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The Effect of Market Size Structure on Competition: The Case of Small Business Lending

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Abstract

Banking industry consolidation has raised concern about the supply of small business credit since large banks generally invest lower proportions of their assets in small business loans. However, we find that the likelihood that a small business borrows from a bank of a given size is roughly proportional to the local market presence of banks of that size, although there are exceptions. Moreover, small business loan interest rates depend more on the **size structure** of the market than on the size of the bank providing the credit, with markets dominated by large banks generally charging lower prices.

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I. Introduction

The consolidation of the banking industry is having a substantial impact on both the structure of the industry and the organization of the institutions that comprise it. As a result of the worldwide wave of mergers and acquisitions (M&As), both the number of small banks and the proportion of assets controlled by them are decreasing. There is concern that the changing nature of banks and banking markets might result in reduced credit availability or higher interest rates for some small business borrowers. Small businesses are often informationally opaque and have few external financing alternatives other than relationship loans from commercial banks.

We contribute to this discussion by examining the small business lending market in a new way. We focus on an aspect of competition that has been substantially overlooked in the literature on market structure. Specifically, we examine how the **size structure** of a banking market affects the way that participants compete to serve small business borrowers. Banking market size structure, as we define it here, refers to the distribution of market shares of different size classes of banks in a local market, whether or not that size is achieved entirely in that local market. This allows us to account for the possibility that large regional or nationwide banking organizations may compete in different ways than small, local institutions.

To illustrate the importance of changes in banking market size structure, we note as banks have become larger, local market concentration has increased only slightly. From 1984 – 1998, the average size of a U.S. bank more than tripled from $174 million to $584 million and the median size more than doubled from $34 million to $69 million. However, the average local market Herfindahl index, which is typically used in research and antitrust analysis to summarize the state of competition, increased by less than 3% from 0.225 to 0.231 over the same time interval. This finding suggests that the conventional measure of market structure may be missing an important component of banking consolidation – the changes in bank size and market size structure that result from bank M&As between institutions in different local markets. These market-extension M&As do not significantly change local market concentration, but they do shift

the ownership of the local banking resources into the hands of larger banking organizations. This raises the possibility that some small businesses may be affected by changes in the size of their bank or the size structure of their local market. We ask whether it matters if M&As replace small banks with large banks, even if there is no change in local market concentration.

We begin our analysis with the important question of how market size structure affects whether small businesses have their lines of credit (LCs) at small banks or at large banks. Previous studies concluded that small businesses are disproportionately less likely to borrow from larger banks. The approach often used in this literature was to examine the ratios of small business loans to assets for banks of different sizes. These findings showed that large banks generally have much lower proportions of small business loans than small banks, suggesting that large banks have difficulty extending at least some types of credit to small businesses.

Our results are **not** consistent with the conclusions of the previous literature, and we suggest some reasons why this prior research might be misleading. We look at this issue from the perspective of the small business, rather than from the bank's perspective. Our approach is to examine how changing the size structure of a market affects the probability that a small business has an LC from a bank of a particular size class. We find that the likelihood of having an LC from a bank in a given size class generally is **not** declining with bank size.

Some exceptions to these general findings do occur, in part due to data limitations. The very smallest loans (LCs < $100,000) and the very smallest banks (assets < $100 million) appear to be different. For the very smallest loans, the probability of having the LC at a bank of a given size class appears to decrease with bank size for the smallest two bank size classes (assets under $1 billion), but we do not have reliable estimates for the probability of having an LC at banks in the largest two size classes (assets over $1 billion). It is also difficult to obtain reliable estimates for the probabilities that the very smallest banks extend larger LCs (LCs ≥ $100,000), since so few of these banks meet the legal lending requirements to compete for these loans.

We also examine the effects of bank size structure, market concentration, and other variables on the pricing of LCs. One of the new results in this paper is that the size structure of

the banking market appears to matter in pricing even when controlling for the size of the lending bank, market concentration, length of the bank-borrower relationship, and other bank, firm, and market characteristics found to affect small business loan prices in the extant literature. We find that loan rates to small business borrowers are **lower** in markets dominated by large banks.

The importance of market size structure may indicate that banks compete differently in markets dominated by small banks than in markets dominated by large banks. It may be the case that the banks in markets dominated by small banks compete less aggressively and exercise more market power in pricing. When large banks enter small-bank dominated markets, they may charge high interest rates consistent with those charged by small banks in these markets rather than compete aggressively for market share. However, as the presence of large banks grows to a critical mass, competition may intensify and prices may decline. Consistent with this hypothesis, we find that size structure is only statistically significant in the markets with relatively high small-bank presence. Further evidence supporting this hypothesis is obtained when we divide our sample into large and small banks. We find that size structure affects the prices of large banks but not small banks. That is, the interest rates small banks charge do not depend in an important way on the market they are located, but large banks charge higher interest rates in markets with high proportions of small banks than they do in markets dominated by large banks.

By analyzing the impact of bank size structure, we are able to contribute to two different strands of the literature on small business credit. First, our analysis of the effects of banking market size structure on the size of bank from which small businesses obtain LCs suggests that some prior studies of small business credit availability may be misleading. These studies often concluded that large banks or recently consolidated banks are less inclined to make small business loans because they allocate a lower proportion of their assets to small business lending. We discuss below how this approach in the literature ignores the possibility that a large bank or recently consolidated bank may have a low small-business-loan-to-asset ratio because the denominator of the ratio is expanded, rather than because the numerator is contracted. In addition, this prior approach ignores the distribution of potential small business loan customers. Our new

approach avoids these problems by looking at lending from the perspective of the borrower and by examining the size structure of the market.

Second, our approach is more comprehensive than prior studies of loan pricing. There is little prior research on the effects of bank size or market size structure on loan prices. Earlier studies generally focused on the effects of market concentration, M&As, and bank-borrower relationships on pricing, which are related to bank size and size structure. Our approach analyzes the effects of bank size, banking market size structure, market concentration, bank-borrower relationships, and other factors in determining LC interest rates in a single comprehensive way that also accounts for other bank, market, and firm, and loan contract characteristics.

This paper is also more comprehensive than most prior studies in both the small business credit availability and pricing literatures in that we use both bank data and firm data. Most of these prior studies used either bank data or firm data, but not both. Studies of the effects of bank size, market concentration, and M&As often used bank data, but did not have information on individual small businesses to which these banks lend. Such studies were unable to account for firm risk, opacity, and other characteristics important to credit and pricing decisions. The exclusion of firm-specific information may have resulted in biases if, for example, large banks tend to lend to less risky firms. Conversely, studies of the effects of banking relationships on loan prices have often employed information on small businesses, but were unable to match the firms with their banks and local markets. These studies were unable to account for bank size, bank market size structure, market concentration, and other bank and market characteristics that may be important to the effects of banking relationships and the treatment of small businesses. These exclusions may have created biases if, for example, the strength of relationship is correlated with bank size or bank size structure. Of the few relevant studies that did match small business data with bank data, none evaluated and compared the effects of both individual bank size and banking market size structure, and none analyzed the size of the lending bank and the interest rates on loans in a single comprehensive data set.

The paper is organized as follows. In the next section, we discuss the literature on small business loan pricing and the literature on the effects of bank size and M&As on lending to small businesses. In Section III, we describe our data and methodology. Section IV gives our empirical results, and Section V concludes.

II. Related literature

Our paper is related to the two strands of the banking literature. The first strand examines the effects of bank size on the quantity of lending available to small businesses. The second examines some of the determinants of the pricing of small business bank loans.

Before examining these two strands of literature, it may be helpful to review the main argument why bank size may affect small business lending. The argument focuses on the disadvantages that large banks may have in relationship lending to informationally opaque small businesses. Under relationship lending, banks accumulate information over time beyond the relatively transparent data available in the financial statements and other sources readily available at the time of origination. The information is gathered through contact over time with the firm, its owner, its suppliers, its customers, and its local community on a variety of dimensions. This is distinguished from transactions lending, under which due diligence and contract terms are based on information that is relatively easily available at the time of origination. Large banks are hypothesized to have difficulty extending relationship loans to informationally opaque small businesses because of Williamson-type organizational diseconomies of providing relationship lending services along with providing transactions lending services and other services to their large corporate customers (Williamson 1967, 1988). Large banks may also be disadvantaged because relationship lending often requires "soft" information that may be difficult to transmit through the communication channels of large organizations (Stein 2002).[1]

[1] Large banks may also face difficulties in extending relationship loans because these banks are on average headquartered at longer distances from potential small business borrowers. One theoretical study found that relationship lending diminishes with "informational distance," or the costs of generating borrower-specific information, which is likely to be associated with physical distance (Hauswald and Marquez 2000).

In the context of this argument, one literature examines whether large banks are less inclined to make small business loans. A number of studies found that large banks allocate a far lower proportion of their assets to small business loans than do small banks (e.g., Berger, Kashyap, and Scalise 1995). Representative of these studies, the small business loans-to-asset ratio (where small business loans are credits under $1 million) as of June 1995 declines from 8.85% to 7.71% to 4.18% to 1.95% as bank size increases from the $0-100 million range in gross total assets to the $100 million-$1 billion range to the $1-10 billion range to the above $10 billion range. Consistent with this, a number of studies found that the ratio of small business loans to assets declines after large banks are involved in M&As (e.g., Peek and Rosengren 1998, Strahan and Weston 1998, Berger, Saunders, Scalise, and Udell 1998). However, some recent research suggests that these effects of M&As may be offset to a significant degree by "external effects" in the local market in which the supply of small business lending increases from incumbent banks (e.g., Berger, Saunders, Scalise, and Udell 1998, Avery and Samolyk 2000, Berger, Goldberg, and White 2001) or newly chartered banks (e.g., Seelig and Critchfield 1999, Berger, Bonime, Goldberg, White 2000).

