.93	11.91	14.26	16.84
>5 Bil	132	13.10	19.43	26.10	21.72	25.15	31.83	18.71	22.78	29.03
All Banks	11362	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

[a] Small business loans are defined as business loans of less than $1 million.

Table 2
Top 25 Lenders to Small Business (Loans under $1 Million)
U.S. Commercial and Savings Bank Organizations, as of June 30, 1994

Bank Name	Small Business Loans ($000)	Market Share (% of Small Business Loans)	% of Bank's Business Loans	Total Bank Assets ($000)	Rank by Total Assets
Wells Fargo Bank NA	2,789,118	0.9	22.5	51,049,931	7
First Union NB FL	2,400,498	0.8	43.8	27,192,558	18
Bank of America NT&SA	2,236,000	0.7	14.0	145,950,000	2
Commercial Bank-Detroit	1,847,149	0.6	20.3	25,419,660	19
NBD Bank NA	1,626,434	0.5	20.6	29,668,632	15
PNC Bank NA	1,599,794	0.5	15.6	44,752,862	8
Meridian Bank	1,552,690	0.5	37.9	13,347,950	42
Seattle-First NB	1,508,000	0.5	31.1	14,935,000	37
NationsBank of GA NA	1,423,119	0.5	27.0	16,415,964	33
Michigan NB	1,396,094	0.5	36.2	8,843,098	68
National Westminster Bank NJ	1,366,971	0.4	52.7	7,443,175	86
Society NB	1,296,217	0.4	25.2	23,236,544	21
First NB of Boston	1,251,812	0.4	11.0	35,055,086	12
Key Bank of NY	1,229,303	0.4	44.9	14,455,303	39
Union Bank	1,186,003	0.4	20.4	16,903,737	32
First Bank NA	1,171,477	0.4	28.1	14,134,190	40
NationsBank of TX NA	1,160,898	0.4	10.8	36,995,001	11
Norwest Bank MN NA	1,159,568	0.4	43.4	15,647,475	36
Key Bank of WA	1,153,703	0.4	54.4	7,444,415	85
Citibank NA	1,142,857	0.4	7.5	213,837,000	1
Wachovia Bank of NC NA	1,138,353	0.4	24.7	21,375,598	24
Nationsbank of FL NA	1,134,380	0.4	27.7	20,374,147	27
Texas Commercial Bank NA	1,131,239	0.4	22.3	20,728,101	26
NationsBank of SC NA	1,119,619	0.4	44.5	8,945,358	65
NationsBank of NC NA	1,095,090	0.4	12.6	28,994,419	16

Table 3
Small Business Lending by FDIC-Insured Banks in New England, 1994:II[a]

		Percent of Loans Classified as Small Business Loans								
		Nonfarm, Nonresidential			C&I			Total		
		Loan Size								
Bank Size	# of Banks	<100,000	<250,000	<1mil	<100,000	<250,000	<1mil	<100,000	<250,000	<1mil
<100 Mil	169	23.41	52.07	93.22	48.80	69.83	92.03	32.47	58.40	92.76
100-300	181	19.47	42.22	86.08	42.97	62.54	87.31	25.88	47.77	86.42
300-1Bil	79	7.25	23.83	62.53	22.10	39.38	66.15	11.48	28.26	63.57
1Bil-5Bil	27	5.57	16.44	46.89	11.06	19.43	38.34	8.11	17.82	42.94
>5 Bil	10	3.02	11.36	37.18	2.26	4.66	12.52	2.46	6.45	19.13
All Banks	466	8.00	21.87	55.09	7.71	13.20	25.16	7.84	16.97	38.18

		Share of Total Small Business Loans Held (percent)								
		Nonfarm, Nonresidential			C&I			Total		
		Loan Size								
Bank Size	# of Banks	<100,000	<250,000	<1mil	<100,000	<250,000	<1mil	<100,000	<250,000	<1mil
<100 Mil	169	12.89	10.48	7.45	11.88	9.93	6.87	12.33	10.24	7.23
100-300	181	37.29	29.66	24.01	24.74	21.04	15.40	30.35	25.87	20.80
300-1Bil	79	19.71	23.70	24.69	19.10	19.88	17.52	19.37	22.02	22.02
1Bil-5Bil	27	17.35	18.72	21.20	23.61	24.24	25.09	20.83	21.15	22.65
>5 Bil	10	12.67	17.43	22.65	20.67	24.91	35.12	17.12	20.72	27.30
All Banks	466	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

[a] Small business loans are defined as business loans of less than $1 million.

