

1-1-1982

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BANK STRUCTURE AND SMALL BUSINESS LOAN MARKETS

Working Paper 82-701*

by

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This paper was presented at the Federal Reserve Bank of Chicago Conference on Bank Structure and Competition, April 12, 1982.

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ABSTRACT

The extant research on the impact of bank structure on bank service to local communities suggests that customers in local markets are better served by broader multi-office banking authority. Using survey data from a sample of over 4000 small businesses in April 1980, this paper analyzes the impact of branching status, bank size, and market size on average loan cost, bank competition for small firm business, credit availability and ratings of bank performance on desired services. The results of this study provide no evidence that banks in statewide branching environments provide better service to small businesses. Branching status was found to have no significant impact on loan costs or credit availability. Firms located in unit branching states had a significantly greater chance of being actively solicited by a bank for its business within the last five years. Banks in statewide branching states were more frequently given poor performance ratings across a broad dimension of desired characteristics in a banking relationship. On the basis of these data, the small business community would find no advantage to broader multi-office banking authority in states where it does not now exist.

Bank Structure and Small Business

1. Introduction

The objective of this paper is to examine the degree of competitiveness in local banking markets from the perspective of the small business borrower. Most of the extant research concerning the impact of bank structure (e.g., bank size, branching laws, holding company affiliation) on competitiveness in local markets suggests that broader forms of multi-office banking authority provide more output at a lower price (e.g., see [5]). Using survey data from over 4000 small businesses selected from the membership of the National Federation of Independent Business, this paper analyzes the degree of competitiveness in banking markets for small business across a broad spectrum of bank output (e.g. loan cost, credit availability, bank solicitation for new business, and the bank's ability to provide desired services). Although the analysis does not avoid all the problems of earlier work, we find no strong evidence that small businesses receive better service in areas with statewide branching. On the basis of performance rankings only we find that borrowing small businesses in statewide branching states consistently rate their banks significantly below average across a broad dimension of desired characteristics in a banking relationship. These conclusions contrast with McCall [7] who argues that "statewide branching would appear to result in considerable benefits accruing to local communities in states currently prohibiting or limiting branch banking."

The remainder of the paper is organized as follows. The issues surrounding measurement of the degree of competition in the extant literature is reviewed in Section 2 with an emphasis on the small business borrower. In Sections 3 through 6, the survey data are used to analyze how credit costs

number of banks and bank solicitation for new business, credit availability and bank service availability are related to bank structure variables.

2. Measuring the Degree of Competitiveness

The degree of competitiveness in local banking markets is important to the small business community because banks are an important source of funds for new business formations as well as for financing of going concerns. According to a recent survey of the National Federation of Independent Business membership, personal savings is the major source of capital for new business formations. One third of the new firms started had only one major source of capital; for 20 percent of these institutional lenders (primarily banks) provided that capital (Table 1 top panel). For firms with two major sources of capital, institutional lenders were the major source of funds for one-third, and a secondary source for nearly 40 percent. Overall, institutional lenders participated in the financing of 45 percent of the new starts. For going concerns, commercial banks provide 90 percent of the short-term financing (Table 1 bottom panel). Commercial banks are still an important source of long-term financing (69 percent), although private individuals, government (primarily SBA loans), and savings and loans become relatively more important.

The main issue addressed by this paper is whether or not less restrictive branching rules improve "competitiveness" in the markets serving small firms. This requires measures of performance which can be compared across banking rules, other things held equal. As a practical matter, virtually every market exhibits some degree of competition, at least from the threat of entry or the potential for customers to travel to nearby markets (see[12]). Consequently, any broadening of branching authority could have only second-order effects on the degree of competition and on the measure of performance used.

TABLE 1

Original and Ongoing Financing Sources for Small Business

Sources of Financing New Business Starts¹

<u>One Major Source</u>	<u>% of Firms²</u>	<u>Two Major Sources³</u>	<u>% of Firms²</u>
Personal Savings	20%	<u>Personal Savings and:</u>	
Friends; Relatives	2	Institutional Lender	21%
Institutional Lender	7	Friends; Relatives	11
Individual Investor	1	Individual Investors	3
Venture Capital	*		
Government	*	<u>Friends; Relatives and:</u>	
Other Source	3	Personal Savings	3
	33%	Institutional Lender	3
		<u>Institutional Lender and:</u>	
		Personal Savings	11
		Friends; Relatives	3
<u>No Answer</u>	5%	Other Pattern	7
			62%

¹Firms that were started by their owners (not purchased or inherited).

²Based on a total of 890 firms.

³Most important listed first.

*Less than .5 percent.

Ongoing Financing Sources by Loan Maturity

<u>Source</u>	<u>Maturity (in Months)</u>		
	<u>Percent Reporting</u>		
	<u>1-12</u>	<u>13-60</u>	<u>61 or more</u>
Bank	90%	82%	69%
Private Individual	4	5	9
Government (e.g. SBA, EDA)	1	1	4
Finance Company	1	4	2
Insurance Company	1	1	2
Factor	*	*	*
Co-op	1	1	1
Saving and Loan	1	1	7
Other	1	4	4
Total Cases	1736	1046	370

*Less than .5 percent.

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

A further complication arises because banks can compete on many margins, diluting the magnitude of whatever impact differences in the branching law might have on performance. Looking just at interest rate differentials ignores any competitive changes in credit availability, risk-taking, or the provision of other services (e.g., business counseling). Thus, the impact of changes in the branching laws will likely have only second order effects on the degree of competition in a given market. Whatever the magnitude of the change, it is likely to be spread over many different competitive margins. This will make the measurement of the impact of regulatory change empirically difficult.

Defining "market" is a difficult task which is continually confounded by developments in electronic banking. Some researchers (e.g., [11]) have defined local banking markets using the Standard Metropolitan Statistical Area (SMSA). If transactions costs and information costs become lower with decreasing market size, and these lower costs are reflected in loan terms and lower costs to the firm, an SMSA may be too large a definition of the market. Experience with a firm and a local market provides the lender with information that would be available to lenders outside the "local" market only at a higher cost. With information from the borrower, arbitrarily defining the market is not essential. Whether or not a particular branching rule consistently produces superior performance in each firm's local market can be examined with firm-specific data from random samples of firms operating in markets with different regulatory structures. This is the approach taken in this paper.

Defining price and output in banking markets is also fraught with problems. Small business loans are a heterogeneous product where the interest rate charged is only one of several elements (e.g. maturity, loan size or collateral) of the price vector that can adjust to clear the market. One

dimension of output is the number of banks in the local market, while another is the volume of loans provided. Banks also provide commitments (formal or informal) for future funds and business counseling and other services that are clearly a form of output but difficult to quantify. Such services are usually charged for in the price of the loan. Any attempt to measure the impact of regulation on a measure of price such as average interest rate paid presents formidable interpretation problems if only quantifiable output such as loan volume can be controlled.

Any assessment of the degree of competitiveness prevailing in a local market is thus a complex task. Previous researchers have addressed this issue on a piecemeal basis using branching status and holding company affiliation as the primary proxies for degree of competition. Studies (e.g., [16]) of the number of banks and branching offices have shown that statewide branching has produced in a smaller number of bank organizations, but a larger number of banking offices had statewide branching not been prohibited. These studies also suggested that statewide branching has not reduced the number of banking organizations in local metropolitan areas but has increased the number of banking offices. More recent studies [5] have suggested that broader branching authority in nonmetropolitan areas has resulted in more banks as well as bank offices.

Some recent studies (e.g., [10]) on holding company acquisitions suggest that the acquired banks provided more services than they did as independent banks. Studies of the performance measures (e.g., return on equity, average interest paid on deposits, average loan rates) used to assess the degree of competitiveness suggest that broader branching authority resulted in lower prices and profits (e.g., [12]). Studies of credit availability by organizational structure have relied upon loan-to-asset ratios or some other scaled

measure of loan volume. The evidence suggests that broader multi-office banking authority has not made credit less available to rural or nonmetropolitan areas or to small business borrowers ([14]). The studies of loan charges generally used some aggregate interest figure ($(\text{loan interest} + \text{fees})/\text{total loans}$) for a given market area which averaged out differences in risk as well as portfolio composition.

Although McCall [7] suggests that broader branching authority would result in improved service in local banking markets, the empirical evidence may not be as conclusive as it first appears for the small business borrower. First, none of the studies have addressed these issues with data that encompasses the recent high levels of interest rates. The level of aggregation in many of the studies, especially those relating to performance measures, may have "averaged out" significant differences for small business borrowers. In most all of the studies dummy variables were used to control for branching status or holding company affiliation. Each time these variables are "turned on" they capture the impact of organizational form as well as any other variable that is correlated with it. For example, region of the country is highly correlated with branching status; the significance of branching variables in performance equations may only reflect regional differences in operating costs. These criticisms of earlier studies are not intended to denigrate their contributions, but only to suggest that the case is not closed regarding the degree of competitiveness in small business loan markets.