We take issue, however, with the methodology typically used in analyzing the association between bank size or M&As and small business lending propensities. These studies often drew the conclusion that large banks were less inclined to make small business loans than small banks from the observation that large banks have lower proportions of their assets invested in these loans.

A potential problem with this approach is that it explicitly or implicitly takes banks' assets to be fixed, and does not allow for the possibility that large banks or recently consolidated banks expand their assets to take advantage of their greater opportunities to make large business loans. Because of legal lending limits and problems of diversification, small banks have fewer opportunities to make large business loans than do large banks. It is possible that large banks or banks engaged in M&As make small business loans in proportion or more than in proportion to their local market presence, but simply have lower ratios of small business loans to total assets because these banks expand their assets to make more large business loans. That is, large banks

or banks involved in M&As may have low ratios of small business loans to assets because the denominator of the ratio is expanded, rather than because the numerator is contracted.

The approach in the literature also explicitly or implicitly ignores the distribution of potential small business loan customers in the markets in which the banks are present. For example, it maybe the case that many large banks make fewer small business loans relative to their assets because there are proportionately fewer positive-net-present-value small business loan opportunities in the markets in which they compete.

These studies typically did not have access to information on the pool of small businesses to which the banks in their studies did lend, and so were unable to account for firm risk, opacity, and other characteristics that may be important to credit decisions. The exclusion of firm-specific information may have resulted in biases if large and small banks tend to lend to different firms. Other research that did have access to both bank and firm information suggested that large banks tend to skew the small business loans they do make away from relationship borrowers.[2]

The approach taken in this paper avoids these potential problems by looking at lending from the perspective of the small business, rather than from that of the bank. We ask whether the chances of obtaining a loan from a large bank versus a small bank is roughly in proportion to the market presence of large versus small banks. Our approach embodies no assumption of bank assets being fixed and we account for the presence of banks of different sizes in the firm's local market. We also include firm characteristics to control for the possibility that large and small banks tend to lend to different types of small business borrowers.[3]

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[2] Relative to small banks, large banks have been found to 1) lend to larger, older, more financially secure small businesses (Haynes, Ou, and Berney 1999); 2) base their approval/denial decisions more on financial ratios, rather than prior relationships (Cole, Goldberg, and White 1999); 3) charge relatively low interest rates and have low collateral requirements for small businesses, which may reflect that these tend to be relatively safe transactions credits rather than relatively risky relationship credits (Berger and Udell 1996); and 4) lend to firms that borrow from multiple banks, which are more likely to be transactions loans, rather than relationship loans which are more often made under exclusive lending arrangements (Berger, Klapper, and Udell 2001). Thus, the evidence suggests that large banks are more likely to make transactions loans, whereas small banks are more likely to make relationship loans.

[3] Another potential problem with studies that rely only on bank data is that small business lending is typically defined in terms of the size of the loan or LC, rather than the size of the business. Our study, in contrast, focuses only on small businesses as defined by Small Business Administration guidelines.

As noted above, consolidation has not only changed average bank size, it has also changed the size structure of local banking markets. Only one study, however, has considered the impact of the local banking market size structure on small business lending. It found that the probability of having an LC and dependence on trade credit were not related to the presence of small banks in the market (Jayaratne and Wolken 1999). However, that study did not account for the size of the individual banks making the loans and did not address the issue of whether banks of a given size tend to lend to small businesses in proportion to their market presence. In our analysis, we specifically address this issue in a model of the probability of having a line of credit from a bank of a given size class based on the presence of that size class in the market and other factors.[4]

The second strand of related literature focuses on the determinants of the prices of small business loans and other retail banking products. Very little of this literature directly examines the effects of bank size. But there are many studies of the effects on pricing of bank concentration, M&As, and bank-borrower relationships, which are related to issues of bank size and size structure.[5]

Studies of the effect of banking market concentration generally found that banks in more concentrated markets charge higher rates on small business loans and pay lower rates on retail deposits (e.g., Berger and Hannan 1989, 1997, Hannan 1991). Studies also found that the deposit rates of banks in concentrated markets responded slowly to changes in open-market interest rates (i.e., were "sticky"), consistent with the exercise of market power (e.g., Hannan and Berger 1991, Neumark and Sharpe 1992). M&As that involved very substantial increases in local market concentration were also found to raise market power in setting prices, although the effects of modest increases in concentration were ambiguous (e.g., Akhavein, Berger, and Humphrey 1997,

[4] One study examined the effect of size structure at the state level (rather than at the local market level) on total loan supply in the state (not just to small businesses). It found that loan supplies in states with high proportions of small banks depend pro-cyclically on banks' internal generation of capital more than in states with low proportions of small banks (Ostergaard 2001).

[5] One study that did examine the effects of bank size on small business loan prices found that large banks tend to charge relatively low interest rates (Berger and Udell 1996). However, since this study did not have data on the small businesses, the finding may have reflected differences in the type of small business and type of loan (e.g., safe transactions credits rather than risky relationship credits), as opposed to differences in prices of a given type of loan to a given type of small business.

Simons and Stavins 1998, Prager and Hannan 1999). On balance, this research suggests that higher local market concentration driven by consolidation leads to an increase in market power in retail banking. However, these studies of the effects of market concentration and M&As generally used bank data, but did not have information on individual small businesses and other retail customers, and so were unable to account for risk, opacity, and other characteristics that affect prices.[6]

The impact of banking relationships on small business loan pricing has also been studied. The empirical evidence generally suggests that stronger relationships (with strength measured in various ways) are empirically associated with lower loan interest rates (e.g., Berger and Udell 1995, Harhoff and Körting 1998, Degryse and van Cayseele 2000) and greater smoothing of loan interest rates over the interest rate cycle (e.g., Berlin and Mester 1998, Ferri and Messori 2000).[7] These studies of the effects of banking relationships on loan prices generally incorporated information on small businesses, but were often unable to match the firms with their banks and local markets. As a result, these studies were often unable to account for bank size, bank market size structure, market concentration and other bank and market characteristics that may be important to the effects of banking relationships and the treatment of small businesses. These exclusions may have created biases if, for example, the strength of the relationship is correlated with bank size or size structure.

Our analysis of small business loan prices charged by banks is much more comprehensive than those in this strand of the literature and avoids some of the biases. We include bank size and banking market structure, which have been excluded from almost all pricing studies. We also include variables measuring market concentration and M&As, but unlike most prior studies of these factors, we control for firm characteristics. As well, we include a measure of the strength of

[6] It is also possible that contact between banking organizations in multiple local markets may affect pricing and other aspects of competition. The evidence on this issue is mixed and generally suggests little effect of multimarket contact except when there is a substantial amount of contact (e.g., Pilloff 1999).

[7] Not all of this research found that credit terms improve with the strength of the relationship. For example, some found either unclear or negative associations between the length of the relationship and loan rates (Petersen and Rajan 1994, Blackwell and Winters 1997, Angelini, Salvo, and Ferri 1998).

the bank-borrower relationship, but unlike most prior studies of the effects of relationship strength, we also include measures of bank and banking market characteristics.

III. Data and methodology

Our data source for small businesses is the National Survey of Small Business Finance (NSSBF), which queried businesses about their status as of 1993. It has information on 4,630 small businesses, defined as companies with fewer than the 500 full-time equivalent employees. This data set contains information about the firm, its financial condition, its organizational structure, its financial contracts, and the banks from which it purchases its financial services.

We confine attention to the firms whose most recent bank loan was an LC. We focus on the most recent loan because this is the only loan on which the NSSBF collects detailed information on pricing and other contract terms. We use LCs because they are the most closely associated with relationship lending, are generally the best indicators of credit availability, and are reasonably comparable across firms. Other types of loans, such as mortgages, motor vehicle loans, and equipment loans, are often based primarily on the value of the collateral, rather than any information gained over the course of a relationship. It has been shown that LCs are also much more often an exclusive lending relationship than these other types of loans (Berger and Udell 1995). The benefits derived from relationship lending are generally maximized when a single bank collects loan information.[8]

We match the small business information with bank balance sheet and income statement data from the Call Reports, the locations of bank branches and deposits from the Summary of Deposits, and data from other sources about the firm's market environment. Following prior research, we define a firm's local market as the Metropolitan Statistical Area (MSA) or non-MSA

[8] Some lines of credit do not represent relationship lending. In particular, lines of credit secured by accounts receivable and inventory are generally based on the value of the security, rather than the relationship. In our empirical analysis, we control for whether the line is secured by accounts receivable/inventory versus other types of collateral.

rural county in which the small business is located.[9] Table 1 gives the definitions and summary statistics for the variables.

A. Choice of LC bank

In our first set of tests, we examine the probability that a small business has an LC with a bank in a particular size class using a logit functional form. The probability is modeled as a function of the size structure of the banking market, and controls for a number of market and firm characteristics. Our approach is to estimate for each size class i:

$$(1) \quad \ln\left[\frac{\text{P(firm has an LC at a SIZE i BANK)}}{1-\text{P(firm has an LC at a SIZE i BANK)}}\right]$$

$$= f(\text{SIZE i SHARE, bank market concentration and other market characteristics, firm characteristics})$$

where P(•) indicates probability, "firm has an LC at SIZE i BANK" is a dummy variable that is one if the firm's most recent LC is at a bank in size class i, and SIZE i SHARE is the market share of banks of size class i in the local market. We use four size classes based on a bank's gross total assets (GTA). Size class 1 denotes banks with GTA ≤ $100 million, size class 2 indicates banks with GTA of $100 million - $1 billion, size class 3 includes banks with GTA of $1 billion - $10 billion, and size class 4 consists of banks GTA > $10 billion. Thus, we estimate equation (1) four times, once each for the probability that the firm's LC is from a bank in size i as a function of the market share of size i banks, i = 1,2,3,4. For example, when the left hand side of the equation is based on the probability that a small business has an LC from a SIZE 2 bank, we put SIZE 2 SHARE on the right hand side. Our results are also robust to including three of the four market share variables (excluding one share as the base case).

