Board of Governors of the Federal Reserve System

Report to the Congress on the Availability of Credit to Small Businesses

Submitted to the Congress pursuant to section 2227 of the Economic Growth and Regulatory Paperwork Reduction Act of 1996

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Executive Summary

Section 2227 of the Economic Growth and Regulatory Paperwork Reduction Act of 1996 requires the Board of Governors of the Federal Reserve System to conduct a study and submit a report every five years to Congress detailing the extent of small business lending by all creditors. The act specifies that the study should identify factors that provide policymakers with insight into the small business credit market, including, among other items, the demand for credit by small businesses, the availability of credit, and risks of lending to small businesses. This is the first report submitted in accordance with that requirement.[a]

The report relies on the 1993 National Survey of Small Business Finances, sponsored by the Board with support from the Small Business Administration, for details on the sources and types of credit used by small businesses. The survey also provides information on borrowing experiences of small businesses in 1993. More recent information on credit flows to small businesses are obtained from financial reports filed by lenders, Board surveys of commercial banks, and surveys of selected groups of businesses.

This first report comes during a period of sustained economic growth, high levels of resource utilization, and low inflation. In this environment, conditions in credit markets have been quite favorable for business borrowers, large and small. Since the credit crunch and recession in the early part of this decade, business firms and financial institutions have made substantial strides in rebuilding balance sheets. Default rates on securities and delinquency rates on business loans are low, while earnings growth has been strong. Banks and other lenders thus are in good shape to meet prospective credit demands. Indeed, surveys of large banks indicate that they, on net, have continued to ease terms and standards for business loans over the last three years. Similarly, surveys of small businesses confirm that financing has not been a significant concern of most such firms during this period. Anecdotal reports suggest that banks and other lenders have aggressively pursued small business lending opportunities, in many cases to promote their institution's presence in community reinvestment programs.

As discussed in the report, the types of financial arrangements and sources of credit used by small firms vary over time and with organizational form, industry, size, and other characteristics of the business. For example, according to the 1993 National Survey of Small Business Finances, most small businesses have used either personal or business credit cards for business purposes, although many use cards for convenience rather than as a source of credit. Very small businesses--for example, those with fewer than five employees or less than $100,000 in annual sales--rely more heavily on credit cards (personal and to a lesser extent business) and on loans from owners, family, and friends than do larger small businesses. Firms in retail trade account for about half of the small business credit from finance companies. Business service firms and manufacturers are

a. As required by the law, the Board consulted with the Director of the Office of Thrift Supervision, the Comptroller of the Currency, the Administrator of the National Credit Union Administration, the Administrator of the Small Business Administration, the Board of Directors of the Federal Deposit Insurance Corporation, and the Secretary of Commerce.

likely to make greater use of leasing providers than small firms in many other industries. Still, small businesses in virtually every sector of the economy, including very small businesses, continue to meet the bulk of their credit needs at commercial banks.

Banks are believed to have a comparative advantage in lending to small businesses in large part because of their ability to assess and monitor the operations of enterprises in their local communities with which they may have multiple dealings. Recent research studies, using data from the Board's National Survey of Small Business Financing, have analyzed the importance of the relationship between lenders and small business customers in determining the terms and availability of credit. As discussed in the report, these studies tend to show that relationships are indeed important for access to credit, but it is less obvious how they affect the terms of loans to small businesses.

At the same time, substantial changes in financial markets--resulting from deregulation, technological innovations, and increasing competition in the provision of financial services--have raised questions about the ongoing role of commercial banks in credit markets. The report addresses two important developments that likely have ongoing implications for bank lending to small businesses: Credit scoring and securitization of small business loans, and consolidation within the banking industry.

Credit scoring and securitization have the potential to increase lending to creditworthy small businesses. Credit scoring is expected to lower the costs of reviewing and monitoring small business loans, making it attractive for more lenders to enter this market. It may also help lenders to price risk more efficiently. Because the use of credit scoring is likely to be more appropriate for some types of lending arrangements and borrowers than others, it is unlikely to replace community-based lending relationships for servicing those creditworthy small businesses that do not qualify for loan approval based on a credit score.

The use of credit scoring may lead to more standardization of loans and provide a basis for evaluating the risk of pools of small business loans. It is thought that these developments will help promote securitization of such loans. To date, however, very few small business loans other than those carrying an SBA guarantee have been securitized. Moreover, many credit-scoring models have only recently been developed and have yet to be tested in a period of economic recession or financial stress.
Thus, it is too early to gauge the ultimate aggregate effect of these new techniques on credit flows and terms. This report provides an analysis of developments in these areas to date.

It has been argued that mergers and consolidation within the banking industry produce more large banking organizations while reducing the number of small banks that are important lenders to small businesses in their localities. Because small business loans constitute a relatively small percentage of total loans of large banks and a large percentage of loans at small banks, the shift toward greater concentration of assets in larger banks is thought to threaten the flow of credit to small firms. Several studies have attempted to test empirically the effect of mergers on small business credit flows. As discussed in this

report, the studies on balance find little evidence that aggregate flows have been reduced, even though there have been temporary disruptions in lending relationships reported by some small businesses. Some mergers may open up new borrowing opportunities.

Finally, the report contains a brief discussion of a noncredit source of finance for small firms--the private equity markets. Private equity is particularly important for firms in high-technology industries, such as computer software and biotechnology. Although these firms may have high-growth potential, they generally do not have the current earnings or assets to obtain credit from institutional lenders. In recent years, the growth of limited partnerships supplying venture capital has greatly increased the supply of equity capital available to such firms.

Introduction

Section 2227 of the Economic Growth and Regulatory Paperwork Reduction Act of 1996 requires the Board of Governors, in consultation with the Director of the Office of Thrift Supervision, the Comptroller of the Currency, the Administrator of the National Credit Union Administration, the Administrator of the Small Business Administration, the Board of Directors of the Federal Deposit Insurance Corporation, and the Secretary of Commerce, to conduct a study and submit a report to the Congress detailing the extent of small business lending by all creditors.[1] The study is to identify "to the extent practicable, those factors which provide policymakers with insight into the small business credit market," including

- the demand for small business credit (including consideration of the impact of economic cycles)
- the availability of credit to small businesses
- the range of credit options and the types of credit products used to finance small business operations
- the credit needs of small business--including, if appropriate, the extent such needs differ based on product type, size of business, cash flow requirements, characteristics of owners or investors, and other aspects
- the types of risks to creditors of providing credit to small businesses
- such other factors as the Board deems relevant.

Thus, the scope of the study outlined in the act is quite broad. Indeed, more than 22 million entities filed business tax returns in 1994. Many of these were individuals who operated a part-time business while earning wage income in other employment. Some were businesses created simply to limit liabilities or taxes. Roughly six million were full-time operations of nonfinancial, nonfarm firms, excluding self-employed persons with no paid employees. The diversity among these entities with respect to age, size, industry, geographical location, product markets, income, and financial characteristics is considerable. Moreover, there is tremendous churning within the business community: Each month tens of thousands of businesses cease operations for one reason or another, and tens of thousands of new ones come into being.

From a policy perspective and for analysis of financing needs, the first and most difficult step is defining "small business." The financing needs of a "mom and pop" grocery store, a micro-enterprise in the inner city, a start-up high-tech firm, a business that is ready to expand from early-stage growth to the next higher level, or the business that has neared the point of issuing public debt or equity are very different. Yet the term "small business" encompasses all these types. Indeed, a broad guideline used by the Small Business Administration defines a small business as a firm or enterprise with fewer than 500

1. After this report, which is the first, additional reports are to be submitted every five years.

employees.[2] This definition encompasses more than 99 percent of all businesses in the United States. The vast majority of these businesses are quite small: The 1993 National Survey of Small Business Finances, which represents approximately 5 million nonfarm, nonfinancial small businesses with less than 500 employees, estimates that 90 percent of these businesses have fewer than 20 employees and two-thirds have fewer than 5 employees.

The concerns that the Congress and policymakers have about small business financing stem from the perception that small firms may have more difficulty accessing credit sources than large businesses or other types of borrowers have. This difficulty may owe to the greater riskiness of small firms and the high cost of evaluating and monitoring the credit risks or to inefficiencies in markets that hinder information flows and pricing of risk or that impede the effective pooling of risks. To the extent that private market imperfections restrict credit to small businesses, policymakers may seek changes that reduce these constraints. But no single policy is likely to be appropriate for all small businesses, and indeed no single definition of "small business" will adequately define the range of financing needs of 20 million enterprises.

Not surprisingly, up-to-date and comprehensive information on the universe of small businesses is virtually nonexistent, and evidence about financing needs and sources is based largely on surveys. Still, researchers have learned a great deal about the financing of small businesses in recent years from various data sources and studies. In particular, data on characteristics of small businesses and the ways they obtain credit have been collected by the National Surveys of Small Business Finances.[3] Since 1993, the Federal Reserve and other regulatory agencies have collected information in the midyear Reports of Condition and Income for insured depository institutions (Call Reports) on the outstanding volume of small commercial and industrial loans and commercial real estate loans. The Federal Reserve's flow of funds accounts provide aggregate balance sheet information for corporations and noncorporate (proprietorships and partnerships) businesses. The Bureau of the Census publishes quarterly balance sheets and income statements for manufacturing firms with the information broken down for firms by asset size.[4] Information on lending rates and contract terms for both large and small business loans at commercial banks is reported quarterly in the Federal Reserve Survey of Terms of Business Lending. A qualitative assessment of banks' lending practices and willingness to lend to small and large firms is made through the Senior Loan Officer Opinion Survey on Bank Lending Practices, a quarterly survey of lending officers at large commercial banks around the country. Information is also collected by a number of private-sector surveys of small and

2. The SBA uses alternative measures based on employment and/or sales of firms in different industries for its loan and equity programs. A common cut off defines small as firms with less than 100 employees, but different programs, appropriately, have different criteria.

3. The 1993 National Survey of Small Business Finances was co-sponsored by the Federal Reserve Board and the Small Business Administration. The survey questioned a nationally representative sample of more than 4,600 small businesses about their use of financial services and borrowing experiences in 1993-94. A more detailed description of the survey is presented in the appendix to this report. (A similar survey of small business was conducted by the Board in 1989.)

4. U.S. Department of Commerce, "Quarterly Financial Report."

intermediate businesses, such as those compiled by the National Federation of Independent Businesses. These data sources, though segmented, provide the basis for the analysis in this study. In addition, in 1997, the banking agencies began gathering data on small business loan extensions as part of the new Community Reinvestment Act provisions. These data, which just recently became available, are expected to be an important source of information for analysis of community lending by depositories in the future.

The report takes a two-pronged approach in addressing the issues outlined in the statute. The first part of the study focuses on the recent cyclical behavior of business credit flows in the macro economy, paying particular attention to the sources and types of financing used by small businesses as confirmed by the Board’s 1993 National Survey of Small Business Finances. Overall, the environment for small business financing has been quite good in the past few years. Traditional lenders, especially commercial banks, have eased standards and accommodated rising loan demands with attractive lending terms. Community-based lending initiatives also have generated many new programs to attract investors and financing to small enterprises in local communities, but it is difficult to measure quantitatively the impact of such programs.

The second section of the report focuses on recent trends in financial markets that have ongoing implications for credit availability for small businesses. It begins with a discussion of the risks of lending to small businesses and the traditional role of relationship banking, including a summary of recent work that seeks to model how measures of a firm’s relationship with its lender affect the terms of credit and the probability that a firm applying for credit will be accepted or rejected. This discussion is followed by an analysis of three important developments that have implications for the way that risks of financing small businesses are assessed and managed: credit scoring and securitization; bank mergers and consolidations; and equity financing for start-up, high-growth small businesses.

The first, credit scoring and securitization, is likely to alter the way that credit is channeled from banks and nonbank lenders to many small firms. New techniques being developed for lenders have the potential for reducing costs and enhancing credit availability to a wide range of small businesses. But more empirical evidence on the accuracy and use of credit-scoring models is required before any conclusions regarding the overall implications for small business finance can be drawn. The second topic, consolidation in the banking industry, has received increasing attention among researchers. Although the analysts are not all in agreement, the bulk of evidence to date suggests that mergers and consolidations have not significantly impeded credit flows to small businesses. The third topic, the private equity market, is a key source of financing for firms that are in an early stage of development and that have the potential to grow rapidly, such as high-tech companies. Such firms typically have few assets and no operating history and are considered speculative investments. Thus, in their early stages, they are unlikely to qualify for loans from banks or other financial institutions. In recent years, the private equity market has been an increasingly important source of finance for such businesses.

Business Credit Flows and Terms

Over the two years following the trough of the 1990-91 recession, total credit flows to nonfinancial businesses picked up quite slowly--more slowly than has been typical of previous recoveries. The sluggish pace of borrowing reflected an environment in which many businesses focused on paring costs and streamlining operations to improve efficiency and to compete more effectively in increasingly less regulated and more global markets. Instead of borrowing to expand operations, firms--including many corporations that had been involved in leveraged mergers and takeovers--sought to reduce bank loans and to refinance high-cost debt accumulated in the previous decade. Thus, in the aggregate, demand for business credit was subdued.

Lenders, like borrowers, remained cautious as the economy pulled out of recession. Banks were not eager to expand as they were coping with high delinquency rates, especially on commercial real estate loans, and seeking to clean up their loan portfolios. Business loans contracted even as economic activity began to pick up. Although surveys indicated that by 1992 banks had begun to reverse some of the previous tightening of standards for approving business loans and to ease rates and terms, some time passed before the stringent policies of earlier years began to unwind significantly. Reflecting the cautious behavior of both borrowers and lenders, debt growth languished--indeed bank loans to businesses contracted through 1993--and the ratio of outstanding business credit to gross domestic product fell appreciably from peaks in the previous decade (Exhibit: Credit Market Debt of Nonfinancial Businesses).

Since 1993, however, business borrowing has accelerated, bolstered by credit demands to finance operations, rising capital outlays, and a resurgence of mergers and acquisitions. Between December 1993 and June 1997, nonfinancial business debt expanded at an annual rate near 5 percent on average, a pace roughly in line with the growth of economic activity. The increasing credit demands of businesses seem to have been easily accommodated by financial intermediaries and in capital markets. With inflation remaining subdued, nominal interest rates have remained low. According to available data on credit flows and interest rates and to survey reports from lenders and borrowers, creditworthy businesses of all sizes have had ample access to financing through this period. The next sections review the borrowing patterns of large and small corporations and of proprietorships and partnerships and then provide a closer look at small business lending by commercial banks and at community reinvestment activities.[5]

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5. The focus on corporations versus proprietorships is dictated by the availability of data rather than by economic considerations. Specifically, information from credit markets and the flow of funds accounts relate to organizational form rather than size of firm. A business can be organized as a corporation (C-type or S-type), a proprietorship, or a partnership. Most proprietorships and partnerships are small businesses. Large, publicly traded firms are C corporations, subject to corporate income taxes and securities laws. The S form of corporation is designed primarily for small businesses: Income is not subject to the corporate income tax, and to qualify, the firm can have no more than thirty-five shareholders and one class of stock.

Credit Market Debt of Nonfinancial Businesses

Growth of Total Debt

Percent

Quarterly

18
16
14
12
10
8
6
4
2
0
-2
-4
-6

1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997

Ratio of Nonfinancial Business Debt to GDP

Percent

Annual

65
60
55
50
45

Q1

1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997

Note. Shaded areas represent periods of recession as defined by the National Bureau of Economic Research.

Borrowing by Large Nonfinancial Corporations[6]

Total debt of nonfinancial corporations increased 5-1/2 percent at an average annual rate between December 1993 and December 1996, and 6-3/4 percent in the first half of 1997. Almost half of the increase in corporate debt has come from bond markets, with about 30 percent accounted for by banks and the remainder by finance companies, commercial paper issuance, and other nonmortgage loans. The only debt component that has not increased significantly on corporate balance sheets in recent years has been commercial mortgages. New lending for commercial real estate projects was virtually nonexistent in the early 1990s, as mortgage lenders continued to write off large losses in real estate markets. In the past year or so, however, burgeoning activity in the commercial real estate sector has spurred some pickup in lending in this area (Exhibit: Credit Market Debt of Nonfinancial Corporate Business).

Bond financing has been a particularly attractive alternative in the last couple of years for firms that have access to public securities markets. Yields on investment-grade corporate bonds have fallen 2 to 3 percentage points below peaks in 1990, and spreads between corporate and Treasury yields are historically low. Indeed, investors in search of higher yields have been willing to acquire below-investment-grade debt (so-called junk bonds) that offer returns only 3 percentage points higher than rates on comparable-maturity, risk-free Treasury securities--a marked decline from the near 12 percentage point risk premiums required in 1990. Junk bonds share many characteristics of equity and, like equity, have benefited from the search by investors for higher risk-return opportunities. Firms with below-investment-grade debt ratings--including many smaller, less-well-known companies--have taken advantage of favorable spreads to issue new bonds. In the first half of 1997, nearly half of the $83 billion of gross nonfinancial bond offerings were below investment grade (Exhibit: Corporate Credit Conditions).

Large corporate borrowers have been eagerly courted by bank lenders as well: According to the Federal Reserve's recent surveys of lending terms, interest rates on large loans by banks remain low relative to the federal funds rate, although they have been edging up in recent quarters. Through the first half of 1997, such spreads averaged around 105 basis points, near the lower end of the range seen over the past decade. Bank loans to nonfinancial corporations, as measured in the flow of funds accounts, have risen at an average annual rate of around 10 percent for the last three years.

Borrowing by Small Corporations

The 1993 National Survey of Small Business Finances provides some insight into the financial characteristics of small corporations and their sources of credit.[7] The survey indicates that, in 1993, small corporations (defined as enterprises with fewer than 500

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6. Although the flow of funds accounts represent all nonfinancial corporations, the dollar volumes of credit flows, and particularly those raised in capital markets, are dominated by the large firms.

7. See the appendix for a fuller description of the survey.

Credit Market Debt of Nonfinancial Corporate Business

Level of Debt, 1992 - 97:Q1

Billions of dollars

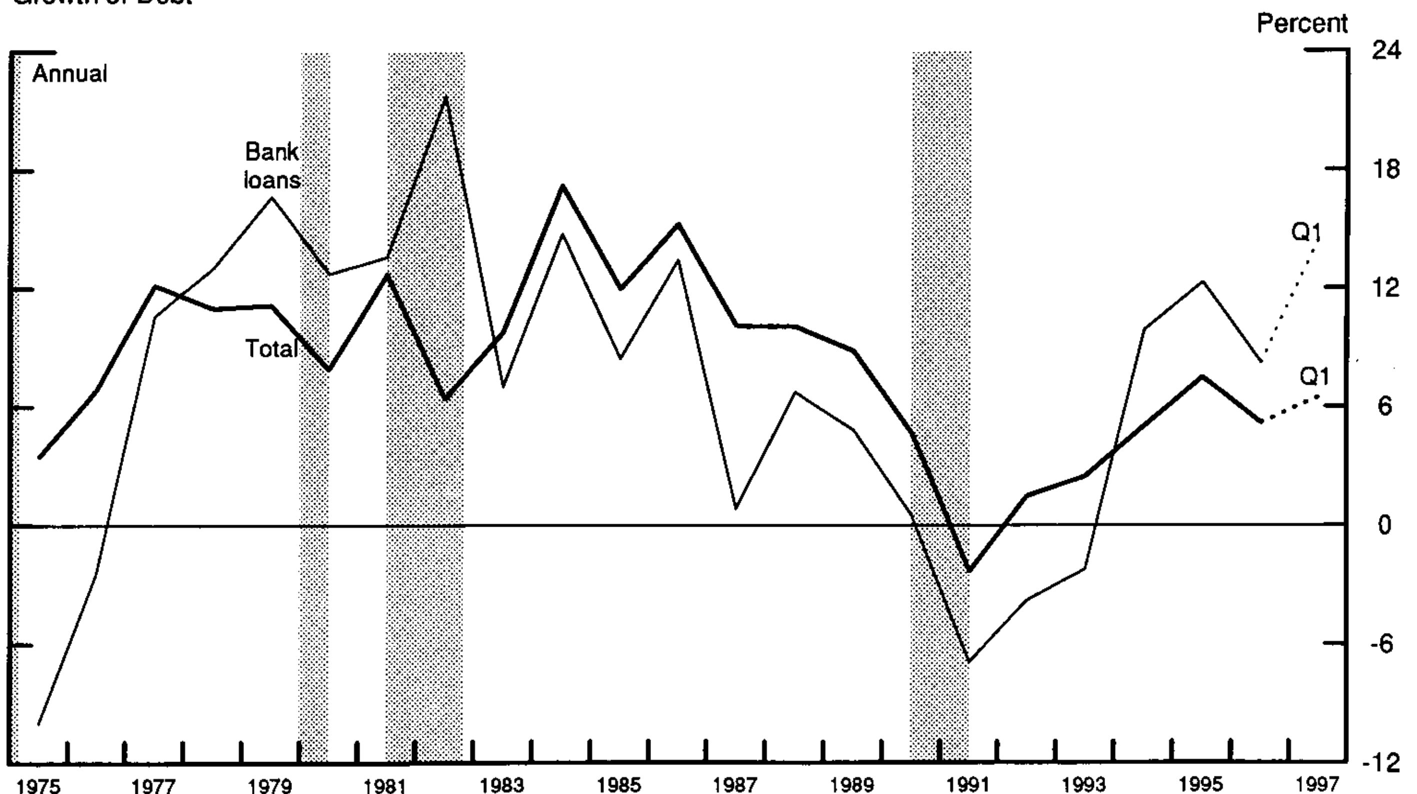
Type of debt	1992	1993	1994	1995	1996	1997:Q1
Total market debt	2,405	2,457	2,567	2,755	2,923	2,982
Bonds[1]	1,269	1,344	1,362	1,423	1,478	1,493
Mortgages	126	127	117	129	175	172
Bank loans[2]	488	478	525	590	638	665
Other loans[3]	522	508	563	613	633	652
Memo:						
Trade debt	683	719	797	870	923	906

Note. Debt outstanding at end of period.