Figure 1

Ratio of Equity Capital to Total Assets

New England and U.S. Commercial Banks

1960:Q2 -1994:Q2

Percent

60:Q2 62:Q2 64:Q2 66:Q2 68:Q2 70:Q2 72:Q2 74:Q2 76:Q2 78:Q2 80:Q2 82:Q2 84:Q2 86:Q2 88:Q2 90:Q2 92:Q2 94:Q2
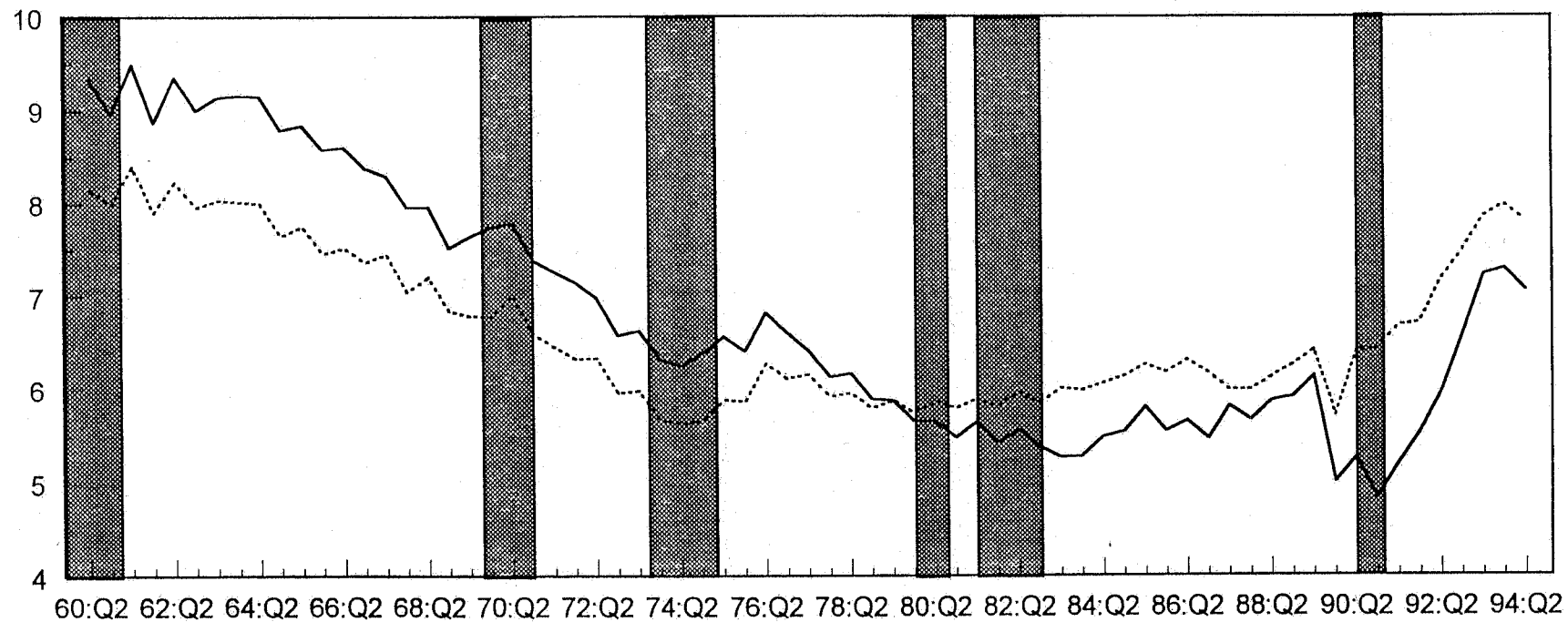
New England	US
———	············

Source: Board of Governors of the Federal Reserve System

Figure 2

The Decline in Bank Loans with and without Formal Actions[a]
First District Commercial and Savings Banks