[9] Note that in some cases, the bank extending credit is not located in the firm's local market. In our sample, the median distance to the bank that issued the firm's most recent LC is 3 miles, and in 90% of the cases, this bank was less than or equal to 25 miles away. Recent research suggests that the portion of small business loans made at greater distances beyond these local market boundaries has been increasing (e.g., Cyrnak and Hannan 2000, Petersen and Rajan 2000). However, to the extent that a few small businesses shop over a larger geographical area, our empirical results are biased against findings that local market bank size structure and concentration affect competition for small business lending.

We include control variables on the right hand side for bank market concentration, other market characteristics, and firm characteristics. We measure bank market concentration using the Herfindahl index of deposits in the local banking market.[10] Other market variables include measures of M&A activity, entry, the condition of banks in the market, and state income growth. Variables that control for firm characteristics include financial ratios, size (both assets and sales), organizational structure, industry, growth, informational opacity, and the firm's and firm owner's payment and legal histories.

A potential problem arises both here and in the literature in testing for the ability of larger banks to supply credit to small borrowers because this issue may be confounded with the inability of small banks to supply credit to larger borrowers. When we include all the LCs and all the banks in our sample, we introduce a bias against finding that large banks grant disproportionately fewer LCs to small businesses. This is because small banks are less able to make loans to the larger small businesses due to legal lending limits and problems of diversification. Banks are generally prevented by regulators from exposing more than 15% of their equity capital to a single customer. Thus, a bank cannot grant a $1 million LC unless it has at least $6.667 million in equity ($1 million / .15). Some of our LCs are greater than $1 million and some of our banks have less than $6.667 million in equity. Most of the studies of the effects of bank size and M&As on small business lending in the literature cited above grouped all loans under $1 million together and did not account for inability of the smallest banks to make loans at the high end of this interval.

To focus on the ability of banks to make small business loans, we look at four subsamples of LCs – lines under $1 million, lines under $500,000, lines under $250,000, and lines under $100,000. For the first three of these subsamples, we include only LCs from banks with enough equity to make all loans in the subsample under legal lending limits (we assume that all banks in our sample can make loans under $100,000). That is, for the three subsamples, we include only LCs from banks with enough equity so that 15% of equity is at least equal to the maximum line in

[10] Market concentration is based on deposits rather than loans, because there are no measures available for the locations of all of a bank's loan customers.

the subsample. For example, for the subsample of LCs under $1 million, we only include LCs at banks with at least $6.667 million in equity. For these subsamples, we also use "restricted" measures of market size structure and the Herfindahl index – measures that include only banks with sufficient equity to be in the appropriate subsample. Thus, for the subsample of LCs under $1 million, we use measures of SIZE 1 SHARE – SIZE 4 SHARE and HERF that are restricted to include the shares of only banks with equity of at least $6.667 million. As a robustness check, we tried using unrestricted measures of market structure, and these gave similar results.

B. Small business loan pricing

The second part of our analysis tests the effects of banking market size structure, size of the lending bank, market concentration, and other factors on small business loan prices. The general model is:

(2) LC interest rate premium = *f* (market size structure, bank size, bank market concentration and other market characteristics, firm characteristics, other bank characteristics, bank-borrower relationship, loan contract variables)

The interest rate premium (PREMIUM) is defined as the interest rate on the LC minus the bank's prime rate. Recall that in all cases, we focus on most recent LC.

To measure market size structure, we use the shares of deposits held by banks of different size classes, SIZE 2 SHARE – SIZE 4 SHARE, with SIZE 1 SHARE excluded as the base case. Similarly, we include the dummies for the size class of the bank providing the LC, SIZE 2 BANK – SIZE 4 BANK, with SIZE 1 BANK excluded from the regressions as the base case. We include the same measures of bank market concentration and other market characteristics, and firm characteristics as in equation (1). We also include other factors that might affect the decisions of the small business and potential lending banks. We include controls for the strength of the bank-borrower relationship (measured by its length), and other bank variables (including M&As of the lending bank). Finally, we also include loan contract terms for whether the LC is secured, whether it is guaranteed, and whether compensating balances are required to control for risks of

the loan not captured in the firm variables. We recognize that the bank and firm negotiate these contract terms and the interest rate as part of a package, which introduces an endogeneity problem. Because of this, we run our regressions both with and without contract terms, and the results are qualitatively similar.

IV. Empirical results

A. Choice of LC Bank

The results for a logistic regression using equation (1) for the full sample are shown in Table 2. For each variable, we show the parameter estimate, the marginal effect (i.e., the derivative of the probability with respect to the exogenous variable evaluated at the sample mean), and the P-value. The shaded areas indicate statistical significance at the 10% level. Our focus is on the deposit share of the size of bank at which a firm has its LC as a proxy for these banks' presence in local markets. We ask how increasing the presence of a given size class of bank affects a small business's probability of having its most recent LC from a bank of that size class.[11] The regressions focusing on LCs from size class i banks are given in column i. Each of these regressions include all 648 most recent loan LCs as observations, with the dependent variable equal to one if and only if the small business has an LC from a size class i bank. At the bottom of each column, we show how many of the 648 LCs are from banks in the appropriate size class.

In the regression in column 1, the coefficient on the size 1 deposit share is 4.259 with a marginal effect of 0.451 and statistical significance at well below the 1% level. This equates to a marginal increase in the probability of having a loan from a size class 1 bank of 0.451 percentage points for a one percentage point increase in the deposit share of size 1 banks (evaluated at the

[11] The results for both the choice of LC bank regressions and for the interest rate premium regressions discussed below are qualitatively similar when we use a Heckman correction for sample selection bias. We first run a probit equation for the probability that the firm will be granted an LC on its last loan application, and then include the resulting inverse Mills ratio as a regressor in our equations (1) and (2). There is a problem of identification for the Heckman correction, as we have no regressors in the first-stage probit that are not also in the second-stage equations. Since we do not have any "true" exclusion restrictions, our sample selection correction is identified by the nonlinearity inherent in the inverse Mills ratio. The use of the same underlying variables cannot be avoided, since all of the variables that affect the accept/reject decision may also affect the size of bank chosen, and the loan premium. Fortunately, our results are robust to including or excluding this Heckman correction.

sample mean).[12] Some of the control variables are also statistically significant, suggesting that there are other important determinants of the size of bank from which a firm has its LCs.

Of key interest here is whether, all else equal, small businesses are disproportionately more likely to obtain LCs from smaller banks than larger banks, as might be expected based on prior literature. If this were the case, we would expect to find that the sensitivity of firms to the market shares of smaller banks exceeds the sensitivity to larger banks. Put another way, small businesses would be more likely to respond favorably to an increase in the market share of small banks than to an increase in the share of large banks. Based on the literature, the marginal effect should be substantially lower for the larger bank size classes. The results shown in Table 2 are **not** consistent with this expectation. Looking across the four size classes, the marginal effects are **increasing** in the bank size classes. For banks in sizes classes 2, 3, and 4, the marginal increases are 0.622, 0.703, and 0.850 percentage points per percentage point increase in market shares, respectively.

Looking at the other control variables, notice that the coefficient on the log of assets increases as we move from the first regression to the last regression. This means that, all else equal, larger firms are more likely to go to larger banks. Since the four regressions in Table 2 cover all the possible LC options for firms, the coefficients on each control variable have to differ across the regressions. A marginal effect reflects the contribution of a variable to the probability of having an LC from a bank of a particular size and the regressions cover all of the size classes.

As discussed above, by including all the LCs and all the banks in the above analysis, there is likely a bias against finding that large banks grant disproportionately fewer LCs to small businesses because the smaller banks cannot make the larger loans. To mitigate this bias, we also look at subsamples LCs under $1 million, under $500,000, under $250,000, and under $100,000. We include only LCs from banks with enough equity to make all loans in the subsample and we

[12] The marginal increase in the probability that the dependent variable is one for an increase in a particular independent variable when evaluated at the sample mean is $P \bullet (1 - P) \bullet$ (coefficient), where P is the mean probability that the dependent variable is one (P = 78/648 for first column of Table 2). Thus, the marginal increase in the probability of having an LC from a size class 1 bank when the share of size 1 deposits in the market is increased is $(78/648) \bullet (1 - 78/648) \bullet (4.259) = 0.451$.

also use only these banks when we calculate measures of market size structure and the Herfindahl index. Table 3 shows the results for the subsample of LCs under $1 million.

One problem we encounter in the subsample regressions is that the logistic regressions do not always converge. When we examine LCs under $1 million, as shown in Table 3, the logistic regression for the size 1 bank dummy does not converge. This is not surprising, given that most size class 1 banks (GTA ≤ $100 million) do not have the $6.667 million in equity needed to be included in the subsample. There are only 19 firms in the subsample that received loans from size class 1 banks, fewer than the number of parameters being estimated. Thus, the estimates presented in column 1 of Table 3 are unreliable, and we will not discuss them further.

As bank sizes move from size class 2 to size class 4 in Table 3, the marginal effects associated with the restricted deposit share variables are 1.133, 0.782, and 1.002, respectively. These results suggest a U-shaped pattern, with changes in shares of size classes 2 and 4 having approximately equal effects in drawing small business LCs under $1 million to their size class.

Table 4 presents the marginal effects of a change in the deposits of bank of size i on the probability that a small business has an LC with a bank of that size for all the subsamples. The first column repeats the marginal effects for the subsample of LCs under $1 million from banks with at least $6.667 million in equity using the corresponding "restricted" measures of market size structure and Herfindahl index. The remaining columns show the results for LCs under $500,000, under $250,000, and under $100,000 from banks with sufficient equity and using the corresponding restrictions on the market measures.