1. Industrial revenue bonds and corporate bonds.
2. Extended without real estate as collateral.
3. Commercial paper, loans from finance companies, and all other nonmortgage loans that are not extended by banks.

Source. Federal Reserve Board, flow of funds accounts.

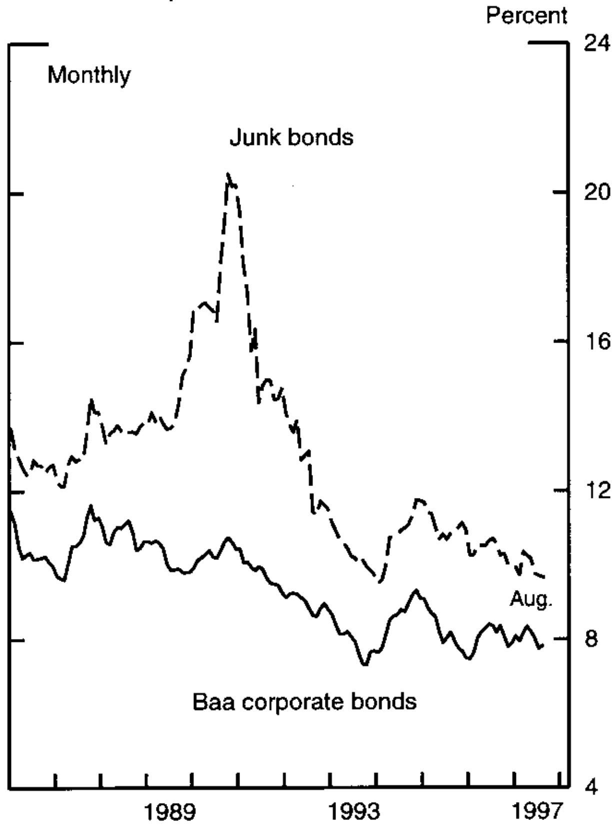
Growth of Debt



Note. Quarterly data are at seasonally adjusted annual rates. Shaded areas represent periods of recession as defined by the National Bureau of Economic Research.

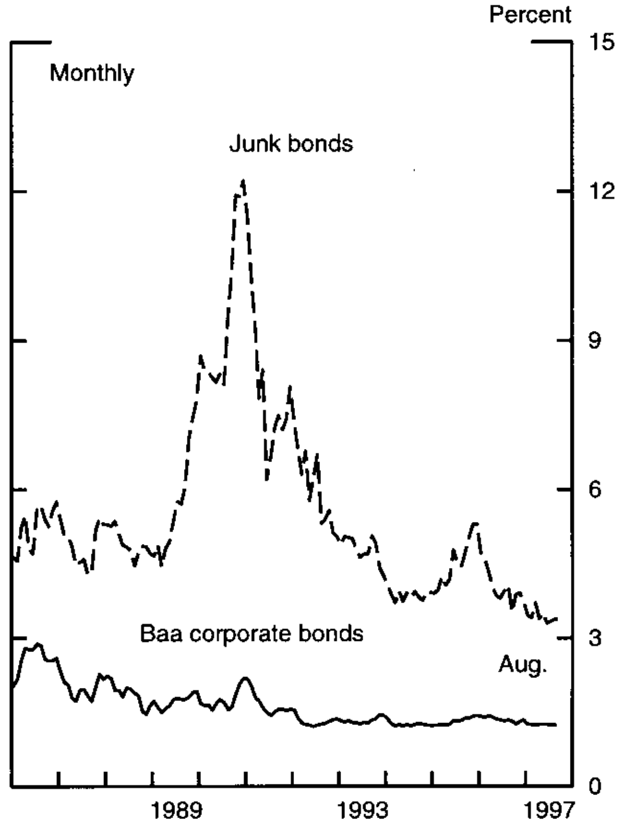
Corporate Credit Conditions

Yields on Corporate Bonds



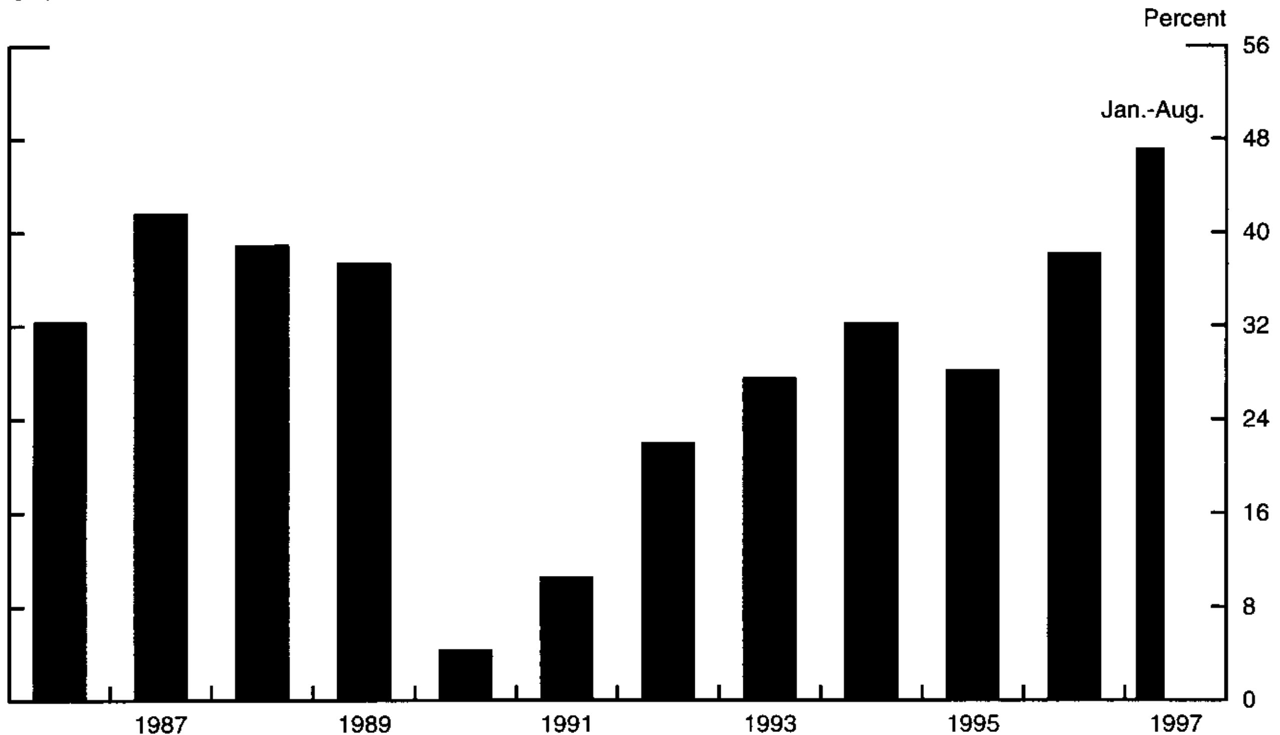
Source. Merrill Lynch, Moody's.

Risk Premiums on Corporate Bonds



Note. Yields less comparable Treasuries.
Source. Merrill Lynch, Moody's.

Share of Nonfinancial Bond Issuance Rated BB or Lower



Source. Securities Data Company.

employees) constituted close to 50 percent of all nonfinancial small businesses--nearly 30 percent were C-type corporations and 20 percent were S-type. Three-fourths of these corporations had fewer than twenty employees and assets of less than $500,000. A negligible number of these firms had tapped public securities markets. Only about 20 percent relied on hired management--the rest were run by the owners. Still, small corporations were typically larger than partnerships or sole proprietorships and accounted for 82 percent of the dollar volume of credit reported by all small nonfinancial businesses (Exhibit: Loans Outstanding for Small Nonfinancial Businesses, 1993).

According to the survey, small corporations were found in every broad industry category: One-third were in business or professional services, about one-quarter were in retail trade, and the remainder were fairly evenly distributed among wholesale trade, construction, and manufacturing. Small corporations, like other small businesses, met most of their credit needs by borrowing from commercial banks. However, the survey indicated that they also used finance companies and leasing arrangements for nearly one-fourth of their credit needs (Exhibit: Loans Outstanding for Small Nonfinancial Corporations).

Loans Outstanding for Small Nonfinancial Businesses, by Form of Organization, 1993

Form	Percentage of small businesses	Percentage of loans outstanding
All	**100**	**100**
Corporations	48	82
S-type	20	26
C-type	28	56
Proprietorships and partnerships	51	18
Proprietorships	44	8
Partnerships	7	10

NOTE. Excludes financial intermediaries and small businesses in insurance and real estate, agriculture, forestry, and fishing.
SOURCE. 1993 National Survey of Small Business Finances.

Loans Outstanding for Small Nonfinancial Corporations, by Industry and Source of Credit, 1993
(Percent)

Industry	Source of credit				MEMO: Percentage of small businesses
	All	Commercial banks	Finance companies	Other	
All	**100**	**63**	**18**	**19**	**100**
Business and professional services	18	11	2	5	33
Retail trade	25	12	9	4	24
Construction and mining	11	8	1	2	15
Wholesale trade	20	14	2	4	12
Manufacturing	20	14	3	3	12
Transportation	7	4	2	1	4

NOTE. Excludes financial intermediaries and small businesses in insurance and real estate, agriculture, forestry, and fishing. Details may not sum to totals because of rounding.
SOURCE. 1993 National Survey of Small Business Finances.

As is consistent with the large representation of small retail firms among small businesses, loans to corporations in retail trade accounted for the biggest share of credit outstanding to small corporations in 1993. Of particular note, they accounted for a disproportionate share (one-half) of finance company credit but a surprisingly smaller share (one-fifth) of commercial bank loans to small businesses. This pattern likely reflects retailers' use of accounts receivable and inventory financing, which are the specialties of some finance companies.[8]

Firms in the wholesale trade and manufacturing sectors accounted for the largest shares of commercial bank loans to small corporations: The 93NSSBF indicates that, in 1993, 12 percent of small nonfinancial corporations were in manufacturing and the same share were in wholesale trade. Each sector accounted for 22 percent of bank credit on the books of small corporations.

More recent information on small manufacturing corporations can be gleaned from the *Quarterly Financial Report for Manufacturing, Mining, and Trade Corporations* (*QFR*), which provides balance sheet and income data for manufacturing companies by asset-size category. According to recent *QFR* data, total credit market debt of manufacturing firms increased at an average annual rate of 5.6 percent between March 1994 and March 1997.

8. Finance companies reportedly finance large amounts of accounts receivable. Total business receivables at finance companies reached more than $340 billion in 1996, of which 60 percent were equipment loans and leases, 25 percent were motor vehicle loans, and much of the remainder were loans to finance business accounts receivable. See August and others (1997).

Debt growth was somewhat less (4.4 percent) for the smallest firms (those with $25 million or less in assets) (Exhibit: Credit Market Debt of Manufacturing Corporations; Ratio of Bank Loans to Credit Market Debt).

In the *QFR*, bank loans account for nearly 64 percent of credit market debt on the March 1997 balance sheets of small manufacturing firms. The bank share dropped markedly in the credit crunch of the early 1990s but has reversed part of this decline in the past three years. Since 1993, bank debt of manufacturers expanded at a 7 percent annual rate with very little variation in growth rates between the smallest and largest corporations.[9] Despite speculations that banks are becoming less important suppliers of credit, these data do not indicate any longer-run decline in the role of bank financing for either large or small manufacturing corporations.[10]

The use of trade debt by manufacturers generally tends to increase in concert with rising sales and production, and it has done so in the current expansion--growing at an average annual rate of 9 percent between March 1994 and March 1997. The growth of trade debt over this period was twice as rapid at large firms as at small firms. Still, trade debt currently accounts for slightly less than 20 percent of the total debt of large manufacturing corporations and about 30 percent of the debt of small firms. Firms in capital-intensive industries and in industries that manage large inventories--such as manufacturing--make more use of trade credit than do firms in many service-related areas.[11]

Borrowing by Partnerships and Proprietorships

Most proprietorships and partnerships are considerably smaller than small corporations. According to survey data, three-fourths of these businesses held assets valued at less than $100,000 in 1993. Nearly half had one or no paid employees, and the vast majority had fewer than five employees. By industry, they were heavily concentrated in business and professional services (48 percent), retail trade (23 percent), and construction (15 percent). Most service-related businesses relied primarily on banks for external financing and on family and friends for the remainder, with a smattering from nonbank institutional lenders. Construction firms obtained a slightly higher

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9. Bank debt in the *QFR* includes commercial and industrial loans and loans backed by real estate. In the flow of funds accounts and in the Call Reports of commercial banks, loans to businesses backed by real estate are classified as mortgage debt.

10. The appendix presents evidence from the survey related to the role of banks in small business financing. In sum, a comparison of the bank share of small business credit in 1987 with the share in 1993 found only a slight--not statistically significant--decline.

11. Indeed, trade debt constitutes a small share (about 6 percent) of the dollar volume of credit for noncorporate businesses, many of which are in retail and service sectors. The ratio of trade payables to total liabilities for the retail industry averaged only 3 percent in 1993 and 1994, based on data from the *Statistics of Income*. Despite the relatively low dollar volume, however, the small business survey indicated that 60 percent of noncorporate small businesses used trade credit.

Credit Market Debt of Manufacturing Corporations

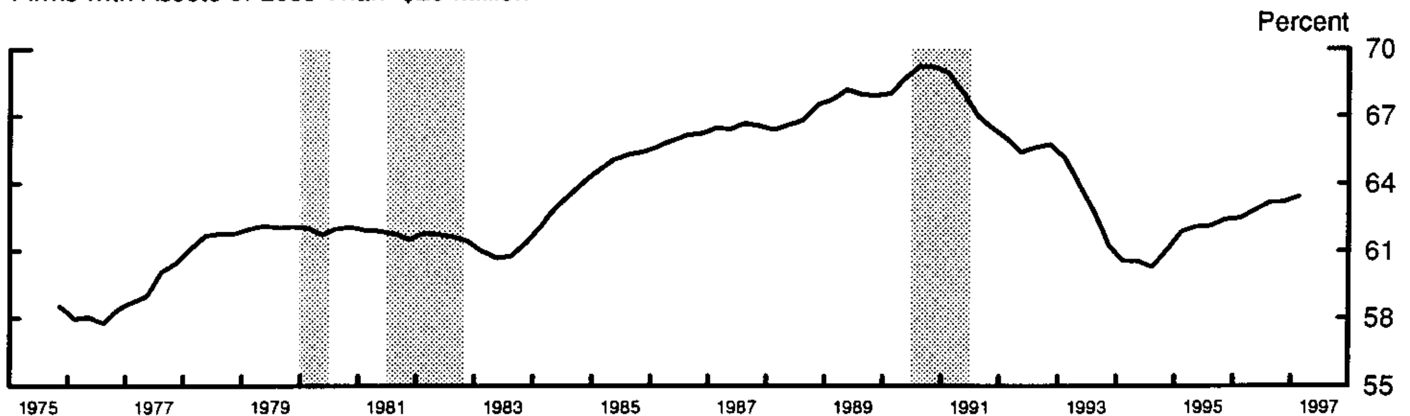
Billions of dollars, except as noted

Asset size of firm	Outstanding, March 1997	Change from March 1994	Annual growth rate 3/94 - 3/97 (percent)	Memo: Trade debt	
				Outstanding, March 1997	Annual growth rate 3/94 - 3/97 (percent)
Less than $25 million	78.6	9.6	4.4	35.2	5.3
$25 million to $1 billion	223.2	30.2	5.0	69.5	7.2
$1 billion or more	644.7	102.6	5.9	177.0	10.8
All manufacturers	946.5	142.4	5.6	281.7	9.1

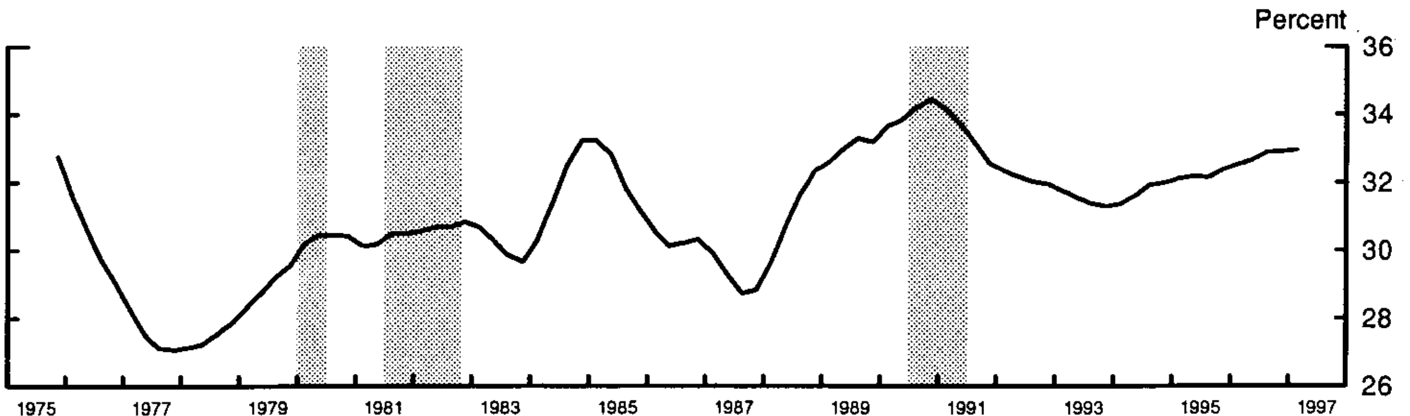
Ratio of Bank Loans to Credit Market Debt, Manufacturing Firms

(Four-quarter moving average)

Firms with Assets of Less Than $25 Million



All



Note. Credit market debt excludes advances by U.S. government, accrued income taxes, other accrued expenses, capitalized leases, and minority interests in consolidated domestic corporations. Shaded areas represent periods of recession as defined by the National Bureau of Economic Research.

Source. U.S. Bureau of the Census, Quarterly Financial Report for Manufacturing, Mining, and Trade Corporations, Third Quarter, 1993.

Loans Outstanding for Small Nonfinancial Proprietorships and Partnerships, by Industry and Source of Credit, 1993
(Percent)

Industry	Source of credit				MEMO: Percentage of small businesses
	All	Commercial banks	Finance companies	Other	
All	**100**	**58**	**8**	**34**	**100**
Business and professional services	34	23	2	9	48
Retail trade	25	14	4	7	23
Construction and mining	12	8	1	3	15
Wholesale trade	6	5	0	1	6
Manufacturing	4	1	0	1	6
Transportation	20	8	0	12	2

NOTE. Excludes financial intermediaries and small businesses in insurance and real estate, agriculture, forestry, and fishing. Details may not sum to totals because of rounding.
SOURCE. 1993 National Survey of Small Business Finances.

percentage of their funds from thrifts, and small retailers were the predominant users of lines of credit at finance companies. Approximately 20 percent of credit to small proprietorships was held by firms in transportation, a surprisingly large share given that these firms were only 2 percent of the number of firms. The majority of this debt was owed to other nonfinancial businesses (Exhibit: Loans Outstanding for Small Nonfinancial Proprietorships and Partnerships).

According to flow of funds estimates, total market debt of partnerships and proprietorships has expanded somewhat more slowly than corporate debt since 1993. Overall growth has been held down by continued weakness in mortgage loans, which constitute nearly three-fourths of the market debt owed by noncorporate businesses in the flow of funds accounts.[12] Until three years ago, commercial mortgages were still contracting, on net, and although the market has been buoyed more recently by declining vacancy rates and firming prices, new financing of commercial real estate projects has been partly offset by continued write-offs of bad loans made earlier. As a result, the share of outstanding noncorporate business debt collateralized by real estate

12. The small business survey shows a much smaller proportion of small business debt in the formof mortgages than the flow of funds accounts show, in part because the latter includes debt held by real estate trusts and other entities involved in the purchase and development of commercial real estate projects. These entities are not well represented in the small business sample and have been excluded from the survey exhibits shown. In addition, all loans backed by real estate are classified by commercial banks as mortgage debt, and they are reported that way in the flow of funds accounts. Small businesses responding to survey questions may be prone to classify loans more by use of proceeds, regardless of the type of collateral.

