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The Effect of Bank Deregulation on Small Business: A Note

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THE PROCESS OF BANK deregulation has been greatly aided by the recent decisions of several states to liberalize their branching and holding company codes. Some states which previously had strict unit banking codes have begun to allow multibank holding company formation while other states which had previously limited branching to a single county now often allow branching throughout the state. The final result of this process is nationwide banking which has not yet been approved by Congress.

As bank structure restrictions are relaxed, there is a tendency for larger banks to expand, at least in part, through the acquisition of smaller banking institutions. This naturally reduces the number of independent banking organizations in states where such acquisitions occur. Such consolidation undoubtedly results in many of the hypothesized advantages of deregulation, such as more efficient operation due to scale economies. However, it is also possible that it has imposed costs upon some existing customers, at least in the short term.

Small businesses may well be among those customers who suffer as a result of bank consolidation. Prior research suggests that variations in banking structure primarily affect the credit conditions of small businesses more than those for larger businesses. Studies by Eisenbeis [1], Jacobs [3], and Meyer [4] provide support for the hypothesis that increased market concentration leads to higher loan rates for small business firms. Moreover, to the extent that the expansion of branch banking is associated with higher levels of concentration, the cost of small business credit could be adversely influenced.

This possibility is important since the small business sector is a vital segment of the economy not only from an employment and production perspective, but also from a financial one.[1] A recent estimate of commercial bank business lending by the Interagency Taskforce on Small Business Finance [2] indicates small-business loans account for about one-third of the approximately $360 billion total. Banks with assets less than $1 billion extended close to four-fifths of the business loans outstanding to small business.

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[1] The U. S. Small Business Administration (SBA) [9] recently reported on the condition of the small business sector. According to the SBA's definition of small, meaning less than 500 employees, 99.8 percent of all firms may be considered small. These firms employ 53 percent of the nongovernmental labor force and produce 38 percent of the nation's GNP. Also, recent increases in business failures have been heaviest in industries dominated by small business.

The distinct vulnerability of small businesses comes from their heavier dependence on debt financing than larger businesses who have greater access to the equity markets. Since small businesses are typically the principal commercial customers of the smaller, community-sized banks, the elimination of many of these banks through the process of deregulation may weaken the financial viability of small businesses. Since the small business sector is a prime generator of innovations, new technological advances, and product designs, it would be prudent to evaluate the effects which regulatory changes might have on this sector of the economy.

I. The Study

In previous studies of the relationship between small businesses and their banks, the primary viewpoint has been that of the bank, with the analysis employing actual bank data or opinions of bankers. Recent literature reviews by Savage [6] and Shull [8] have illustrated some competing hypothesis using bank data. On one hand, the larger-sized banking units which result from consolidation tend to lend principally to large businesses, which would imply both an expertise and proclivity which might diminish the supply of credit to smaller businesses. On the other hand, large banks also tend to have higher loan-to-deposit ratios than smaller banks, which would make more credit available to all bank customers including small businesses. The answer to this credit supply question is thus an empirical one.

The data for this note were taken from a study of small businesses rather than banks. The study was a nationwide survey of the credit experience of small businesses conducted by the National Federation of Independent Businesses (NFIB) in April 1980.[2] A sample size of 2,655 was obtained from the mailing of a four-page questionnaire to members of the NFIB.[3] A comparison of NFIB membership with data from the Department of Commerce's *Business Patterns* by Scott and Dunkelberg [7] indicates that the NFIB firms were slightly larger in employment and slightly more concentrated in the construction industry than a typical profile of small business firms:

> "Otherwise the NFIB membership exhibits no significant industry, region, or size bias with respect to the aggregate small business community [7, p. 2]."

To determine whether bank structure influences the ability of commercial banks to meet the credit needs of small business, responses to several questions from the survey questionnaire regarding credit experience and accompanying respondent characteristics were analyzed. These responses were viewed as behavioral choices to subjective questions soliciting perceptions about whether credit needs were met, and whether the loan and its conditions were satisfactory, and to more objective questions inquiring about whether the most recent loan request

[2] The survey was conducted following the March 1980 announcement by the Federal Reserve Board of its special credit restraint program.

[3] The sample represented a 33 percent response rate from a randomly selected group of NFIB's 500,000 members.

was approved. Separately, these choices formed the dependent variables of the model.