A recent study of the membership of the National Federation of Independent Business, Credit, Banks, and Small Business (April 1980), allows another look to be taken at the degree of competitiveness in local banking markets.² In this study the respondents were asked about terms on their most recent loan, their ability to obtain credit, and their ranking of desired attributes

of banking services along with a rating of their bank on each of these attributes. These attributes included items such as knowledge of financial needs, knowledge of the business, and reliability as a source of credit. The respondents also provided information about the size of their primary bank, the number of banks in their community, the population of their community, their borrowing frequency and their state. These data are used to study the impact of branching laws on bank services, credit availability, cost of loans, and banking office availability from the small business borrowers perspective.

Although the relevant bank structure data may be less well-defined than in previous studies, the contribution of this paper lies in the use of disaggregated data to analyze the issues involved in bank structure. Data are from individual borrowers and relate to the actual credit market in which they function. Thus, accurately defining the appropriate market is not essential. We can see if a particular branching rule consistently produces superior or inferior performance in the local markets, regardless of size or definition.

3. Loan Pricing

Average interest rates paid on short-, medium-, and long-term loans by bank structure characteristics are presented in Table 2. Only loans originated from commercial banks between the first quarter of 1979 and the first quarter of 1980 are included in the computations. Also included are the F-statistics and significance levels from a one-way analysis of variance on each bank structure variable. The data available did not permit adjustment of the reported rates for differences in fees, compensating balances, or method of repayment.

For short-term loans, significant differences existed between the mean loan rates for each bank structure variable. The average interest rate paid

TABLE 2

Average Interest Rate Paid by Maturity Classification on Loans Originated

From Commercial Banks: 1979I-1980I

Bank Structure Variable	Average Interest Rate (Percent)		
	Short-Term (under 12 months)	Medium-Term (12-60 months)	Long-Term (over 60 months)
Market Size:¹			
Rural	14.4% (412) ²	13.7% (124)	12.7% (34)
Small City	15.3 (354)	13.8 (133)	13.2 (35)
City	16.2 (258)	14.4 (114)	13.0 (25)
Metropolitan	15.6 (283)	14.3 (117)	13.5 (25)
F (Significance)	14.3(.00)	1.9(.10)	.6(.66)
Bank Size (Assets):			
under \$100 million	14.6 (490)	13.6 (161)	12.8 (43)
\$100-\$500 million	15.1 (317)	13.9 (112)	12.9 (30)
over \$500 million	16.0 (479)	14.4 (197)	13.4 (45)
F (Significance)	12.3(.00)	2.1(.08)	.5(.77)
Branching Status:			
Statewide	15.7 (524)	14.3 (206)	13.1 (45)
Limited	14.7 (303)	13.7 (111)	13.0 (39)
Unit	15.1 (453)	13.9 (161)	13.2 (34)
F (Significance)	7.4(.00)	1.5(.22)	.06(.98)
Region:			
New England	16.2 (35)	13.7 (13)	15.4 (4)
Mid-Atlantic	15.3 (173)	13.5 (32)	12.3 (20)
East North Central	14.6 (150)	14.4 (46)	13.9 (21)
West North Central	14.5 (149)	13.4 (24)	11.7 (10)
South Atlantic	14.4 (92)	13.0 (35)	13.2 (3)
East South Central	14.6 (40)	13.4 (13)	13.1 (2)
West South Central	15.2 (271)	14.0 (130)	13.3 (25)
Mountain	15.4 (87)	13.9 (26)	13.4 (8)
Pacific	16.2 (283)	14.9 (109)	12.9 (25)
F (Significance)	5.2(.00)	2.5(.01)	1.2(.33)

¹Rural: Up to 15,000 population
 Small City: 15,000 to 100,000 population
 City: 100,000 to 1,000,000 population
 Metropolitan: over 1,000,000 population

²Number of cases

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

increased with the size of the market and the size of the bank. Differences in rates paid by market size may be attributable to urban-rural differences in wages, rents, and other overhead; differences in rates paid by bank size may be attributable to differences in deposit mix because smaller banks have been able to rely more heavily on "cheaper" deposits as a source of funds. These differences can arise because small firms are generally limited to local markets because of high information and transactions costs and thus cannot arbitrage these differences away. None of these differences were significant for medium- or long-term loans.

The branching impact on the average interest rate paid for short-term loans is more difficult to interpret. If a "true" statewide branching effect exists, it is in the opposite direction that would be expected given the findings of previous research. Higher rates were paid by borrowers under statewide branching and lower rates paid by borrowers under limited branching. This branching difference may be due to other effects working through a correlation with branching status. Or, banks in limited branching states may take less risk, resulting in lower nominal rates charged. Regional differences are also correlated with branching laws (see Table 3). All of the Pacific Region states have statewide branching (and the highest average rate) while the South Atlantic and East South Central regions are dominated by limited branching restrictions. Regional differences in wages, rent, and overhead could, in part, explain the differences in Table 2. As was true with market and bank size, no significant branching or regional effect occurred for medium- or long-term loans.

The interaction of all of the bank structure variables in Table 2 plus such economic factors as loan size, risk, and the level of interest rates was analyzed for each loan maturity class in a multivariate regression model in

Table 3

Simple Correlations for Branching Status
and Region of the Country

<u>Branching Status</u>	<u>Region of the Country</u>								
	<u>New England</u>	<u>Mid- Atlantic</u>	<u>East North Central</u>	<u>West North Central</u>	<u>South Atlantic</u>	<u>East South Central</u>	<u>West South Central</u>	<u>Mountain</u>	<u>Pacific</u>
Statewide	.03	.36*	-.28*	-.25*	-.02	-.14*	-.41*	.02	.65*
Limited	.11*	-.07	.44*	-.05	.24*	.32*	-.18*	-.10*	-.28*
Unit	-.11*	-.28*	-.08	.33*	-.17*	-.13*	.62*	.08	-.37*

*Significant at .001 level

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

[14]. The bank structure variables were insignificant for medium- and long-term loans, except for the region (borrowers in southern states paying significantly lower rates). For short-term loans, bank size and market size were significant in the same directions as in Table 2; branching status was not significant but region was.³

The overall impact of bank structure on small business loan pricing may be diminishing. Since January 1981, the National Federation of Independent Business has asked its members to report the most recent interest rate paid within the last quarter on short-term loans as part of its Quarterly Economic Report. Although the market categories are not directly comparable, the data in Table 4 suggest that the market, regional, and branching differentials have been narrowing. These narrowing differentials are consistent with the penetration of national money market funds into the bank deposit market (especially in rural areas) which has substantially raised their cost of funds thus putting upward pressure on loan rates.

4. Number of Banks in the Local Market and Changes in Competition

The impact of branching restrictions on the number of commercial banks and offices in local markets was addressed with the survey data. The distribution of reported number of banks in the community controlled by branching status is reported in Table 5. Even though the respondents may not have been able to give the precise number of banks in their community (or distinguish between organizations versus offices), the data in Table 5 are consistent with the results of previous research.⁴ The data do have the advantage of not being encumbered with artificial definitions of market size such as SMSA or county boundaries.

Table 4

Average Interest Rates Paid By
Bank Market, Region of Country, and Branching Status

<u>Variable</u>	<u>Average Interest Rate (Percent)</u>					
	<u>Year and Quarter</u>					
	<u>1980 IV</u>	<u>1981 I</u>	<u>1981 II</u>	<u>1981 III</u>	<u>1981 IV</u>	<u>1982 I</u>
Market Size:						
Rural	15.8	17.1	18.2	18.6	17.6	17.4
Suburban	17.9	17.8	19.1	19.6	18.0	17.7
Metropolitan	19.2	18.3	19.7	20.1	18.1	18.1
Branching Status:						
Statewide	18.6	18.0	19.7	19.8	18.2	18.1
Limited	17.8	17.8	18.4	19.2	17.6	17.5
Unit	17.6	17.2	19.0	19.1	17.8	17.6
Region:						
New England	19.1	18.2	19.5	20.1	17.6	17.9
Mid Atlantic	17.8	18.0	19.2	18.6	17.5	17.2
East North Central	17.9	17.7	18.9	19.3	17.8	17.7
West North Central	17.2	16.9	18.4	18.4	17.4	17.4
South Atlantic	17.5	17.5	18.2	19.1	17.8	17.2
East South Central	18.0	18.1	18.6	19.1	17.6	16.9
West South Central	17.7	17.3	19.0	19.6	18.1	17.9
Mountain	18.3	18.0	19.4	19.7	18.2	18.2
Pacific	19.0	18.3	19.8	20.2	18.7	18.6

Source: Quarterly Economic Report, National Federation of Independent Business.

