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

September 2002

Contents

Executive Summary

Section 2227 of the Economic Growth and Regulatory Paperwork Reduction Act of 1996 requires that, every five years, the Board of Governors of the Federal Reserve System submit a report to the Congress detailing the extent of small business lending by all creditors. The act specifies that the study should identify factors that give policymakers insight into the small business credit market, including the demand for credit by small businesses, the availability of credit, the range of credit options available, the types of credit products used, the credit needs of small businesses, the risks of lending to small businesses, and any other factors that the Board deems appropriate.[1]

From 1997, the year of the previous report on the availability of credit to small businesses, to 2000, business financing flows to both large and small borrowers were strong; but in 2001 and the first quarter of 2002, they have moderated along with economic growth.[2] Debt growth appears to have held up better at small firms than it did at large firms, and small businesses have not reported material difficulties in obtaining credit during the 2001-02 downturn. Indeed, despite a tightening of financial conditions in 2001 and the first three quarters of 2002, there is little evidence that creditworthy borrowers of any size have faced substantial credit supply constraints. From 1997 to 2002, the demand for credit by small businesses tracked the pattern of debt growth. Equity financing of small businesses showed a similar pattern, surging in the late 1990s but then slowing down after 2000, when stock prices began to decline and venture capital funding became less available.

Small businesses—firms having fewer than 500 employees—contribute significantly to the strength and vigor of the U.S. economy. Together they employ more than one-half of private-sector workers and produce more than one-half of the private-sector output. Large and successful companies often begin as smaller firms that prosper and grow. Likewise, most of the new firms that form and help the economy adapt to change start as small businesses.

The concerns of the Congress and other policymaking bodies about small business financing stem from the perception that small firms have more difficulty gaining access to credit sources than do large businesses or other types of borrowers. The source of this difficulty may be that lending to small business is generally considered riskier and more

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1. 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.

2. Comprehensive data that directly measure the financing activities of small businesses do not exist. However, several sources of information can be used to proxy small business activity and identify patterns of small business financing.

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.

In addition, lenders historically have had difficulty determining the creditworthiness of applicants for some small business loans. The heterogeneity of small firms has impeded the development of general standards for assessing applications for small business loans and has made evaluating such loans less straightforward and relatively expensive. Lending to small businesses is further complicated by the "informational opacity" of many such firms. Obtaining reliable information on the creditworthiness of a small business is often difficult because little, if any, public information exists about the performance of most small businesses. Many small businesses also lack detailed balance sheets and other financial information often used by lenders in making underwriting decisions.

Financial institutions, especially commercial banks, are believed to have an advantage in dealing with information problems because they often provide more than one financial product or service to small business customers. Through interactions with a firm that uses its financial services, the lending institution can obtain additional information about the firm's activities, ownership, financial characteristics, and prospects that is important in deciding whether to extend credit. Lenders can use information gathered over time through long-term relationships with business owners and other members of the local community to monitor the health of the business and to build appropriate incentives into loan agreements.

The 1998 Survey of Small Business Finances (SSBF) provides the most comprehensive and up-to-date information on small business finance available.[3] The survey shows that among small businesses, larger firms were more likely than smaller firms to use each of the traditional credit types: credit lines, capital leases, motor vehicle loans, mortgages, equipment loans, and other loans.[4] However, whether this pattern reflects a relatively greater need for credit at larger firms or whether lenders are simply more willing to extend credit to larger firms is unclear. The relationship between firm age and credit use is similar to the relationship between size and use—that is, younger firms use fewer of the credit products.

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3. The 1998 SSBF gathered data for fiscal year 1998 from 3,561 firms selected to be representative of small businesses operating in the United States in December 1998. The survey gathered details on the characteristics of each business and its primary owner, 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 recent borrowing and credit application experience, the use of trade credit, and capital infusions. The previous survey had been conducted for fiscal year 1993 using a sample of 4,736 firms. Although the small business survey was called the National Survey of Small Business Finances before 1998, it is referred to as the Survey of Small Business Finances in this report for all years.

4. The term "traditional" type of credit is used in this report to help distinguish credit lines, loans, and leases from other products that have certain credit-like features.