$ Billions

With Formal Actions	Without Formal Actions
————	··············
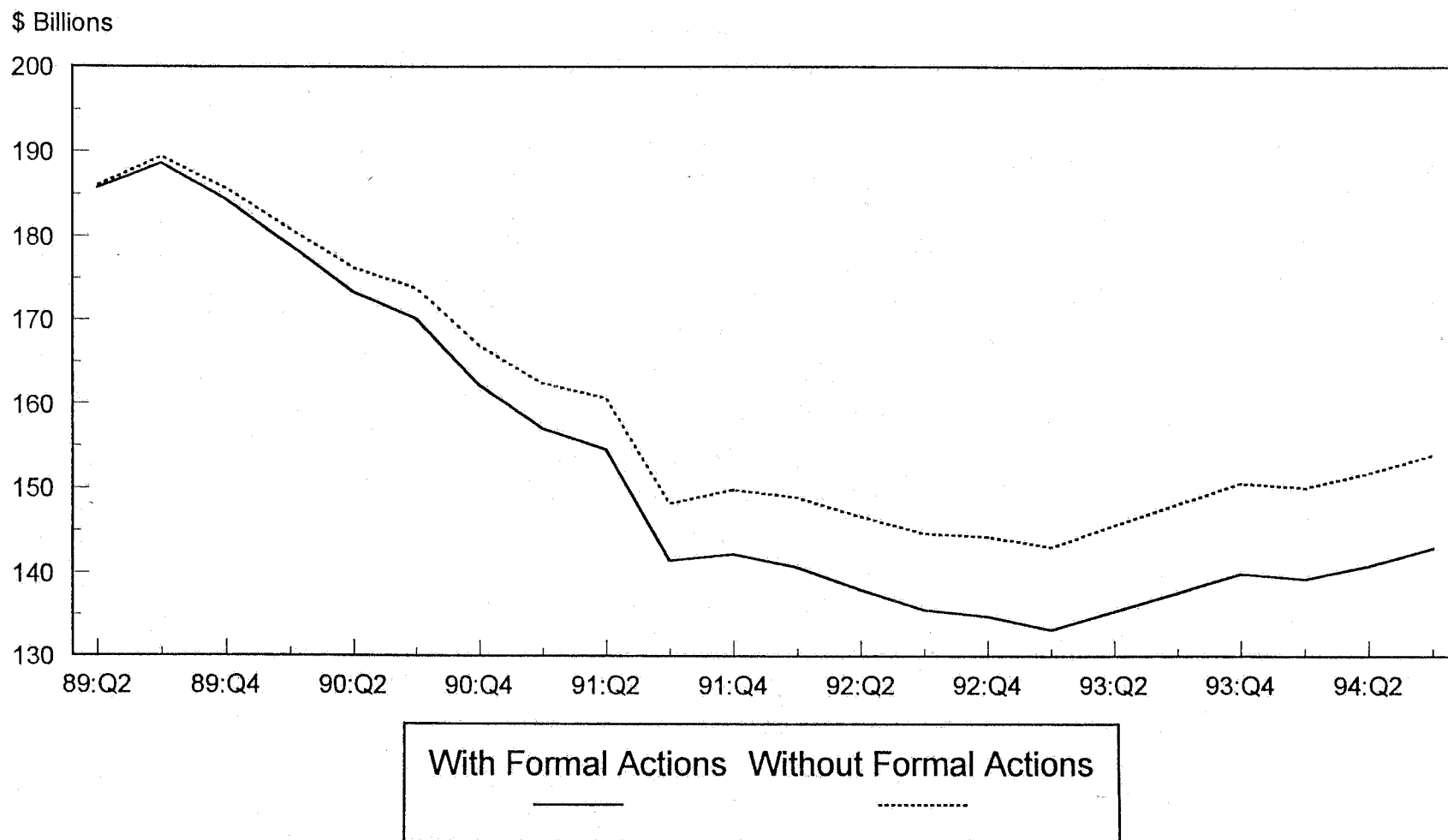
(a) Loans without formal actions are calculated as actual loans ("with formal actions") plus the imputed effect of formal actions on loan growth based on estimated coefficients from Equation 1 (see text).

Source: Board of Governors of the Federal Reserve System, Office of the Comptroller of Currency, Federal Deposit Insurance Corporation.

Table 4
Small Business Loans (<$1 million) at FDIC-Insured Banks Not Involved in Acquisitions

Bank Assets ($millions)	# of Banks	Mean Share93	Mean Share94	Mean CHShare	Mean CHSmallbus/ Assets	Mean CHAssets/ Assets
<100	89	22.13	21.97	-0.16	0.36	2.85
100-300	134	14.19	14.04	-0.15	0.23	2.97
300-1000	49	11.35	10.50	-0.86	-0.64	2.82
1000-5000	10	9.99	9.61	-0.38	-0.22	1.21
5000<	5	5.87	4.86	-1.02	-0.30	15.07
All Banks	287	15.88	15.58	-0.30	0.10	3.06

Table 5
Small Business Loans at Merged FDIC-Insured Banks

Bank	Assets93 ($000)	Share93	Merged Share93	Merged Share94	Merged CHShare	CHSmallbus/ Assets	CHAssets/ Assets
1.[b]	263629	14.17	14.93	19.05	4.12	2.95	-6.15
2.	289333	9.34	8.77	10.83	2.05	4.67	24.19
3.	374344	3.13	3.11	2.84	-0.26	0.02	9.89
4.[d]	377593	6.76	6.85	4.12	-2.73	-2.45	6.97
5.[a]	643450	7.01	8.12	5.45	-2.66	-1.62	19.19
6.[d]	861589	6.70	7.80	7.08	-0.72	-0.68	0.61
7.	913259	7.01	6.00	5.88	-0.12	0.41	9.03
8.[d]	1680895	0.16	4.63	0.76	-3.87	-3.87	-0.83
9.	2753906	5.79	6.31	5.79	-0.52	-0.45	1.11
10.[c,d]	4581012	2.69	2.81	2.32	-0.49	-0.80	-13.32
11.[a]	14059494	6.87	6.96	5.35	-1.61	-0.97	11.96
12.[a,d]	14306455	8.44	8.22	7.24	-0.98	-1.37	-5.38
13.[c,d]	29471893	2.02	3.80	3.57	-0.23	0.44	18.94