Table 5

Branching Status and Number of Banks Reported in the Community:

Controlled by Market Size¹

<u>Number of Banks in the Community</u>	<u>Number of Cases</u>	<u>Branching Status</u>			
		<u>Percent Reporting</u>			
		<u>Total</u>	<u>Statewide</u>	<u>Limited</u>	<u>Unit</u>
Rural:					
1	188	16%	20%	33%	45%
2-3	556	47	28	36	32
4-5	252	22	48	31	17
6 or more	134	12	53	33	13
No Answer	137	3	14	62	24
Total*	1167	100%	33%	35%	28%
Small City:					
1-3	219	19%	32%	39%	12%
4-5	434	37	49	31	17
6-10	319	27	69	20	10
11 or more	165	14	77	12	7
No Answer	26	3	77	15	4
Total*	1163	100%	56%	26%	15%
City:					
1-5	174	19%	60%	27%	10%
6-10	231	25	56	26	14
11 or more	506	54	71	11	15
No Answer	26	3	77	15	8
Total*	937	100%	66%	18%	14%
Metropolitan:					
1-10	191	24%	36%	8%	54%
11 or more	583	73	22	5	69
No Answer	22	3	23	0	77
Total*	796	100%	25%	6%	66%

*Includes no answer

¹See Table 1 for the definition of the market size categories.Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

Respondents in nonmetropolitan areas (rural and small city) more frequently reported greater numbers of banks in their communities under statewide branching than under narrower branching forms. In smaller metropolitan markets (city as defined in the survey) statewide and unit branching respondents more frequently reported greater numbers of banks in their communities than those in limited branching states. In larger metropolitan markets, respondents in unit banking states more frequently reported greater numbers of banks in their communities than those in limited or statewide branching states. In all cases the chi-square test of independence rejected the null hypothesis that responses to market size were independent of the bank branching status where the respondent was located.⁵

Another dimension of competition in local markets is the extent of the active solicitation of new business by banks. The April 1980 survey asked two questions about perceived changes in bank competition within the last five years: "Within the past five years, has a bank ever actively tried to get your firm's banking business?" and "Have you noticed any change in competition for your firm's business among banks now compared to 5 years ago?" A distribution of the bank competition responses by the bank structure variables is presented in Table 6. Actual bank solicitation within the last 5 years was more frequently reported by respondents in markets with 11 or more banks and least frequently reported in markets with three banks or less. The same pattern holds for the firm's view of the general competitive environment. Respondents in metropolitan markets and those served by banks with over \$500 million in assets more frequently reported actual bank solicitation for their business. The impact of the size of bank variable is difficult to interpret because the choice of a bank is made by the firm subject to the available banks in the market and thus is not strictly a characteristic of the market.

Table 6

Bank Competition and Bank Structure

For All Respondents

Bank Structure Variable	Number of Cases		Actual Bank Solicitation		Change in Competition For Your Banking Business		
			Percent Reporting				
		Total	Yes	No	More	No Change	Less
Number of Banks in Community:							
1	225	5%	24%	68%	15%	46%	6%
2-3	853	20	31	64	18	47	9
4-5	907	22	41	53	22	41	9
6-10	743	18	45	51	23	40	10
11 plus	1295	31	52	44	24	37	11
No Answer	162	4	19	40	12	23	4
Branching Status:							
Statewide	1914	46	41	53	20%	40%	9%
Limited	953	23	34	58	19	44	9
Unit	1185	28	47	47	24	39	9
No Answer	133	3	44	48	26	40	14
Market:							
Rural	1167	28	29	65	17%	45%	9%
Small City	1163	28	43	52	23	39	9
City	937	22	44	52	19	42	10
Metropolitan	796	19	56	39	29	36	10
No Answer	122	3	22	38	14	28	5
Bank Size:							
Under \$100 million	1344	32	35	60	19%	44%	9%
\$100-500 million	957	23	43	53	22	41	9
Over \$500 million	1616	39	47	47	23	39	10
No Answer; Don't Know	268	6	21	31	13	17	4
Total Cases	4185	100%	41%	53%	21%	41%	9%

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

If larger banks solicit more, say due to specialized small business lending functions, then their small business customers would report a higher frequency of contact. Respondents from unit branching states were more frequently contacted by a bank in the last five years than firms in states with limited and statewide branching laws (and also view the general banking environment as more competitive). This "branching effect" is consistent with the results in the previous section; i.e., firms reporting a greater degree of solicitation for their business are paying lower rates on their loans.

Firm specific characteristics may also affect whether or not a business has been actively solicited by a bank. Growing businesses promise a greater expected profit for a bank than non-growing businesses because of greater loan volume and should have a greater chance of being actively solicited. Firms that are frequent borrowers are more likely to be solicited than infrequent borrowers again because of the expected profit potential. Risk may also play a role in the chance of a firm being actively solicited for a loan. All else equal, a less risky firm would be more likely to be solicited for its business than a riskier firm.

The interaction of all these effects was captured in a multiple regression model. A multivariate test of the factors affecting the chance of a bank receiving an active solicitation for its business was done in [2] and the results were consistent with those in Table 6.⁶ Even after controlling for firm-specific characteristics, bank structure still had a significant impact on the chance of a firm receiving an active solicitation. The chance of being contacted increased with years in business, growth in sales, and borrowing frequency; it also increased with the number of banks in the community, market size, and bank size, and with location in a state with unit branching laws.

5. Credit Availability

Overall, small business has not had a significant problem finding credit to satisfy their borrowing needs. In the April 1980 survey, over 80 percent of the borrowing respondents from commercial banks reported that all or most of their credit needs were met (see Table 7). Only four percent reported major deficiencies while 10 percent reported only some needs were met. Satisfaction was related to the maturity of the loan: firms with longer maturity loans less frequently reported that all their credit needs were met. Over 87 percent of the borrowers from commercial banks reported that at least 90 percent of their initial loan request was granted; again, firms with longer maturity loans more frequently reported a lower percentage of their initial loan request granted.

The April 1980 survey also asked: 1) "if current availability (not the cost) of business credit has caused you to cancel, postpone, or scale down plans to expand, modernize, or renovate [their] business" and 2) "if the current interest rates have caused you to cancel, postpone, or scale down plans to expand, modernize, or renovate [their] business." Over 55 percent of the small businesses reported some curtailment in expansion plans due to availability problems in early 1980, although the percentage for all loan attempts was slightly over 45 percent (see Table 8). Whether this increase in reported availability problems in the first quarter of 1980 was due to tight money or the start of widening risk premiums at the peak of the business cycle cannot be ascertained from the data in Table 8.

The data in Table 8 may also be somewhat misleading regarding the extent of credit rationing in the small business community. Almost 70 percent of those who reported reducing, postponing, or canceling expansion plans for availability problems reported the same for current interest rates (see Table

Table 7

Credit Availability and Loan Maturity For
Those Who Borrowed from Commercial Banks

<u>Credit Experience</u>	Number of Cases ¹	Maturity of Loan (Months) Percent Reporting			
		All	1-12 ²	13-60	61 or More
All Needs Met	1429	57%	58%	28%	7%
Most Needs Met	689	27	54	33	9
Some Needs Met	251	10	53	32	12
Major Needs Not Met	107	4	49	36	8
No Answer	44	2	45	30	7
 <u>Percent of Initial Loan Request Granted</u>					
100-90	2194	87%	56%	30%	9%
89-50	161	6	45	35	18
Under 50	78	3	55	35	9
No Answer	87	4	53	25	2
Total	2520	100%	56%	30%	9%

¹Includes only those who reported an attempt for a loan at a commercial bank.

²Includes revolving lines of credit.

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

TABLE 8

Reported Credit Availability Problems at Commercial
Banks and Small Business Expansion Plans

Impact of Availability Problems	Last Time Loan Attempt Was Made Percent Reporting							Before 1978
	Total	1Q 1980	4Q 1979	3Q 1979	2Q 1979	1Q 1979	1978	
Plans Cancelled	11%	13%	11%	13%	13%	11%	10%	7%
Plans Postponed	19	22	23	17	20	17	18	11
Plans Reduced	16	20	19	18	16	12	12	7
No Effect	45	36	38	42	40	53	50	62
Undecided	6	6	7	7	8	6	5	7
No Answer	3	3	2	3	3	1	5	6
Total Cases	2520	747	384	233	213	162	283	498

TABLE 9

Impact of Credit Availability Versus High Interest Rates
on Small Business Expansion Plans

Impact of Availability Problems	Impact of High Interest Rates Percent Reporting						No Answer
	Total	Plans Cancelled	Plans Postponed	Plans Reduced	No Effect	Un- decided	
Plans Cancelled	11%	75%	15%	4%	4%	1%	1%
Plans Postponed	19	13	74	8	2	2	1
Plans Reduced	16	14	15	62	7	2	*
No Effect	45	8	16	15	56	4	1
Undecided	6	14	21	14	10	40	1
No Answer	3	24	19	8	11	3	34
Total Cases	2520	461	679	487	703	132	58

*Less than .5 percent

Source: Credit, Banks, and Small Business (April 1980), National Federation
of Independent Business.

9). This high correlation is not surprising. If cost rations a borrower out of the market, credit may be viewed as harder to get. The data in Table 9 thus suggest that a very low percentage of the small business community reported true credit rationing problems, i.e., reported no problems with interest rates but did cancel, postpone, or reduce plans due to availability problems. Table 10 presents the time series behavior of the data in Table 9 which have been reclassified into five groups: 1) those who reported availability problems but no interest rate problems (3 percent); 2) those who reported interest rate problems but no availability problems (21 percent); 3) those who reported neither availability or interest rate problems (29 percent); 4) those who reported both interest rate and availability problems (43 percent); and 5) no answer (4 percent). The breakdown in Table 10 still does not resolve the problem of to what degree reporting "both" have experienced availability versus cost problems. Because the "availability only" category includes so few respondents any reference made to those reporting availability problems henceforth includes the "availability only" and "both" categories.