Credit Market Debt of Partnerships and Proprietorships

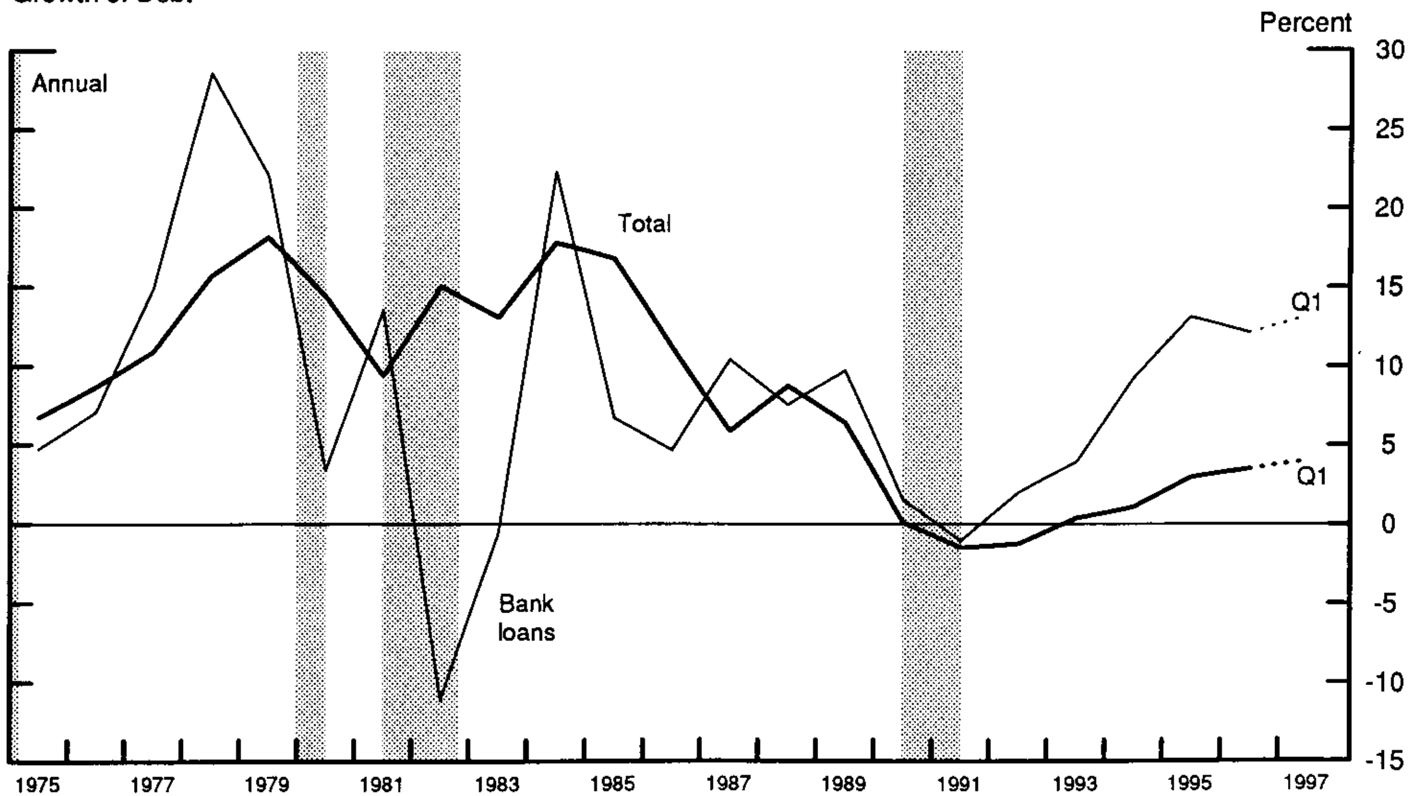
Level of Debt, 1992 - 97:Q1

Billions of dollars

Type of debt	1992	1993	1994	1995	1996	1997:Q1
Total market debt	1,115	1,119	1,129	1,161	1,201	1,212
Mortgages	892	891	884	888	903	907
Bank loans[1]	138	143	156	178	198	205
Other loans[2]	85	85	89	97	99	100
Memo:						
Trade debt	67	64	66	69	73	74

Note. Debt outstanding at end of period.
1. Extended without real estate as collateral.
2. Loans from finance companies and all other nonmortgage loans that are not extended by banks.
Source. Federal Reserve Board, flow of funds accounts.

Growth of Debt



Note. Quarterly data are at seasonally adjusted annual rates. Shaded areas represent periods of recession as defined by the National Bureau of Economic Research.

has fallen from nearly 80 percent in 1992 to less than 75 percent in 1997. In contrast, business loans from banks other than those collateralized by real estate have expanded at a brisk pace. Nonbank loans, including those from finance companies, also have risen notably (Exhibit: Credit Market Debt of Partnerships and Proprietorships).

Lending by Commercial Banks to Small Businesses

The 93NSSBF indicated that about three-fifths of all small businesses--corporate and noncorporate--had a loan or a capital lease outstanding from a financial intermediary. More than 60 percent of the dollar volume of this credit was owed to commercial banks, primarily as loans extended under business lines of credit or as commercial mortgage loans. Commercial banks also provided more than half of the loans used to finance purchases of equipment and vehicles by small firms.

Since 1993, commercial banks and other insured depositories have been required to report annually the volume and number of their outstanding business loans by size of loan. Because loan size is believed to be a reasonable proxy for business size, these data have been widely used to measure the amount of commercial loans extended to small businesses (Exhibit: Growth of Small Business Loans at U.S. Commercial Banks).

As shown, total commercial bank loans to small businesses--defined as commercial and industrial (C&I) loans and commercial real estate loans of $1 million or less--expanded 5-1/2 percent from June 1995 to June 1996 and 6 percent from June 1996 to June 1997. This growth rate is only slightly less than that of large business loans and is in line with nominal GDP growth over the same period. Small C&I loans expanded much more rapidly than did commercial real estate loans, for reasons mentioned earlier. The fastest growth of late has been in the smallest C&I loan category, loans of $100,000 or less, which increased particularly sharply at large banks. Part of the growth at large institutions occurred when small or mid-sized banks merged or large banks acquired smaller institutions; but even adjusting for such merger effects, the growth of small loans at large banks has been strong[13] (Exhibits: Growth of Commercial and Industrial Loans at U.S. Commercial Banks; Outstanding Commercial and Industrial Loans at U.S. Commercial Banks).

Numerous indicators suggest that both large and smaller banks appear to have been increasing efforts to attract small business customers. Sixty large banks around the country that report to the Board quarterly on lending policies steadily eased, on net, their terms and standards for small business loans between December 1992 and August 1997. Interest rates on new business loans of less than $1 million are currently several percentage points below peaks of eight years ago. Notably, however, rates on

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13. A discussion of the effect of mergers on small business credit is presented on pages 41-44 of this report. Large banks account for 30 percent to 40 percent of total small business loans outstanding, even though such loans are a small share of total assets of the large banks.

Growth of Small Business Loans at U.S. Commercial Banks, by Type of Loan, 1993-97

Year	All	Commercial and industrial	Nonfarm, nonresidential real estate
	Amount outstanding, June 30 (billions of dollars)		
1993	296.6	158.9	137.7
1994	293.7	154.1	139.6
1995	315.0	164.5	150.6
1996	331.9	174.7	157.2
1997	351.4	191.3	160.1
	Change, June to June (percent)		
1993	. . .	. . .	. . .
1994	-1.0	-3.1	1.4
1995	7.3	6.8	7.9
1996	5.4	6.2	4.4
1997	6.0	9.5	1.8

Note. Business loans of $1 million or less at U.S. domestically chartered commercial banks, excluding credit card banks and U.S. branches and agencies of foreign banks. U.S. branches and agencies of foreign banks held approximately $188 billion of commercial and industrial loans on June 30, 1997, almost all of which were greater than $1 million; credit card banks held less than $2.5 billion of commercial and industrial loans.

. . . Not applicable.

Source. Preliminary June 30 Call Reports.

Growth of Commercial and Industrial Loans at U.S. Commercial Banks, by Asset-Size of Bank and Size of Loan, June 30, 1996, to June 30, 1997

Asset-size of bank (millions of dollars)	$100,000 or less	$100,001-$250,000	$250,001-$1,000,000	More than $1,000,000	All
	Percentage change				
250 or less	-1.34	-2.44	-1.14	18.25	.14
251-500	1.98	4.15	2.77	-.85	1.78
501-5,000	-.52	-5.78	-4.33	-5.30	-4.52
More than 5,000	35.57	32.39	22.98	11.78	14.54
All	9.43	9.04	9.33	9.40	9.42
	Merger-adjusted percentage change[1]				
250 or less	3.76	5.02	7.70	36.45	7.35
251-500	6.11	12.78	12.60	14.19	11.00
501-5,000	6.70	5.89	7.70	13.87	10.65
More than 5,000	19.45	15.28	10.16	8.39	9.39
All	9.45	9.05	9.34	9.40	9.43

Note. U.S. domestically chartered commercial banks, excluding credit card banks and U.S. branches and agencies of foreign banks. U.S. branches and agencies of foreign banks held approximately $188 billion of commercial and industrial loans on June 30, 1997, almost all of which were greater than $1 million; credit card banks held less than $2.5 billion of commercial and industrial loans. Size of loan is measured by the "original amount" of loan, line of credit, or commitment as defined in the Call Report.

1. The volume of commercial and industrial loans in each size category of banks on June 30, 1996, was increased by the sum of such loans at banks that entered, less the sum of loans at banks that departed, a category during the subsequent year becasue of a merger or an acquisition.

Source. June 30, 1996, and Preliminary June 30, 1997, Call Reports.

Outstanding Commercial and Industrial Loans at U.S. Commercial Banks, by Asset-Size of Bank and Size of Loan, June 30, 1997

Asset-size of bank (millions of dollars)	$100,000 or less	$100,001-$250,000	$250,001-$1,000,000	More than $1,000,000	All
	Amount (billions of dollars)				
250 or less	30.82	8.81	12.98	6.09	58.63
251-500	6.69	3.51	6.31	5.82	22.33
501-5,000	13.47	7.99	18.10	49.89	89.39
More than 5,000	27.02	16.31	39.33	369.21	451.87
All	77.99	36.62	76.73	431.01	622.22
	Distribution (percent)				
250 or less	52.56	15.02	22.13	10.39	100
251-500	29.98	15.71	28.28	26.06	100
501-5,000	15.07	8.94	20.25	55.81	100
More than 5,000	5.98	3.61	8.70	81.71	100
All	12.53	5.89	12.33	69.27	100

Note. U.S. domestically chartered commercial banks, excluding credit card banks and U.S. branches and agencies of foreign banks. U.S. branches and agencies of foreign banks held approximately $188 billion of commercial and industrial loans on June 30, 1997, almost all of which were greater than $1 million; credit card banks held less than $2.5 billion of commercial and industrial loans. Size of loan is measured by the "original amount" of loan, line of credit, or commitment as defined in the Call Report.

Source. Preliminary June 30, 1997, Call Reports.

small business loans have come down much less than those on large loans, and spreads between small loan rates and Treasury yields remain considerably above those on large loans. These wide spreads are not necessarily indicative of restrictive lending policies; rather, they appear to reflect higher average risk premiums as banks have both reevaluated their historical loss experience and expanded their small business lending to a wider range of customers, including riskier borrowers (Exhibit: Measures of Credit Availability from Commercial Banks).[14]

Reports from small businesses provide further evidence that credit has been readily available to creditworthy borrowers over the past few years. Small businesses that meet periodically with Federal Reserve Bank officials to discuss conditions in the twelve districts have been consistently upbeat about credit conditions. Few, if any, have indicated that lack of credit is restraining activity in their areas although some have noted that mergers of local banks with outside institutions have caused lending relationships to change. In its monthly surveys, the National Federation of Independent Business (NFIB) has found that financial conditions remain low on the list of their members' concerns.[15] Less than 5 percent of NFIB respondents who borrowed regularly expressed any concern about firmer credit conditions, recent or prospective. Moreover, in the past two years, between 37 percent and 39 percent of NFIB respondents reported that they had applied for credit during the preceding quarter: This share, which is near the highs of the late 1980s, suggests that demands for credit have been substantial (Exhibit: NFIB Survey Results on Loan Availability). Banks reporting on the Board's quarterly Senior Loan Officer Surveys have also noted strong demand from small business customers and have attributed it to business needs for financing inventories, plants, and equipment.

The willingness of banks to accommodate rising business loan demand reflects several factors, among the most important of which are the improved earnings performance and balance sheets of these institutions over the past four years.[16] Net income of U.S. commercial banks has risen steadily since 1990, increasing more than 8 percent in 1996 and near 10-1/2 percent at an annual rate in the first six months of 1997. The rate of return on bank assets has continued to edge up over the last couple of years. Ninety-eight percent of banks are currently well capitalized. The strength of bank balance sheets and increased profitability have bolstered equity prices and lowered funding costs for these intermediaries.

In addition, the performance of bank loans to businesses has been remarkably good. Delinquency and charge-off rates dropped sharply between 1991 and 1993, especially

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14. Research studies using the 1987 and 1993 NSSBFs have shown that the terms and availability of credit for small businesses depend on many risk factors and on the length of the relationship between borrower and lender (see section "Trends Affecting the Availability of Small Business Credit" in this report).

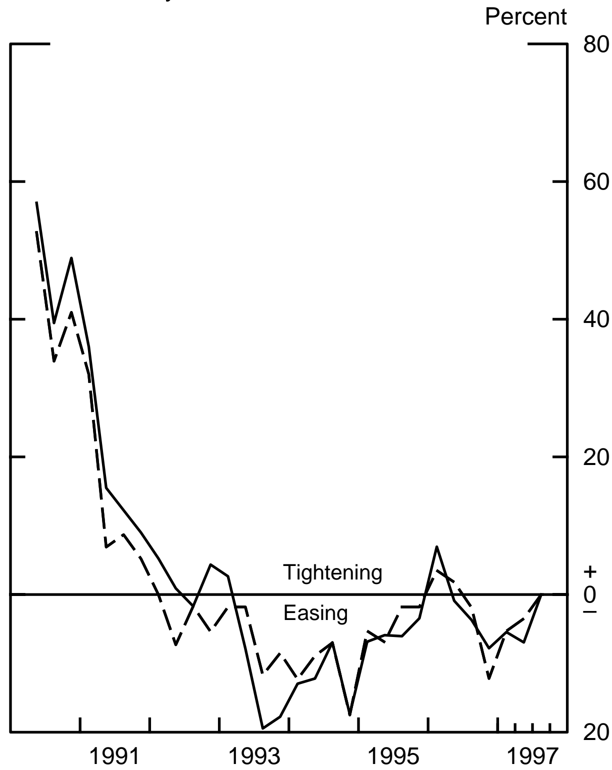
15. National Federation of Independent Business, *Small Business Economic Trends,* monthly surveys of small and independent business owners.

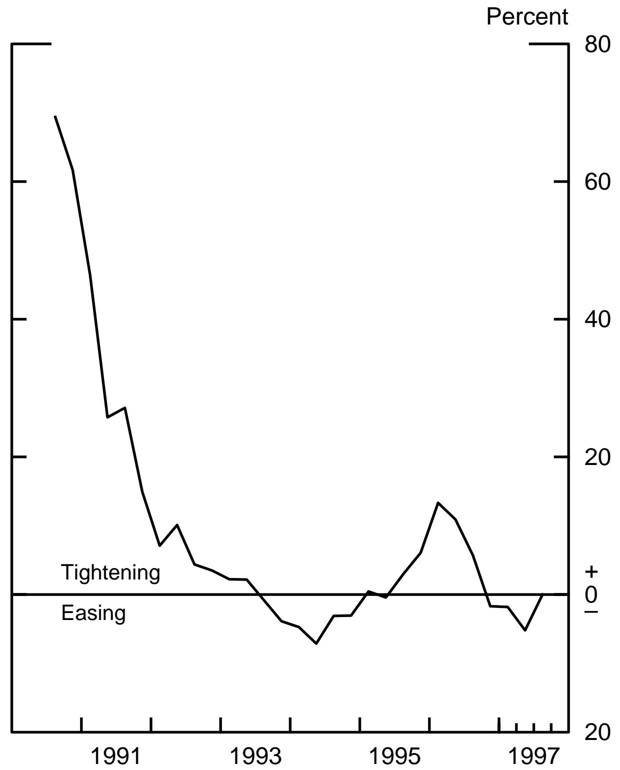
16. See Nelson and Owen (1997).

Measures of Credit Availability from Commercial Banks

(Quarterly data)

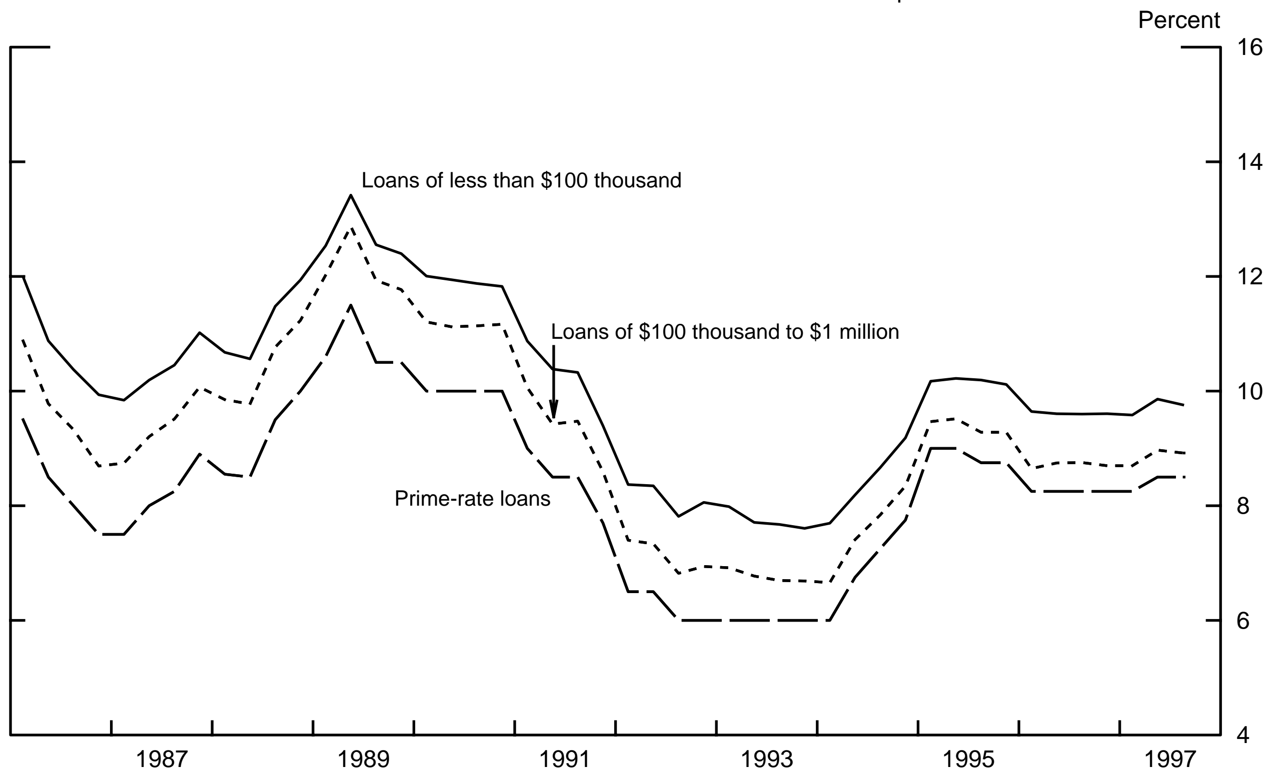
Net Percentage of Banks Tightening Credit Standards





Source. Federal Reserve Board, Senior Loan Officer Opinion Survey.

Rates of Interest on New C&I Loans of Less than $1 Million

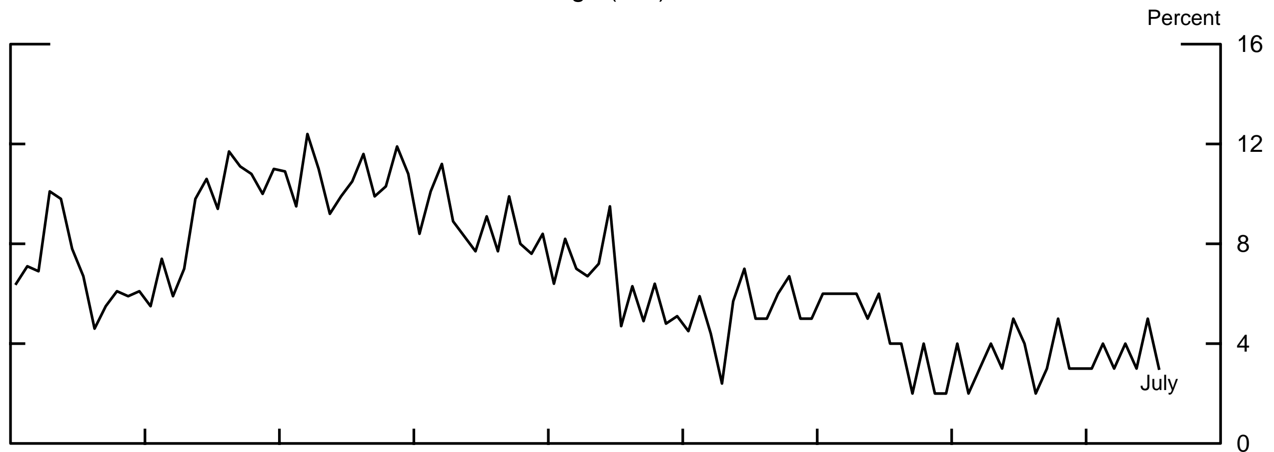


Source. Federal Reserve Board, Survey of Terms of Business Lending.