As a result of the binary and qualitative nature of the dependent variable, e.g., whether credit needs were met or not, the probit model was used. The probit model permits an estimation of the dependent variable choice by transforming the set of independent variable values using the cumulative normal function into a probability bounded by (0, 1). The result of this model is the conditional probability that a respondent will make a particular choice given the set of independent variables.[4]

Several sets of independent variables were used to explain the dependent variable choice of whether banks met the credit needs of the small businesses. One set consisted of the industry of the business while a second delineated the form of business organization. Also included were variables related to the growth of the business, its age, the number of persons it employed, and its location (in terms of region and degree of urbanization). Variables relating to business-bank relationships included a dummy showing whether the business had obtained a loan in the past three years and whether that had been a bank loan, the average number of times the business borrowed per year, the number of banks in the community, and whether the principal bank had over $100 million in assets. Variables describing the most recent bank loan application included the size and maturity of the loan requested. The bank structure within the state was configured with a set of dummy variables where the non-included variable is the situation of unit banking without multibank holding companies.[5]

II. Results

The estimates shown in Table I clearly indicate that small businesses in unit banking states which do not permit multibank holding companies fare better in their efforts to obtain credit than do their counterparts in states which have more "liberal" bank structure codes. This is shown by the positive and generally highly significant coefficients in the equations relating to whether credit needs were met and whether the loan was approved as requested. Since all of the dependent variables are stated in the negative, e.g., loan was not satisfactory, a positive coefficient indicates that the effect of the independent variable is to make the value of the dependent variable even more negative.

In Equation (1), the dependent variable, "Needs Not Met," is negatively related to the age of the business and positively related to its growth rate (since growing businesses presumably need more credit). Agricultural firms and those who borrow frequently are also more likely to find their credit needs unmet. Yet, all three of the structure variables are positive and highly significant, indicating that liberal bank structure laws contribute to the likelihood that credit needs would not be met.

[4] For more detailed explanations and mathematical model formulations of the probit function, see Pindyck and Rubinfeld [5, Chapter 8].

[5] A breakdown of states by bank structure shows 22 statewide branching states, 16 limited branching states, six unit banking states with multibank holding companies and six without.

Table I

Probit Analysis of Effect of Bank Structure Variables

Independent variable[a]	(1) Needs not met	(2) Business col. req.	(3) Personal col. req.	(4) Compensa. bal. req.	(5) Int. rate problems	(6) Loan not satisfac.	(7) Col. req. not. sat.	(8) Denied full amt.	(9) Denied terms	(10) Loan denied
CONSTANT	−1.58***	−.48*	−1.49***	−1.75***	−.27	−1.33***	−2.76***	−2.07***	−2.06***	0.27***
CORP	.01	.29***	.34***	.01	.06	.09	.16	−.03	−.02	.14
PARTNER	−.03	−.26*	−.09	−.06	−.14	−.18	−.08	−.01	.16	.19
CONSTR	−.18	.21	.21	−.12	.15	.13	.20	.24	.14	.23
MANUFAC	.04	.39**	.13	.06	.25	.16	.43*	.35*	.31	4.85*
TRANS	.13	.21	−.09	−.73*	.66**	.16	−1.72	.57*	.31	.43
WHOL	−.08	.36**	.36*	−.11	−.17	.30*	.21	.40*	.14	.10
RETAIL	.03	.04**	.46***	−.05	.18	.17	.31	.44**	.41**	.19
AGRIC	.40*	.79***	.38*	.22	.32	.17	.17	.47*	.49*	−.34
FINANCE	.11	−.28	.17	.09	.51**	.37*	−.29	.25	.49**	.36
SERVICE	−.01	.24	.29	.00	.13	−.16	−.02	.15	−.05	.49*
EMPLOYEES	.00	.00	.00	.001***	.00	.00	.00	.00	.00	.00
AGE	−.02***	−.01***	−.01***	.00	.00	−.006**	−.01*	−.01***	−.01*	−.02***
GROWING	.45***	.05	.18**	.05	.12	.21**	.12	.15*	−.02	.17*
78–80 LN	.12*	−.03	.19***	−.05	.14**	−.10*	.17**	−.02	.09	.44***
BANK LOAN	−.17	.24**	.05	.28	.07	.33**	.27	.03	.01	−.82***
LOAN SIZE	.00	.00	.00	.00	−.0001*	.00	.00	.00	.00	.0001**
LOAN MAT	.00	.01***	.004***	.00	.002*	.001**	.002**	.004***	.003***	.002*
LOANS/YR	.05*	.00	.01	.02	.13***	.06***	.03	.06**	.07***	.02
3+ BANKS	−.09	−.05	.02	−.04	−.15*	.07	.17	−.05	.09	.09
PB 100M	.11	.10	.10	.22**	.15*	−.05	.05	.14	−.08	−.02
CITY	.00	−.03	.12	.23*	−.08	.03	−.02	.03	.15	−.09
NORTHEAST	.16	.05	.00	.29*	−.26*	.06	.28*	−.17	−.07	−.04
NORTHCENT	.04	.04	.00	−.23	−.12	−.09	.28*	−.17	.13	−.10
SOUTH	.02	−.11	.22*	.19	−.16	−.29**	−.12	−.06	−.09	.11
STBRANCH	.59***	−.22	.13	−.39*	−.17	.04	.19	.32	.34*	1.32***
LTDBRANCH	.50***	−.09	−.06	−.18	−.06	.15	.02	.49**	.36**	1.05**
UBRANC/MB	.39**	.30**	−.02	−.08	−.06	.20	.35*	.52**	.32*	1.27***