The breakdown of the data in Table 10 is useful for analyzing satisfaction with loan terms (see Table 11). Only those respondents who received a loan from a commercial bank from the first quarter of 1979 through the first quarter of 1980 have been included in the analysis.⁷ Over 75 percent received their originally requested loan terms and found their final loan terms to be satisfactory or very satisfactory. Those borrowers reporting availability problems less frequently reported their entire initial loan request granted, less frequently received their originally requested loan terms, and less frequently reported final loan terms as very satisfactory. Not surprisingly, those reporting availability problems most frequently reported the loan size and maturity as the reason for dissatisfaction while all other borrowers most

TABLE 10

Availability/Interest Rate Impact on Retrenchment
of Small Business Expansion Plans Over Time

Date of Last Loan Attempt From a Com- mercial Bank	Number of Cases	Availability/Interest Rate Impact Percent Reporting				
		Total	Availability	Interest Rate Only	Both	Neither
1Q 1980	747	30%	3%	21%	52%	21%
4Q 1979	384	15	2	22	51	22
3Q 1979	233	9	3	20	45	29
2Q 1979	213	9	3	24	46	23
1Q 1979	162	6	2	25	38	34
1978	283	11	3	21	37	35
Before 1978	332	13	3	17	25	48
Don't know	166	7	1	17	18	52
Total	2520	100%	3%	21%	42%	30%

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

TABLE 11

Loan Terms from Commercial Banks and Availability/Interest Rate
Impact on Retrenchment of Small Business Expansion Plans

Percent of Original Loan Request Granted	Number of Cases	Availability/Interest Rate Impact Percent Reporting			
		Total	Availability	Interest Rate Only	Neither
90-100	1495	86%	48%	24%	25%
50-89	128	7	76	7	13
Under 50	64	4	89	3	5
No Answer	52	3	40	25	33
<u>Originally Requested Loan Terms Were Received</u>					
Yes	1327	76%	48%	23%	26%
No	219	13	75	14	10
Terms Given	162	9	49	27	22
No Answer	31	2	42	19	11
<u>Final Loan Terms Were</u>					
Very Satisfactory	635	36%	37%	25%	35%
Satisfactory	681	39	53	23	21
Not Too Good	329	19	69	17	12
Unsatisfactory	66	4	82	12	5
No Answer	28	2	68	14	11
Total	1739	100%	52%	22%	24%
<u>Reasons for Dissatisfaction¹</u>					
Interest Rate	305	40%	70%	19%	9%
Amount	100	13	86	3	7
Maturity	86	11	84	9	5
Collateral	109	14	82	10	6
Other	155	22	80	6	10
Total	755	100%	77%	12%	8%

¹For those reporting that the final loan terms were "Not Too Good" or "Unsatisfactory." Includes multiple responses.

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

frequently reported the interest rate charged and other reasons (e.g., treatment by bank) most frequently. Although maturity of the loan varied systematically with the credit availability variables in Table 7, loan maturity showed no distinct relationship to reported availability problems as defined in Table 10.

The data have been analyzed to determine if any of the firm specific or bank structure characteristics for distinguishing between those borrowers reporting availability problems and those borrowers who did not.⁸ Risk was a significant factor distinguishing borrowers who reported availability problems (higher risk) and those who did not (lower risk). Borrowers who had been in business for a few years or whose growth was declining or whose loans were collateralized more frequently reported availability problems (see Table 12) and these distributions were significantly different using a chi-square test of independence. Relative to the overall distribution and the "interest rate only" and "neither" categories, availability problems were more frequently reported in the first quarter of 1980, a period of record high interest rates and a period that has been characterized as one of tight money.

Although tight money may have contributed to availability problems, the first quarter of 1980 also coincided with the peak of the business cycle when risk premiums started to widen. Riskier firms facing larger risk premiums would have found themselves "price" rationed out of the market if they were unwilling to pay the higher risk premium. The data thus suggested that some of those reporting availability problems really do not have a problem of being unable to obtain their desired amount of credit at any price; their reported availability problems appeared to result more from a divergence of opinion between the bank and the borrower regarding the borrower's risk.

TABLE 12

Borrower Characteristics

Availability/Interest Rate Impact on Expansion Plans

<u>Characteristic</u>	Number of Cases	<u>Availability/Interest Rate Impact Percent Reporting</u>			
		<u>Total</u>	<u>Availability</u>	<u>Interest Rate Only</u>	<u>Neither</u>
<u>Years In Business</u>					
1-2	152	9%	41%	24%	31%
3-4	210	12	65	14	20
5-6	184	10	62	17	19
7-10	291	17	54	23	19
11-15	214	12	54	22	22
16-20	167	10	48	25	23
21 or more	509	29	44	23	28
No Answer	12	1	42	25	33
<u>Business Activity Description</u>					
Rapidly Growing	257	15%	54%	17%	26%
Growing	910	52	49	23	25
Steady	368	21	48	25	25
Not As Much	156	9	74	16	5
Too New To Tell	37	2	30	22	41
No Answer	11	1	46	18	36
<u>Collateral Status of Loan</u>					
No	615	35%	38%	24%	30%
Yes	1124	65	56	20	20
<u>Borrowing Frequency</u>					
Frequent	1409	71%	67%	22%	22%
Infrequent	330	19	42	21	31
Total	1739	100%	52%	22%	24%

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

The distribution of those reporting availability problems showed no systematic differences vis-a-vis those not reporting availability problems by number of banks in the community. Those reporting availability problems more frequently reported problems with large banks and with banks in metropolitan areas, and less frequently reported problems in unit banking states; however, these differences were not significant using the chi-square test of independence. Availability problems also appeared to be more frequent for those who did not receive an actual bank solicitation for their business in the last five years; those reporting availability problems more frequently reported less change in competition among banks now versus five years ago. These differences were not significant using the chi-square test of significance for the bank solicitation question but were for the competition question.

A multivariate test of reported availability problems was done in [15] and the results are consistent with those in Tables 12-13.⁹ The likelihood of a borrower reporting availability problems increased with the level of interest rates, increased if collateral was required, decreased with years in business, and increased if the firm's sales growth had been declining. The results were estimated with the 'change in bank competition' and with the 'bank solicitation' variables individually as well as with the branching status, bank size, market size, and number of banks in the community as a set. In no case were any of these variables significant. Both the tables and the multivariate results support the contention that reported availability problems are more a function of risk than the inability to obtain credit at any price.

TABLE 13

Bank Structure Characteristics and Availability/Interest Rate
Impact on Retrenchment of Small Business Expansion Plans

<u>Characteristic</u>	<u>Number of Cases</u>	<u>Availability/Interest Rate Impact Percent Reporting</u>			
		<u>Total</u>	<u>Availability</u>	<u>Interest Rate Only</u>	<u>Neither</u>
<u>Number of Banks In the Community</u>					
One	90	5%	57%	21%	20%
2-3	365	21	55	23	20
4-5	377	22	48	22	27
6-10	317	18	54	21	22
11 or More	553	32	51	22	25
No Answer	37	2	41	24	19
<u>Branching Status</u>					
Statewide	703	40%	50%	24%	23%
Limited	415	24	56	18	23
Unit	561	32	49	23	25
No Answer	60	4	62	12	22
<u>Market Size</u>					
Rural	492	28%	53%	23%	21%
Small City	484	28	54	22	21
City	357	21	51	21	24
Metropolitan	381	22	48	21	29
No Answer	25	1	32	16	48
<u>Bank Size (Assets)</u>					
under \$100 million	620	36%	52%	21%	24%
\$100-\$500 million	422	24	54	22	21
over \$500 million	638	37	49	23	25
Don't Know	45	2	47	22	29
No Answer	14	1	21	14	21
Total	1739	100%	52%	22%	24%

6. Bank Service

The relationship between a bank and its small business borrower involves more than just lending money. Reliability as a source of credit is an important part of the relationship which the business may be willing to pay for implicitly in the loan rate. Helpful business suggestions from the banker may also be highly valued by the customer. The survey contained a list of characteristics that attempted to capture the multidimensional nature of the bank-customer relationship (see Table 14). Firms were asked first to rank these characteristics from 1 (very important) to 4 (not important) based on their desirability in conducting its banking business. The firms were then asked to rate their major bank's performance on these characteristics from 1 (good) to 4 (not good). Table 14 is divided into three sections by borrowing frequency. Regular borrowers include those firms that borrow at least once per year (53 percent of the sample). Infrequent borrowers include those who reported a loan attempt at a commercial bank but who did not report themselves as borrowing at least once per year. Because of the wide variation in no answer responses between borrowing categories, percentages reported in Table 14 have been computed net of the no answer responses for each question.