Neglecting for the moment the results of the LCs under $100,000, the findings in Table 4 are **not** consistent with the prior literature that indicated that large banks generally had difficulty making loans of up to $1 million to small businesses. As noted above, for the LCs up to $1 million, the marginal effects of the market shares follow a U-shaped pattern, and are approximately equal for size classes 2 and 4. For LCs up to $500,000, the marginal effects are approximately equal across size classes 2 to 4, and for LCs up to $250,000, the marginal effects decline only slightly as size classes become larger. For these three subsamples, the logistic

regressions for the size 1 bank dummy do not converge because there are too few size class 1 banks with sufficient equity needed to be included in the subsample. Of these results, only the subsample of LCs up to $250,000 give any indication that small businesses are more likely to borrow from smaller banks, and the slope in this is relatively mild, suggesting at most a relatively small effect.

The results of the LCs under $100,000 are substantially different from the other results and may suggest that larger banks generally had difficulty making these very small loans. The results shown in the last column of Table 4 suggest that the marginal effect declines from 1.005 for size class 1 to 0.775 for size class 2. The logistic regressions for the size 3 and size 4 bank dummies do not converge for this subsample. We take both the decline in marginal effects between size classes 1 and 2 for the LCs under $100,000 and the nonconvergence for size classes 3 and 4 as evidence consistent with the hypothesis that market behavior differs in important ways for LCs under $100,000.

Thus, the data on the size of bank from which small businesses obtain their LCs contrasts sharply with the literature that showed that the ratio of small business loans of up to $1 million to bank assets declines dramatically with bank size. We find that, with the possible exception of loans under $100,000, there is little evidence that larger banks make disproportionately fewer small business loans.[13] We believe that the difference between our findings and those in the extant literature is mainly due to the improved methodology. We avoid the issue of taking bank assets as fixed. We also reduce the potential problem that large banks may have different small business lending opportunities by accounting directly for the market presence of banks in different size classes. As well, we are able to match small businesses to the banks in their local markets and include the characteristics of the small businesses themselves. Our tests also include both direct effects of bank actions (e.g., a large bank that has a reduced supply of small business loans) and external effects (e.g., other incumbent or new banks that may pick up these loan customers).

[13] We also tried excluding LCs under $100,000 from the full sample and from the other subsamples. The results for the full sample and for and the subsample of LCs under $1 million are unchanged by this exclusion. For the subsamples of LCs under $500,000 and under $250,000, the logistic regressions do not converge with this exclusion.

B. Small Business Loan Pricing

We next turn to our results on small business loan pricing. Table 5 presents the results from regressing PREMIUM on market size structure, bank size, market concentration, and other bank, market, firm, relationship, and loan contract variables. This table shows the parameter estimates and P-values. Again, the shaded areas indicate statistical significance at the 10% level.

The first column in Table 5 includes the bank size variables but not the market size structure variables. The coefficients on the three bank size dummies are all negative, with the coefficients on size classes 2 and 3 significantly different from zero. Thus, given the control variables in the regression, banks over $100 million in assets charge **lower** premiums than do banks below $100 million in assets (the excluded group). The coefficients of -0.228, -0.411, and –0.285 imply that the premia charged by a size 2, size 3, and size 4 bank are 22.8, 41.1, and 28.5 basis points lower than the premium charged by a size class 1 bank, respectively, all else equal. This is quite substantial when compared to the average interest rate premium in the sample of 121 basis points. The coefficients on the three bank size dummies are not significantly different from each other, suggesting that the most important difference is between size class 1 banks and all others.

In the second column of Table 5, we present a regression that includes the market size structure variables but not the bank size variables. The coefficients on all three size classes are negative and significantly different from zero. This suggests that size structure matters, with a higher proportion of large banks in a market leading to lower interest rate spreads. For every percentage point of market share that moves from size class 1 banks to size classes 2, 3, and 4, PREMIUM falls 0.464, 0.867, and 0.754 basis points respectively.

An example may help illustrate the impact of market size structure on pricing. We look at what the results imply would happen if a community moved from the 75th percentile of MSAs in deposits in the smallest two size classes (banks with less than $1 billion in assets) to the 25th percentile. Using this measure, Midland, Texas is at the 75th percentile, that is, it has more deposits in size class 1 and 2 banks than 75% of all MSAs, with 44% of deposits in these two size

classes (12% at size class 1 banks, 32% at size class 2 banks). Philadelphia, Pennsylvania is at the 25th percentile by this measure, with 15% of deposits in banks under $1 billion (2% in size class 1 banks, 13% in size class 2 banks). Our results suggest that a bank of any given size in Midland will, on average and all else equal, have a loan interest rate that is 15 basis points higher than a bank of the same size in Philadelphia. Since the average premium is 121 basis points, this is a substantial difference.

The third column of Table 5 has the full specification, which gives the results of a horse race between market size structure and bank size. When both the size structure variables and the bank size variables are included, only the coefficients of the size structure variables remain generally statistically significantly negative and similar in magnitude to those in the regression in column 2. Again, we find the same 15 basis point difference between a bank in Midland and a similar-sized bank in Philadelphia, all else equal.

In the full specification, the coefficients of the bank size dummies remain negative, but they are much reduced and are not statistically significant. Thus, to some degree, bank size may have served as a proxy for the missing size structure variables in the regression in the first column of Table 5.

Turning to the other variables in column 3 of Table 5, we find that having a longer relationship with a bank reduces the interest rate spread in the main regression, consistent with earlier findings. Interest rate spreads are also significantly higher in more concentrated markets, consistent with prior research. Unlike these prior studies, however, we control for firm characteristics, as well as for bank size and market size structure. In terms of firm characteristics, most of the coefficients on the control variables are not statistically significant with the exceptions being sales, business delinquencies and expenditure on research and development. These coefficients all have the expected signs, with riskier or more opaque firms paying higher rates.

Finally, the coefficients on the loan contract term variables are all significant and of the predicted direction. Loans that are secured or guaranteed bear higher rates, as found in prior research, and compensating balances reduce the interest rate on average, as expected.

Recognizing the endogeneity problem discussed above, we show the main regression without these contract terms in the final column of Table 5. The results are qualitatively similar to the regression with contract terms. Without the contract terms, size structure still wins the horse race, since the market size structure variables are statistically significant while the bank size dummies are not.

In Table 6 we delve further into the issue of why small businesses tend to pay lower rates in markets with greater shares for larger banks by running the PREMIUM regressions for subsamples of the data. We first split the sample into small businesses in banking markets with greater or less than median shares of deposits in the smallest two bank size classes. In the first column, we show the results for firms in "small-bank markets" in which market shares of banks with less than $1 billion in assets are greater than the median of 24.91%, and in the second column we show "large-bank markets" in which market shares of the two smallest size classes totals less than 24.91%.

The results from column 1 of Table 6 suggest that in markets in which small banks have a strong presence, market size structure matters. The coefficients on the size structure variables are of about the same magnitudes as in the full sample tests (compare to column 3 of Table 5). Increasing small bank presence in a small-bank dominated market increases the interest rate spread at banks of all sizes. However, as in the earlier results, the interest rate premium is not significantly related to bank size. On the other hand, in large-bank dominated markets (column 2 of Table 6), the coefficients on the size structure variables are statistically insignificant and positive. In these markets, the coefficients of the bank size dummies are also statistically insignificant and much smaller than for the full sample shown in Table 5, column 3. The results presented in columns 1 and 2 of Table 6 imply that size structure matters more in markets with a large concentration of small banks. Once the share of large banks is sufficiently great, neither size structure nor bank size seems to have much effect on pricing.

Columns 3 and 4 of Table 6 show the results when we divide the sample into two parts by the size of the lending banks. The small-bank sample shown in column 3 of the table includes all

small businesses with LCs from banks with assets less than or equal to $1 billion, and the large-bank sample shown in column 4 has all the firms with loans from banks with assets above $1 billion. The data suggest that size structure is less important in determining loan prices for small banks (column 3) than it is for large banks (column 4). None of the size structure variables are statistically significant for the small-bank sample.

Our pricing results as a whole strongly suggest that market size structure is important to bank price behavior and that banks compete less aggressively in markets dominated by small banks. We find that small business loan rates are **lower** in markets dominated by large banks, that size structure is only statistically significant in the markets with relatively high small-bank presence, and that size structure affects the prices of large banks but not small banks.

We also tried a number of additional robustness checks. Dividing up the sample by size of the market (total market deposits) appeared to have no material effect on the results – banks appear to behave similarly in large and small markets, all else equal. We also tested measuring the bank size classes by the assets in all the banks in the bank's holding company (if any). The main results were again preserved, although the bank size variables were somewhat more significant and the size structure variables were slightly less significant.

V. Conclusions

The consolidation of the banking industry has raised concern about the supply of credit to small businesses. We address this concern in two ways. First, we introduce a new and better way to examine whether small businesses have loans with larger versus smaller banks that avoids many of the difficulties in the prior literature on small business credit availability. Second, we examine whether market size structure affects small business loan pricing. In both analyses, we find that bank market size structure– the distribution of market shares of different size classes of banks in a local market – plays an important role. Earlier research has generally ignored market size structure altogether, and no prior study has examined the effects of both bank size and bank market size structure.