[a] *Independent Variables*

CONSTANT	Constant term
CORP	Business is a corporation
PARTNER	Business is a partnership
CONSTR	Business is in the construction industry
MANUFAC	Business is in the manufacturing industry
TRANS	Business is in the transportation industry
WHOL	Business is in the wholesale industry
RETAIL	Business is a retailer
AGRIC	Business is in agriculture
FINANCE	Business is in the finance industry
SERVICE	Business is in the service industry
EMPLOYEES	Number of employees
AGE	Number of years business has been in operation
GROWING	Business is reported as growing
78–80 LN	Business obtained a loan in the 1978–1980 period
BANK LOAN	The last loan obtained was at a bank
LOAN SIZE	Size of the most recent loan request
LOAN MAT	Maturity of the most recent loan request
LOANS/YR	Number of times the firm borrows per year
3+ BANKS	At least 3 banks serve the community of the busi ness
PB 100M	Principal bank of business has at least $100 millio' in assets
CITY	Business is located in an urban area
NORTHEAST	Business is located in the Northeastern United States
NORTHCENT	Business is located in the North Central United States
SOUTH	Business is located in the Southern Region of the United States
STBRANCH	Statewide branching is allowed in the state
LTBRANCH	Limited branching is allowed in the state
UBRANCH/MB	Unit banking state with multibank holding companies allowed

Dependent Variables

Needs Not Met	The business stated that its credit needs were not met
Business Col. Req.	Business collateral was required for the loan
Personal Col. Req.	Personal collateral was required for the loan
Compensa. Bal. Req.	Compensating balances were required for the loan
Int. Rate Problems	Interest rates have caused problems for the business
Loan Not Satisfac.	Overall, the loan was not rated as being satisfactory
Col. Reg. Not Sat.	Collateral requirements were not satisfactory
Denied Full Amt.	The full amount of the loan was not approved
Denied Terms	The requested terms of the loan were granted
Loan Denied	The loan request was denied

* Significant at the 90% level
** Significant at the 95% level
*** Significant at the 99% level

Equations (8) and (9) which relate to loan approval but with diminished amount or altered terms also show the structure variables to be important predictors of inferior credit conditions.

Equation (10) seeks to explain why a requested bank loan was turned down. Here, manufacturing and service firms are more likely than others to be turned down as are younger firms, growing firms, and more frequent borrowers. Larger and longer loans are also more likely to be rejected than others. Yet, here again, as in Equation (1), the liberal structure variables are all positively and very strongly related to the denial of the loan request.

In contrast to Equations (9) and (10) where there has been an outright denial, Equation (6), "Loan Not Satisfactory," provides information on the situation where credit is available, but the borrowing arrangement is not satisfactory. The lack of bank structure influence here suggests that bank structure affects the general availability of small-business credit, but not particular loan terms or restrictions once the credit had been approved.

Significantly, in few of the other equations which related to loan requirements or satisfaction with these requirements is there any difference attributable to state branching or holding company restrictions. Equations (2), (3), (4), and (7) are loan covenant restrictions which are influenced principally by particular borrower and loan characteristics. Equation (5) attributes interest rate problems to interest rate levels and borrowing activity. When loan conditions are similar, bank structure seems to influence the likelihood of approval or availability of credit.

III. Conclusions

The evidence from this study indicates that the credit needs of small businesses are less likely to be met in states that permit wider geographic activities, i.e., statewide and limited branching, and unit banking with multibank holding company provisions. This suggests that the level of local decisionmaking as influenced by the banking structure may be of paramount importance.

In unit banking states decisionmaking is local, while in other states banking organizations with extensive geographic activities tend to centralize decision-making power. For example, loan officers in a statewide system may serve merely as information gatherers and loan application producers with the actual credit decisions being made at the central office. Generally, a more centralized level of decisionmaking requires a greater standardization of the credit decision. Standardization usually implies more reliance on financial figures and less on the character of the borrower. To the extent that small businesses are unable to present satisfactory financial statements or to the extent that the larger banking organization is unable or unwilling to spend the time necessary to evaluate the character of the borrower, small businesses may suffer from credit decisions which are standardized and/or centralized.

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