'Knowledge of the firm and its business' was reported as very important to the desired banking relationship more frequently than any other attribute by all borrowing categories. Not surprisingly this percentage increased with the frequency of borrowing. Next most frequently reported as very important were 'reliable source of credit' and 'offers the "cheapest money" available;' this percentage once again increased with borrowing frequency. Those characteristics that were least frequently reported as very important to the desired banking relationship were 'providing helpful business suggestions' and 'coming to the firm with ideas for improving bank service.' These percentages did not

Table 14

Desired Characteristics in a Banking Relationship and Bank Performance by Borrowing Frequency

	Frequent Borrower			Infrequent Borrower			Non-Borrower		
	Character- istic ¹ Very Important	Good ¹ Bank Rating	Adjusted ² Bank Rating	Character- istic ¹ Very Important	Good ¹ Bank Rating	Adjusted ² Bank Rating	Character- istic ¹ Very Important	Good ¹ Bank Rating	Adjusted ² Bank Rating
Knows you and your business	76%	50%	57%	69%	46%	55%	64%	47%	53%
Provides helpful business suggestions	26	21	34	26	21	32	27	24	32
Offers the "cheapest money" available	52	27	33	51	29	35	49	29	33
One person always handles your credit needs	48	51	66	42	43	59	41	44	57
Easy to get to	40	56	71	46	59	70	47	58	64
Reliable source of credit	64	51	59	54	49	57	50	46	50
Knows your industry	33	25	42	27	24	42	32	25	38
Comes to you with ideas for improving bank service to your firm	20	15	27	21	14	28	24	16	25
Knows your financial needs	40	30	44	31	26	41	31	26	40
Offers a wide range of bank services	33	46	61	39	48	60	43	48	57
Number of cases	2222			1024			759		

¹Percentages are computed net of no answers. The average no answer rate for borrowers was about 5 percent, for infrequent/rejected borrowers it was over 13 percent, and for non-borrowers it was almost 35 percent.

²Firm had to rate desired characteristic as "very important" and rate bank performance as "good."

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

vary markedly with borrowing frequency. The importance of two characteristics, 'easy to get to' and 'offering a wide range of bank services' increased with declining borrowing frequency.

The importance of the non-price dimension of the banking-customer relationship from the customer's viewpoint is confirmed in Table 14 because 'offers the "cheapest money" available' is not the most frequently rated very important (or important) characteristic. If firms are willing to pay a higher explicit rate of interest on loans or higher fees on checking accounts to obtain these services, an analysis of degree of competitiveness in local banking markets using average loan rates would be difficult to interpret if loan volume is the only measure of output.

The ranking of bank performance on the characteristics differ markedly from the ranking of desired characteristics. Most frequently reported as good was 'easy to get to,' followed by 'reliable source of credit,' 'one person always handles your credit needs,' 'knows you and your business' and 'offers a wide range of banking services' (all within 2-3 percentage points of each other). The percentage reporting good performance for 'one person handling all credit needs' increased with borrowing frequency; otherwise there were no significant differences across borrowing categories. The two characteristics least frequently rated as very important to the desired banking relationship ('provides helpful business suggestions' and 'comes with ideas for improving bank service') were also least frequently rated as good from a performance perspective.

The rating of bank performance on the basis of the total responses may be somewhat misleading because it includes the ratings of those who may have felt the characteristic is not important in their desired banking relationship. The "adjusted bank rating" column corrects for this bias by only including

those responses where the characteristic was rated as "very important" in the banking relationship. With this adjustment, 'reliability as a source of credit' and 'one person handling credit needs' both increased in frequency of rating as borrowing frequency increased which suggested that firms who wanted good service found it; otherwise the percentages did not differ markedly across borrowing categories.

Several large differences also now appear between the desired and actual performance ratings. Bank ratings on 'knows you and your business' and 'offers the "cheapest money" available' were the worst relative to the desired ratings. The size of the difference, not surprisingly, increased with the frequency of borrowing. Banks did best relative to the desired ratings on 'offering a wide range of banking services,' 'easy to get to,' and 'one person always handling credit needs.'

The relatively poor performance of banks on 'offering the "cheapest money" available' is not surprising given the record high interest rates at the time of the survey. The good performance of banks regarding 'one person handling credit needs' and the poor performance regarding 'knowledge of the firm's business' may be due to 1) the lending officer having "multi-product" responsibilities (e.g., small business, consumer credit, mortgage) or 2) the lending officer being transferred after a short period of time. In the former case the small business borrower may feel the officer has not devoted enough time to his financial needs while in the latter case the small business borrower may be frustrated by the continual "re-learning" process. Finally, banks have done quite well regarding the non-personal aspects of the business (location and service offerings) even though small business borrowers have not ranked these characteristics high in terms of their desirability in the banking relationship.

The impact of bank structure on the adjusted bank ratings can be examined initially by examining the distribution of actual ratings by branching status, market size or bank size. Table 15 provides an example of how branching status is related to several of the characteristics listed in Table 14. Note that in this table the performance ratings are conditional upon the characteristic being rated "very important" or "important." The data in Table 15 suggest that frequent borrowers from banks with statewide branching more often gave poorer ratings across a wide range of characteristics. With the exception of 'offering a wide range of services,' performance ratings were not independent of the responses to branching status using the chi-square test of independence.

Significant differences in actual and expected distributions of characteristic rating by bank structure variables occurred across all borrowing categories. Table 16 summarizes the instances in which the chi-squared test of independence rejected the null hypothesis that the performance ratings were independent of the responses to bank structure characteristics. In almost all cases frequent borrowers from city and metropolitan markets, statewide branching banks, whose bank's assets exceeded \$500 million more frequently rated their major bank's performance as below average or not good. Infrequent borrowers in statewide branching or whose major bank's assets exceeded \$500 million more frequently rated their major bank's performance as below average or not good. Finally, non-borrowers from city or metropolitan areas more frequently rated their bank's performance as below average.

The evidence in Table 16 suggests a significant bank structure impact (especially branching status) upon the non-price dimensions of bank service. However, the data in Table 16 have not held firm specific characteristics constant that might be highly correlated with the bank structure variables. For

Table 15

Branching Status and Adjusted Bank Performance:

Frequent Borrowers

Adjusted Performance Variable	Branching Status	Number of Cases	Performance Rating Percent Reporting				
			Total	Good	Above Average	Below Average	Not Good
Knows You and Your Business:	Statewide	761	42%	47%	31%	16%	6%
	Limited	444	24	53	31	12	4
	Unit	618	34	56	35	9	1
	Total	1823	100%	51%	32%	13%	4%
Offers "Cheapest Money" Available:	Statewide	633	41%	26%	39%	23%	13%
	Limited	388	25	28	44	17	11
	Unit	530	34	30	43	19	9
	Total	1551	100%	28%	41%	20	11%
One Person Always Handles Your Credit Needs:	Statewide	687	42%	51%	33%	10%	6%
	Limited	372	23	57	34	5	4
	Unit	559	35	60	33	4	3
	Total	1618	100%	55%	33%	7%	5%
Reliable Source of Credit:	Statewide	743	41%	47%	36%	12%	5%
	Limited	439	25	56	32	8	4
	Unit	607	34	57	36	6	2
	Total	1789	100%	53%	35%	9%	3%
Offers a Wide Range of Services:	Statewide	595	42%	48%	38%	10%	3%
	Limited	355	25	51	37	9	4
	Unit	476	33	50	40	8	3
	Total	1426	100%	50%	38%	9%	3%

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

Table 16

Bank Performance Rating and Bank Structure

Significance Differences Between Actual and Expected Distributions

Characteristic	Frequent Borrowers			Infrequent Borrowers			Non-Borrowers		
	Market Size	Branching Status	Bank Size	Market Size	Branching Status	Bank Size	Market Size	Branching Status	Bank Size
Knows you and your business	X	X	X	X	X		X		
Provides helpful business suggestions	X	X	X		X	X		X	
Offers the "cheapest money" available	X	X	X		X	X		X	
One person always handles your credit needs		X	X		X	X	X		
Easy to get to		X		X			X		
Reliable source of credit	X	X	X		X	X	X		
Knows your industry	X	X		X	X		X		
Comes to you with ideas for improving bank service to your firm							X		X
Knows your financial needs		X				X			
Offers a wide range of bank services									

¹Using chi-square test of independence with a .10 critical value

Source: Credit, Banks, and Small Business (April 1980), National Federation of Independent Business.

example, firms that have done business with their major bank for a short period of time might be expected to rank their bank's performance worse than firms who have a longer standing relationship. Rapidly growing firms whose credit needs exceed their major bank's lending capacity would also be expected to rate their bank's performance worse vis-a-vis steadily growing firms. Riskier firms or firms who disagree with the banks assessment of their riskiness may also rate their bank's performance below average. Thus if borrowers in statewide branching states tend to be "newer" than average, or are growing more rapidly than average, or tend to be riskier than average, the significance of statewide branching on bank ratings may only reflect a spurious correlation.

A multiple regression analysis was done in [1] for each variable in Table 14 by borrowing frequency which classified the actual ratings as good ("good" plus "above average") or poor ("below average" plus "not good") using firm specific and bank structure variables as independent variables.¹⁰ The years the firm has been in business was the proxy for the length of the banking relationship; business activity description was a proxy for credit demand as well as risk, while the collateral status of the loan (if outstanding) was used as another risk proxy.

The multivariate results were generally consistent with the data in Table 16. Frequent borrowers from statewide branching states rated were less likely to give their bank's performance a good rating for every characteristic except 'easy to get to' (there are more bank offices in statewide branching states). Bank size was significant for five of the characteristics but exhibited no consistent pattern; market size was also significant for four of the characteristics with banks in larger markets having a significantly lower chance of being rated above average. Infrequent borrowers from statewide branching states also rated their bank's performance significantly lower for seven of

the ten characteristics. Market size was significant in rating performance for nine of the ten characteristics with banks in larger markets again having a significantly lower chance of receiving a good rating. Bank size was significant for only three of the characteristics and again exhibited no consistent pattern. Finally, for non-borrowers, market size was significant in rating bank performance for nine of the ten characteristics; banks in larger markets had a significantly lower chance of receiving a good rating.