Previous studies of small business lending have often concluded that small businesses are disproportionately less likely to have loans from larger banks. They drew these conclusions in part by examining the ratio of small business loans to total assets at small and large banks. In most cases, small business loans were defined as loans to businesses with credits less than $1 million. We believe that this approach can give misleading results because it explicitly or implicitly assumes that bank assets are fixed, and thus ignores the possibility that large banks expand the denominator of the ratio, their total assets. As well, this approach in the literature does not take into account potential systematic differences in the distributions of small business loan customers in markets in which large and small banks compete or the characteristics of the individual small businesses that receive loans from large and small banks. In addition, the findings of this literature may not be fully revealing, since the loans to businesses with credits under $1 million may be heterogeneous and include some loans to large businesses.

Our approach avoids these potential problems by examining small business lending from the point of view of the small business, rather than from the bank's perspective. We ask whether the chances of obtaining a line of credit (LC) from a large bank versus a small bank is roughly in proportion to the market presence of large versus small banks. We do not assume that bank assets are fixed; we account for the presence of banks of different sizes in the firm's local market; and we include firm characteristics in the analysis. In addition, we differentiate among the sizes of LCs under $1 million and include only loans to small businesses (fewer than 500 full-time equivalent employees).

Our findings are **not** consistent with the prior literature that indicated that large banks generally had difficulty issuing credits of up to $1 million to small businesses. We find that, all else equal, the likelihood that a small business borrows from a bank of a given size is roughly proportional to the local market presence of banks of that size, although there are indications that very small loans (LCs under $100,000) and very small banks (GTA under $100 million) might be different. Large banks tend to make relatively few of the very small loans and small banks tend to make relatively few of the larger loans. We believe that the difference between our findings and those in the extant literature is mainly due to the improved methodology.

We also contribute to the literature on loan pricing. This literature often examined the effects of bank concentration, mergers and acquisitions (M&As), and bank-borrower relationship, but generally did not evaluate the effects of bank size or market size structure, which may have important effects on the way banks compete. In addition, some of the studies either excluded bank variables entirely or small business variables entirely, which may have created biases. Our analysis of small business loan prices charged by banks is much more comprehensive than those in this literature and includes bank size, banking market size structure, market concentration, M&As, bank-borrower relationships, and other bank and firm characteristics.

We find that market size structure is important to bank loan pricing and appears to affect prices more than bank size, even after controlling for conventional market concentration and other market and firm characteristics. In particular, we find that interest rates on small business LCs are lower when large banks dominate a market, all else equal, than when small banks dominate. Our market size structure results suggest that banks compete differently in markets dominated by small banks than in markets dominated by large banks, and in particular that banks may compete less aggressively in markets dominated by small banks.

We find two pieces of additional evidence in support of this conclusion. First, we find that size structure is only statistically significant in the markets with relatively high small bank presence. Second, we find that size structure primarily affects the prices of large banks, rather than small banks.

Our findings may help offer predictions on potential effects of banking industry consolidation on small business lending. They suggest that consolidating M&As may have relatively little effect on small business credit availability except for very small loans (less than $100,000) and for M&As that involve very small banks (less than $100 million GTA). If consolidation proceeds as it has in the U.S. – with large banking organizations primarily expanding into different local markets – then small business loan prices may decline in some of these markets. In particular, prices may decline in local markets that move from being dominated by small banks to being dominated by large banks.

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Table 1. Variable definitions, means, and standard deviations.

		LC choice regressions		Premium regressions	
Variable	**Definition**	**Mean**	**Standard deviation**	**Mean**	**Standard deviation**
Dependent variable					
PREMIUM	Premium over the Prime Rate on the line of credit	1.20	0.90	1.21	0.90
Size structure					
SIZE 1 SHARE	Proportion of deposits in the market at banks in size class 1 (less than $100M GTA)	0.12	0.19	0.11	0.19
SIZE 2 SHARE	Proportion of deposits in the market at banks in size class 2 ($100M-$1B GTA)	0.27	0.23	0.25	0.22
SIZE 3 SHARE	Proportion of deposits in the market at banks in size class 3 ($1B-$10B GTA)	0.32	0.25	0.32	0.24
SIZE 4 SHARE	Proportion of deposits in the market at banks in size class 4 (over $10B GTA)	0.30	0.27	0.32	0.27
Bank variables					
SIZE 1 BANK	Dummy for whether the bank a firm has an LC at is of size class 1 less than $100M GTA)	0.12	0.33	0.11	0.31
SIZE 2 BANK	Dummy for whether the bank a firm has an LC at is of size class 2 ($100M-$1B GTA)	0.33	0.47	0.32	0.47
SIZE 3 BANK	Dummy for whether the bank a firm has an LC at is of size class 3 ($1B-$10B GTA)	0.31	0.46	0.32	0.47
SIZE 4 BANK	Dummy for whether the bank a firm has an LC at is of size class 4 (over $10B GTA)	0.25	0.43	0.25	0.43
Bank-firm relationship variable					
RELATE LENGTH	Length of relationship with LC bank	2.05	0.72	2.06	0.74
Other banking market variables					
HERFINDAHL	Market variable: Herfindahl ratio based on market deposits	0.19	0.11	0.19	0.11
DE NOVO ENTRY	Dummy for whether there is de novo entry in the local banking market in the past 3 years	0.24	0.43	0.25	0.43
MKT MERGERS	Market variable: share of local market deposits at banks involved in mergers averaged over the past 3 years	0.15	0.10	0.15	0.09
MKT ACQUISITIONS	Market variable: share of local market deposits in banks that retain their charters but change top-tier bank holding company ownership averaged over the past 3 years	0.03	0.06	0.03	0.06
MKT BANK GROWTH	Market variable: growth rate of bank deposits in the local market	-0.02	0.11	-0.02	0.11
STATE INC GROWTH	Real state income growth	0.04	0.01	0.03	0.01
MSA DUMMY	Dummy for whether the firm is in an MSA	0.78	0.41	0.80	0.40
MKT BANK ROE	Market variable: average bank ROE weighted by deposits	0.12	0.05	0.12	0.05
MKT BK NONPERF	Market variable: average nonperforming loans to total loans ratio weighted by deposits	0.04	0.02	0.04	0.02
MKT BK EQ-to-ASSET	Market variable: average equity-to-assets ratio weighted by deposits	0.08	0.01	0.08	0.01
MKT PCT BANK FAIL	Market variable: percent of banks in the market that failed in the past 3 years	0.03	0.07	0.03	0.07
Other bank variables					
BK MERGERS	Merger dummy for the bank: has the bank engaged in a merger in the past 3 years	0.35	0.48	0.37	0.48

BK ACQUISITIONS	Merger dummy for the bank: has the bank retained it charter but changed top-tier holding company in the past 3 years	0.08	0.26	0.09	0.28
MULTI BHC	Multibank holding company dummy	0.66	0.47	0.67	0.47
OUT OF STATE BHC	Bank is a member of an out-of-state bank holding company	0.25	0.44	0.27	0.44
BK ROE	Bank return on equity (ROE)	0.12	0.12	0.07	0.02
BK EQUITY RATIO	Bank equity-to-assets ratio	0.07	0.02	0.12	0.12
BK NONPERF LOANS	Bank nonperforming loans to total loans ratio	0.04	0.03	0.04	0.03
Firm variables					
FIRM AGE	Age of firm	2.70	0.54	2.73	0.54
LEVERAGE	Firm leverage	0.61	0.36	0.62	0.37
PROFIT MARGIN	Firm profit margin	0.07	0.19	0.06	0.18
CURRENT RATIO	Firm current ratio	1.77	1.72	1.65	1.69
QUICK RATIO	Firm quick ratio	-2.39	8.16	-2.54	8.16
AR TURNOVER	Firm AR turnover	35.99	31.76	38.89	32.40
INV TURNOVER	Firm inventory turnover	52.13	93.94	56.74	97.47
AP TURNOVER	Firm accounts payable turnover	32.03	52.53	36.47	55.49
Ln(ASSETS)	Firm log of total assets	13.91	1.79	14.08	1.76
Ln(SALES)	Firm log of total sales	14.90	1.68	15.08	1.62
PERS DELINQ	Dummy indicating principle owner has been 60 or more days delinquent on personal obligations over the past three years	0.05	0.22	0.05	0.21
BUS DELINQ	Dummy indicating business has been 60 or more days delinquent over the past three years	0.19	0.39	0.18	0.39
JUDGMENT	Dummy indicating judgment rendered against principal owner during the past three years	0.04	0.19	0.04	0.19
CORPORATION	Dummy for whether the firm is a corporation	0.54	0.50	0.57	0.50
SUBCHAPTER S	Dummy for whether the firm is a Subchapter S firm	0.31	0.46	0.30	0.46
PARTNERSHIP	Dummy for whether the firm is a partnership	0.06	0.23	0.06	0.24
PROPRIETORSHIP	Dummy for whether the firm is a sole proprietorship	0.09	0.29	0.08	0.27
OWNER MANAGED	Dummy for whether the firm is owner-managed	0.73	0.44	0.74	0.44
FAMILY OWNED	Dummy for whether the firm ownership is more than 50% concentrated in a single family	0.76	0.43	0.74	0.44
CONSTR	Dummy for whether the firm is in construction	0.11	0.31	0.11	0.32
SERVICES	Dummy for whether the firm is in services	0.25	0.43	0.23	0.42
RETAIL	Dummy for whether the firm is in retail	0.18	0.38	0.16	0.37
EMPLOYEE GROWTH	Firm employee growth	0.05	0.16	0.05	0.17
SALES GROWTH	Firm sales growth	0.39	0.71	0.36	0.69
PPE-to-ASSETS	Firm PPE to assets ratio	0.34	0.27	0.33	0.26
R&D EMPLOYEES	Firm R&D to employees ratio	0.04	0.14	0.04	0.13
Loan contract variables					
SECURE AR/INV	Dummy for whether the loan is secured by accounts receivable (AR) or inventory	0.40	0.49	0.42	0.49
SECURE OTHER	Dummy for whether the loan is secured by securities other than AR or inventory	0.25	0.43	0.21	0.41
GUARANTEED	LC is guaranteed	0.62	0.49	0.62	0.49
COMP BALANCES	Compensating balances dummy	0.10	0.30	0.11	0.31
Number of observations		648		520	

Table 2. Choice of a bank for a line of credit.