NFIB Survey Results on Loan Availability, 1989-97

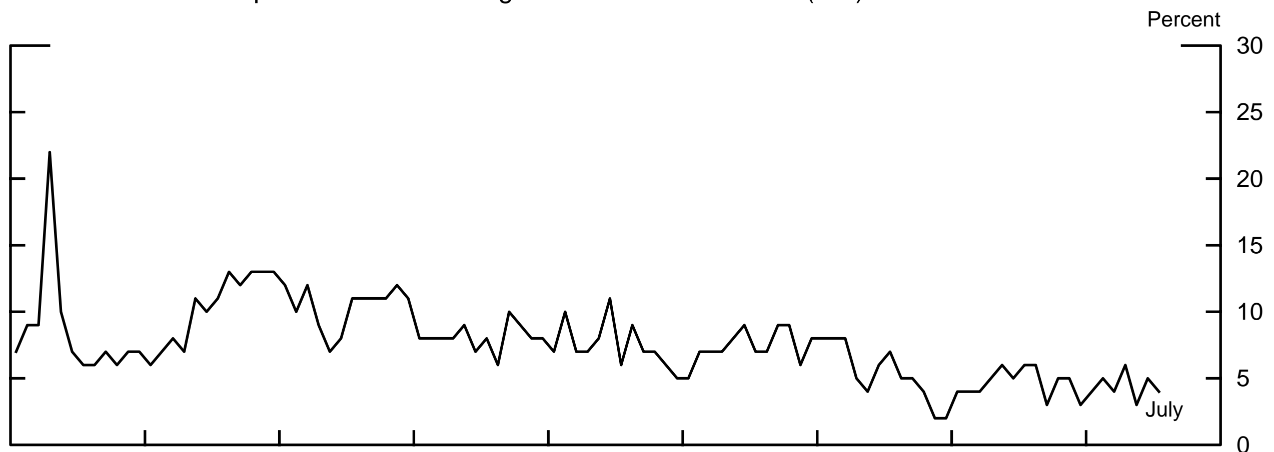
(Monthly data)

Credit More Difficult to Obtain Than 3 Months Ago (Net)



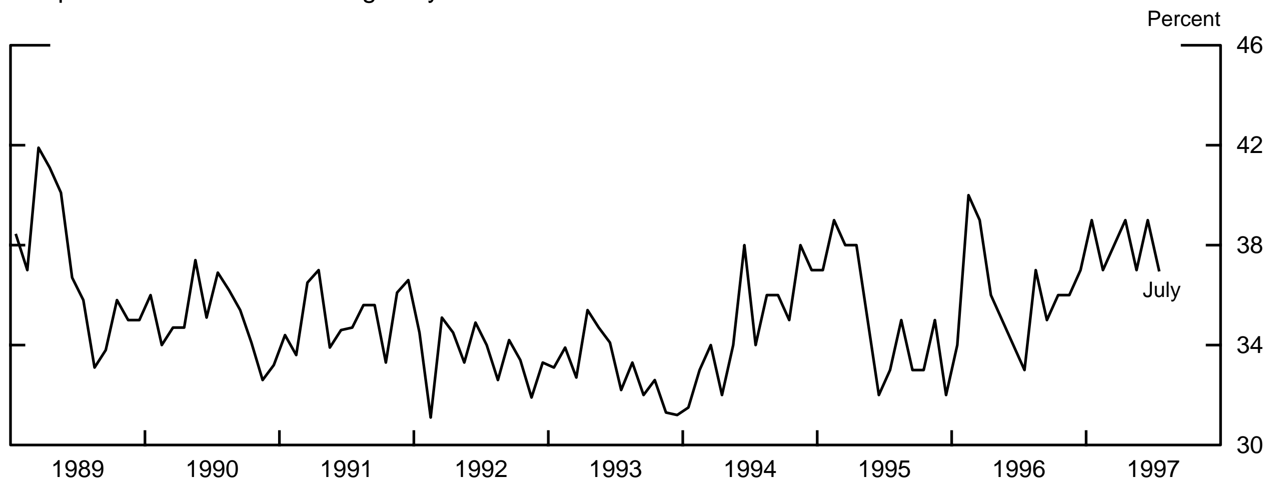
Note. Of borrowers that sought credit in the past three months, the proportion that reported more difficulty in obtaining credit less the proportion that reported more ease. Not seasonally adjusted.

Credit Conditions Expected to Become Tighter over Next 3 Months (Net)



Note. Of borrowers that sought credit in the past three months, the proportion that expects more difficulty in obtaining credit less the proportion that expects more ease. Not seasonally adjusted.

Respondents That Borrow Regularly



Note. Percentage of survey respondents that say they borrow at least once every three months. Seasonally adjusted.

Source. National Federation of Independent Business.

for commercial real estate loans but also for other commercial loans, and have continued to fluctuate around historically low levels. Thus, although rising delinquency rates on consumer credits recently have made banks more cautious in marketing credit cards and unsecured personal loans, these depositories have shown no tendency thus far to firm standards or terms on their business credits. Instead, the competition for business credits among banks and nonbanks has been intense.

Among commercial banks, the increased competition for small business customers has shown through in more aggressive marketing strategies, product innovation, and a wider range of services. Many banks are offering service packages designed specifically to assist small businesses in the administration of payroll processing, unemployment insurance, tax accounting, financial planning, and the like. Besides offering credit lines, some banks arrange equipment-leasing packages and third-party discount services.[17] Small business credit cards have begun to proliferate: According to survey data, about 30 percent of small businesses reported using business credit cards in 1993, and the percentage has undoubtedly increased in the last four years. The high-profile lending programs announced by Wells Fargo are one example of the increased focus on the small business market: Based on credit-scoring techniques, Wells now offers pre-approved lines of credit to small businesses well beyond the boundaries of its home state through direct mail solicitations and has announced plans to lend $25 billion to small firms over the next decade.

A significant number of institutions have created departments that focus on the origination and sale of SBA and other guaranteed loans. About 6,000 banks are currently involved in SBA lending programs. The number has declined somewhat in recent years, reflecting consolidation in the banking industry; nonetheless, the volume of loans in the SBA portfolio has continued to expand. Under the SBA's 7a program, more than $7-1/2 billion of small business loans were extended in fiscal year 1996, and another $8-1/2 billion were extended in the first eleven months of fiscal 1997. The SBA anticipates that loans in all programs will approach the maximum allowed under budgeted provisions--roughly $10.3 billion this year. Although the largest providers of SBA-backed loans are nonbanks,[18] many banks have boosted their SBA lending. As a result of steps by the SBA to reduce paperwork, speed loan approval, and reduce some costs associated with their programs, such loans have become a more cost-effective way for banks to penetrate segments of the small business market.

SBA loans also qualify to fulfill bank responsibilities under the Community Reinvestment Act (CRA). As discussed below, there is growing evidence that community reinvestment activities are playing a significant role in helping banks and other financial institutions respond to the needs of certain segments of the small business finance marketplace. Reinvestment activities have become especially important in helping provide credit for

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17. For more discussion of these activities, see Bank Administration Institute and McKinsey & Company (1997).

18. In particular, the Money Store, AT&T Capital, and GE Capital.

very small, start-up firms, undercapitalized small businesses located in low- and moderate-income areas, and firms owned by minorities and women.

Community Reinvestment Activities

The Community Reinvestment Act (CRA)

As passed in 1977, the Community Reinvestment Act (CRA) encourages financial institutions to help meet the credit needs of the communities in which they operate, including low- and moderate-income neighborhoods. The CRA does not require that banks lend to small businesses, but reaffirms that federally insured financial institutions have continuing and affirmative obligations to help meet the credit needs of their communities, including low- and moderate-income neighborhoods.

Under the CRA, the bank regulatory agencies regularly review the performance of each institution in its efforts to help meet community credit needs and prepare publicly available written evaluations, which include ratings. The CRA requires that the supervisory agencies consider the CRA performance of a financial institution when evaluating its applications for expansion or relocation of depository facilities through branching, mergers, or acquisitions. Decisions on these applications are made public.

As a result of revisions to the CRA regulations, larger financial institutions serving small businesses are evaluated under several "tests," which measure, in part, the nature and extent of their efforts to provide loans, services, and investments for small businesses.

- *Lending Test* (Regulation BB, Section 228.22). This test includes a review of the number and amount of the small business and small farm loans the bank makes and the geographic distribution of such loans in the bank's community.

- *Investment Test* (Regulation BB, Section 228.23). This test includes a review of the bank's investments related to community development, which include those that benefit small and minority-owned businesses.

- *Service Test* (Regulation BB, Section 228.24). This test includes a review of the bank's retail-banking, credit-related, and community-development-related services, including those that support small business development.

Collection of Data on Small Business Loans

To help the bank regulatory agencies evaluate a bank's CRA performance, the CRA regulation (Regulation BB, Section 228.45) requires that certain financial institutions annually collect and provide to their supervisory agency geographically based data on loans made to small businesses and small farms in their communities (assessment areas) as well as other data on the aggregate number and amount of community development loans

originated and purchased.[19] For small business and small farm loans, the data include the aggregate number and amount of loans for each census tract or block numbering area in which the institution made or purchased such loans.

Information on loans originated in 1996 was reported by 1,744 banks and 334 savings institutions to the Federal Reserve in March 1997, and aggregate statistics were made available in a September 30, 1997, press release from the Federal Financial Institutions Examination Council. These institutions made 2.4 million small business loans worth $147 billion, according to the CRA reports.[20]

Though helpful in the CRA evaluation process, one of the primary benefits of the data collection may be its use by the financial institutions themselves. Financial institutions will have, for the first time, accurate data on the geographic distribution of small business loans. This will enable institutions to evaluate their products and services, and overall market penetration for small business finance. Bankers have indicated that the data will be helpful to them in designing better products and services responsive to various market segments of the small business market.

Growth of Small Business Finance Intermediaries

Because many institutions do not have the expertise or cannot bear the development costs of special small business finance programs, especially those focusing on reinvestment areas, many banks have created or assisted other intermediaries to support small business finance in their communities.

Consortium lending corporations and loan pools. An increasingly common form of intermediary is the consortium lending corporation that specializes in helping to finance young or start-up small and minority businesses. By participating in consortia organizations, a bank can reduce but leverage the amount of its capital devoted to small business finance, share risks, and share the costs of lending to riskier small firms. These loan consortia may be called community reinvestment corporations or simply "loan pools," but they are usually organized in corporate form. Although many are organized primarily by banks, they often have nonbank participants, such as insurance companies, utilities, other business corporations, religious institutions, and others. Others are quasi-public arms of city or county government. Loan consortia can be organized as nonprofit or for-profit corporations. While some operate on a statewide basis, most focus on particular local areas.

One example is the California Economic Development Lending Initiative (CEDLI), a statewide, nonprofit consortium corporation, created in 1995, that provides financial and technical assistance to small businesses and nonprofit economic development groups throughout California. Although CEDLI's membership consists primarily of financial

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19. Large financial institutions (those with $250 million or more in assets or institutions of any asset size owned by a holding company with total banking assets of $1 billion or more) must report loan data.

20. The data were only recently released and not available in time for more complete analysis in this report. They are, however, expected to be a useful source of information in future reports.

institutions, it includes other private corporations representing the insurance, telecommunications, and health industries. In its first year, loan commitments to CEDLI from its members totaled $38 million to help form the loan pool.

CEDLI provides small business loans, with an emphasis on serving minority and women-owned businesses that do not meet the criteria of banks or government programs. It has also financed community-based economic development corporations and small business assistance centers in both urban and rural areas of California, and helps finance real-estate-based loans for projects sponsored by community-based organizations serving local needs.

CEDLI works through various partnership arrangements with member banks and with nonprofit groups and public sector programs. It operates a "co-lending program," in which member banks bring to CEDLI small business borrowers they cannot finance alone. CEDLI can take the riskier portion of the business financing, with the bank taking the less risky portion. Also, CEDLI operates a "loans to lenders" program in which CEDLI lends funds to capable nonprofit groups who in turn lend them to community-based small businesses.

During its first year of operation, CEDLI committed forty loans totaling almost $7 million; this has leveraged an additional $9.5 million in new financing from member banks for a total of more than $16 million.

Bank-owned or affiliated community development corporations. Another type of community reinvestment intermediary used by banks to help finance small and minority businesses is the bank-owned or affiliated community development corporation (CDC). Small firms in low- and moderate-income areas are often undercapitalized and need additional equity as well as debt financing. Under both federal and state laws that govern the activities and powers of financial institutions, bank holding companies, national banks, state banks, and thrifts may be permitted to make equity investments in small businesses, under certain conditions. Typically, one or more banks or bank holding companies form a CDC or limited liability company, which in turn makes debt and equity investments in small businesses. The small firms generally must be in low- and moderate-income areas, and the majority of the jobs and services provided must benefit low- and moderate-income persons.

Although most CDCs operate at the local level, some are statewide organizations. For example, the Indiana Community Business Credit Corporation (ICBCC) is a for-profit multi-bank community development corporation, created in 1986, that provides supplemental financing for expanding small businesses. Fifty-five financial institutions have pooled more than $14.4 million in lending commitments to fund the ICBCC. Through year-end 1995, the ICBCC had made loans totaling $14 million to forty-three companies for small business development projects totaling more than $74 million. The ICBCC is essentially a second position lender. Bank members submit applications to the ICBCC and must be willing to provide first position financing for at least 50 percent of the loan amount. Depending on the availability of other funding sources, the ICBCC may lend

up to the balance needed for such purposes as acquisition of fixed assets or working capital. Another statewide, multibank CDC, the West Virginia Capital Corporation, was created by fifty-six banks to provide mezzanine, near-equity-gap financing for small businesses throughout the state.

Other CDCs may focus on minority business development. For example, the Business Assistance Center, Inc., of Miami, Florida, is one of several Florida CDCs created to provide technical and financial assistance to small businesses owned by African Americans. Investors in these CDCs are financial institutions and the State of Florida.

Small business investment companies (SBICS). Many financial institutions also own or participate in small business investment companies, which provide venture capital for small businesses. The Small Business Act of 1958 as amended authorizes banks and bank holding companies to own and operate small business investment companies, which make debt and equity investments in small, expanding firms. SBICs, which are licensed and regulated by the U.S. Small Business Administration (SBA), can be organized as separate subsidiaries of one institution or may have multiple institutions and other private investors. Many SBICs are organized by private interests not affiliated with financial institutions.

A fundamental precept of the program is that all investment decisions are made by the SBIC's management, with their private capital at risk before the government's. SBICs may sell long-term debentures that are guaranteed by the SBA. The proceeds of the debentures are used to provide longer-term financing for small businesses, often in conjunction with equity interests taken by the SBIC in the small business being financed. The SBICs licensed since 1994 operate, for the most part, very much like private venture capital partnerships except that their investments are limited to small businesses. For such purposes, the SBA considers a business small when its net worth is $18 million or less and its average annual net after-tax income for the preceding two years does not exceed $6 million.

Regular SBICs invested $2.2 billion in 1,687 small business enterprises during the twelve-month period through June 1997. The average size of investment was $1.3 million, and the median size was $265,000. Twenty-three percent of the investments (31 percent of the dollar amount) went to companies less than one year old, and 44 percent of the investments (51 percent of the dollar amount) went to companies less than three years old. The investments covered a wide range of industries, with 29 percent of them in high technology.

A slightly different type of SBIC, called the special SBIC or SSBIC, is restricted to investing only in companies owned by persons who are socially or economically disadvantaged. The 1996 Small Business Programs Improvement Act took away authority to license new SSBICs, but it "grandfathered" existing licensees. The majority of SSBICs are spread lenders, which often serve special niche markets (such as taxi medallions) or ethnic communities. As of September 1997, there were eighty-one SSBICs with $415 million available for investment. Over the past year, SSBICs invested about $112 million

in small businesses, mostly in the form of straight loans, with an average investment of $113,000.

SBA 504 certified development companies. Banks often work with certified development companies to leverage funds for small business financing. Certified development companies are nonprofit corporations specializing in small business finance. They are "certified" by the SBA to participate in the SBA's section 504 financing program, which focuses on helping small businesses to expand and create jobs. The SBA 504 program provides the certified development company with the ability to issue SBA guaranteed long-term debentures that are used to help fund small businesses. To obtain certification from the SBA, a certified development company must meet certain requirements, such as a board membership that represents government, private lending institutions, and community and business organizations.

Certified development companies provide longer-term financing to growing small businesses, usually for real estate development, plants, and equipment. A typical 504 certified development company financial package is a combination of at least three sources: 50 percent of the package is funded by a private financial institution, 40 percent is funded by issuance of an SBA guaranteed debenture, and 10 percent comes from business owner equity or independent capital funds provided by the certified development company. Usually, the financial institution retains a first lien on collateral but risks only 50 percent of the loan package. Certified development companies under section 504 usually provide technical assistance to the small businesses and develop the financing package.

Community-based micro-enterprise loan funds. A number of institutions are targeting very small and start-up businesses, and many are working at the neighborhood level or focusing on minority business development. New programs, featuring smaller loans of less than $100,000 and "micro" loans, sometimes as small as $1,000 to $5,000 for very small businesses, are being offered by many banks. Minority businesses are increasingly being targeted. Moreover, banks continue to use public sector programs, such as loan guarantees, to help them make small business loans.

Usually, financial institutions work directly with community-based nonprofit organizations, which serve as intermediaries to deliver financing and services to microbusinesses. Often, state and local agency funds are used to help fund training and technical assistance for microbusinesses. Community-based nonprofit organizations and state and local governments throughout the country have created a wide variety of loan funds or pools to help very small enterprises get started or expand. These funds provide very small loans, ranging from $1,000 to $25,000, to individuals and families starting businesses. Typically, the nonprofit organization provides intensive training and technical assistance to the new entrepreneurs.

The next section discusses the development of new techniques that could lower the cost of assessing and managing the risks associated with lending to small businesses.

Trends Affecting the Availability of Small Business Credit

This section discusses the risks of lending to small businesses and the role of relationship lending. It considers the implications of new developments in credit risk assessment and securitization, bank consolidations, and equity financing for the availability of credit to small businesses.

Risks of Lending to Small Business

Lending to small businesses is generally riskier and more costly than lending to larger firms. Small businesses are much more susceptible to swings in the economy and have a much higher failure rate than larger operations. Historically, lenders have had difficulty determining the creditworthiness of small business loan applicants. As noted, small businesses are extremely diverse--they range from small corner grocery stores to professional practices to small manufacturers. This heterogeneity, together with widely varying uses of the borrowed funds, has impeded the development of general standards for assessing small business loan applications and has made evaluating such loans less straightforward and relatively expensive.

The problem is further complicated because little, if any, public information exists about the performance of most small businesses. Small businesses rarely have publicly traded equity or debt securities, and public information on such firms is typically quite sparse. Most small businesses lack detailed balance sheets and other financial information upon which lenders typically rely in making underwriting decisions. Moreover, acquiring such information directly is costly. In practice, many banks undergo a fairly lengthy credit review process for small business loans that may involve several layers of an institution's credit department hierarchy and entail having loan officers conduct extended visits to the business site.

The cost to the lender does not end with the decision to grant the loan. Small business lenders typically have had to actively oversee the credit arrangement with individual borrowers; the characteristics of small business borrowers and the purposes for which they require credit have limited the usefulness of indirect monitoring mechanisms. For very small firms, the finances of the business and those of the owner tend to be closely associated, which increases loan monitoring costs.

In general, the elevated costs of evaluating small business applications and the ongoing costs of monitoring the firm performance have made loans to small businesses less attractive relative to loans for large firms, especially because, when expressed as a percentage of the (small) dollar amount of the proposed loan, these non-interest costs are quite high relative to loans to middle-market or large corporate borrowers. Financial institutions, such as commercial banks, are believed to have an important advantage in dealing with information problems. Through interactions with a firm that uses its financial

services, the lending institution can obtain private information about the firm's activities, financial characteristics and prospects, and ownership that is important in deciding whether to extend credit. Information gathered over time through long-term relationships can be used by lenders to monitor the business health and to build appropriate incentives into loan covenants.

The role of relationship lending is thought to be particularly important in local markets in part because the closer ties between small community banks and local businesses provide information advantages.[21] In addition, many smaller communities have few lenders or sometimes only one lender. To the extent that it promotes longer-term relationships, this less competitive lending environment may allow local banks more flexibility in structuring loans programs over time. A bank, for example, might accept a below-market interest rate on a loan to help a new business or an ongoing firm experiencing hard times, with the expectation that the bank will receive above-market returns on loans when the business is healthy. Some have argued that long-term relationships are more difficult to maintain in highly competitive markets because businesses that are earning good profits likely will seek out the lender offering the most favorable, low-cost loan terms.[22]

A number of empirical studies have sought to assess the importance of borrower-lender relationships for the terms and availability of small business loans.[23] These studies, with mixed results, have found some evidence that longer firm-lender relationships are correlated with more favorable loan terms for small business borrowers. Berger and Udell (1995) found that, for loans made under lines of credit, the loan rate premium over the lending bank's prime rate was negatively related to the length of the relationship between the business and the lender. This study also found a significant negative correlation between the length of the relationship and the probability that the creditor required collateral. A study by Peterson and Rajan (1994) had no success in finding a statistical relationship between small business loan rates and the length of the relationship, but did find that measures of access to credit were correlated with the length of the firm-lender relationship. Cole (forthcoming) has used information from the 93NSSBF to address whether a credit application was more likely to be accepted if a small business had an existing relationship with the lender and whether the length of the relationship was important. He found that a pre-existing relationship improved the chance of receiving credit but that the length of the relationship was unimportant.