7. Conclusion

The purpose of this paper was to investigate the degree of competitiveness in local banking markets across a broad spectrum of bank output from the perspective of the small business firm. Using survey data obtained from over 4000 small businesses in April 1980, the impact of branching status, bank size, and market size on loan cost, bank availability, credit availability, and bank performance on desired service characteristics was analyzed. In all cases an attempt was made to hold firm-specific characteristics constant in order to better isolate the impact of bank structure on the measures of output.

The average rate paid on short-term loans was significantly affected by market size and bank size. Respondents from larger banks and larger markets paid significantly higher rates (likely due to differences in deposit mix and operating costs). These size and market effects were not significant, however, for medium- and long-term loans. Furthermore, these effects may have diminished in importance since April 1980 although firm characteristics were not available to rigorously test this hypothesis.

The impact of branching status on average interest rate paid was unclear because of its high correlation with region of the country, a proxy for other

statistically important factors. Respondents from "Sunbelt" states paid significantly lower rates for short-term loans but not for long-term or medium-term loans. Branching status was not significant. When region was omitted, respondents from unit and limited branching states paid significantly lower rates on short-term loans but again no impact for medium- or long-term loans occurred.

Small businesses in statewide branching states more frequently reported a greater number of banks in rural and small city markets relative to those businesses in unit and limited branching states. For large city markets, firms in unit and statewide branching states more frequently reported a greater number of banks than in limited branching states while firms in unit banking states more frequently reported a greater number of banks in metropolitan markets than firms under the other two branching laws. The chance that a small business had been actively solicited for its banking business in the last five years was also affected by bank structure. Small firms in larger markets residing in states with unit branching laws, those doing business with larger banks, and those in communities with four or more banks were more likely to have been contacted by a bank.

Small business generally reported few problems in obtaining sufficient credit to satisfy their borrowing needs: over 80 percent reported that all or most of their credit needs were met while over 87 percent reported that at least 90 percent of their initial loan request was granted. Only three percent of the sample reported true availability problems (i.e., availability, not high cost, caused them to reduce expansion plans), while over forty percent reported both availability and cost problems. No bank structure variables were significant in explaining who reported availability problems and who did not. Most of the reported availability problems seemed due to risk

factors (they were riskier than average) and not due to an inability to obtain credit where firms were willing to pay the market price.

Bank structure did have a significant impact on the performance ratings small businesses gave their banks on characteristics they deemed important in their desired banking relationship. Frequent borrowers from unit branching states more frequently gave good ratings to their bank's performance on nine of ten characteristics (relative to statewide branching). Banks in limited branching states gave higher performance ratings on eight of ten characteristics (relative to statewide branching). Infrequent borrowers from unit and limited branching states also more frequently gave good ratings to their bank's performance relative to statewide banks on five of ten and seven of ten characteristics, respectively. Market size affected infrequent borrower ratings with metropolitan and city banks receiving lower ratings on seven of ten and six of ten characteristics, respectively, relative to rural banks. Finally, non-borrowers from metropolitan and city markets more frequently gave poor ratings to their bank's performance on eight of ten and seven of ten characteristics, respectively, relative to rural banks.

Overall the survey data provide no strong evidence that small businesses received better services in areas with statewide branching as has been suggested in the extant research. The impact of branching status on loan costs and credit availability was not significant. Small firms located in unit branching states had a greater chance of being actively solicited than those located in statewide branching states. Small businesses in statewide branching states also rated their bank's performance significantly lower across a broad dimension of desired characteristics in a banking relationship.

Footnotes

¹This second order effect applies also to holding company acquisitions. Few would argue that the opening of new banks or branches would weaken competition, but the competitive impact of a holding company acquisition is unclear. We will not pursue this issue because our data do not allow pre- and post-acquisition evaluation of these second order effects.

²Three random samples of the 525,000 member firms of the National Federation of Independent Business received the survey: national, major counties in California, northern New Jersey, and Texas, and the boroughs of New York City. Only the national and major county responses were used because of the low response rate and high percentage of no answers received from the New York City responses. Over 4400 responses were received from a mailing of 14,000 questionnaires; of the 4400 responses approximately 2700, or 61 percent, came from the national survey. A detailed analysis of the data base can be obtained from the authors by request.

³See Appendix B for a summary of the regression results for short-term loans.

⁴As long as the reported numbers are unbiased, the lack of precision should not have a material effect on the analysis.

⁵A summary of all the chi-square tests is presented in Appendix C.

⁶See Appendix D for a summary of these regression results.

⁷This truncation of the sample was arbitrary and was made on the assumption that the more recent responses are more reliable than those from earlier periods. Even after this truncation over 1600 observations were still usable.

⁸In [13], the credit rationing literature was surveyed to develop testable hypotheses concerning the characteristics of rationed versus nonrationed borrowers.

⁹The complete regression results are presented in Appendix E.

¹⁰The complete regression results are presented in Appendix F.

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CREDIT, BANKS, AND SMALL BUSINESS

1. What is your form of business organization?

Proprietorship

Partnership

Corporation

1

2. Please classify your major business activity, using one of the categories of examples below. (If more than one applies, circle the one which contributes the most toward your gross sales or total revenues.)

Construction, (building contractors-general, painting, carpentry, plumbing, heating, electrical, etc., highway and bridge contractors; swimming pool construction; etc.)

Manufacturing (including dairy processor, printer, publisher, etc.)

Transportation, communication, public utilities (truckers, movers, broadcasters, etc.)

Wholesale (including grain elevator, livestock dealer, distributor of construction equipment, manufacturer's representative, etc.)

2

Retail (including food store, service station, restaurant, bar, radio and TV store, drug store, furniture and appliances, auto dealer, florist apparel, etc.)

Agriculture, forestry, logging, fisheries, etc.

Financial: insurance, real estate, bank, savings and loan, etc.

Beauty salon, barber shop, garage, motel, hotel, repair service, travel agency, bookkeeping service, photographer, funeral director, rental agency, credit bureau, laundry, etc.

Physician, dentist, attorney, optometrist, engineer, architect, veterinarian, accountant, skilled nursing care facility, etc.

Other (please describe) _____

3. During your last fiscal year, what were your gross sales, or revenues, net of sales taxes, and other excise taxes?

Under \$50,000

\$200,000-349,000

\$800,000-1,499,999

3

\$50,000-99,999

\$350,000-499,999

\$1,500,000-2,999,999

\$100,000-199,999

\$500,000-799,999

\$3,000,000 or more

4. How many employees do you have including yourself?

_____ Full-time employees
4-6

_____ Part-time employees
7-9

5. How long have you been in your present business? _____ years

10-11

6. Which of the following best describes your business activity over the past 2 or 3 years? (Check one only)

Rapidly growing

Steady — Little change

Too new in this business to

12

Growing

Not now as much as used to be judge

7. Considering the credit needs of your firm, what is your experience in getting business credit? (Check one only)

All credit needs were met

Some credit needs were not met

13

Most credit needs were met

Major credit needs were not met

8. When was the last time you got a loan for your business? (Circle the month and year)

Month

Jan

May

Sep

14-15

Year

1980

1976

16

Feb

Jun

Oct

1979

1975

Mar

Jul

Nov

1978

1974

Apr

Aug

Dec

1977

1973 or

before

OR _____ Too

long ago to

remember

8a. Where did you get your most recent business loan?

Bank

Finance company

Co-op

17

Private individual(s)

Insurance company

Savings and loan

Government

Factor

Other _____

8b. For your most recent business loan, please indicate the approximate:

1. Loan size \$ _____,000.00 (closest thousand)

18-22

2. Maturity (pay back period _____ years/months)

23-25

3. Interest rate _____ %

26-28

4. Was business collateral required?
 Yes No Don't know 29
5. Was personal (non-business related) collateral required?
 Yes No Don't know 30
6. Compensating balances required (must keep a minimum in checking or savings accounts)?
 Yes No Don't know 31
- 8c. What was the purpose of this loan? (If more than one purpose, please rank them in order of importance with one (1) the most important two (2) the second most important, etc.)
- Maintenance and/or replacement of machinery and equipment 32
 - Expansion of physical plant (including machinery and equipment) 33
 - Inventory 34
 - Payment of taxes 35
 - Payment of debt (including loan refinancing) 36
 - Improvements made to facilities 37
 - Acquisition of real property 38
 - Payroll or other immediate operating expenses 39
 - Start new business activity 40
 - Move to new location 41
- 8d. Did the loan represent the entire amount you originally asked for?
 Yes No 42
- 8d1. If "No" approximately what percent of the original request did the loan represent?
 Under 10% 25-49% 65-89% 43
 10%-24% 50-64% 90-99%
- 8e. Did the loan have the terms you originally asked for?
 Yes No No discussion, terms given me 44
- 8f. Were the size, terms, and loan transaction generally satisfactory?
 Very satisfactory Could have been better 45
 Satisfactory Unsatisfactory
- 8f1. If everything was not satisfactory, what parts of the loan or loan transaction were not satisfactory? (Check all that apply)
- Interest rate
 - Amount of loan
 - Maturity (pay back period)
 - Collateral requirements
 - Compensating balances
 - The way you were treated
 - Transaction took too long
 - Didn't understand your business and its needs
 - Other _____