Logistic regressions for the probability that a small business has its most recent line of credit at a bank of a particular size. Each dependent variable is based a dummy that has the value one if the bank is of the given size and is zero otherwise. The reported number is the "marginal effect" of a change in SIZE i SHARE, where i is the size class and the marginal effect is the marginal predicted change in the probability of having a LC from the stated size class of bank, given a change in the independent variable, evaluated at the sample mean. The shaded areas indicate statistical significance at the 10% level.

Dependent variable:	**SIZE 1 BANK**			**SIZE 2 BANK**			**SIZE 3 BANK**			**SIZE 4 BANK**		
Variable	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal Effect	Prob > |T|
INTERCEPT	3.270	0.346	0.237	-2.022	-0.444	0.258	-2.472	-0.528	0.197	-6.232	-1.154	0.006
Size structure												
SIZE 1 SHARE	4.259	0.451	0.000									
SIZE 2 SHARE				2.831	0.622	0.000						
SIZE 3 SHARE							3.295	0.703	0.000			
SIZE 4 SHARE										4.589	0.850	0.000
Other banking market variables												
HERFINDAHL	2.582	0.273	0.128	-3.186	-0.700	0.009	-0.071	-0.015	0.957	2.165	0.401	0.175
DE NOVO ENTRY	0.081	0.009	0.863	-0.131	-0.029	0.611	0.119	0.025	0.650	0.018	0.003	0.952
MKT MERGERS	-1.647	-0.174	0.372	1.384	0.304	0.226	-0.828	-0.177	0.482	-0.007	-0.001	0.996
MKT ACQUISITIONS	-3.633	-0.385	0.248	-0.173	-0.038	0.917	0.981	0.209	0.572	1.143	0.212	0.596
MKT BANK GROWTH	0.649	0.069	0.629	-0.011	-0.002	0.991	-0.195	-0.042	0.826	-0.009	-0.002	0.993
STATE INC GROWTH	2.356	0.249	0.891	9.189	2.018	0.386	-0.564	-0.120	0.959	-19.274	-3.569	0.140
MSA DUMMY	0.498	0.053	0.336	-0.024	-0.005	0.942	-0.218	-0.046	0.543	0.341	0.063	0.454
MKT BANK ROE	-7.082	-0.750	0.055	1.343	0.295	0.577	-2.429	-0.518	0.306	1.849	0.342	0.478
MKT BK NONPERF	-22.752	-2.409	0.070	11.584	2.544	0.143	-1.182	-0.252	0.880	-13.048	-2.416	0.180
BK EQUITY RATIO	-3.507	-0.371	0.831	17.518	3.847	0.158	-9.075	-1.936	0.492	0.182	0.034	0.992
MKT PCT BANK FAIL	-0.481	-0.051	0.852	-1.109	-0.244	0.485	-0.084	-0.018	0.956	1.813	0.336	0.283
Firm variables												
FIRM AGE	-0.039	-0.004	0.902	0.062	0.014	0.747	0.277	0.059	0.165	-0.324	-0.060	0.132
LEVERAGE	-0.291	-0.031	0.485	0.359	0.079	0.182	-0.215	-0.046	0.466	-0.272	-0.050	0.426
PROFIT MARGIN	0.365	0.039	0.642	0.262	0.058	0.594	0.056	0.012	0.915	-0.812	-0.150	0.190
CURRENT RATIO	0.013	0.001	0.896	0.116	0.026	0.059	-0.075	-0.016	0.244	-0.081	-0.015	0.266
QUICK RATIO	0.013	0.001	0.580	0.001	0.000	0.916	-0.007	-0.002	0.591	0.001	0.000	0.922
AR TURNOVER	-0.006	-0.001	0.409	0.003	0.001	0.380	-0.003	-0.001	0.385	0.001	0.000	0.832
INV TURNOVER	0.004	0.000	0.249	0.000	0.000	0.784	-0.002	0.000	0.317	0.000	0.000	0.898

Table 2 continued.

Dependent variable:	SIZE 1 BANK			SIZE 2 BANK			SIZE 3 BANK			SIZE 4 BANK		
Variable	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal Effect	Prob > |T|
AP TURNOVER	-0.001	0.000	0.795	0.000	0.000	0.901	0.002	0.000	0.501	0.000	0.000	0.948
Ln(ASSETS)	-0.341	-0.036	0.058	-0.152	-0.033	0.229	0.092	0.020	0.503	0.314	0.058	0.047
Ln(SALES)	-0.009	-0.001	0.961	-0.023	-0.005	0.865	0.029	0.006	0.840	-0.032	-0.006	0.847
PERS DELINQ	-0.167	-0.018	0.716	0.177	0.039	0.496	-0.386	-0.082	0.172	0.207	0.038	0.483
BUS DELINQ	0.793	0.084	0.186	-0.690	-0.152	0.140	0.135	0.029	0.782	0.330	0.061	0.560
JUDGMENT	0.853	0.090	0.194	-0.313	-0.069	0.551	0.692	0.148	0.204	-1.443	-0.267	0.075
CORPORATION	-0.380	-0.040	0.459	0.506	0.111	0.185	0.190	0.041	0.688	0.308	0.057	0.587
SUBCHAPTER S	-0.167	-0.018	0.754	0.195	0.043	0.621	0.436	0.093	0.365	0.202	0.037	0.725
PARTNERSHIP	-1.056	-0.112	0.248	1.130	0.248	0.032	-0.285	-0.061	0.650	0.045	0.008	0.952
OWNER MANAGED	-0.005	0.000	0.990	0.037	0.008	0.866	0.089	0.019	0.693	-0.068	-0.013	0.783
FAMILY OWNED	-0.153	-0.016	0.713	0.108	0.024	0.649	-0.338	-0.072	0.158	0.477	0.088	0.085
CONSTR	0.459	0.049	0.362	0.113	0.025	0.726	-0.299	-0.064	0.372	-0.144	-0.027	0.710
SERVICES	-0.547	-0.058	0.230	-0.173	-0.038	0.509	0.155	0.033	0.568	0.252	0.047	0.403
RETAIL	0.412	0.044	0.315	0.071	0.016	0.792	-0.426	-0.091	0.153	0.180	0.033	0.589
EMPLOYEE GROWTH	1.574	0.167	0.069	-1.572	-0.345	0.015	1.054	0.225	0.078	-0.267	-0.049	0.689
SALES GROWTH	-0.017	-0.002	0.937	0.005	0.001	0.971	-0.024	-0.005	0.872	0.026	0.005	0.874
PPE-to-ASSETS	1.435	0.152	0.030	0.018	0.004	0.967	-0.798	-0.170	0.090	0.366	0.068	0.500
R&D EMPLOYEES	-0.220	-0.023	0.847	0.076	0.017	0.907	-0.048	-0.010	0.950	-0.010	-0.002	0.991
Pseudo R-sq		0.312			0.116			0.153			0.234	
Observations		648			648			648			648	
Number of LCs at that size bank		78			211			200			159	

Table 3. Choice of a bank for a line of credit for LCs under $1 million issued by banks with at least $6.667 million in equity.
Logistic regressions for the probability that a small business has its most recent line of credit at a bank of a particular size. Each dependent variable is based a dummy that has the value one if the bank is of the given size and is zero otherwise. The reported number is the "marginal effect" of a change in SIZE i SHARE, where i is the size class and the marginal effect is the marginal predicted change in the probability of having a LC from the stated size class of bank, given a change in the independent variable, evaluated at the sample mean. The shaded areas indicate statistical significance at the 10% level.

Dependent variable:	**SIZE 1 BANK ***			**SIZE 2 BANK**			**SIZE 3 BANK**			**SIZE 4 BANK**		
Variable	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal effect	Prob > |T|
INTERCEPT	-1.815	-0.077	0.803	-6.124	-1.485	0.016	1.297	0.277	0.622	-5.768	-1.029	0.074
Size structure												
SIZE 1 SHARE	9.978	0.425	0.000									
SIZE 2 SHARE				4.671	1.132	0.000						
SIZE 3 SHARE							3.657	0.782	0.000			
SIZE 4 SHARE										5.617	1.002	0.000
Other banking market variables												
HERFINDAHL	-0.859	-0.037	0.603	-1.377	-0.334	0.003	0.342	0.073	0.463	1.924	0.343	0.001
DE NOVO ENTRY	1.063	0.045	0.265	0.165	0.040	0.588	-0.276	-0.059	0.396	0.503	0.090	0.187
MKT MERGERS	1.392	0.059	0.783	2.051	0.497	0.178	-2.607	-0.558	0.081	1.002	0.179	0.592
MKT ACQUISITIONS	-22.470	-0.957	0.047	1.545	0.375	0.434	-1.180	-0.252	0.567	3.379	0.603	0.192
MKT BANK GROWTH	5.162	0.220	0.178	-1.005	-0.244	0.393	0.735	0.157	0.515	-1.150	-0.205	0.385
STATE INC GROWTH	38.065	1.622	0.378	4.207	1.020	0.741	7.529	1.610	0.566	-53.222	-9.494	0.005
MSA DUMMY	-0.621	-0.026	0.650	0.520	0.126	0.246	-0.478	-0.102	0.285	1.137	0.203	0.076
MKT BANK ROE	-3.688	-0.157	0.673	3.263	0.791	0.287	-0.788	-0.169	0.794	-5.056	-0.902	0.146
MKT BK NONPERF	0.159	0.007	0.996	28.868	6.999	0.007	-7.333	-1.568	0.471	-32.263	-5.755	0.021
BK EQUITY RATIO	-1.649	-0.070	0.971	23.374	5.667	0.194	-28.553	-6.106	0.123	24.248	4.326	0.342
MKT PCT BANK FAIL	4.787	0.204	0.399	-0.608	-0.147	0.774	0.288	0.062	0.888	1.856	0.331	0.432
Firm variables												
FIRM AGE	0.708	0.030	0.413	0.176	0.043	0.486	-0.107	-0.023	0.685	-0.032	-0.006	0.910
LEVERAGE	-2.919	-0.124	0.043	0.767	0.186	0.034	-0.377	-0.081	0.321	-0.376	-0.067	0.401
PROFIT MARGIN	-1.560	-0.066	0.453	0.610	0.148	0.308	-0.365	-0.078	0.569	-0.898	-0.160	0.222
CURRENT RATIO	-0.461	-0.020	0.140	0.158	0.038	0.046	-0.088	-0.019	0.281	-0.090	-0.016	0.337
QUICK RATIO	0.091	0.004	0.489	0.021	0.005	0.235	-0.022	-0.005	0.176	0.003	0.001	0.870
AR TURNOVER	0.016	0.001	0.489	0.002	0.000	0.716	-0.002	-0.001	0.634	-0.001	0.000	0.806
INV TURNOVER	0.008	0.000	0.540	0.004	0.001	0.081	-0.002	0.000	0.446	-0.003	-0.001	0.316

Table 3 continued.