Patterns of credit use by small businesses observed in data from the 1998 SSBF were similar to the patterns in the 1993 SSBF. The most significant difference was the greater use of mortgages in 1998 than in 1993.

Besides having access to traditional sources of credit, small businesses have alternative means of financing available, including credit cards, trade credit, and owner loans. Many small firms used credit cards and trade credit, but the rapid payment of outstanding balances by a large percentage of these firms suggests that much of the use of these products was for convenience rather than for longer-term financing of expenses.

Some small businesses may have wanted to use more credit than was reflected on the 1998 SSBF but were unable to obtain it. Credit application behavior and denial and approval patterns provide information on the credit demands of small firms. According to the 1998 SSBF, roughly one-quarter of small businesses applied for new credit from 1996 to 1998. Larger firms were more likely than small firms to apply for new credit and were more likely to have their applications approved. Younger firms were more likely than older firms to apply for new credit but also to be denied credit. The finding that smaller and younger firms have their loan applications denied more frequently is consistent with conventional wisdom that these firms are riskier, have shorter credit histories or less collateral to pledge as security, and are more informationally opaque.

Some firms that may have wanted additional credit may not have applied for fear of denial. In fact, 23 percent of the SSBF respondents indicated that they had forgone applying when they needed credit because they feared denial. The survey data indicate that younger and smaller firms were more likely to forgo applying for credit, suggesting that the demand for credit at smaller and younger small businesses may have been higher than the data on credit use suggest. However, firms that did not apply for credit at some point because they feared denial may not have been shut out of the credit market because such firms often applied for and sometimes received credit at other times.

Small businesses obtain credit from a wide range of sources, including commercial banks, savings institutions, finance companies, nonfinancial firms, and individuals such as a family member or a friend. Of these sources, commercial banks are the leading provider, supplying credit lines, loans, and leases to slightly more than two-thirds of small firms that obtained a traditional form of credit from any source. Banks are also the most common source of virtually every traditional credit product.

Because banks are the leading source of credit to small business, much attention has been paid to developments in banking that may influence credit availability. The substantial consolidation of the banking industry over the past twenty years is one such development. Mergers and acquisitions have dramatically reduced the number of banks, increasing the importance of large institutions and the concentration of industry assets. These changes to the structure of the industry have raised concerns about possible reductions in the availability of credit to small businesses because large banks tend to be proportionately less committed than smaller banks to small business lending.

The evidence suggests that the thousands of small banks continue to account for a meaningful share of small business lending activity, measured by originations and holdings of business loans equal to or less than $1 million and equal to or less than $100,000, despite their declining numbers, a fall in their share of industry assets, and an increase in the share of small business lending activity attributable to the most active providers of credit and to all large banks.[5] For example, in 2001, banks with assets of $250 million or less accounted for roughly 20 percent of activity for business loans of $1 million or less and almost 30 percent of activity for business loans of $100,000 or less. In addition, the results of studies that directly analyze the relationship between consolidation activity and the availability of credit to small businesses tend to suggest that merger and acquisition activity has not reduced credit availability to small businesses. Following a merger, any reduction in small business lending by the newly consolidated bank is generally offset by an increase in small business lending by other banks.

Analysis of patterns within local areas is likely to capture the relevant structural conditions that face small firms seeking credit and that influence the level of competition in the market for small business loans. In 2001, almost sixty commercial banking organizations originated small business loans in the average metropolitan statistical area (MSA), and approximately fifteen originated such loans in the average non-MSA county. In both cases, roughly one-third of the banking organizations that originated small business loans had a branch in market (that is, in the local geographical area in which the loan is made), and two-thirds did not. However, out-of-market banking organizations originated very little (no more than 10 percent) of the dollar volume of business loans equal to or less than either $1 million or $100,000.

In 2001, the lending activities of nine banking organizations had a particularly widespread influence on small business lending. These lenders, which all made loans in more than 500 markets in which they did not have a branch office, are especially significant in the origination of loans of $100,000 or less; this finding is consistent with the use of small business credit-scoring methods by these lenders.[6] However, the importance of these firms' lending programs for credit availability is unclear because

5. Analysis of the small business lending activities of commercial banks and savings institutions is based on two sources of data. First, midyear Reports of Condition and Income (Call Reports) and midyear Thrift Financial Reports (TFRs), which are filed by commercial banks, savings banks, and savings and loan associations, include information on the number and amount of business loans of $1 million or less. Second, annual reports filed by large- and medium-sized depository institutions provide geographically based data on the number and value of small business loans originated during the year.