46-54

9. When was the last time you tried to get a bank loan for your business (Month and year please.)

- | MONTH | | | 55-56 | YEAR | | |
|-----------------------------------|------------------------------|------------------------------|-------|-------------------------------|---|----|
| <input type="checkbox"/> Jan | <input type="checkbox"/> May | <input type="checkbox"/> Sep | | <input type="checkbox"/> 1980 | <input type="checkbox"/> 1976 | 57 |
| <input type="checkbox"/> Feb | <input type="checkbox"/> Jun | <input type="checkbox"/> Oct | | <input type="checkbox"/> 1979 | <input type="checkbox"/> 1975 | |
| <input type="checkbox"/> Mar | <input type="checkbox"/> Jul | <input type="checkbox"/> Nov | | <input type="checkbox"/> 1978 | <input type="checkbox"/> 1974 | |
| <input type="checkbox"/> Apr | <input type="checkbox"/> Aug | <input type="checkbox"/> Dec | | <input type="checkbox"/> 1977 | <input type="checkbox"/> 1973 or before | |
| OR _____ Too long ago to remember | | | | | | |

- 9a. Was this attempt made at your principal bank?
 Yes No Only use one bank 58
- 9b. Was the loan approved?
 Yes No No final decision reached 59
- 9c. If "No", what was the primary reason given for the turn down? 60
- Too new a business
 - Too much outstanding debt
 - Lender had no money
 - Use of money not considered wise
 - Couldn't repay loan
 - Insufficient equity
 - Poor repayment history
 - Weak financial statement
 - No reason given

10. Which type(s) of government financial assistance program(s) are you familiar with? (Check all that apply)

- SBA Direct Loan
- SBA Loan Guarantee
- EDA Direct Loan
- EDA Loan Guarantee
- A State Small Business Loan Program
- None of these

61-66

- 10a. Have you used any of these programs within the last three years? 67
- Yes No
- 10a1. If "Yes", which type of program(s) did you use? (Check all that apply) 68-72
- SBA Direct Loan EDA Loan Guarantee with Bank participation...
- SBA Loan Guarantees A State Small Business Loan Program
- EDA Direct Loan
- 10a2. If "No", why didn't you use any of these government-sponsored programs? (Check all that apply) 73-79
- Did not need government-sponsored program
- Firm did not qualify
- Qualified, but money was not available
- Unable to get a bank to participate in guarantee program
- Too much paperwork and bureaucracy
- Programs too difficult to understand
- Never thought about it

11. About how many times a year does your firm normally borrow? _____ times a year 80-81
12. Has the current availability (not the cost) of business credit caused you to cancel, postpone, or scale-down plans to expand, modernize, or renovate your business? (Check one only) 82
- Yes, caused me to cancel plans No effect
- Yes, caused me to postpone plans Undecided
- Yes, caused me to scale-down plans
13. Have the current interest rates caused you to cancel, postpone, or scale-down plans to expand, modernize, or renovate your business? (Check one only) 83
- Yes, caused me to cancel plans No effect
- Yes, caused me to postpone plans Undecided
- Yes, caused me to scale-down plans
14. Within the past five years, has a bank ever actively tried to get your firm's banking business? 84
- Yes No
15. Have you noticed any change in competition for your firm's business among banks now compared to 5 years ago? 85
- Much more competition Slightly less competition
- Slightly more competition Much less competition
- No change No opinion or not applicable

16. Below are listed a number bank characteristics. How important is each one to you in conducting your firm's banking business?

	very important 1	important 2	not very important 3	not important 4	
a. Knows you and your business	_____	_____	_____	_____	86
b. Provides helpful business suggestions	_____	_____	_____	_____	87
c. Offers the "cheapest money" available	_____	_____	_____	_____	88
d. One person always handles your credit needs	_____	_____	_____	_____	89
e. Easy to get to	_____	_____	_____	_____	90
f. Reliable source of credit	_____	_____	_____	_____	91
g. Knows your industry	_____	_____	_____	_____	92
h. Comes to you with ideas for improving bank service to your firm	_____	_____	_____	_____	93
i. Knows your financial needs	_____	_____	_____	_____	94
j. Offers a wide range of banking services	_____	_____	_____	_____	95

17. How would you rate your (major) bank on these same characteristics?

	good 1	better than average 2	below average 3	not good 4	
a. Knows you and your business	_____	_____	_____	_____	96
b. Provides helpful business suggestions	_____	_____	_____	_____	97
c. Offers the "cheapest money" available	_____	_____	_____	_____	98
d. One person always handles your credit needs	_____	_____	_____	_____	99
e. Easy to get to	_____	_____	_____	_____	100
f. Reliable source of credit	_____	_____	_____	_____	101
g. Knows your industry	_____	_____	_____	_____	102
h. Comes to you with ideas for improving bank service to your firm	_____	_____	_____	_____	103
i. Knows your financial needs	_____	_____	_____	_____	104
j. Offers a wide range of banking services	_____	_____	_____	_____	105

About how many banks serve your community?

- one 2-3 4-5 6-10 11 or more

106

How many banks does your firm generally do business with? _____

107

How large is your (principal) bank? (If you use a branch of a bank think of the entire bank.)

- less than \$100 million in assets \$500 million or more in assets
 \$100-\$499 million in assets Don't know

108

(If you don't know would you please list the name of your bank. The size will be looked up and the proper box checked for you. We want to evaluate bank performance by bank size.)

Where is your firm located?

- Rural area or small town (up to 15,000 population)
 Small city (15,000-100,000 pop.)
 City (100,000-1,000,000 pop.)
 Metropolis (over 1,000,000 pop.)

name of bank _____

109

21a. If "City" or "Metropolis", where is your firm located in the central city or suburb?

- Central City Suburb

110

PLEASE DO NOT REMOVE ADDRESS LABEL
(needed for compiling geographical and industry information)

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Appendix B

Least Squares Estimates (in Basis Points) for
Small Business Contract Interest Rates on Short Term Loans

<u>Variable</u>	<u>Coefficient</u>	<u>t^a</u>	<u>Variable</u>	<u>Coefficient</u>	<u>t^a</u>
Risk-free	36.47	9.97*	Market Size:		
Maturity:			Rural	--	--
1-3 Months	--	--	Small City	45.57	2.02**
4-6 Months	-54.03	2.53*	City	89.00	3.38*
7-12 Months	-86.06	3.78*	Metropolitan	64.03	2.15**
Revolving Credit	3.23	.10	No Answer	-0.81	.01
Loan Size:			Bank Size (Assets):		
\$1-\$20,000	--		Under \$100 Million	-77.36	3.40*
\$20,000 to \$100,000	61.45	3.19*	\$100 to \$500 Million	-63.44	2.68*
\$100,000 to \$300,000	67.88	2.38*	\$500 Million or More	--	--
\$300,000 or More	87.69	2.59*	No Answer	-94.83	1.86*
No Answer	96.04	1.07			
Form of Business:			Branching Status:		
Corporate	--	--	Statewide	--	
Non-Corporate	-81.32	4.29*	Limited	5.42	.15
			Unit	25.76	.64
Collateral Status:			Manufacturing Wages:	17.82	3.70
No	--	--			
Yes	83.97	4.97*	Region of Country:		
Business Activity:			New England	100.70	1.69***
Rapidly Growing	83.11	2.99*	Mid-Atlantic	-33.93	1.09
Growing	51.72	2.49*	East North Central	-67.40	1.41
Steady	--	--	West North Central	-61.66	1.28
Not Growing	61.73	2.03**	South Atlantic	-141.2	3.34*
Too New	227.41	3.17*	East South Central	-149.03	2.40*
No Answer	-5.55	.06	West South Central	-144.84	3.10*
Summary Statistics:			Mountain	-39.81	.91
Regression F = 13.153			Pacific	--	--
Adjusted R ² = .289			No Answer	30.00	.56
			Constant	1017.33	15.06*

^aThe t-values test for a significant effect vis-a-vis the omitted variable from each category.

*Significant (one-tailed test) at the .01 level, critical value = 2.326.