The 93NSSBF collected information from firms about their most recent borrowing experiences. Over the four-year period from 1991 to 1994, more than one-third of small businesses had applied for credit. About 17 percent of these firms reported on applications submitted during 1991 and 1992, when the economy and financial markets were just

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21. The advantages that local banks have for originating and overseeing loans to small businesses is the focus of numerous studies, including Nakamura (1993, 1994).

22. Berlin (1996) discusses relationship lending in different environments. Whether banks price loans efficiently with respect to risk taking in small business markets has been the subject of considerable study, including Mester and Berlin (1997).

23. For example, Berger and Udell (1995), Peterson and Rajan (1994), and Cole (forthcoming).

beginning to emerge from the recession. The turndown rate was quite high for these applications--around 27 percent. The bulk of applications were submitted in 1993 and 1994, and turndown rates were much lower, 19 percent in 1993 and 15 percent in 1994. The lower turndown rates may reflect the more hospitable financial environment in 1993-94 as balance sheet restructuring and a growing economy bolstered the financial health of borrowers and lenders.[24]

Cole (forthcoming) used these data in econometric analyses modeling the probability of being turned down for credit as a function of the length of the relationship between the firm and the creditor, the number of financial services supplied to the firm by the creditor, the age of the firm, and other borrower characteristics that measure the firm's riskiness. The latter include industry, organizational structure, size, leverage, profitability, and the number of times the firm had been delinquent on business or personal obligations. Not surprisingly, his analysis finds a significantly positive relationship between most measures of firm risk and the probability of being denied credit. Newer and smaller firms were more likely to have their loan applications turned down than older and larger firms. The probability of turndown was clearly higher for firms (or the owners) that had been delinquent on debt payments in the past. Although the analysis did not have information on credit scores for the small businesses, it seems clear that past payment history was an important variable. Industry variables and organizational form, in contrast, seemed to make little difference in explaining turndown rates among small firms.

With regard to the length of the relationship, Cole found that a lender is more likely to extend credit to a business that already has some relationship with the lender, but the length of that relationship was not significant statistically. His study did not, however, address the effect of firm-lender relationships on loan rates or other terms of small business credit.

The role of relationship lending will continue to be a question of importance as automated banking, credit scoring and securitization, and bank consolidation change the competitive structure of banking markets.[25]

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24. At the same time, however, the turndown rates in 1991-92 likely are on the high side because they include only applicants who did not apply for credit in later years. Specifically, businesses were asked only about their "most recent" borrowing experience. Thus, regular borrowers would not have reported loan applications from this earlier period if they had borrowed more recently.

25. As discussed in the next section, one benefit of the growing use of credit-scoring techniques is to bring greater competition to local markets that may have been dominated by one or a few lenders. Greater competition should offer better pricing and terms for many creditworthy borrowers, but not necessarily for very risky firms whose current financial conditions are poor. Therefore, community banks and relationship lenders will probably continue to play an important role.

Credit Scoring and Securitization

Two recent developments in the way risk is assessed and managed--credit scoring and securitization--are likely to have important effects on the availability and the cost of credit for small businesses. Credit scoring offers the possibility for a consistent, quick, and cost-effective evaluation of the riskiness of small business applicants. It also enhances the prospects for more extensive securitization of small business loans by enabling purchasers of securities to more easily assess the credit risk of the loans underlying the security.[26] Securitization of small business loans provides lenders with the option of originating small business loans without necessarily bearing all the risk of such loans or funding them.

Credit Scoring

Recently, the application of credit-scoring technologies has begun to increase the attractiveness of small business lending for all lenders, especially for larger lenders. Credit scoring is an automated process by which information about an applicant is used to predict that applicant's likelihood of repaying a loan. It is predicated on the notion that, with a relatively small number of variables, the probability of default for a given applicant can be predicted fairly reliably. Most models currently in use are "borrower-intrinsic" systems in which greater weight is assigned to specific financial characteristics of the borrower (or "principal" of the small firm), such as previous late payments, defaults on personal loans, or the level of financial reserves, than to the financial condition of the business per se. Credit-scoring models use this information to generate a credit score, which is a scaled representation of the applicant's estimated probability of loan default or delinquency. Especially when used in the context of originating large numbers of loans, credit-scoring models have been able to predict loan pool performance with considerable accuracy.

The relationships between applicant characteristics and loan performance (that is, repayment, delinquency, and default) are established using historical data on the performance of past borrowers. Two key assumptions underlie credit-scoring models and link this past behavior of former applicants to the prospective behavior of current applicants with similar characteristics at the time of application. First, past performance is viewed as the best predictor of future behavior. Second, scoring models assume that, on average, people with similar backgrounds and characteristics will perform similarly on their loans.

Credit scoring increases the consistency, speed, and, in some cases, accuracy of credit evaluations while it lowers costs of gathering relevant information. The use of credit scoring eliminates variation in the way risks are assessed across loan officers or by a single loan officer over time, both of which can be important issues for lenders. Also, because credit-scoring procedures are automated, loan decisions can be rendered in minutes or hours rather than in days or weeks.[27]

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26. To date, a sizable percentage of banks on the Board's Senior Loan Officer Survey have used credit scoring when making small business loans, but they have not yet actively engaged in the securitization of such loans.

27. See Avery, Bostic, Calem, and Canner (1996).

Used for more than thirty years in consumer credit decisions, credit scoring began to be included as a component in the small business lending process only in the 1990s. The slower implementation of scoring in small business lending largely reflects the absence of the historical databases required to establish consistent statistical relationships between applicant characteristics and loan repayment behavior. In the past five years, however, several developers have obtained sufficiently large databases documenting the small business lending experiences of lenders to build credit-scoring systems.

An important and pathbreaking outgrowth of the development of these systems is the emerging consensus that one of the most powerful predictors of the performance of small business loans is the credit history of the owner, independent of any financial information for the firm.[28] This is important for two reasons. First, if the owner's credit history is a primary predictor of small business loan performance, much of the heterogeneity across small firms noted above can be discounted, and the complexity of evaluating small business loan applications will be reduced. Quite possibly, general standards for small business lending can be established. Second, data on the owner's credit history and financial standing can often be easily and relatively inexpensively obtained from national credit bureaus and other sources. As a result, small business lending may no longer be the exclusive domain of institutions with specific expertise in small business markets. Nearly all lenders will be able to obtain much of the information required to evaluate small business loans at a relatively low cost. This feature, plus the fact that credit-scoring models are inexpensive to use, means that the use of credit scoring should reduce the costs of small business lending. These lower costs, in turn, should increase the profitability and, therefore, the attractiveness of these smaller loans for lenders.

One issue that has not yet been resolved is how existing small business credit scoring models perform relative to traditional reviews of small business lending. In particular, an extensive performance record for scoring does not yet exist. Further, as noted by Mester (1997), credit-scoring models have been used in the small business lending market only during the lengthy economic expansion of the 1990s, so whether the performance of the existing models will hold up during times of macroeconomic stress is unclear.[29]

Effects of credit scoring on the availability of small business credit. A systematic assessment of the effects of credit scoring on the availability of small business credit requires more experience and evidence than has accumulated to date. However, conversations with lenders who have used or plan to use credit scoring for small business loan applications suggests that credit scoring has and is likely to continue expanding access to credit for small businesses.

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28. In particular, the personal financial history of the owner is most important for very small businesses and small loans. Fair-Isaac, for example, finds owner history to be the most relevant variable for assessing loans of less than $35,000, but less relevant for larger loans.

29. Avery, Bostic, Calem, and Canner (1997) examine the influence of economic and other factors on credit scores and find evidence suggesting that the performance of scoring models may vary as economic conditions change.

Existing evidence suggests that credit scoring has produced benefits for small businesses seeking credit. According to numerous sources, credit scoring has increased the pool of available credit for small businesses. Surveys by the *American Banker* and the Federal Reserve suggest that larger banks have increased their use of credit scoring since 1995. In 1995, 23 percent of large bank respondents to an *American Banker* survey reported using credit scoring (Racine, 1995). According to the January 1997 Senior Loan Officer Opinion Survey on Bank Lending Practices, about 65 percent of large banks use credit scores in some fashion in their small business lending program.

Over the same period, the amount of lending to smaller businesses by many of these large banks has grown. Most notable among these institutions is Wells Fargo, which launched a nationwide campaign of small business lending in early 1996 and has become a major lender to small businesses in many markets across the country. Similar gains have been observed at Nations Bank, which also uses credit-scoring technologies extensively.

Further, in an analysis of changes in small business lending from June 1995 to June 1996 in the San Francisco Federal Reserve District, Levonian (1997) finds a dramatic increase (26.2 percent) in the holdings of business loans of less than $100,000 by the largest banks in the District. Because of only slight increases in such lending among smaller institutions, which typically did not employ scoring technologies, he attributes much of this gain to "an emphasis on automated loan application and evaluation."

Beyond expanding existing small business markets, credit scoring has allowed some lenders to offer new products. Hibernia, which offered loans only above $200,000 before using automated tools, now has a large portfolio of loans of less than $50,000 (Zuckerman, 1996). Also, many lenders are following the lead of Wells Fargo and are introducing direct mail pre-approved small business loan products. Aside from large banks such as Bank of America and Fleet, which developed their own scoring models, these lenders include regional and small banks that are using generic scoring systems; Union Planters Corporation, Memphis (Oppenheim, 1997a), and PNC Bank Corporation (Oppenheim, 1997b) are examples.

Additionally, credit scoring has increased competition for small business loans in many markets. A recent *American Banker* article highlighted the pressures that smaller lenders, which traditionally have dominated many small business lending markets, now face from the automated national small business lending programs that larger institutions with no local physical presence (such as Wells Fargo) now operate. Two results of this increased competition have been a move toward more standardized products and reductions in the interest rates associated with business loans (Oppenheim, 1997a).

Proponents of credit-scoring models believe that their use reduces the likelihood that borrowers may be treated differently or unfairly in the lending process because the credit scores are based on objective and consistent criteria that do not include information on the

race, gender, or age of the borrower.[30] Nonetheless, concerns have been expressed that credit scoring might have disparate effects on groups of entrepreneurs, such as women or minorities, who might be distinguishable by demographic characteristics, or that models may not well represent businesses in underserved communities. To date, there is little quantitative evidence to determine whether such concerns are valid. In this regard, however, lenders and the regulatory agencies need to be vigilant against unfair or inappropriate use of the models and to monitor the lending patterns that develop with increased application of credit-scoring models.

Effects of credit scoring on price differentiation. One additional effect of credit scoring has been the growth of price differentiation based on the riskiness of applicants. Somewhat surprisingly, past studies have found that many banks did not differentiate among small businesses by charging higher interest rates to more risky customers but, rather, tended to smooth loan rates among small customers. This type of policy, in part, reflects the difficulty and costs of assessing the probability of default by individual borrowers. In addition, lenders recognize that higher loan rates increase the drain on cash flow and raise the risk that some borrowers would be unable to make their loan payments. In some cases, lenders may prefer to tighten terms, such as collateral requirements or maturity, rather than rates or to monitor the riskier credit more closely. They view the loan rate as one of several elements in the borrower-lender relationship.

Whether or not this type of loan price smoothing has proven profitable to banks is addressed in a recent study by Mester and Berlin (1997), which estimated cost and profit functions for a sample of banks during 1977-89.[31] The results suggest that small banks that engaged in interest rate smoothing before the mid-1980s were slightly more profitable than other small banks, but the degree of difference declined over time. For medium and large banks, Mester and Berlin found a negative correlation between rate smoothing and profits. These results, they noted, are "consistent with anecdotal evidence that relationship lending is a small-bank phenomenon that has become less profitable in recent times."[32]

Some lenders, however, do charge higher interest rates for small business customers that represent higher risks. The net effect of the use of credit scoring for differentiating between high-risk and lower-risk borrowers appears straightforward. Some borrowers who might not have previously qualified for standard-rate loans will receive credit, and less risky small firms should obtain credit at rates lower than those for standard-rate loans.

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30. The Equal Credit Opportunity Act (ECOA) makes it unlawful for creditors to discriminate on bases of race, color, religion, national origin, sex, marital status, or age. The act is implemented by the Board's Regulation B. The provisions in the ECOA and Regulation B apply to business and commercial credit as well as to other loans. Special rules are set forth dealing with creditors that use credit-scoring systems.

31. The study by Mester and Berlin (1997) provides an interesting discussion of alternative reasons for lenders to smooth loan rates. Some analysts would argue that "smoothing" rates is inefficient and a result of banking practices that can operate only in protected, noncompetitive markets.

32. Mester and Berlin (1997), p. 15. The authors further note that "Our results are more consistent with a view, common among practitioners, that bank loan pricing practices have historically been inefficient--in particular, that loan rates have traditionally been too insensitive to risk."

Some businesses that previously qualified for standard loan products may find that they are asked to pay higher interest rates that better reflect the underlying credit risks.

While credit scoring will lower the costs of distinguishing between good and bad credit risks for those small businesses and their owners with established credit histories, its benefits are less obvious for those without an observable track record or those that find it hard to qualify for loans based only on credit scores. Potentially creditworthy firms that do not qualify will need to seek financing from lenders that make loans on the basis of the traditional methods of loan evaluation. Lending to such firms will be riskier and entail higher costs of evaluating risks and monitoring performance over time. Community banks and other local lenders should continue to be important providers of credit and financial services to such firms.

Securitization

In markets for other financial assets--notably residential mortgages, credit card receivables, and automobile loans--securitized lending has become an efficient funding alternative to direct lending. Active secondary markets in these assets enable lenders to profit from scale economies or expertise in originating and servicing loans without having to add risky loans to their balance sheets. Securitization enables lenders to improve their return on capital by substituting off-balance-sheet, fee-based sources of income for riskier capital-intensive direct lending; the result is added liquidity and greater balance-sheet diversity. Borrowers whose loans are eligible for securitization typically enjoy lower financing costs; and investors in the securities, while still earning attractive returns, receive greater liquidity and lower risk than they would by directly investing in the individual loans.

Success in securitization requires that the costs of pooling individual loans and administering the securities collateralized by them must be less than the spread between the contract rates on the underlying loans and the yield investors demand on the securities. Besides various administrative costs, there is a need to assure investors of the timely payment of interest and principal, so they do not have to monitor the collateral directly. In practice, this assurance usually requires raising the credit rating of the securities above that which would be assigned to the underlying collateral. High ratings provide a signal about the reliability of the security's cash flows, whether inherent in the credit quality of the collateral or resulting from the issuer's or a third party's assurances. The high ratings, in turn, are obtained via the originator, or others, providing "credit enhancements" to the security's purchaser. These enhancements sometimes consist of standby letters of credit that protect the holder of the security from first-dollar losses on the pool of underlying loans.

Securitization generally has thrived in markets for which the costs of acquiring and communicating information to investors about loans and borrowers are low--as a result of standardized loan underwriting criteria and advances in information technology, which have made estimating default probabilities and prepayment patterns easier under a variety of economic conditions. As noted previously, small business loans do not always fit easily within this paradigm. Small business loans generally cannot readily be grouped into large

homogeneous pools that credit agencies and investors can efficiently analyze. The loans are not homogeneous, underwriting standards vary across originators, and information on historical loss rates is typically limited. The information problems associated with small business loans can be overcome or offset to some degree by some form of credit enhancement mechanism. However, the higher the level of loss protection needed to sell the securities, the lower the net proceeds from the sale of the securities and the weaker the incentive for lenders to securitize their loans. Small business loans are an example of assets for which the high transaction costs of providing credit enhancement have made securitization unprofitable for some potential issuers.

Steps have been taken to further the development of the market in securitized small business loans. For example, the Riegle Community Development and Regulatory Improvement Act of 1994 extended to issuers of securities backed by small business loans (and commercial mortgages) some of the forms of regulatory accommodation that the Small Business Secondary Mortgage Market Enhancement Act of 1984 provides to issuers of residential mortgage-backed securities. The benefits include the elimination of state-level investment restrictions and securities registration requirements and the establishment of favorable federal regulatory treatment. Pursuant to the Riegle act, investment restrictions for federally regulated banks, thrifts, and credit unions and for state-chartered thrifts, insurance companies, and pension funds were relaxed. Also, risk-based capital requirements for depository institutions that securitize loans but retain "recourse" on subordinated classes of securities were reduced.

The Riegle act was intended to remove regulatory impediments that might limit the development of markets for securitized small business loans. This was an important step. However, widespread securitization of small business loans is unlikely to occur until underwriting standards and loan documentation for these loans become more uniform and better information for estimating the risk of loss becomes available.[33] As noted above, however, the use of credit-scoring systems in the origination of small business loans has begun to address the information gap associated with small business lending and should help further the securitization of these loans. To date, the ratings agencies have not used credit-scoring models in determining the amount of credit enhancements needed to achieve a particular rating on a loan-backed security, but they seem likely to use them eventually. Lenders will then be able to go directly from a score to a rating for pools of loans, as they have been able to do in some securitizations of mortgage loans.

Despite the impediments previously discussed, the securitization of some small business loans demonstrates that technical and economic hurdles can be overcome in at least certain

33. Many of the public securitizations of small business loans to date have involved loans guaranteed by the SBA. The credit enhancement provided by the government guarantee is a key feature that makes these loans securitizable. In addition, the SBA loans underlying these securitizations tend to have a much higher degree of standardization than most small business loans and are backed by similar types of collateral and loan documentation. Also, as SBA "preferred lenders," the originators were perceived to have clear, rigorous, consistently applied underwriting standards. All of these factors help to overcome many of the impediments to securitization discussed above.

cases. Roughly one-third to one-half of SBA-guaranteed 7(a) loans have been securitized each year since 1985, subsequent to the enactment of the Small Business Secondary Mortgage Market Improvement Act of 1984. Apart from the SBA pools, however, rated securitizations of small business loans have been limited, totaling only a little more than $2 billion. Many of the transactions have involved the unguaranteed portions of SBA loans and have tended to come from a small number of loan originators, so there is some degree of uniformity in loan underwriting and documentation. Recent securitizations also have been characterized by several other common features. For example, the small business loans underlying securitizations have been themselves asset-based in some way, secured by accounts receivable, commercial mortgages, business equipment, or other collateral that also can be valued with some degree of accuracy. In many cases, the average size of securitized loans has been relatively large, making them more typical of middle-market loans than of most small business loans. Even with these favorable characteristics, most issues have been structured to provide large amounts of loss protection, ranging from 10 percent to 20 percent in most cases.

Besides these rated transactions, a sizable volume of trade receivables and approximately $2 billion of loans made to franchisees (for example, owners of video rental stores, fast food restaurants, and quick-lube service stations) have been securitized in the private placement market. Roughly half of the securitizations of franchise loans were issued in 1996. Most of the loans backing such deals are secured by capital assets such as buildings and equipment. Loss protection often includes surety bond insurance, with subordination, cross-guarantees, or reserve funds providing additional credit enhancement.

Bank Mergers and Consolidations

The current trend of rapid consolidation in the banking industry could either boost or limit the volume of funds flowing toward small businesses, depending on the general goals of the acquiring institution. For example, if acquiring institutions, on average, have more profitable investment opportunities than the small business loans of the banks that they acquire, then these assets may be run off by the new, merged institution. Alternatively, a bank may seek to expand its portfolio of small business loans by purchasing another bank with offices or branches that are positioned to attract small customers and with a staff skilled in originating and monitoring such loans. Empirical investigations of this question have produced a mixed picture of the effect of bank consolidation on lending to small businesses. Still, some common findings seem to be emerging. These findings are summarized below, followed by a brief discussion of major research studies on this topic.[34]

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34. Researchers have been quite creative in using two main sources of data that bear on this question. The data most commonly used are from the midyear Reports of Condition and Income for domestic commercial banks (Call Reports). Since 1993, these reports have included the volume outstanding and the number of commercial and industrial (C&I) loans broken out by the initial size of the loan. Of necessity, investigators have assumed that most small loans are to small businesses--which, despite being a reasonable assumption that is supported by some empirical results, especially for very small and very large loans (Scanlon, 1981), likely introduces some error into the analysis. The Call Report data also exclude any loans to small businesses that are not classified as commercial loans. In particular, many small business loans are

(continued...)

Key Research Findings

- Large banks maintain lower ratios of small business loans to assets than do small banks. There is some evidence that small banks that are part of larger banking organizations hold fewer small business loans than do other small banks, per dollar of assets, and that when large banks acquire small banks, there may be less small business lending by the new bank.

- However, the most aggressive buyers of small banks have been other small banks, and purchasers of banks have tended to be more active small business lenders than the banks that were purchased.
- When small banks merge with other small or even mid-sized banks, there generally has been an increase or little change in small business lending by the new banking company.
- In markets where mergers may have reduced small business lending by merged institutions, other commercial banks and nonbank lenders have expanded their share of the small business market.