6. Credit scoring is an automated process by which information about an applicant is used to generate a numeric score that indicates the predicted future performance (that is, the probability of delinquency or default) of a loan to that applicant.

much of their lending volume consists of credit cards, and many small firms use credit cards for convenience rather than as a source of credit.

Measures of concentration, in conjunction with the fact that almost sixty banking organizations make small business loans in the average MSA, suggest that urban markets are moderately concentrated and that a fair number of small business lenders have a significant level of activity. The average rural area has fewer providers and is highly concentrated with respect to the dollar volume of loan originations. This suggests some restriction of credit availability in the average rural market relative to the average urban market. However, modest deconcentration and an increase in the number of lenders in both urban and rural markets between 1997 and 2001 suggests that the availability of credit from commercial banking organizations is not likely to have decreased in recent years in either type of area.

Savings institutions, defined as savings banks and savings and loan associations, provide much less credit to small businesses than commercial banks do. The differences between the lending volumes of the two groups of institutions reflect both the disparity in overall size between the two groups and the lower proportion of small business lending conducted by the typical savings institution. Among savings institutions, the most active, or leading, lenders to small businesses are not necessarily the largest institutions in terms of assets. Two notable savings institutions originated almost 60 percent of out-of-market business loans of $1 million or less made by savings institutions and more than 90 percent of such loans of $100,000 or less. Many of these loans were made with credit cards.

Credit scoring may substantially influence the availability of credit for small businesses. It increases the consistency and speed of credit evaluations while lowering the costs of gathering relevant information. It may also have the potential to increase a lender's ability to accurately predict loan performance. Credit scoring has been used for more than thirty years in underwriting consumer loans but only since the early to mid-1990s in small business lending.

Except for a few banks that have developed proprietary models, most organizations use scoring models obtained from outside vendors, primarily Fair, Isaac and Company. The large proportion of the industry that relies on one vendor's model has raised concerns that problems could be widespread if the model performs poorly. It is not clear how small business credit-scoring models, which rely heavily on information about the owner of the business, perform relative to traditional reviews of such loans, especially during a major economic slowdown.

Evidence regarding the effect of credit scoring on credit availability is limited but is nonetheless consistent with proponents' claims that the use of scoring models increases the availability of credit to some small businesses. However, concerns have been raised that the continued adoption of credit-scoring techniques may reduce the availability of credit for small firms that find it hard to qualify for loans based only on a formal credit score. At this time, it is unclear how often creditworthy firms that would not qualify for credit-scored products would be unable to obtain financing from a lender that relied on traditional methods of loan evaluation. Nonetheless, community banks and other local lenders are likely to continue to provide this valuable service to many small firms that would not qualify for credit-scored loans, especially if loans are priced appropriately.

The securitization of small business loans is a development that could substantially influence the availability of credit. Potential benefits exist for lenders, borrowers, and investors. However, the obstacles to securitizing loans to small businesses are large, especially with loans not backed by a guarantee from the Small Business Administration. Securitization amounts have been modest, and recent developments suggest that the volume of securitized small business loans is unlikely to increase over the next several years.

Community reinvestment activities provide a mechanism for financial institutions to meet the financing needs of small businesses. Beyond carrying out lending programs that are part of their normal operating processes, banks often develop or work with specially created entities focused on this objective. Some of these entities operate wholly within a bank's legal structure, some are partnerships with other service providers, and still others are standalone organizations in which banks invest. These programs encourage capital to flow where it otherwise might not.

Financial institutions have also intensified their outreach and education efforts, particularly those aimed at nontraditional customers. These efforts have resulted in new programs for loans of less than $5,000 for very small businesses. Gains in bringing capital to nontraditional customers can be seen in the statistics showing rapid growth in the number of minority-owned and women-owned businesses.