[a] Additional asset acquisition(s) during the 1993:II to 1994:II period not incorporated.
[b] Under formal regulatory action.
[c] Formal regulatory action terminated in prior year.
[d] Additional acquisition(s) consummated in 1992 and/or first half of 1993.

Table 6
Small Business Loans at Target FDIC-Insured Banks

Acquired, Independent

Bank	Assets93	Share93	Share94	CHShare	CHSmallbus/ Assets	CHAssets/ Assets
1.	214863	12.22	11.87	-0.35	0.43	6.59
2.	504289	18.12	15.23	-2.89	-3.26	-2.44
3.	1707842	9.35	8.84	-0.51	-0.75	-2.73

Announced, not Consummated

Bank	Assets93	Share93	Share94	CHShare	CHSmallbus/ Assets	CHAssets/ Assets
1.	46283	31.45	30.57	-0.88	0.63	4.94
2.	74719	4.58	3.50	-1.08	-0.92	4.52
3.	107320	8.16	7.88	-0.28	0.04	3.97
4.	135726	32.01	36.01	4.00	2.94	-2.93
5.	158459	18.46	14.51	-3.95	-3.39	3.87
6.	201050	23.34	22.24	-1.10	-1.43	-1.50
7.	250627	9.31	7.91	-1.40	-1.29	1.36
8.	265981	5.29	5.60	0.31	-0.29	-10.81
9.	856685	19.14	10.36	-8.78	-9.16	-3.71
10.	968049	3.44	2.81	-0.63	-0.43	7.25
11.	1099987	19.54	17.94	-1.59	-1.22	2.09
12.	2418437	5.46	4.40	-1.06	-1.03	0.70

Table 7

De Novo Bank Entry

De Novo Bank Status, 94:II

	# of Institutions	# of Institutions with Comm Bank Charters	# Existing 94:II	# Existing 94:II with Comm Bank Charter	# Failed	# Merged (not failed)	Average Size of Existing Institutions	Average Size of Failed Institutions	Average Size of Merged Institutions
93-94	1	1	1	1	0	0	16,850	0	0
91-92	6	5	6	5	0	0	59,281	0	0
89-90	17	15	13	11	2	2	55,390	26,111	45,407
87-88	32	30	15	14	11	6	105,172	66,458	37,827
85-86	24	19	10	8	9	5	78,664	93,386	77,240

Status of Surviving De Novo Banks, 94:II[a]

	# of Institutions	Small Business Loans/Assets	Small Business Loans/Total Business Loans	Total Loans/ Assets	Total Business Loans/Assets	1-4 Family Res Loans/ Assets	Consumer Loans/ Assets	Securities/ Assets	Capital/ Assets	Nonperforming Loans/Assets
93-94	1	13.80	100.00	16.33	13.80	2.04	0.23	55.22	38.31	0
91-92	6	32.61	92.92	69.31	35.10	28.60	3.28	22.10	11.43	0.04
89-90	13	33.71	96.88	69.23	34.97	26.89	4.69	20.71	8.58	1.28
87-88	15	28.53	78.50	70.75	36.35	23.50	5.40	17.60	7.93	2.69
85-86	10	29.16	91.30	64.58	31.94	26.32	2.43	23.54	6.52	3.08
All NE Comm Banks with Assets<$300m	137	22.62	87.23	63.44	25.93	29.07	4.50	24.12	8.47	1.98

	# of Institutions	Growth in Capital 93:II-94:II	Growth in Assets 93:II-94:II	Growth in Total Loans 93:II-94:II	Growth in Business Loans 93:II-94:II	Growth in Small Business Loans 93:II-94:II	Growth in Securities 93:II-94:II
93-94	1	na	na	na	na	na	na
91-92	6	8.47	17.55	36.11	64.74	69.36	-15.35
89-90	13	5.93	8.95	11.71	11.20	10.41	9.31
87-88	15	4.79	3.86	3.46	4.01	6.14	10.42
85-86	10	1.92	2.98	1.62	7.76	0.97	32.77
All NE Comm Banks with Assets<$300m	137	5.68	3.69	1.45	3.91	1.25	12.03

[a] Asset shares and growth rates shown as percentages. Small business loans defined as business loans of less than $1 million.