Overview of Research

Studies by Berger, Kashyap, and Scalise (1995), Keeton (1995, 1996), and Peek and Rosengren (1996) were among the earliest empirical work on this topic. These studies generally supported the notion that mergers reduce small business lending on net. In particular, they observed that large banks tend to devote a smaller share of their assets to small business loans (commercial and industrial loans that were initially in amounts of less than $1 million) than do most small banks. Keeton used data from the June 1994 Call Report to conclude that "banks with a high degree of branching, smaller banks of instate MBHCs, and banks owned by out-of-state MBHCs all tend to lend a smaller proportion of their funds to small businesses than other banks." In a subsequent analysis, Keeton focused on total farm and business lending at small banks, which generally eschew large loans, to buttress his earlier findings that small members of large banking companies overall lend less to small firms.

Berger, Kashyap, and Scalise sought to address the impact on small business lending of the relaxation of interstate banking prohibitions. They projected a sizable ongoing

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34. (...continued)
likely to be included in "consumer loans," "real estate loans," and other categories because of the fungibility of loan proceeds, the commingling of personal and business funds, or the outside collateral required by the lender.

A second data source is the Survey of Terms of Business Lending (STBL), a quarterly survey of commercial banks that has been conducted since 1977. The survey panel includes about 50 banks with the largest volumes of C&I loans and a stratified random sample of about 300 additional banks. During one week of each quarter, the banks report the terms (both price and nonprice) of the C&I loans that they close each day. Although the data span a long time period and account for a substantial portion of C&I lending, very few small banks are included.

consolidation within the banking industry. The result, they suggested, would be fewer small banks that have a high proportion of their loans to small firms. Larger institutions that resulted from mergers, they assumed, would maintain a lower ratio of small commercial and industrial loans to assets than would the smaller organizations that had existed before the merger.

Among a series of articles assessing the effect of nationwide tight credit conditions in the early 1990s on banking activity in New England, Peek and Rosengren (1996) looked explicitly at banks located in New England that acquired another bank from mid-1993 to mid-1994. They found that, of the thirteen banks that fit this description, most reduced the share of small C&I loans to assets following the acquisition. The authors noted that this tendency to reduce the allocation of assets toward small business loans was most evident for larger acquiring banks.

Most of these early studies were hindered by the lack of sufficient years of data on small business loans to observe lending patterns following mergers. As data have become available, however, researchers have adopted a more dynamic approach to the problem.

Strahan and Weston (1996, 1997) examined the actual growth of the ratio of small commercial and industrial loans to assets at banks that were involved in mergers between June 1993 and June 1996. They found that banks that were involved in mergers tended to hold more small business loans relative to assets than banks of a similar size that were not involved in mergers. The authors also looked explicitly at holding company affiliation and determined that, among smaller bank holding companies, small business lending may increase with the size of the organization. They found that neither the number of subsidiaries in the holding company nor the number of states spanned by the holding company significantly affected the share of assets devoted to small business lending. Craig and Santos (1997) found that consolidation can increase small business lending, especially when the target of the acquisition is small, but their results depended critically on which of several econometric methods they used.

Kolari and Zardkoohi (1997) also used data from the midyear Call Reports and found a mixed picture of the effect of consolidation. In particular, they found that although members of bank holding companies held more of their assets as small business loans than did independent banks (as a share of assets), members of small bank holding companies held more small business loans than did members of larger bank holding companies. The authors also looked specifically at banks that were involved in mergers in 1993 and 1994 and found no clear effect of merger activity on small business lending. Nevertheless, their interpretation of their results and their reading of other research was that "the weight of evidence . . . is more negative than positive in terms of the potential effects of banking industry consolidation on small business lending."

In their later work, Peek and Rosengren (1997) found that although purchases of small banks by larger institutions generally pointed to a decline in small business lending, consolidation among smaller institutions actually increased small business lending.

Furthermore, they noted that most acquirers of small banks in the past several years have been other small banks.

Walraven (1997) found that banks that acquired another bank tended to revert very quickly toward their original lending philosophy as indicated by their pre-merger allocation of assets toward small C&I loans. However, when the data were aggregated across all members of bank holding companies, the evidence regarding reversion was inconclusive.

Berger, Saunders, Scalise, and Udell (1997) found that the ongoing entity in mergers involving small and medium banks tends to increase lending to small businesses, whereas large bank mergers lead to less small business lending by the new bank. In contrast, acquisitions, which they define as changes in the top-tier bank holding company that leave the charters of holding company members unchanged, seem to increase small business lending when the holding company is large and decrease it when the holding company is relatively small. These researchers also estimated the reaction of other banks in the market areas where consolidation had occurred and found that other banks stepped up lending to compensate for any reductions in small business lending arising from a merger or acquisition.

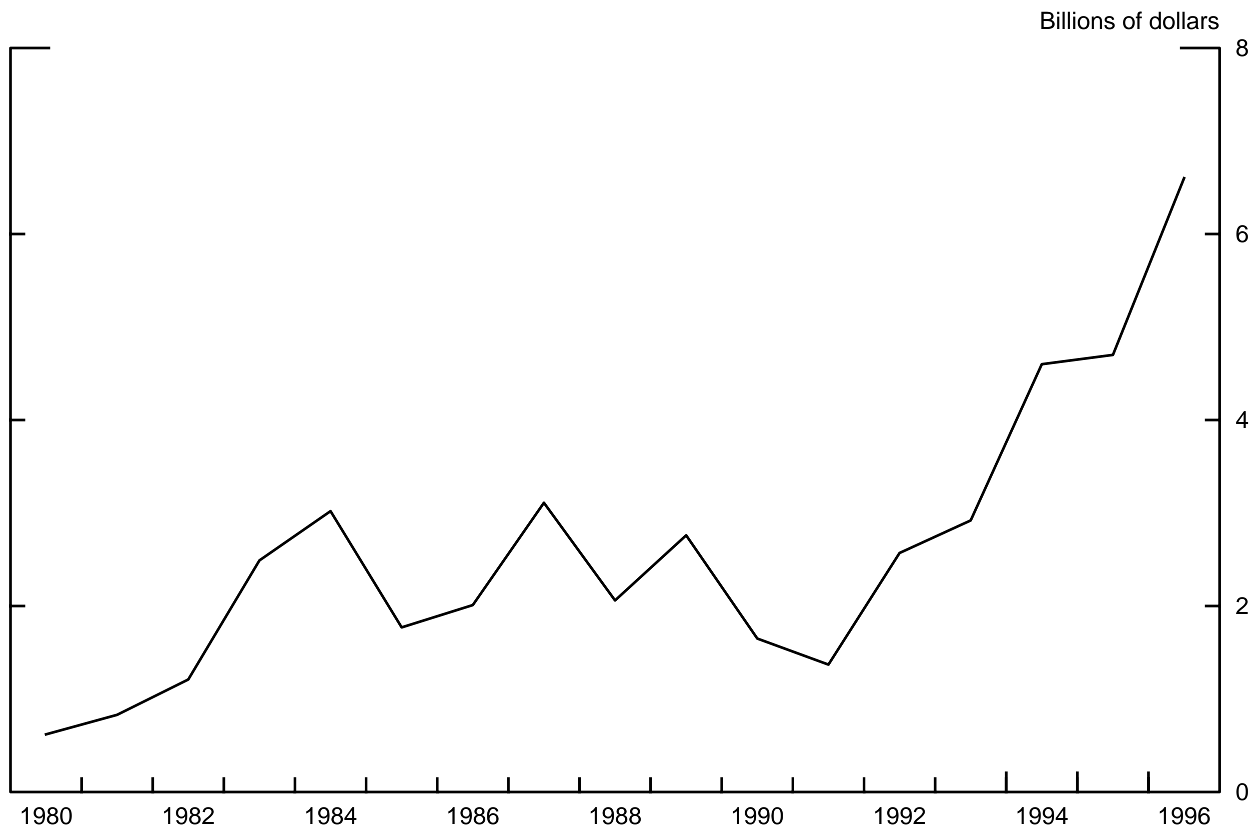
In sum, empirical analyses provide little indication that small business lending overall has been significantly hurt by the accelerated pace of bank consolidation thus far. Still, to assume that this issue is closed is premature. We have only just begun to collect data that allow an assessment of these changes over time, and the environment in which these changes have occurred to date has been conducive to business lending generally. To determine longer-run lending patterns will take more years of data.

Moreover, although consolidation may not impede small business lending over time, it could very well have negative effects on some small business customers in the short-run. As discussed earlier, the relationship between the business and its lender is an important aspect of the credit extension process. When a longtime relationship is broken, it creates some uncertainty and problems until a new relationship is established. Creditworthy small businesses should find these disruptions short-lived, especially in a competitive banking environment like that of the last few years. But even short-run disruptions can be critical for small firms operating on slim margins or for firms in an important phase of expansion.

To the extent that credit is being extended to less efficient or unprofitable enterprises--because of local monopolies or other market imperfections--the impact of mergers and increased competition may be to channel these credit flows to more productive uses.

Equity Financing for Small Businesses

Relatively few small businesses raise equity from external sources. Some small businesses for which external equity is a major source of funds, however, are those in high-technology industries such as computer software and biotechnology. Such firms generally lack the collateral or cash flow necessary to obtain loans, yet they require a large volume of equity


New Commitments to Venture Capital Partnerships
Billions of dollars
8
6
4
2
0
1980
1982
1984
1986
1988
1990
1992
1994
1996

capital to finance highly risky research and development and expansion. At the same time, they are attractive to investors because of their potential for high growth and profitability.

The primary sources of external equity funds for high-technology firms are venture capital limited partnerships, in which institutional investors such as pension funds and endowments are the limited partners and a team of professional managers acts as the general partner. In most cases, the general partners are associated with a partnership management firm. Venture capital limited partnerships typically have a life of ten years. During the first three to five years the partnership's capital is invested; thereafter, the investments are managed and gradually liquidated. General partners who want to invest in companies on a continuing basis must form new partnerships once funds from existing partnerships are invested. Those general partners who have established favorable track records based on selecting, managing, and eventually exiting good investments are more successful at raising new funds.

Each year during the investment phase of a venture capital partnership, the general partners review hundreds of proposals before selecting a handful of companies in which to invest. Having access to and successfully identifying high-quality investment opportunities is regarded as a general partner's most important role and as most critical to the partnership's success. Once investments are made, general partners assist companies in matters ranging from designing corporate strategy to locating suppliers. They also play a major role in corporate governance. In many cases they gain voting control, and they have substantial means of exercising nonvoting control, including seats on boards of directors. Because being active in management and corporate governance requires a high level of expertise, many general partners specialize by industry and by company stage of development.

A partnership's contractually fixed life forces general partners to exit most investments within seven to ten years. About 20 percent of the companies in which venture capital partnerships invest are ultimately taken public, and a similar percentage is sold to other companies. These companies are a partnership's most successful investments and provide most of its returns. The remaining companies either remain private (with company management buying out the partnership's interest) or are liquidated.

The Supply of Venture Capital

The supply of venture capital has risen steadily over the past sixteen years (Exhibit: New Commitments to Venture Capital Partnerships). Between 1980 and 1984, commitments by institutional investors to venture capital partnerships increased five-fold, from $600 million to $3 billion, partly in response to a clarification of ERISA regulations governing pension plan investments in venture capital partnerships. The increase was also due to the success of several venture capital partnerships established in the 1970s; by the early 1980s, these partnerships were reporting annual returns of more than 20 percent, driven by successful investments in now-familiar companies such as Federal Express, Intel, and Genentech. Although commitments to venture capital partnerships fell during the 1990-91 recession, since then they have increased steadily and in 1996 reached a record $6.6 billion. Since 1992, approximately 250 partnerships have been formed with an average size of

approximately $75 million, about double the average size of partnerships formed in the 1980s.

As already noted, venture capital partnerships are highly selective in choosing the companies in which they invest. In the aggregate, they currently finance between 1,000 and 1,500 companies per year, in amounts ranging from $1 million to $2 million for start-up firms to more than $10 million for more established companies. The vast majority of companies receiving venture capital investments are not profitable at the time of investment, and almost half are in the start-up or development phase and are not shipping products. More than 80 percent of the companies in which venture capital partnerships invest are in computer-related industries, medical-related industries, telecommunications, or health care services.

The Role of Public Policy

In the late 1970s and early 1980s, public policy appears to have played a critical role in fostering the development of the venture capital industry. A key regulatory change during that period was the Department of Labor's decision pertaining to the "prudent man" provision of ERISA governing pension fund investing. Before the decision, this provision, which requires that pension fund investments be based on the judgment of a "prudent man," had been widely interpreted as prohibiting pension fund investments in securities issued by small or new companies and venture capital partnerships. In late 1978, however, the Labor Department ruled that such investments are permitted provided that they do not endanger an entire portfolio.

The effect of the Labor Department's decision on pension fund investments in venture capital partnerships was almost immediate. Between 1976 and 1978, venture capital partnerships raised less than $5 million a year from ERISA pension plans. In the first six months of 1979, they raised $50 million from such plans. Today, private and public pension plans supply close to 50 percent of all new funds raised by venture capital partnerships (more than $3 billion in 1996).

During 1979-80, the Congress and the Labor Department also deflected several attempts to require the general partners of venture capital partnerships to register as advisers under the Investment Advisers Act of 1940. These actions were important, as registered advisers are prohibited from receiving performance-related compensation, a key feature of venture capital partnerships. The Congress also reduced the capital gains tax rate from 49-1/2 percent to 28 percent in 1978 and to 20 percent in 1981. These reductions, in conjunction with the passage of the Incentive Stock Option Law in 1981, may have stimulated venture capital investments by providing incentives for entrepreneurs to start high-technology companies.

Other Sources of External Equity

Two other types of organizations that provide equity financing to small businesses, and especially to high-technology companies, are small business investment companies (SBICs) and venture capital subsidiaries of nonfinancial corporations. (As discussed

previously, SBICs are privately owned investment companies that agree to limit their investments to long-term debt and equity securities in small businesses in exchange for the SBA's willingness to supplement their private capital with SBA guaranteed funding.) Bank-affiliated SBICs have been active in financing firms with high growth potential since the early 1960s, and they operate, for the most part, very much like venture capital partnerships.[35] The major difference is that they invest only the capital of their parent bank holding company rather than raising and investing funds from other institutional investors.

Capital provided by independent SBICs has expanded markedly since 1994, when the SBA substantially modified the way in which SBICs could be funded.[36] Bank-affiliated SBICs still account for two-thirds of the total private capital in SBICs, but capital provided by newly formed independent SBICs since 1994 has reached $1.4 billion. For the twelve months ending in June 1997, SBICs made close to 1,600 equity or equity-related investments totaling about $2 billion. About 30 percent of the dollar amount was invested in firms in high-technology industries, and almost half went to firms less than three years old.

Venture capital subsidiaries of nonfinancial corporations have also been active since the early 1960s, and their investment focus is often explicitly on high-technology start-ups. They typically invest in risky early-stage developmental ventures that may fit into their competitive and strategic objectives. Although the establishment and funding of corporate venture capital programs has been cyclical, many of the current corporate venturing programs have been established by companies that were themselves created with venture capital, which may augur well for their future stability.

A final source of equity for rapidly growing firms is wealthy individuals, or "angel" investors. According to some estimates, angel investors finance many more firms than the organized venture capital market does.[37] They appear to play an important role in providing high-technology companies with seed capital of several hundred thousand dollars, which is often followed by larger investments by venture capital partnerships and other institutional sources of capital.

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35. Banking organizations use SBIC subsidiaries to make equity investments because the Bank Holding Company Act of 1956 restricts a bank holding company from holding more than 5 percent of a company's equity shares.

36. The most important modification was the creation of "participating securities" as a funding mechanism for those SBICs that concentrate on equity-type investing that may yield long-term capital gains but little current income to pay interest on debenture leverage. With participating securities, an SBIC defers paying interest costs until it realizes sufficient gains through the sale of its investments to achieve cumulative profitability. In exchange, the SBA receives approximately a 10 percent participation in the SBIC's profits.

37. According to the 93NSSBF, the number of small businesses with support from angel investors exceeded those with support from venture capitalists by a ratio of 6 to 1.

Appendix
The 1993 National Survey of Small Business Finances

Information about the types and sources of financing used by small businesses was obtained largely from the 1993 Survey of Small Business Finances (93NSSBF).[38] The survey collected data for 1993 through interviews conducted in 1994 and early 1995 with 4,736 firms that were selected to provide a representative sample of all small businesses in the United States. The survey solicited information about the characteristics of the firm and its primary owner (for example, firm and owner age, industry, and type of business organization), the firm's income statement and balance sheet, and details of the use and sources of financial services. It also obtained information about the firm's most recent borrowing experience, the use of trade credit, and capital infusions. The 93NSSBF is the most comprehensive source of data available on small businesses' use of financial services and financial suppliers. Highlights of the use of credit by small businesses are presented below, and details are shown in the tables at the end of this appendix.[39]

Types of Credit Used by Small Businesses

The types of credit typically obtained from financial intermediaries include loans taken down under lines of credit, mortgages used for business purposes, equipment loans, motor vehicle loans, capital leases, and "other loans." For each of these, the survey collected information on the product characteristics (amounts, guarantees, and so forth) and the characteristics of the financial service supplier granting the credit (such as type, length of relationship with the firm, and location). The survey also collected selected information about the use of credit cards, trade credit and loans from owners, but no information on the suppliers of such loans.

Credit Lines, Loans, and Capital Leases

As shown in the list below, nearly three-fifths of all small businesses reported outstanding credit in the form of a credit line, a loan, or a capital lease. Lines of credit and motor vehicle loans were the most frequently used, with each reported by one in four firms. Fewer than one in twelve small businesses reported having an outstanding mortgage used for business purposes.

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38. The 1993 National Survey of Small Business Finances was sponsored by the Board of Governors and the U.S. Small Business Administration. Small businesses are defined as enterprises operating under current ownership during 1992 and with fewer than 500 full-time-equivalent employees, excluding agricultural enterprises, financial institutions, not-for-profit institutions, government entities, and subsidiaries controlled by other corporations. Full-time-equivalent employment is calculated as the number of full-time employees plus one-half the number of part-time employees. For details about the survey, see Cole and Wolken (1995) and Cole, Wolken, and Woodburn (1996).

39. Additional details can be found in Cole and Wolken (1995) and Cole, Wolken, and Woodburn (1996). In particular, the 93NSSBF collected data on checking, savings, and other financial management services, which are summarized in the 1995 article. Statistics presented in these studies were based on preliminary data and may differ somewhat from the numbers presented in this report, although generally the differences are small.

Percentage of small businesses that used credit lines, loans, and leases, 1993

Credit lines, loans, and leases	59.1
Credit lines	25.7
Mortgage loans	7.8
Equipment loans	14.8
Vehicle loans	25.3
Capital leases	10.3
Other loans	12.7

The aggregate dollar share of loans outstanding by loan type is shown in the next list: Lines of credit account for about 42 percent of all outstanding small business credit lines, loans, and leases.[40] Asset-based loans--loans that directly finance the specific business asset being acquired--account for another 42 percent. Mortgages account for more than half of the aggregate dollar volume of asset-based loans, reflecting the large size of a typical mortgage loan relative to equipment or vehicle loans. In contrast, vehicle loans, reported by about a quarter of small businesses, accounted for only 4.3 percent of the aggregate dollar amount of small business credit.

Distribution of the total dollar amount of small business lines of credit, loans, and leases outstanding, by type of credit, 1993
Percent

Total amount	**100**
Credit lines	42.0
Mortgage loans	24.9
Equipment loans	8.2
Motor vehicle loans	4.3
Capital leases	4.5
Other loans	16.2

According to the survey, the use of credit lines, loans, and leases varied with characteristics of the business, such as firm age and industry (table A.1). Of all characteristics, firm size showed the most pronounced relationship to the use of credit. In part, size proxies for the demand for credit, which expands with the scope of operations and inventories that a firm needs to finance. Size may also be highly correlated with various risk characteristics of the firm that would affect its access to credit from external sources. For example, a larger firm has more assets for collateral and is likely to have a more diversified scope of operations and a longer operating history.

40. These statistics differ from those presented in Cole, Wolken, and Woodburn (1996). In that study, real-estate firms were excluded from the analysis, but in this report they are included in the statistics reported.

Credit use generally increased with firm size. Around 90 percent of the largest firms (those with fifty or more employees and those with sales of more than $5 million) reported using one of these types of credit, but less than half of the smallest firms reported such use. In particular, the use of credit lines and capital leases increased consistently with firm size. For vehicle loans, equipment loans, and "other" loans, the incidence of credit use was lower for the smallest firms (those with fewer than ten employees and less than $250,000 in annual sales), but about the same among larger size groups. Small corporations were more likely than partnerships or proprietorships to report credit lines, loans, or capital leases, which may in part reflect the fact that most partnerships and proprietorships are smaller than even small corporations.[41] Indeed, although 51 percent of noncorporate small businesses used these forms of credit, the bulk of the dollar flow (more than 80 percent) was to corporations.

Credit use also varied by factors other than size. By industry, firms in transportation and manufacturing were the most likely to have on their books credit lines, loans, or leases. Business services firms were the least likely to report these types of credit.