Flows and Terms of Business Credit

From 1997, the year of the previous report on the availability of credit to small businesses, to 2000, business financing flows to both large and small borrowers were strong; but in 2001 and the first quarter of 2002, they moderated along with economic growth. Debt growth appears to have held up better at small firms than it did at large firms, and small businesses have not reported material difficulties in obtaining credit during the downturn. Indeed, despite a tightening of financial conditions in 2001 and the first three quarters of 2002, there is little evidence that creditworthy borrowers of any size faced substantial credit supply constraints.[7]

Aggregate Business Financing

The late 1990s were marked by a high rate of real investment, particularly in high-technology equipment and software, as the economy expanded and computer technologies spread. The wealth of investment opportunities, along with favorable credit conditions, caused total business debt to increase even faster than the rapidly expanding economy, reaching a decade-high pace of 12 percent in 1998 and 1999 (figure 1). However, in late 2000, as economic growth slowed, excess capacity emerged, and concerns were raised about the prospects for profits, business outlays for new equipment contracted. Contributing to a further downshift in capital outlays were a sharp reduction in profits in 2001 and general uncertainty about the economic outlook, exacerbated by the terrorist attacks in September 2001. As economic conditions deteriorated in 2001, so too did credit conditions. Nevertheless, total business debt continued to expand, albeit at a less robust pace. In late 2001, the economy began to recover, but debt growth in the first quarter of 2002 continued to weaken, and as a result, the ratio of total business debt to gross domestic product (GDP) is on pace for its first yearly decline since 1994.

Equity issuance has also been a critical source of financing for some firms. In 2000, as venture capital poured into technology-related start-ups, gross equity issuance reached record highs, and public equity offerings, both initial and seasoned, provided later-stage financing for a tidal wave of business expansions. In 2001 and early 2002, as stock prices deflated, equity issuance fell, though it was still strong (figure 1). Net equity issuance, however, was mostly negative from 1997 through the first quarter of 2002, as retirements of equity, mostly by large public firms through share buybacks and cash-financed mergers, exceeded aggregate gross issuance.

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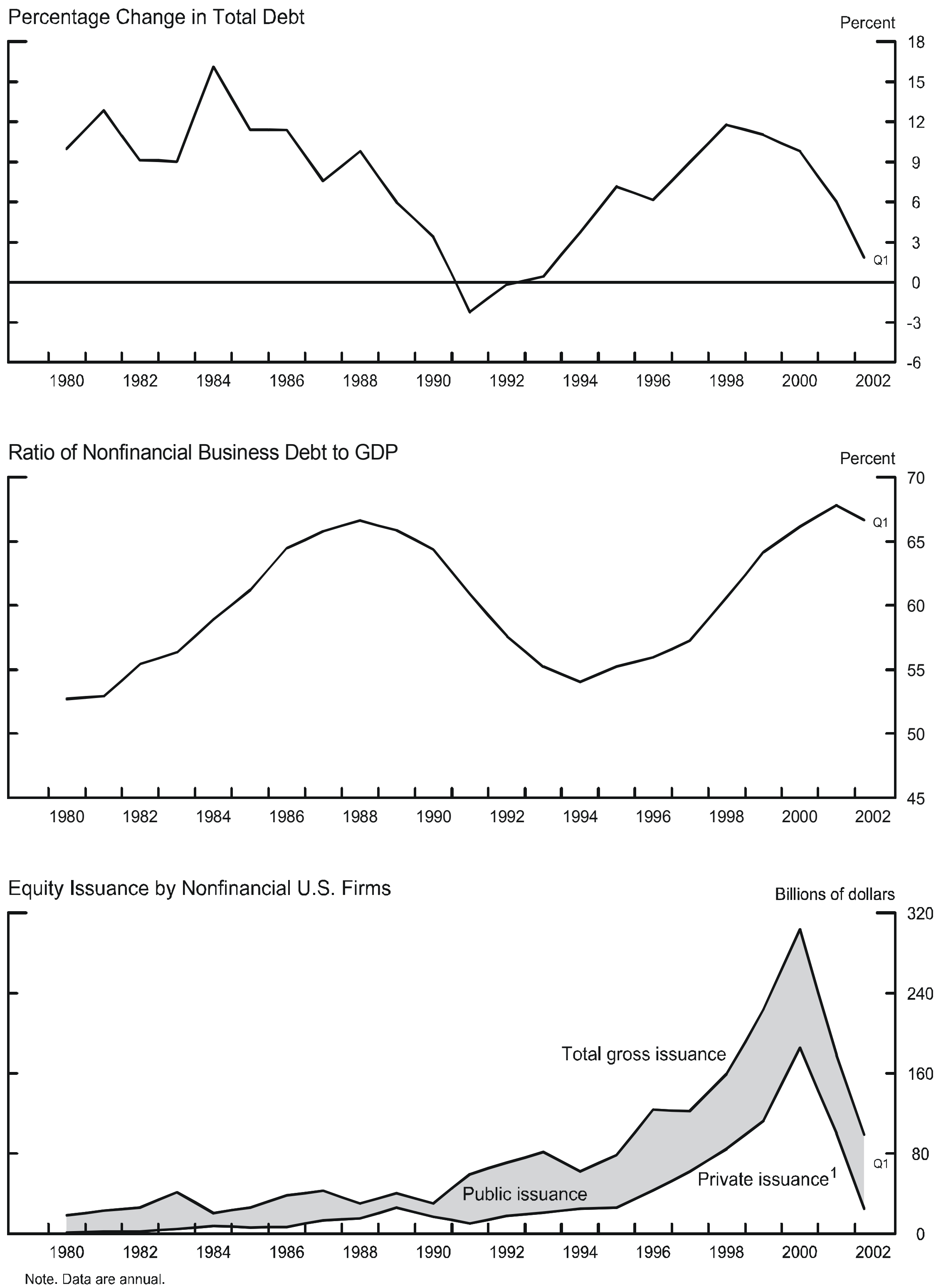
7. Data used in this section are from the flow of funds accounts published by the Board of Governors of the Federal Reserve System, Consolidated Reports of Condition and Income for banks, and surveys of lenders and of small businesses. Information from the flow of funds accounts relate to organizational type rather than to 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-type of corporation is designed primarily for small businesses.