**Significant (one-tailed test) at the .025 level, critical value = 1.960.

***Significant (one-tailed test) at the .05 level, critical value = 1.645.

Appendix C

Results of Chi-Square Tests for Independence

<u>Table/Title/Variable</u>	<u>Chi-Square¹ Statistic</u>	<u>Degrees² of Freedom</u>	<u>.10 Critical Value</u>
Table 5/Number of Banks in the Community			
Rural	87.3	6	10.6
Small City	110.0	6	10.6
City	47.2	4	7.8
Metropolitan	8.8	2	4.6
Table 6/Actual Bank Solicitation			
Number of Banks in Community	124.5	2	4.6
Branching Status	33.9	2	4.6
Market Size	148.0	3	6.3
Bank Size	49.6	2	4.6
Table 6/Change in Competition			
Number of Banks in Community	32.9	8	13.4
Branching Status	9.5	4	7.8
Market Size	45.8	6	10.6
Bank Size	13.9	4	7.8
Table 7/Credit Satisfaction			
Credit Experience	11.9	6	10.6
Percent of Original Request Granted	86.7	3	6.3
Table 11/Availability and Loan Terms			
Percent of Original Loan Request	86.7	3	6.3
Originally Requested Loan Terms	27.9	3	6.3
Final Loan Terms	129.1	6	10.6
Reasons for Dissatisfaction	30.9	9	14.7
Table 12/Availability and Borrower Characteristics			
Years in Business	26.6	12	16.0
Employment			
Business Activity	33.0	9	14.7
Borrowing Frequency			
Collateral Status	30.0	3	6.3

¹No answer responses were omitted in the computation.

²Some categories had to be collapsed because of an insufficient number of observations to compute the expected cell frequencies.

Appendix C (continued)

<u>Table/Title/Variable</u>	<u>Chi-Square Statistic</u>	<u>Degrees of Freedom</u>	<u>.10 Critical Value</u>
Table 13/Availability and Bank Structure			
Number of Banks in the Community	10.1	9	14.7
Branching Status	8.7	6	10.7
Market Size	14.4	9	14.7
Bank Size	5.9	6	10.7
Bank Solicitation	6.0	3	6.3
Change in Competition	28.6	9	14.7
Table 15/Branching and Adjusted Bank Performance			
Knows You and Your Business	58.3	6	10.7
Offers "Cheapest Money"	47.0	6	10.7
One Person Handles Credit Needs	30.5	6	10.7
Reliable Source of Credit	25.1	6	10.7
Offers Wide Range of Services	6.4	6	10.7

Appendix D

Least Squares Estimates for Actual Solicitation

<u>Variable</u>	<u>Coefficient</u>	<u>t¹</u>	<u>Variable</u>	<u>Coefficient</u>	<u>t¹</u>
Years in Business:			Number of Banks in the Community:		
1-2	-.221	6.73*	1	-.114	2.97*
3-4	-.150	5.63*	2-3	-.059	2.45*
5-6	-.165	5.92*	4-5	-	-
7-10	-.075	3.21*	6-10	.037	1.54
11-15	-.074	2.90*	11 or more	.039	1.59
16-20	-.032	1.20			
21 or more	-	-			
Business Activity Description:			Branching Status:		
Growing	-	-	Statewide	-	-
Steady	-.135	7.33*	Limited	.003	.14
Declining	-.104	4.02*	Unit	.073	3.36*
Too New	-.170	2.77*			
Borrowing Frequency:			Market Size:		
Frequent	-	-	Rural	-	-
Infrequent	.077	4.41*	Small City	.090	3.95*
Non-Borrower	-.115	5.11*	City	.057	2.12*
			Metropolitan	.143	4.71*
			Bank Size (Assets):		
Constant	.547	18.51*	Under \$100 M	-.073	3.47*
			\$100-500 M	-.032	1.52
			Over \$500 M	-	-

Summary Statistics:

Adjusted R² = .090

F (significance) = 15.27 (.000)

¹The t-values test for significance of the coefficient vis-a-vis the omitted variable.

*Significant at the .025 level (two-tailed test).

Appendix E

Least Squares Estimates for Availability Problems

<u>Variable</u>	<u>Coefficient</u>	<u>t</u>	<u>Variable</u>	<u>Coefficient</u>	<u>t</u>
RTB90	.0125	2.09*	Number of Banks in the Community:		
Collateral			1	.0664	1.10
No	-	-	2-3	-	-
Yes	.1162	4.57*	4-5	-.0578	1.45
Years in Business:			6-10	-.0009	.02
1-2	-.0135	.26	11 or more	-.0032	.07
3-4	.1848	4.42*	No Answer	-.0374	.39
5-6	.1625	3.69*	Market Size:		
7-10	.0751	1.99*	Rural	-	-
11-15	.0626	1.53	Small City	.0292	.80
16-20	.0244	.54	City	.0009	.02
Over 20	-	-	Metropolitan	.0149	.31
No Answer	.0114	.07	No Answer	-.2490	2.32*
Business Activity			Bank Size (Assets):		
Rapidly Growing	.0251	.70	Under \$100 M	.0198	.60
Growing	-	-	\$100-500 M	.0369	1.09
Steady	.0152	.48	Over \$500 M	-	-
Not As Much	.2632	6.00*	No Answer	-.0655	.88
Too New	-.1370	1.44	Constant	.241	2.80
No Answer	.0061	.04			
Branching Status:			Summary Statistics:		
Statewide	-	-	Adjusted R ² =	.062	
Limited	.0202	.60	Regression F =	4.72	
Unit	-.0508	1.52			
NO Answer	.0851	1.24			

*Significant (two-tailed test) at the .05 level.

Appendix F-1 (continued)

<u>Variable</u>	<u>Characteristic</u>									
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>
Market Size:										
Rural	-	-	-	-	-	-	-	-	-	-
Small City	-.025	-.038	.004	-.023	-.008	-.007	-.052	-.043	-.040	.015
City	-.016	-.064	.041	-.014	-.029	-.021	-.064*	-.063	-.019	.021
Metropolitan	-.039	-.107*	-.044	-.009	-.017	-.019	-.099*	-.146*	-.098*	-.008
Constant	.839*	.649*	.640*	.853*	.925*	.874*	.755*	.578*	.787*	.867*
Adjusted R ²	.043	.047	.039	.017	.009	.029	.052	.037	.048	.006
F (significance)	5.19 (.000)	3.89 (.000)	4.23 (.000)	2.40 (.000)	1.68 (.020)	3.72 (.000)	4.48 (.000)	3.09 (.000)	5.06 (.000)	1.42 (.092)
Number of Cases	2052	1270	1746	1822	1697	2002	1395	1196	1757	1594

-
- 1A. Knows you and your business
 - B. Provides helpful business suggestions
 - C. Offers the "cheapest money" available
 - D. One person always handles your credit needs
 - E. Easy to get to
 - F. Reliable source of credit
 - G. Knows your industry
 - H. Comes to you with ideas for improving bank service to your firm
 - I. Knows your financial needs
 - J. Offers a wide range of bank services

*Significant at the .025 level (two-tailed test)

Appendix F-2 (continued)

Variable	<u>Characteristic</u>									
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>
Market Size:										
Rural	-	-	-	-	-	-	-	-	-	-
Small City	-.029	-.057	-.007	.008	-.047*	-.027	-.073	-.075	-.079	-.060*
City	-.048	-.069	-.088*	-.082	-.054*	-.014	-.096*	-.062	-.130*	-.075*
Metropolitan	-.097*	-.124*	-.050	-.108*	-.152*	-.078*	-.092	-.085	-.103*	-.071*
Constant	.844*	.642*	.713*	.810*	.952*	.859*	.711*	.552*	.836*	.996*
Adjusted R ²	.014	.030	.073	.064	.026	.053	.043	.026	.054	.020
F	1.66	1.86	3.94	3.56	2.06	3.33	2.32	1.71	2.97	1.76
(significance)	(.028)	(.010)	(.000)	(.000)	(.003)	(.000)	(.001)	(.023)	(.000)	(.017)
Number of Cases	1002	611	821	822	891	917	636	587	745	833

-
- ¹A. Knows you and your business
 B. Provides helpful business suggestions
 C. Offers the "cheapest money" available
 D. One person always handles your credit needs
 E. Easy to get to
 F. Reliable source of credit
 G. Knows your industry
 H. Comes to you with ideas for improving bank service to your firm
 I. Knows your financial needs
 J. Offers a wide range of bank services

*Significant at the .025 level (two-tailed test)

Appendix F-3 (continued)

<u>Variable</u>	<u>Characteristic</u>									
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>
Market Size:										
Rural	-	-	-	-	-	-	-	-	-	-
Small City	-.127*	-.140*	-.061	-.064	-.034	-.043	-.121	-.004	-.069	-.019
City	-.194*	-.150	-.014	-.114*	-.093*	-.169*	-.299*	-.175*	-.210*	-.046
Metropolitan	-.267*	-.202*	-.140	-.158*	-.107*	-.211*	-.258*	-.153	-.173*	-.119*
Constant	.922*	.531*	.614*	.865*	.932*	.870*	.789*	.352*	.699*	.897*
Adjusted R ²	.062	.021	.000	.000	.000	.041	.031	.057	.051	.025
F (significance)	2.43 (.000)	1.30 (.173)	.94 (.548)	.80 (.731)	.99 (.482)	1.79 (.016)	.142 (.103)	1.74 (.024)	.179 (.017)	.148 (.078)
Number of Cases	477	290	346	364	431	403	290	267	320	405

-
- 1A. Knows you and your business
 - B. Provides helpful business suggestions
 - C. Offers the "cheapest money" available
 - D. One person always handles your credit needs
 - E. Easy to get to
 - F. Reliable source of credit
 - G. Knows your industry
 - H. Comes to you with ideas for improving bank service to your firm
 - I. Knows your financial needs
 - J. Offers a wide range of bank services

*Significant at the .025 level (two-tailed test)

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