The youngest firms (those under current ownership fewer than five years) reported nearly the same incidence of borrowing as that reported by more mature firms (about 60 percent), even though lenders typically require several years of financial history for a borrower to qualify for credit.[42] Firms under current ownership for twenty-five or more years reported the lowest incidence of borrowing for each of the six credit products.

The results regarding credit use and firm characteristics reported above are related to the capital intensity and the length of the production process. Credit types developed to facilitate the acquisition of capital (equipment and vehicle loans and capital leases, for example) and the use of longer production processes (lines of credit) were most widely used by larger firms and by firms in manufacturing and transportation industries. Manufacturing and transportation industries are more capital intensive than others. Because of indivisibilities in capital, firms in these industries may require a larger scale for efficient production--thus the relationship between employment size or sales size and credit use. Some of these firms may also have relatively long production processes, which may help to explain the incidence of credit lines for such firms.

Nearly two-fifths of small businesses indicated that they had no credit lines, loans, or leases. Of these, the survey found that 73 percent used credit cards, trade credit, or loans from owners. But even among firms that used the more traditional type of loan arrangements, more than 88 percent also reported using trade credit, credit cards, or loans

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41. Another firm characteristic related to firm size was the number of offices or branches a firm operated. Firms with three or more offices were much more likely to obtain traditional credit than firms having fewer than three offices. For example, businesses with three or more offices were more than twice as likely (52 percent) to have lines of credit than firms with a single office (24 percent).

42. One should be careful about inferring that age has little effect on whether or not start-up firms obtain credit. The Dun and Bradstreet list from which the 93NSSBF was drawn is not representative of start-up firms or firms in operation for only a few months.

from owners. Information on these credit types and their use by firms with different characteristics is presented in table A.2.

Trade Credit

Trade credit arises when a business purchases goods or services from a supplier for which payment is delayed; many firms use trade credit as a convenient alternative to paying cash each time a purchase is made. According to the survey, in 1993 trade credit was used by 64 percent of small businesses, a rate that exceeded the use of all other types of credit.[43] The use of trade credit generally increased with firm size. The types of firms that were least likely to use trade credit were firms with one or no employees and less than $25,000 in sales or assets.

Among industry groups, trade credit was most important for firms in construction, manufacturing, and wholesale and retail trade--industries in which nonlabor costs, such as those for equipment and inventory, are large relative to labor costs. Trade credit was less important in insurance and real estate, business services, and professional services, where labor accounts for the largest component of costs.

Credit Cards

The survey indicated that more than half of small businesses use business or personal credit cards for business expenses. However, many small businesses use credit cards not as a source of credit but rather for "convenience" in making transactions. Credit cards provide an accepted alternative to cash and provide a record of business expenses. Over three-quarters of small businesses that used business or personal credit cards reported that the amount of business charges remaining at the end of a typical month was zero. If firms with zero balances are assumed to be convenience users, then only about a quarter of the firms that used credit cards--or one-eighth of all small businesses--used credit cards to obtain credit. This proportion decreases with firm size. Very small businesses were more likely to have positive monthly balances than were larger firms.[44]

On the other hand, many small businesses do use credit card balances as a form of financing. In particular, anecdotal reports suggest that firms with little experience or credit history--typically those just starting out and smaller firms--use credit card loans as substitutes for traditional bank loans. Some large banks have actively promoted the use of business credit cards as a cost-effective method of delivering credit lines to small businesses.

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43. Unfortunately, accurate data on the dollar volume of trade credit outstanding to small firms were not available.

44. The survey revealed that four in ten small businesses used personal credit cards for business purposes, and about three in ten used business credit cards. As expected, smaller firms were more likely to use personal credit cards for business purposes, and larger firms were more likely to use business credit cards. Many issuers of business charge cards do not provide revolving credit; they require full payment of outstanding balances each month. Firms may use such cards for tracking miscellaneous expenses or for the credit that lasts for the duration of the billing cycle.

Loans from Owners

Loans from owners (shareholders or partners) were reported by about 18 percent of small businesses.[45] By definition, the 43 percent of small businesses organized as proprietorships cannot have owner loans because, in their cases, business and owner are one. About 17 percent of partnerships and 33 percent of small corporations reported shareholder or partner loans (table A.2).

Owner loans were more prevalent among newer firms. About 35 percent of partnerships and corporations with fewer than five years under current ownership reported owner loans, whereas less than 30 percent of partnerships and corporations 15 years or older reported owner loans.

Owner loans were reported most often by firms in manufacturing and trade, and least often by firms in business and professional services. This may be related to both the average size of firms in these industries, as well as the asset-intensive nature of these industries.

Providers of Small Business Credit Lines and Leases

Small businesses obtained credit from sources ranging from commercial banks and finance companies to individuals, other nonfinancial business firms, and family or friends. Commercial banks continued to be the primary source of credit lines and leases.[46] The survey found that more than 40 percent of all small businesses (or more than two-thirds of small business credit users) obtained one or more credit lines, loans, or leases from a commercial bank (table A.3). About 13 percent of the firms used finance companies, 8.6 percent used family and individuals, and 8.4 percent used leasing companies.

Commercial banks were also the most frequent source of mortgages, motor vehicle loans, and equipment loans, even though nonbanks were important runners-up for some loan types. Finance companies provided about one-third of vehicle loans. Family and individuals were the leading source of miscellaneous loans; and leasing companies, not surprisingly, were the leading source of capital leases.

In terms of the aggregate dollars borrowed, commercial banks provided three-fifths of the outstanding amount of lines of credit, loans, and leases used by small businesses (table A.4). Banks held the largest dollar share of credit lines, mortgages, equipment loans, and other loans. Motor vehicle loans accounted for about 4 percent of outstanding small business credit, shared about equally between finance companies and commercial banks. Commercial banks held nearly twice the dollar share of mortgages that any other supplier held; however, nondepository financial institutions combined (finance, brokerage, leasing, mortgage, and insurance companies) accounted for about 40 percent of small business mortgages outstanding. Capital leases accounted for 2.6 percent of outstanding small

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45. Loans from shareholders or partners exclude firm credit obtained with the owners' personal or business credit cards.

46. The survey did not collect information on the individual sources of credit cards and trade credit.

business credit. Leasing companies accounted for the largest portion of capital leases, and commercial banks, the second largest.

The Changing Role of Commercial Banks

Commercial banks and other financial intermediaries have had to adjust to a rapidly changing financial environment. Deregulation, new technology, and increasing global competition have spurred institutions to find new product markets and more efficient means of servicing customer demands. One result has been the marked consolidation of the U.S. banking industry: The number of banks has declined by one-third and the share of total credit that banks provide to households and businesses has trended down. Still, banks remain important suppliers of credit to businesses and especially to small businesses as confirmed by the small business survey.

The 1993 survey data have been used with data from a similar survey in 1987 to compare the relative importance of banks for small business borrowing.[47] The analysis found that the bank share of small business credit fell slightly between 1987 and 1993, but the decline was not statistically significant. In the period between the two surveys, economic activity slowed from a cyclical peak to a trough and then partially recovered, and the credit crunch of 1990-91 saw an unusually sharp contraction in commercial bank lending. Thus, it is somewhat surprising that the bank share did not decline more than the surveys suggest. Although any such comparison of cross- section survey results is fraught with problems, this analysis yielded little evidence of an erosion in the relative share of bank lending to small businesses.

Borrowing Experience of Survey Respondents

In addition to collecting an inventory of credit services, the survey also collected some information about the experience of firms that had applied for credit. Respondents were asked whether they had applied for credit over the past three years, and, if so, whether they were successful in their attempt. The attempt to obtain credit is one measure of a firm's demand for credit. Approximately one in three firms had applied for credit, more than four-fifths of those were successful in obtaining credit on their most recent attempt. Generally, the proportion that applied for credit increased with firm size and, to a lesser extent, with firm age. However, the oldest firms were the least likely to have applied for credit. Firms in manufacturing and trade were the most likely to apply for credit, and firms in business and professional services were the least likely.

The survey also asked respondents specifically if credit availability was a problem during the past year. About 14 percent of firms reported that credit availability had been a serious problem during the previous twelve months. Newer and smaller firms were somewhat more likely to have had problems with credit availability than were older firms. The results are consistent with the observations that smaller firms have fewer resources with

47. Cole, Wolken, and Woodburn (1996).

which to collateralize or guarantee loans, and newer firms have limited information and credit history available for lenders to evaluate credit worthiness.

Firms were asked to identify the most serious problem they would face in the next twelve months. Slightly more than 5 percent identified credit availability as the most serious problem. There was little variation across different sizes of firms. Firms under current ownership for less than five years reported this as a problem more frequently than did older firms.

Overall, less than one-fifth of all firms applying for credit had their request denied. About one-third of the smallest firms (firms with less than $25,000 in sales) were turned down, and less than 10 percent of large firms (those with sales exceeding $2.5 million) had their applications denied. Newer firms were less likely to have their loan applications approved than were older firms. Probably, lending to newer firms and smaller firms is riskier than lending to older firms and larger firms. Moreover, credit history is lacking for newer firms, and fewer resources in the form of hard assets to secure credits are available to smaller firms.

Summary

About 60 percent of small businesses used some form of credit lines, loans, or leases in 1993. Small businesses also used credit in the form of trade credit, business and personal credit cards, and loans from owners. Credit use and credit demand increased with firm size. In addition to size, important characteristics influencing credit use included industry (manufacturing, transportation, and trade firms used credit more frequently than did firms in other industries) and age (medium-aged firms used credit more frequently than other firms). Both size and industry differences probably reflect differences in the characteristics of the production process.

Use of credit seems to be related to the capital intensity and length of the production process (manufacturing, for example). Because of indivisibilities in capital, some such firms may also require a larger scale for efficient production--hence the relationship between size and credit use. Finally, for newer firms, the differences in credit use are consistent with the view that newer firms are more risky and lack credit histories. To the extent that newer firms are also smaller, age may also proxy to some extent the unavailability of assets to use as collateral to reduce their inherent riskiness.

The two most widely used forms of credit were credit lines and vehicle loans. In terms of aggregate dollars outstanding, credit lines accounted for more than 40 percent of the small business credit dollars outstanding (not counting credit card and trade credit use). Other asset-based loans together accounted for about 40 percent of the credits outstanding.

Commercial banks were the most frequent source for small business credit lines, loans, and leases, and commercial banks supplied the majority share of total small business credit

dollars. For lines of credit, commercial banks accounted for approximately 85 percent of all credit lines.

Despite the dominance of commercial banks, other suppliers were also important sources of credit for small businesses. Small businesses obtained credit from a wide variety of sources, ranging from commercial banks and thrifts to finance companies, brokerage companies, family and individuals, and other businesses. Finance companies were particularly important for vehicle loans, and leasing companies were the major supplier of capital leases.

Table A.1: (Weighted) Percentage of small businesses that used credit lines, loans, and leases, by selected category of firm, 1993

Category	Credit lines, loans, and capital leases						
	Any	Credit line	Mort-gage	Vehicle	Equip-ment	Capital lease	Other
All firms.................	59.1	25.7	7.8	25.3	14.8	10.3	12.7
Number of full-time equivalent employees							
0-1.....................	43.2	13.2	7.2	16.8	8.3	5.0	9.7
2-4.....................	56.2	21.8	7.7	24.5	11.2	6.4	12.4
5-9.....................	68.8	31.1	7.4	32.3	18.7	12.6	14.4
10-19....................	76.5	38.3	8.9	34.8	26.3	22.6	18.5
20-49....................	85.9	58.3	9.2	32.9	34.3	24.6	14.4
50-99....................	92.5	66.2	10.3	33.4	30.9	32.8	16.4
100-499...................	87.9	69.4	15.6	28.7	31.6	34.4	17.9
Sales (thousands of dollars)							
Less than 25..............	26.5	7.3	3.5*	10.0	5.7	2.2*	7.6
25-49.................	45.2	8.9	8.9	20.2	9.1	3.4*	9.4
50-99.................	49.3	14.4	7.9	18.9	10.5	6.1	12.4
100-249................	59.9	22.8	8.2	26.5	13.3	8.6	11.6
250-499................	64.5	24.9	7.8	31.6	17.3	9.5	13.9
500-999................	72.3	35.4	9.5	32.9	19.6	15.5	15.9
1,000-2,499.............	75.8	43.4	8.5	29.1	21.7	19.1	16.9
2,500-4,999.............	82.5	62.8	5.7	32.0	25.4	25.8	14.8
5,000-9,999.............	88.4	74.0	5.8	32.4	27.4	25.9	17.0
10,000 or more............	90.7	68.7	14.5	25.7	27.9	25.2	18.4
Assets (thousands of dollars)							
Less than 25..............	38.5	11.5	3.4	17.4	7.9	4.7	6.3
25-49..................	56.4	18.8	6.4	27.6	10.8	6.6	11.7
50-99..................	56.0	19.2	6.1	24.3	13.6	10.6	14.7
100-249.................	69.4	30.3	8.1	30.3	19.7	12.3	15.5
250-499.................	76.9	42.3	13.4	32.0	24.3	12.9	18.0
500-999.................	75.1	38.0	12.3	33.3	18.7	16.1	17.2
1,000-2,499...............	86.0	59.6	16.4	28.5	24.7	22.4	16.6
2,500-4,999...............	82.4	54.3	15.2	22.7	24.5	23.7	18.1
5,000 or more.............	89.9	65.2	27.0	19.7	19.4	26.5	22.6
Organizational form							
Proprietorship............	50.6	17.8	7.9	21.2	11.3	5.4	11.3
Partnership...............	58.3	21.5	13.0	21.0	11.5	8.3	12.6
S corporation.............	67.0	30.9	8.0	29.5	18.7	13.3	13.6
C corporation.............	66.7	35.2	6.1	29.6	18.4	16.1	14.4

Table A.1: (Weighted) Percentage of small businesses that used credit lines, loans, and leases, by selected category of firm, 1993 - Continued

Category	Credit lines, loans, and capital leases						
	Any	Credit line	Mort-gage	Vehicle	Equip-ment	Capital lease	Other
Standard industrial classification							
Construction and mining (10-19)................	64.4	27.9	6.4	38.6	13.4	4.3	10.4
Primary manufacturing (20-29)................	69.4	31.6	7.5	29.1	31.4	17.5	17.1
Other manufacturing (30-39)................	66.1	35.9	8.0	24.4	20.5	21.0	9.3
Transportation (40-49)....	72.8	25.3	8.6	37.8	24.5	25.6	11.2
Wholesale trade (50-51)...	62.7	39.8	6.3	27.7	13.7	14.7	17.0
Retail trade (52-59)......	61.0	28.0	7.3	23.7	11.5	8.7	17.2
Insurance and real estate (60-69)................	58.6	19.7	22.1	14.6	9.3	7.0	12.5
Business services (70-79).	50.4	15.8	6.2	22.8	16.4	7.9	10.2
Professional services (80-89)................	55.3	25.1	6.3	19.8	14.5	12.5	10.1
Years under current ownership							
0-4......................	62.3	25.9	9.8	22.3	15.4	14.9	17.2
5-9......................	60.6	24.4	7.4	27.0	16.5	9.3	12.6
10-14....................	61.5	29.4	8.0	25.3	14.3	10.6	13.5
15-19....................	56.9	25.7	8.8	28.2	15.1	9.7	10.3
20-24....................	59.2	24.5	9.1	26.9	15.0	10.7	13.3
25 or more...............	52.2	24.0	4.7	21.1	11.4	7.3	9.6
Urbanization at main office							
Urban....................	58.1	24.8	7.2	24.8	13.9	10.8	11.8
Rural....................	63.0	29.0	10.3	27.1	18.3	8.1	16.3
Number of offices							
One......................	56.9	23.5	7.3	24.5	13.6	8.9	12.3
Two......................	65.0	31.1	10.0	26.7	18.5	15.3	12.8
Three or more............	85.3	52.0	12.6	35.0	28.2	21.7	19.8
Export sales							
Some.....................	65.0	37.6	8.1	22.6	16.6	19.0	18.4
None.....................	58.6	24.7	7.8	25.5	14.7	9.5	12.3

NOTE: *Number of respondents was less than fifteen, too small to calculate a reliable statistic.

Table A.2: (Weighted) Percentage of small businesses that used owner loans, credit cards for business purposes, or trade credit, by selected category of firm, 1993

Category	Loan from owner	Credit Card		Trade credit	Traditional or Nontraditional Credit
		Personal	Business		
All firms.................	17.6	40.7	28.8	63.8	89.1
Number of full-time equivalent employees					
0-1.....................	7.9	42.6	21.4	51.0	81.1
2-4.....................	15.1	41.5	24.3	64.4	89.3
5-9.....................	25.5	42.1	39.5	72.2	94.6
10-19....................	30.2	39.5	36.4	72.4	95.3
20-49....................	30.8	30.1	43.9	76.1	97.4
50-99....................	31.7	26.4	44.2	81.9	98.6
100-499...................	31.0	25.3	37.4	78.5	96.5
Sales (thousands of dollars)					
Less than 25..............	6.5	39.6	10.1	36.6	68.0
25-49.................	9.2	49.4	22.6	54.1	87.1
50-99.................	10.4	44.1	23.3	57.6	87.1
100-249................	15.2	42.1	26.3	65.1	89.1
250-499................	19.4	40.8	34.0	71.4	94.0
500-999................	27.4	38.8	36.0	75.8	96.1
1,000-2,499..............	26.0	36.1	43.0	72.0	95.1
2,500-4,999..............	35.7	34.7	43.9	75.4	96.4
5,000-9,999..............	39.2	27.1	43.6	82.6	99.4
10,000 or more............	26.8	24.1	40.9	74.4	98.6
Assets (thousands of dollars)					
Less than 25..............	9.0	40.5	18.7	52.4	81.1
25-49..................	11.0	45.6	29.1	61.1	89.9
50-99..................	17.7	44.0	28.6	65.1	87.7
100-249.................	22.3	43.1	32.7	70.6	93.1
250-499.................	25.4	40.5	36.6	71.0	96.4
500-999.................	26.9	34.1	41.0	71.6	94.1
1,000-2,499...............	31.6	33.7	38.5	78.3	97.9
2,500-4,999...............	34.0	20.6	35.4	78.0	96.0
5,000 or more.............	29.3	18.3	36.1	74.3	98.0
Organizational form					
Proprietorship............	....	42.5	22.9	55.9	82.8
Partnership...............	17.1	35.0	25.0	73.8	90.8
S corporation.............	35.8	45.3	34.8	70.1	94.7
C corporation.............	31.3	36.4	34.7	68.7	94.4

Table A.2: (Weighted) Percentage of small businesses that used owner loans, credit cards for business purposes, or trade credit, by selected category of firm, 1993 - Continued

Category	Loan from owner	Credit Card		Trade credit	Traditional or Nontraditional Credit
		Personal	Business		
Standard industrial classification					
Construction and mining (10-19)................	14.0	37.9	32.1	74.9	92.8
Primary manufacturing (20-29)................	24.3	38.4	28.3	83.1	98.3
Other manufacturing (30-39)................	35.7	42.2	34.8	79.3	96.0
Transportation (40-49)....	28.6	40.3	26.1	54.0	91.4
Wholesale trade (50-51)...	27.6	38.5	34.7	75.6	92.6
Retail trade (52-59)......	19.8	35.9	24.2	69.2	89.1
Insurance and real estate (60-69)................	16.7	39.5	23.7	42.9	84.5
Business services (70-79).	12.1	42.2	21.8	56.0	84.2
Professional services (80-89)................	11.8	49.6	39.1	53.4	88.3
Years under current ownership					
0-4......................	21.3	42.1	22.9	61.0	87.9
5-9......................	18.7	41.1	29.0	63.9	90.6
10-14....................	17.7	42.9	33.4	65.2	91.5
15-19....................	15.6	40.8	27.0	66.0	88.6
20-24....................	12.0	43.0	29.0	69.7	88.7
25 or more...............	16.7	34.3	30.1	59.1	85.2
Urbanization at main office					
Urban....................	18.3	42.0	30.1	63.4	89.3
Rural....................	14.9	35.8	24.2	65.3	88.5
Number of offices					
One......................	16.3	40.1	27.3	62.1	87.9
Two......................	22.0	45.3	35.9	71.3	94.6
Three or more............	30.0	41.8	38.8	77.5	97.8
Export sales					
Some.....................	34.9	51.9	45.0	72.7	95.5
None.....................	16.1	39.8	27.5	63.1	88.6

.... Not applicable.