Figure 1

Total Debt and Equity of Nonfinancial Businesses, 1980 - 2002



Note. Data are annual.

1. Includes venture capital, buyouts, mezzanine and other private equity investments

Source. Securities Data Company, Private Equity Analyst, Venture Economics.

FINANCING BY NONFINANCIAL CORPORATIONS

Total nonfinancial corporate debt followed the pattern of total business debt from 1997 to the first quarter of 2002 (figure 2).[8] Corporate debt growth from 1997 to 2000 was supported by broad-based growth in bonds, commercial paper, mortgages, and bank loans extended without real estate as collateral. Generally favorable credit conditions also facilitated corporate debt growth. In 2001 and the first quarter of 2002, the outstanding amount of bonds and mortgages continued to increase rapidly, but total corporate debt growth was weak because of declines in commercial paper and bank loans. The recent weakness was related to the liquidation of inventories and declines in fixed investment. Many firms shifted to longer-term sources of credit to improve their balance sheets and maintain or improve their overall future access to credit, as well as to lock in low financing costs for better-rated firms.

Less-than-favorable financing conditions for riskier firms in the public capital markets and at banks in 2001 and the first three quarters of 2002 may also have contributed to the slowing in corporate debt growth. The default rates both on junk bonds and on commercial and industrial loans soared over this period, and investors became increasingly uncertain about the prospects for corporate earnings (figure 3). With these conditions, the yield spreads between investment-grade bonds and Treasury securities and between junk-rated bonds and Treasury securities shot up to double their levels in 1997, when the credit quality of the corporate sector was considerably stronger. In addition, in early 2001, defaults on commercial paper, which rarely occur given the high quality of these issuers, rocked the market; and throughout the year, commercial paper risk spreads were intermittently elevated. Banks also took a more cautious stance. In each of the Federal Reserve's Senior Loan Officer Opinion Surveys on Bank Lending Practices administered in 2001, about 50 percent of banks, on net, reported tightening their lending standards on commercial and industrial loans to large firms (figure 4).[9] In 2002, banks have continued to tighten standards, on net, though the degree of tightening has declined to less than half the levels observed in 2001.

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8. Data on dollar volumes of credit flows to nonfinancial corporations are from the flow of funds accounts. Nonfinancial corporate debt composes about 70 percent of total business debt. Although the data are for all nonfinancial corporations, the dollar volumes of credit flows, particularly those raised in capital markets, are dominated by large firms.