Dependent variable:	SIZE 1 BANK *			SIZE 2 BANK			SIZE 3 BANK			SIZE 4 BANK		
Variable	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal Effect	Prob > |T|	Parameter Estimate	Marginal effect	Prob > |T|
AP TURNOVER	-0.009	0.000	0.715	-0.006	-0.001	0.147	0.002	0.000	0.721	0.005	0.001	0.313
Ln(ASSETS)	-1.120	-0.048	0.173	-0.067	-0.016	0.679	0.008	0.002	0.962	0.193	0.034	0.316
Ln(SALES)	0.685	0.029	0.433	0.025	0.006	0.885	0.053	0.011	0.771	-0.083	-0.015	0.677
PERS DELINQ	0.222	0.009	0.852	0.342	0.083	0.288	-0.448	-0.096	0.218	0.015	0.003	0.968
BUS DELINQ	0.675	0.029	0.686	-0.713	-0.173	0.230	0.326	0.070	0.613	0.572	0.102	0.464
JUDGMENT	-10.424	-0.444	0.981	-0.477	-0.116	0.490	0.775	0.166	0.281	-0.553	-0.099	0.547
CORPORATION	-0.558	-0.024	0.674	-0.210	-0.051	0.672	-0.092	-0.020	0.864	0.443	0.079	0.501
SUBCHAPTER S	-0.631	-0.027	0.655	-0.327	-0.079	0.524	0.133	0.028	0.810	0.191	0.034	0.778
PARTNERSHIP	-12.222	-0.521	0.968	0.803	0.195	0.225	-0.454	-0.097	0.533	-0.001	0.000	0.999
OWNER MANAGED	1.845	0.079	0.149	-0.231	-0.056	0.410	0.195	0.042	0.521	-0.019	-0.003	0.953
FAMILY OWNED	-0.650	-0.028	0.506	0.310	0.075	0.323	-0.671	-0.143	0.037	0.702	0.125	0.063
CONSTR	1.785	0.076	0.113	0.013	0.003	0.973	-0.270	-0.058	0.511	-0.059	-0.011	0.900
SERVICES	-1.069	-0.046	0.444	-0.539	-0.131	0.101	0.093	0.020	0.786	0.582	0.104	0.119
RETAIL	1.861	0.079	0.107	-0.158	-0.038	0.649	-0.129	-0.028	0.729	0.276	0.049	0.532
EMPLOYEE GROWTH	3.934	0.168	0.039	-2.239	-0.543	0.009	1.174	0.251	0.148	0.423	0.075	0.646
SALES GROWTH	0.663	0.028	0.223	-0.038	-0.009	0.822	-0.040	-0.009	0.822	0.011	0.002	0.956
PPE-to-ASSETS	1.759	0.075	0.406	0.288	0.070	0.597	-0.534	-0.114	0.360	0.327	0.058	0.642
R&D EMPLOYEES	-5.732	-0.244	0.417	-0.886	-0.215	0.267	0.719	0.154	0.401	0.137	0.024	0.891
Pseudo R-sq		0.534			0.203			0.194			0.267	
Observations		426			426			426			426	
Number of LCs at that size bank		19			176			132			99	

* -- Logistic regression does not converge. Coefficient estimates are unreliable.

Table 4. Choice of a bank for a line of credit for subsamples – Marginal effects shown only.
Logistic regressions for the probability that a small business has its most recent line of credit at a bank of a particular size. Each dependent variable is based a dummy that has the value one if the bank is of the given size and is zero otherwise. All regressions include the other control variables used in the regressions in Table 2. The reported number is the "marginal effect" of a change in SIZE i SHARE, where i is the size class and the marginal effect is the marginal predicted change in the probability of having a LC from the stated size class of bank, given a change in the independent variable, evaluated at the sample mean. The shaded areas indicate statistical significance at the 10% level.

Size class	Lines of credit < $1 million, bank equity > $6.667 million.	Lines of credit < $500,000, bank equity > $3.333 million.	Lines of credit < $250,000, bank equity > $1.667 million.	All lines of credit < $100,000.
1	DNC	DNC	DNC	1.005
2	1.132	0.847	0.937	0.775
3	0.782	0.868	0.865	DNC
4	1.002	0.866	0.829	DNC

Note: The coefficients on which the marginal effects are based are all statistically significant at the 1% level.
DNC - Logistic regression does not converge.

Table 5. Regression of interest rate spread (PREMIUM) on size structure and bank size.
OLS regressions for the interest rate spread. The dependent variable in all the regressions in this table is PREMIUM, the spread over the prime rate of the bank loan. The regressions have different combinations of independent variables using the same data set. The shaded areas indicate statistical significance at the 10% level.

Dependent variable:	**PREMIUM**		**PREMIUM**		**PREMIUM**		**PREMIUM**	
Variable	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|
INTERCEPT	3.529	0.000	4.101	0.000	4.055	0.000	4.271	0.000
Size structure								
SIZE 2 SHARE			-0.464	0.096	-0.467	0.106	-0.526	0.070
SIZE 3 SHARE			-0.867	0.001	-0.821	0.004	-0.882	0.002
SIZE 4 SHARE			-0.754	0.012	-0.795	0.015	-0.854	0.009
Bank variables								
SIZE 2 BANK	-0.228	0.099			-0.145	0.306	-0.166	0.246
SIZE 3 BANK	-0.411	0.010			-0.249	0.134	-0.274	0.101
SIZE 4 BANK	-0.285	0.116			-0.114	0.555	-0.118	0.541
Bank-firm relationship variable								
RELATE LENGTH	-0.084	0.133	-0.099	0.074	-0.094	0.091	-0.107	0.054
Other banking market variables								
HERFINDAHL	0.667	0.157	0.969	0.042	0.947	0.048	1.058	0.028
DE NOVO ENTRY	-0.015	0.877	0.012	0.907	-0.003	0.978	0.004	0.970
MKT MERGERS	0.267	0.550	0.610	0.180	0.544	0.262	0.585	0.232
MKT ACQUISITIONS	-0.285	0.673	-0.504	0.448	-0.236	0.732	-0.065	0.925
MKT BANK GROWTH	0.459	0.148	0.415	0.188	0.410	0.194	0.417	0.190
STATE INC GROWTH	1.892	0.650	1.559	0.710	1.899	0.650	2.091	0.621
MSA DUMMY	-0.078	0.538	0.113	0.418	0.102	0.467	0.106	0.451
MKT BANK ROE	1.319	0.128	0.688	0.413	1.436	0.100	1.541	0.081
MKT BK NONPERF	0.692	0.216	0.709	0.199	0.645	0.250	8.345	0.016
MKT BK EQ-to-ASSET	-2.269	0.641	-2.676	0.566	-6.743	0.190	-7.394	0.152
MKT PCT BANK FAIL	6.808	0.037	6.085	0.040	8.704	0.012	0.782	0.166
Other bank variables								
BK MERGERS	0.008	0.935			-0.009	0.926	-0.019	0.838
BK ACQUISITIONS	-0.223	0.120			-0.272	0.059	-0.259	0.076
MULTI BHC	-0.026	0.794			-0.054	0.582	-0.083	0.399
OUT OF STATE BHC	0.100	0.290			0.117	0.215	0.130	0.173
BK ROE	-0.553	0.110			-0.646	0.063	-0.554	0.112
BK EQUITY RATIO	2.642	0.358			3.234	0.258	3.119	0.277
BK NONPERF LOANS	-1.920	0.288			-2.734	0.133	-2.546	0.162
Firm variables								
FIRM AGE	-0.076	0.331	-0.084	0.279	-0.084	0.283	-0.114	0.146
LEVERAGE	0.019	0.860	0.052	0.621	0.031	0.766	0.078	0.461
PROFIT MARGIN	0.176	0.380	0.187	0.347	0.141	0.480	0.156	0.439
CURRENT RATIO	0.024	0.318	0.027	0.262	0.031	0.197	0.029	0.238
QUICK RATIO	0.005	0.285	0.007	0.149	0.007	0.192	0.006	0.207
AR TURNOVER	0.000	0.772	0.000	0.740	0.000	0.745	0.001	0.592
INV TURNOVER	-0.001	0.403	0.000	0.512	-0.001	0.362	-0.001	0.394
AP TURNOVER	0.001	0.251	0.001	0.277	0.001	0.215	0.001	0.286
Ln(ASSETS)	-0.032	0.547	-0.041	0.432	-0.027	0.609	-0.033	0.534

Table 5 continued.