Table A.3: (Weighted) Percentage of small businesses that use selected suppliers of credit lines, loans, and leases, by type of loan, 1993

Panel A: Any supplier and financial institution

Service	Any Supp.	Any Finan. Inst.	Any Dep.	Commrcl Bank	Any Thrift	Svngs Inst.	Crdt Union	Any Non-Dep.	Finan. Co.	Brokr-age	Leasng Co.	Othr Non-Dep.
Crdt lines/loans/ captl leases	59.1	54.2	45.0	40.7	6.5	4.2	2.3	20.8	12.6	0.4	8.4	1.0
Lines of crdt.	25.7	24.9	23.9	22.0	2.2	1.6	0.6	1.8	1.4	0.1*	0.3	0.0*
Mortgages.....	7.8	7.3	6.5	5.3	1.2	1.2	0.1*	1.0	0.3	0.0*	0.0*	0.6
Vehicle.......	25.3	24.2	15.8	13.9	2.3	1.0	1.3	9.9	8.0	0.1*	1.8	0.1*
Equipment.....	14.8	11.9	8.6	8.0	0.6	0.4	0.3*	4.0	2.2	0.0*	1.8	0.0*
Captl leases..	10.3	9.1	2.1	2.0	0.2*	0.2*	0.0*	7.5	2.3	0.1*	5.4	0.1*
Other.........	12.7	6.3	5.7	5.1	0.7	0.5	0.2*	0.7	0.3	0.2*	0.1*	0.2

Panel B: Nonfinancial suppliers

Service	Any non-finan-cial	Family and indi-viduals	Other busi-nesses	Govern-ment
Crdt lines/loans/captl leases	13.7	8.6	5.3	0.6
Lines of crdt.	1.3	0.4	1.0	0.0*
Mortgages.....	0.8	0.6	0.2*	0.1*
Vehicle.......	1.2	0.7	0.5	0.0*
Equipment.....	3.6	0.9	2.5	0.2
Captl leases..	1.6	0.5	1.2	0.0*
Other.........	7.1	6.2	0.5	0.4

NOTE: *Number of respondents was less than fifteen, too small to calculate a reliable statistic.

Table A.4: Distribution of the total dollar amount of small business credit lines, loans, and leases outstanding, by type of credit and type of supplier, 1993
(Weighted Percentage)

Panel A: Any supplier, banks, nonbanks, nondepository financial and nonfinancial institutions

Category	Any supplier	Banks	Nonbanks	Nondepository financial	Nonfinancial supplier
Credit lines used....	42.0	32.8	9.2	7.8	0.8
Mortgage loans.......	24.9	11.3	13.6	9.2	1.8
Equipment loans......	8.2	4.9	3.3	2.4	0.9
Motor vehicle loans..	4.3	2.0	2.4	2.1	0.1
Capital leases.......	4.5	1.4	3.1	2.6	0.4
Other loans..........	16.2	6.3	9.9	1.6	7.6
Total................	100.0	58.6	41.4	25.6	11.6

Panel B: Any supplier, any financial instititution, and depository institutions

Category	Any Supplier	Financial Institution					
			Depository				
					Thrift		
		Any	Any	Commercial bank	Any	Savings institution	Credit union
Credit lines used....	42.0	41.1	33.4	32.8	0.6	0.5	0.0
Mortgage loans.......	24.9	23.1	13.9	11.3	2.6	2.5	0.1*
Equipment loans......	8.2	7.4	5.0	4.9	0.1	0.1	0.0*
Motor vehicle loans..	4.3	4.2	2.1	2.0	0.2	0.1	0.1
Capital leases.......	4.5	4.1	1.5	1.4	0.1*	0.0*	0.1*
Other loans..........	16.2	8.6	6.9	6.3	0.6	0.6	0.0*
Total................	100.0	88.4	62.8	58.6	4.2	3.8	0.4

Table A.4: Distribution of the total dollar amount of small business credit lines, loans, and leases outstanding, by type of credit and type of supplier, 1993 - Continued
(Weighted Percentage)

Panel C: Nondepository financial institutions and nonfinancial suppliers

Category	Nondepository financial institution					Nonfinancial Supplier			
	Any	Finance company	Brokerage	Leasing company	Other	Any	Family and individuals	Other businesses	Govern- ment
Credit lines used....	7.8	6.4	0.8*	0.3	0.2*	0.8	0.4	0.2	0.3*
Mortgage loans.......	9.2	2.1	0.9*	0.0*	6.2	1.8	0.7	0.8*	0.3*
Equipment loans......	2.4	1.9	0.0*	0.5	0.0*	0.9	0.2	0.5	0.1
Motor vehicle loans..	2.1	1.8	0.0*	0.3	0.0*	0.1	0.1	0.1	0.0*
Capital leases.......	2.6	0.9	0.0*	1.7	0.0*	0.4	0.1	0.2	0.0*
Other loans..........	1.6	0.6	0.2*	0.2*	0.7	7.6	3.7	3.3	0.6
Total................	25.6	13.6	1.8	3.0	7.1	11.6	5.2	5.2	1.2

NOTE: *Number of respondents was less than fifteen, too small to calculate a reliable statistic.

Table A.5: (Weighted) Percentage of small businesses that used credit lines, loans, and leases from selected suppliers, by selected category of firm, 1993
Panel A: Any supplier, any financial institution, and depository institutions

Category	Any Supplier	Financial Institution					
		Any	Depository				
			Any	Commercial bank	Thrift		
					Any	Savings institution	Credit union
All firms.................	59.1	54.2	45.0	40.7	6.5	4.2	2.3
Number of full-time equivalent employees							
0-1.....................	43.2	37.7	30.8	26.5	5.4	3.2	2.3
2-4.....................	56.2	50.6	41.1	36.3	7.3	4.1	3.3
5-9.....................	68.8	64.1	53.2	48.6	7.3	5.4	1.9
10-19....................	76.5	73.4	59.4	56.2	5.6	5.0	0.6*
20-49....................	85.9	83.7	77.6	74.5	5.7	5.5	0.3*
50-99....................	92.5	89.5	78.9	76.4	4.8	3.7	1.1*
100-499...................	87.9	86.4	81.0	79.9	4.2	3.3	0.9*
Sales (thousands of dollars)							
Less than 25..............	26.5	22.2	17.4	13.6	4.9	3.0*	1.9*
25-49.................	45.2	39.0	28.2	25.3	4.4	2.2*	2.3*
50-99.................	49.3	44.3	36.0	30.3	7.7	4.4	3.3
100-249................	59.9	53.4	43.5	38.7	7.3	3.8	3.5
250-499................	64.5	59.5	48.8	43.4	7.2	5.5	1.7*
500-999................	72.3	68.2	57.6	53.6	7.2	5.2	2.0*
1,000-2,499..............	75.8	72.4	62.8	59.6	5.3	4.6	0.7*
2,500-4,999..............	82.5	81.2	73.8	70.2	6.0	5.4	0.8*
5,000-9,999..............	88.4	86.9	81.0	80.3	3.2	2.6*	0.6*
10,000 or more............	90.7	87.4	77.9	74.1	5.4	5.4	....

Table A.5: (Weighted) Percentage of small businesses that used credit lines, loans, and leases from selected suppliers, by selected category of firm, 1993 - Continued

Category	Any Supplier	Financial Institution					
		Any	Depository				
			Any	Commercial bank	Thrift		Credit union
					Any	Savings institution	
Assets (thousands of dollars)							
Less than 25..............	38.5	33.1	23.9	20.8	4.2	1.5*	2.8
25-49..................	56.4	51.7	40.2	34.5	7.3	4.8	2.6*
50-99..................	56.0	49.4	40.2	35.4	6.5	4.1	2.4
100-249.................	69.4	64.2	55.1	50.1	8.4	5.4	3.0
250-499.................	76.9	71.7	61.9	59.5	5.3	4.0	1.4*
500-999.................	75.1	73.5	67.0	60.3	10.7	9.7	1.0*
1,000-2,499...............	86.0	84.2	77.9	71.1	9.8	9.2	0.6*
2,500-4,999...............	82.4	81.8	72.8	71.4	2.8*	2.2*	0.6*
5,000 or more.............	89.9	86.2	77.6	74.5	5.3	5.3	0.1*
Organizational form							
Proprietorship............	50.6	45.1	36.8	31.0	7.9	4.3	3.6
Partnership...............	58.3	55.2	48.4	45.2	5.1*	4.2*	0.9*
S corporation.............	67.0	61.7	51.9	48.6	5.9	3.7	2.3
C corporation.............	66.7	62.5	51.5	48.4	5.1	4.5	0.7
Standard industrial classification							
Construction and mining (10-19).................	64.4	61.1	50.8	43.6	9.9	6.2	3.8
Primary manufacturing (20-29).................	69.4	62.5	51.4	45.8	6.6	5.7*	0.9*
Other manufacturing (30-39).................	66.1	62.2	54.5	47.2	10.7	9.4	1.5*
Transportation (40-49)....	72.8	69.2	53.5	50.6	5.2*	3.2*	2.0*
Wholesale trade (50-51)...	62.7	58.5	51.0	48.6	4.1	3.2*	0.9*
Retail trade (52-59)......	61.0	55.6	45.9	42.3	6.2	4.0	2.2
Insurance and real estate (60-69).................	58.6	54.0	48.1	41.6	7.8	5.0	2.8*
Business services (70-79).	50.4	43.9	35.5	31.6	6.0	3.8	2.2
Professional services (80-89).................	55.3	51.2	41.2	38.6	4.2	2.0	2.2

Table A.5: (Weighted) Percentage of small businesses that used credit lines, loans, and leases from selected suppliers, by selected category of firm, 1993 - Continued

Category	Any Supplier	Financial Institution						
		Any	Depository					
			Any	Commercial bank	Thrift			
					Any	Savings institution	Credit union
Years under current ownership							
0-4......................	62.3	55.0	43.2	39.8	6.4	3.9	2.6
5-9......................	60.6	54.9	44.0	39.5	6.6	4.4	2.3
10-14....................	61.5	57.1	48.9	43.1	8.4	5.1	3.3
15-19....................	56.9	54.3	45.8	41.4	6.6	4.4	2.2
20-24....................	59.2	54.4	46.6	41.4	6.5	5.0	1.5*
25 or more................	52.2	48.1	41.9	39.4	3.6	2.4	1.2*
Urbanization at main office							
Urban.....................	58.1	52.9	42.6	38.1	6.6	4.4	2.2
Rural.....................	63.0	59.2	53.8	50.0	6.1	3.6	2.5
Number of offices							
One.......................	56.9	51.7	42.6	38.3	6.4	4.1	2.4
Two.......................	65.0	62.2	51.9	46.9	7.3	5.9	1.4*
Three or more.............	85.3	79.8	70.2	67.9	5.4	3.4	2.1*
Export sales							
Some......................	65.0	58.7	50.2	46.8	6.0	5.1	1.0*
None......................	58.6	53.8	44.6	40.1	6.5	4.2	2.4

Table A.5: (Weighted) Percentage of small businesses that used credit lines, loans, and leases from selected suppliers, by selected category of firm, 1993 - Continued
Panel B: Nondepository financial institutions and nonfinancial suppliers

Category	Nondepository financial institution					Nonfinancial Supplier			
	Any	Finance company	Brokerage	Leasing company	Other	Any	Family and individuals	Other businesses	Govern-ment
All firms.................	20.8	12.6	0.4	8.4	1.0	13.7	8.6	5.3	0.6
Number of full-time equivalent employees									
0-1....................	12.4	7.6	0.3*	3.8	1.3	9.7	7.3	2.7	0.2*
2-4....................	16.8	10.2	0.4*	6.2	1.0	14.2	9.2	5.3	0.7*
5-9....................	25.6	15.2	0.1*	11.4	0.8*	15.4	9.0	6.8	0.7*
10-19..................	39.3	24.2	1.8*	16.7	0.5*	18.9	11.8	7.0	0.6*
20-49..................	36.2	21.1	0.5*	17.0	0.7*	15.6	6.3	8.8	1.4*
50-99..................	41.2	25.0	1.0*	19.4	1.9*	19.1	6.5	11.6	2.7*
100-499................	43.3	23.8	1.0*	23.5	3.5	16.9	6.2	9.8	2.9*
Sales (thousands of dollars)									
Less than 25..............	8.6	5.6	....	2.4*	0.7*	7.5	5.4	2.1*	0.6*
25-49.................	14.7	9.6	0.2*	3.2*	1.7*	11.0	9.5	2.0*	0.1*
50-99.................	12.7	8.3	0.1*	3.6	1.2*	12.8	9.5	3.1*	0.8*
100-249................	18.0	10.8	0.3*	7.2	0.6*	14.4	8.5	6.4	0.5*
250-499................	25.1	14.6	0.7*	10.3	1.3*	13.2	8.7	4.7	1.1*
500-999................	27.0	16.0	0.1*	13.2	0.7*	19.0	11.1	8.5	0.3*
1,000-2,499..............	30.9	16.6	1.7*	13.8	1.1*	15.9	9.4	6.3	0.4*
2,500-4,999..............	36.8	22.8	....	19.5	0.8*	16.3	6.1	10.1	0.4*
5,000-9,999..............	39.9	26.9	1.6*	13.5	0.9*	14.2	5.0	8.4	2.3*
10,000 or more............	41.1	27.0	1.8*	15.6	3.0*	14.9	7.4	7.9	1.7*

Table A.5: (Weighted) Percentage of small businesses that used credit lines, loans, and leases from selected suppliers, by selected category of firm, 1993 - Continued

Category	Nondepository financial institution					Nonfinancial Supplier			
	Any	Finance company	Brokerage	Leasing company	Other	Any	Family and individuals	Other businesses	Govern-ment
Assets (thousands of dollars)									
Less than 25	12.6	8.5	0.0*	3.8	0.5*	9.6	6.0	4.0	0.2*
25-49	19.8	12.3	0.1*	7.6	0.7*	11.2	8.4	2.7	0.7*
50-99	18.5	10.5	0.4*	8.0	0.9*	15.6	10.0	6.3	0.3*
100-249	23.8	12.8	0.3*	11.9	0.8*	16.2	10.5	5.9	0.6*
250-499	25.8	15.7	0.9*	9.6	1.5*	21.3	13.9	8.0	1.6*
500-999	30.9	17.7	1.1*	14.1	0.9*	14.5	7.9	6.0	0.6*
1,000-2,499	34.1	24.4	0.3*	11.6	1.5*	13.6	3.7	9.9	1.1*
2,500-4,999	33.8	20.5	2.1*	13.7	2.2*	11.9	7.9	3.5	1.7*
5,000 or more	40.9	20.7	3.8*	15.6	8.3	16.4	8.6	7.0	1.9*
Organizational form									
Proprietorship	14.6	8.6	0.2*	5.0	1.5	12.0	8.0	4.4	0.3*
Partnership	15.0	7.2	0.5*	7.0	1.0*	11.8	6.8	4.7	1.4*
S corporation	25.6	16.5	0.4*	10.7	1.0*	15.9	8.7	7.2	0.8*
C corporation	28.5	17.2	0.7	12.2	0.4	15.3	10.0	5.5	0.8
Standard industrial classification									
Construction and mining (10-19)	20.8	16.2	0.5*	5.0	0.3*	13.0	9.0	4.2	0.3*
Primary manufacturing (20-29)	34.0	20.1	0.3*	13.7	1.5*	20.1	12.0	9.1	1.9*
Other manufacturing (30-39)	26.1	14.1	0.7*	12.3	0.1*	15.3	6.5	6.6	2.6
Transportation (40-49)	37.8	25.1	1.5*	14.2	0.3*	14.5	9.3*	5.2	0.2*
Wholesale trade (50-51)	22.8	14.8	1.1*	9.6	0.9*	17.4	10.8	7.1	1.0*
Retail trade (52-59)	19.4	13.4	0.1*	6.4	0.7*	14.0	9.4	4.9	0.6*
Insurance and real estate (60-69)	17.3	7.2	1.3*	5.2	5.0	12.0	9.7	3.2	0.8*
Business services (70-79)	16.5	8.4	0.2*	8.2	0.5*	13.4	8.0	5.3	0.4*
Professional services (80-89)	21.3	10.6	0.1*	11.4	1.2*	11.3	6.1	5.7	0.2*

Table A.5: (Weighted) Percentage of small businesses that used credit lines, loans, and leases from selected suppliers, by selected category of firm, 1993 - Continued

Category	Nondepository financial institution					Nonfinancial Supplier			
	Any	Finance company	Brokerage	Leasing company	Other	Any	Family and individuals	Other businesses	Govern-ment
Years under current ownership									
0-4......................	25.1	15.5	0.0*	9.6	1.2*	20.2	14.3	6.9	1.3*
5-9......................	23.0	13.3	0.9	9.5	1.1	15.1	9.6	5.8	0.5
10-14....................	21.0	12.5	0.4*	8.9	0.9*	13.2	8.7	4.5	0.2*
15-19....................	18.2	11.8	0.2*	7.1	0.7*	12.0	7.1	5.5	0.3*
20-24....................	19.1	12.7	0.5*	7.1	0.6*	11.2	6.1	4.5	1.2*
25 or more...............	15.6	8.8	0.2*	6.1	1.4	8.3	3.9	4.2	0.7
Urbanization at main office									
Urban....................	22.5	13.3	0.5	9.3	1.2	13.5	8.3	5.5	0.6
Rural....................	14.7	9.9	0.3*	4.9	0.3*	14.4	9.8	4.7	0.8*
Number of offices									
One......................	19.2	11.7	0.3	7.4	0.9	13.4	8.5	5.1	0.7
Two......................	25.7	15.4	1.2*	11.2	1.1*	13.6	8.8	5.5	0.2*
Three or more............	37.1	20.3	0.7*	17.8	2.5	19.8	10.2	9.5	0.9*
Export sales									
Some.....................	26.0	13.5	0.9*	13.3	0.3*	18.6	10.1	7.8	1.9
None.....................	20.4	12.5	0.4	7.9	1.1	13.3	8.5	5.1	0.5

NOTE: *Number of respondents was less than fifteen, too small to calculate a reliable statistic.
.... Not applicable.

Table A.6: Distribution of the total dollar amount of small business credit lines, loans, by type of supplier and by selected category of firm, 1993
(Weighted percentage)

	Any supplier	Banks	Nonbanks	Nondepository financial	Nonfinancial supplier
All firms	100.0	58.6	41.4	25.6	11.6
Number of full-time equivalent employees					
0-1	100.0	67.9	32.2	13.2	11.5
2-4	100.0	46.8	53.2	28.1	13.6
5-9	100.0	66.7	33.3	20.9	8.9
10-19	100.0	50.0	50.0	38.3	10.3
20-49	100.0	50.3	49.7	25.9	18.5
50-99	100.0	61.4	38.7	31.3	5.6
100-499	100.0	66.4	33.6	21.1	11.0
Sales (thousands of dollars)					
Less than 25	100.0	89.1	10.9	3.6	3.8
25-49	100.0	59.9	40.1	19.5	8.7
50-99	100.0	49.9	50.1	8.3	29.5
100-249	100.0	58.7	41.3	18.1	17.6
250-499	100.0	46.4	53.7	27.3	8.8
500-999	100.0	52.6	47.4	30.1	14.5
1,000-2,499	100.0	49.2	50.8	35.2	7.7
2,500-4,999	100.0	72.7	27.3	10.9	11.0
5,000-9,999	100.0	53.3	46.7	25.4	20.4
10,000 or more	100.0	61.9	38.1	27.3	9.9
Assets (thousands of dollars)					
Less than 25	100.0	45.8	54.2	30.1	13.5
25-49	100.0	47.5	52.5	18.5	19.0
50-99	100.0	57.9	42.1	15.5	22.4
100-249	100.0	53.8	46.2	19.1	20.8
250-499	100.0	57.9	42.1	20.8	18.5
500-999	100.0	56.9	43.1	19.6	13.9
1,000-2,499	100.0	64.4	35.6	26.2	5.7
2,500-4,999	100.0	61.0	39.1	31.0	5.9
5,000 or more	100.0	58.1	42.0	26.8	11.5
Organizational form					
Proprietorship	100.0	54.3	45.7	25.1	11.8
Partnership	100.0	46.6	53.4	30.3	22.7
S corporation	100.0	61.1	38.9	23.3	8.5
C corporation	100.0	62.2	37.8	25.5	9.8

Table A.6: Distribution of the total dollar amount of small business credit lines, loans, by type of supplier and by selected category of firm, 1993 - Continued
(Weighted percentage)

	Any supplier	Banks	Nonbanks	Nondepository financial	Nonfinancial supplier
Standard industrial classification					
Construction and mining (10-19).................	100.0	74.7	25.3	8.4	11.8
Primary manufacturing (20-29).................	100.0	66.3	33.7	23.7	7.0
Other manufacturing (30-39).................	100.0	69.1	30.9	17.8	9.9
Transportation (40-49)....	100.0	49.8	50.2	23.7	25.8
Wholesale trade (50-51)...	100.0	71.2	28.9	19.6	7.7
Retail trade (52-59)......	100.0	48.3	51.7	37.1	12.1
Insurance and real estate (60-69).................	100.0	48.6	51.4	33.1	9.9
Business services (70-79).	100.0	62.5	37.5	20.7	12.2
Professional services (80-89).................	100.0	64.7	35.3	17.5	14.6
Years under current ownership					
0-4......................	100.0	63.8	36.2	14.4	12.3
5-9......................	100.0	51.7	48.3	30.0	15.0
10-14....................	100.0	61.0	39.0	21.2	13.3
15-19....................	100.0	62.6	37.4	25.9	8.1
20-24....................	100.0	66.7	33.3	24.6	4.0
25 or more................	100.0	58.7	41.3	29.1	9.9
Urbanization at main office					
Urban....................	100.0	58.0	42.0	26.0	11.8
Rural....................	100.0	63.0	37.0	22.8	10.5
Number of offices					
One......................	100.0	57.8	42.2	24.0	14.2
Two......................	100.0	53.4	46.6	30.0	11.4
Three or more............	100.0	62.5	37.6	25.6	8.1
Export sales					
Some.....................	100.0	65.9	34.1	18.4	13.0
None.....................	100.0	57.0	43.0	27.2	11.3

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