Dependent variable:	**PREMIUM**		**PREMIUM**		**PREMIUM**		**PREMIUM**	
Variable	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|
Ln(SALES)	-0.134	0.016	-0.143	0.010	-0.139	0.012	-0.131	0.019
PERS DELINQ	0.057	0.753	0.062	0.732	0.058	0.750	0.070	0.701
BUS DELINQ	0.401	0.000	0.399	0.000	0.412	0.000	0.433	0.000
JUDGMENT	-0.095	0.624	-0.132	0.492	-0.164	0.397	-0.175	0.370
CORPORATION	0.041	0.800	0.049	0.761	0.085	0.596	0.143	0.366
SUBCHAPTER S	0.007	0.966	0.033	0.840	0.063	0.704	0.090	0.582
PARTNERSHIP	-0.162	0.453	-0.102	0.635	-0.081	0.707	-0.069	0.744
OWNER MANAGED	-0.014	0.869	-0.027	0.752	-0.027	0.747	-0.025	0.771
FAMILY OWNED	0.022	0.804	-0.006	0.944	0.023	0.803	0.037	0.682
CONSTR	0.018	0.882	0.088	0.476	0.051	0.684	0.045	0.715
SERVICES	-0.205	0.046	-0.235	0.022	-0.196	0.056	-0.187	0.070
RETAIL	0.116	0.290	0.150	0.171	0.142	0.194	0.165	0.134
EMPLOYEE GROWTH	0.093	0.663	0.039	0.855	0.081	0.703	0.091	0.672
SALES GROWTH	-0.037	0.484	-0.033	0.530	-0.040	0.453	-0.029	0.587
PPE-to-ASSETS	-0.055	0.751	-0.005	0.976	-0.036	0.834	0.005	0.978
R&D EMPLOYEES	0.533	0.082	0.593	0.049	0.523	0.086	0.607	0.047
Loan contract variables								
SECURE AR/INV	0.177	0.045	0.165	0.061	0.162	0.066		
SECURE OTHER	0.232	0.020	0.235	0.017	0.237	0.017		
GUARANTEED	0.143	0.062	0.136	0.074	0.134	0.079		
COMP BALANCES	-0.220	0.069	-0.216	0.065	-0.204	0.092		
Adj R-sq	0.2455		0.2461		0.2552		0.2401	
Observations	520		520		520		520	

Table 6. Regression of interest rate spread (PREMIUM) by size structure and bank size.
OLS regressions for the interest rate spread. The dependent variable in all the regressions in this table is PREMIUM, the spread over the prime rate of the bank loan. The regressions have different combinations of independent variables using different splits of the main data sets. The shaded areas indicate statistical significance at the 10% level.

Dependent variable:	**PREMIUM**		**PREMIUM**		**PREMIUM**		**PREMIUM**	
	Small-bank markets (deposits at banks with less than $1 billion in assets is greater than 24.91%)		Large-bank markets (deposits at banks with less than $1 billion in assets is less than 24.91%)		Small Banks (assets less than $1 billion)		Large Banks (assets over $1 billion)	
Variable	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|
INTERCEPT	4.172	0.000	1.821	0.335	3.613	0.002	4.005	0.000
Size structure								
SIZE 2 SHARE	-0.717	0.054	0.619	0.737	-0.423	0.292	-0.971	0.067
SIZE 3 SHARE	-0.744	0.078	1.078	0.541	-0.711	0.101	-1.084	0.028
SIZE 4 SHARE	-0.983	0.045	0.872	0.616	-0.676	0.197	-0.863	0.104
Bank variables								
SIZE 2 BANK	-0.221	0.277	-0.054	0.821	0.032	0.853		
SIZE 3 BANK	-0.351	0.186	-0.043	0.869				
SIZE 4 BANK	0.040	0.903	0.005	0.987			0.058	0.618
Bank-firm relationship variable								
RELATE LENGTH	-0.024	0.809	-0.087	0.228	-0.108	0.279	-0.136	0.056
Other banking market variables								
HERFINDAHL	1.391	0.065	0.889	0.322	1.101	0.154	0.796	0.253
DE NOVO ENTRY	0.114	0.546	0.034	0.788	-0.109	0.540	0.017	0.897
MKT MERGERS	1.577	0.099	-0.049	0.936	0.382	0.692	0.476	0.418
MKT ACQUISITIONS	-0.156	0.896	-0.358	0.699	0.034	0.976	-0.521	0.573
MKT BANK GROWTH	0.681	0.310	0.431	0.285	0.681	0.293	0.541	0.198
STATE INC GROWTH	0.222	0.975	-3.809	0.544	7.833	0.271	-1.526	0.785
MSA DUMMY	0.050	0.802	0.019	0.941	-0.082	0.725	0.212	0.275
MKT BANK ROE	1.505	0.432	-0.042	0.972	0.878	0.615	0.971	0.371
MKT BK NONPERF	8.059	0.260	7.215	0.103	16.405	0.007	2.610	0.576
MKT BK EQ-to-ASSET	-4.483	0.553	0.649	0.946	-14.510	0.070	-0.291	0.970
MKT PCT BANK FAIL	1.609	0.085	-0.841	0.346	0.122	0.917	1.453	0.054
Other bank variables								
BK MERGERS	-0.157	0.380	0.015	0.894	-0.338	0.119	0.130	0.244
BK ACQUISITIONS	-0.409	0.088	-0.075	0.690	-0.445	0.096	-0.121	0.496
MULTI BHC	0.121	0.449	-0.129	0.331	0.174	0.307	-0.045	0.766
OUT OF STATE BHC	0.295	0.082	-0.145	0.243	0.068	0.753	0.165	0.142
BK ROE	-0.473	0.565	-0.682	0.084	-0.533	0.237	-0.547	0.490
BK EQUITY RATIO	-1.112	0.806	8.333	0.047	6.688	0.089	-1.495	0.774
BK NONPERF LOANS	-2.312	0.500	-2.317	0.310	-2.498	0.400	-2.195	0.418
Firm variables								
FIRM AGE	0.028	0.840	-0.146	0.136	0.114	0.411	-0.096	0.340
LEVERAGE	0.046	0.808	-0.068	0.600	-0.008	0.967	0.125	0.372
PROFIT MARGIN	-0.121	0.716	0.147	0.586	-0.142	0.670	0.213	0.440
CURRENT RATIO	0.047	0.281	0.044	0.161	0.096	0.024	-0.035	0.272
QUICK RATIO	0.026	0.006	-0.007	0.210	0.018	0.066	0.000	0.951

Table 6 continued.

Dependent variable:	**PREMIUM**		**PREMIUM**		**PREMIUM**		**PREMIUM**	
	Small-bank markets (deposits at banks with less than $1 billion in assets is greater than 24.91%)		Large-bank markets (deposits at banks with less than $1 billion in assets is less than 24.91%)		Small Banks (assets less than $1 billion)		Large Banks (assets over $1 billion)	
Variable	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|	Parameter Estimate	Prob > |T|
AR TURNOVER	0.003	0.288	-0.002	0.235	-0.002	0.506	0.002	0.195
INV TURNOVER	0.001	0.519	-0.002	0.052	-0.001	0.465	-0.001	0.548
AP TURNOVER	-0.001	0.499	0.003	0.017	0.003	0.157	0.000	0.796
Ln(ASSETS)	-0.053	0.580	-0.024	0.717	-0.063	0.497	-0.025	0.711
Ln(SALES)	-0.167	0.100	-0.108	0.106	-0.155	0.106	-0.127	0.078
PERS DELINQ	0.017	0.953	0.096	0.693	0.212	0.508	-0.008	0.974
BUS DELINQ	0.334	0.080	0.395	0.001	0.395	0.027	0.313	0.019
JUDGMENT	-0.227	0.438	-0.027	0.925	-0.442	0.159	0.200	0.472
CORPORATION	0.269	0.287	0.008	0.975	0.276	0.241	0.194	0.479
SUBCHAPTER S	0.360	0.177	-0.103	0.679	0.224	0.356	0.215	0.443
PARTNERSHIP	0.248	0.518	-0.072	0.809	-0.111	0.744	0.083	0.805
OWNER MANAGED	-0.176	0.229	0.172	0.102	0.087	0.595	-0.001	0.993
FAMILY OWNED	0.126	0.440	-0.090	0.401	0.084	0.604	-0.069	0.553
CONSTR	-0.126	0.542	0.153	0.338	-0.032	0.877	0.114	0.492
SERVICES	-0.309	0.100	-0.094	0.448	-0.088	0.645	-0.340	0.009
RETAIL	0.167	0.363	0.133	0.362	0.159	0.362	-0.017	0.916
EMPLOYEE GROWTH	0.203	0.536	-0.084	0.778	0.598	0.191	-0.067	0.786
SALES GROWTH	-0.037	0.675	-0.064	0.350	0.008	0.926	-0.068	0.341
PPE-to-ASSETS	0.068	0.813	-0.038	0.870	0.057	0.838	0.099	0.667
R&D EMPLOYEES	0.089	0.892	0.793	0.021	0.428	0.351	0.897	0.053
Loan contract variables								
SECURE AR/INV	0.273	0.059	0.167	0.155	0.258	0.096	0.148	0.201
SECURE OTHER	0.390	0.015	0.091	0.497	0.491	0.003	-0.009	0.944
GUARANTEED	0.081	0.542	0.174	0.072	0.099	0.467	0.121	0.228
COMP BALANCES	-0.153	0.472	-0.247	0.096	-0.086	0.695	-0.277	0.061
Adj R-sq	0.2239		0.3024		0.2664		0.184	
Observations	260		260		224		296	