9. The Senior Loan Officer Opinion Survey is administered quarterly so that changes in lending terms at U.S. banks can be evaluated. Approximately sixty large banks are surveyed each quarter, and the response rate tends to be close to 100 percent. Large business borrowers in the survey are defined as having total annual sales of equal to or greater than $50 million.

Figure 2

Total Debt of Nonfinancial Corporate Businesses

Level of Debt, 1997 - 2002

Billions of dollars

Type of debt	1997	1998	1999	2000	2001	2002:Q1
Total debt......................	3,383	3,776	4,209	4,612	4,840	4,843
Bonds [1]......................	1,753	1,977	2,212	2,385	2,721	2,779
Mortgages..................	261	279	345	391	445	449
Bank loans [2]...............	693	764	825	888	813	804
Commercial paper.......	169	193	230	278	190	151
Other loans [3]..............	508	562	596	670	672	660
Memo: Trade debt....................	992	1,050	1,228	1,341	1,244	1,256

Note. Debt outstanding at end of period.
1. Industrial revenue bonds and corporate bonds.
2. Extended without real estate as collateral.
3. Loans from finance companies, and all other nonmortgage loans that are not extended by banks.

Source. Federal Reserve Board, flow of funds accounts. Seasonally adjusted data.

Percentage Change in Bank Loans Compared with Total Debt, 1980 - 2002

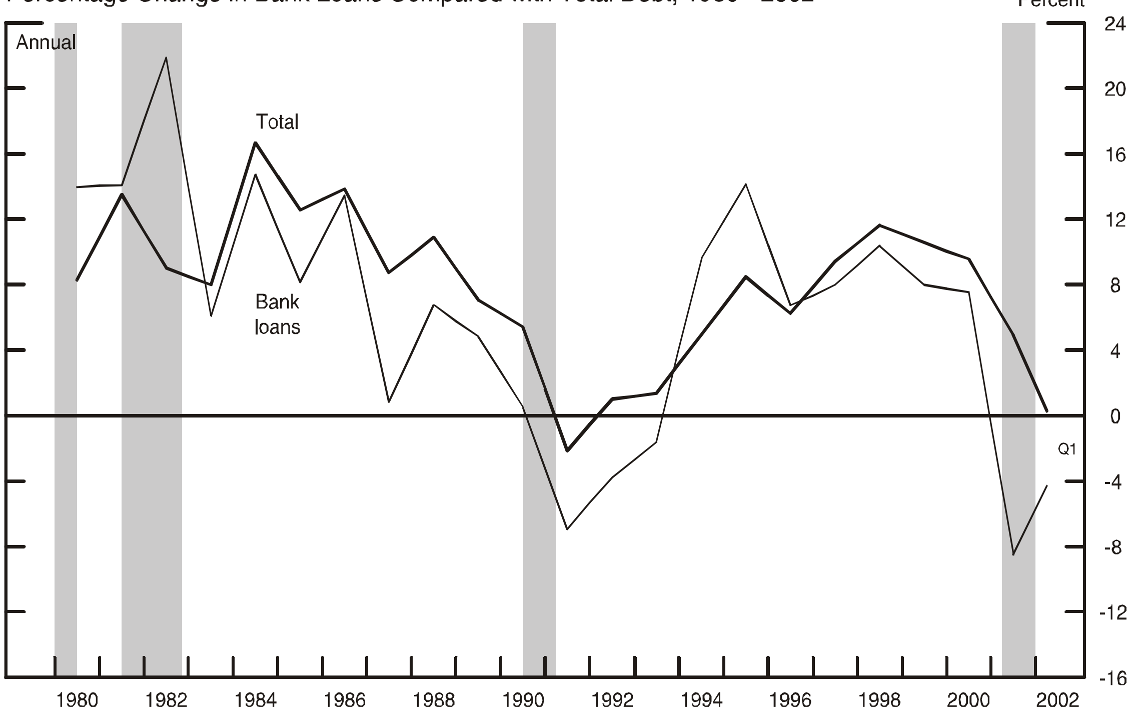


Figure 3
Corporate Credit Conditions, 1990 - 2002

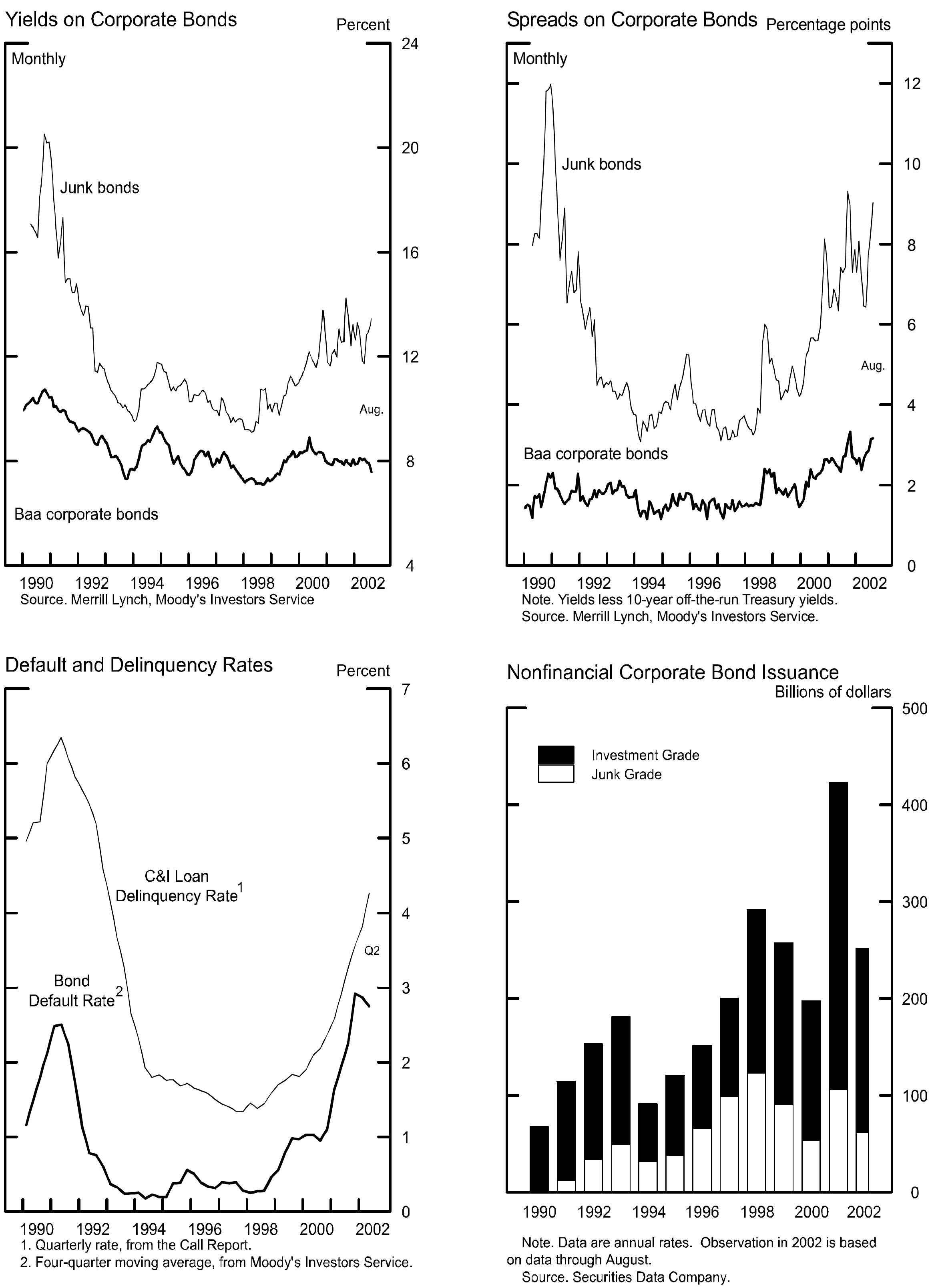
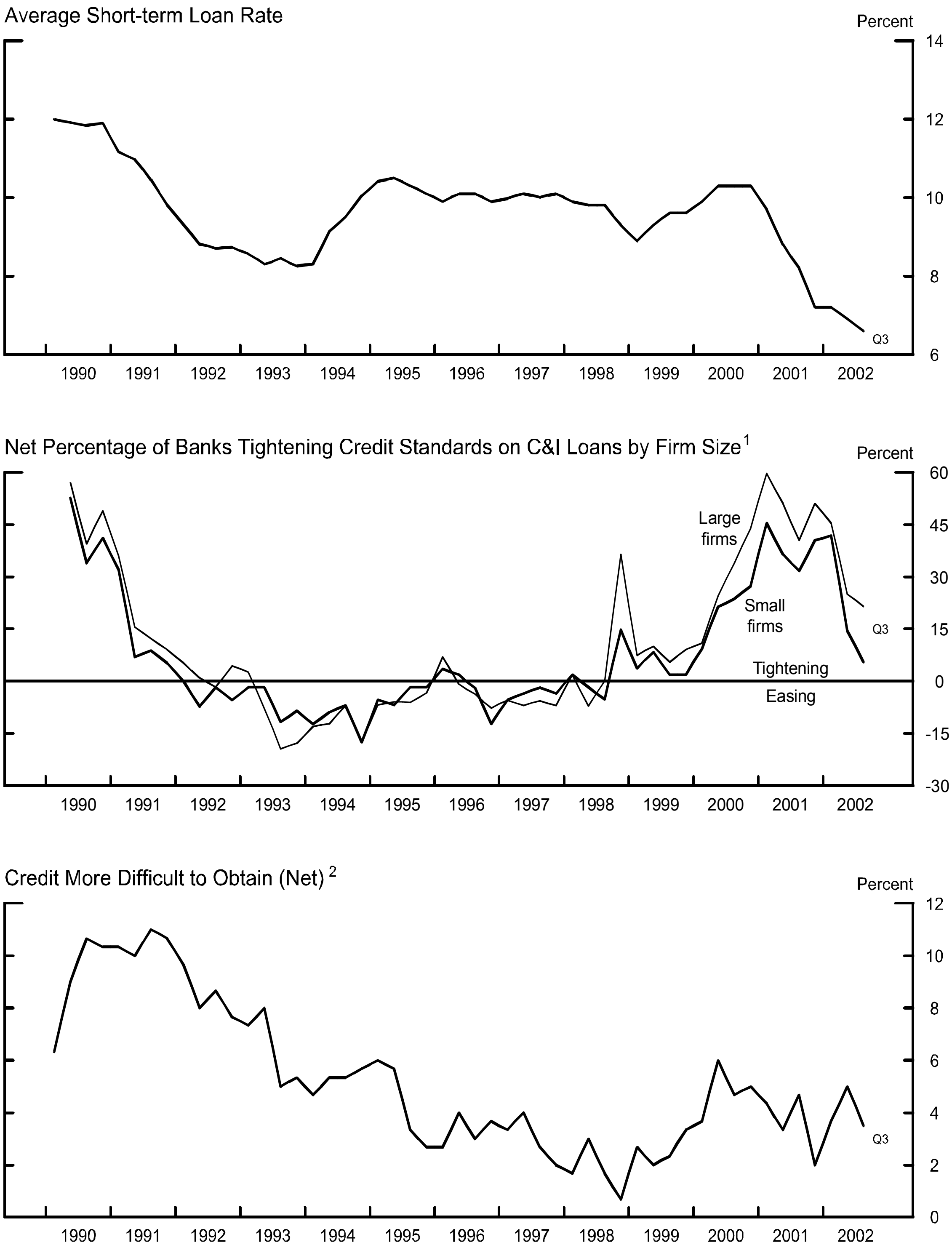


Figure 4
Credit Availability to Small Businesses, 1990 - 2002



Note. Data are quarterly.

1. Firms with annual sales of more than $50 million are considered "large."

2. Of borrowers who sought credit in the past three months, the proportion that reported more difficulty in obtaining credit less the proportion that reported more ease in obtaining credit.

Sources. Top and bottom panels are from the National Federation of Independent Businesses (NFIB), and the middle panel is from the Federal Reserve Board Senior Loan Officer Opinion Survey.

FINANCING BY SMALL BUSINESSES

Comprehensive data that directly measure the financing activities of small businesses do not exist. However, several sources of information can be used to proxy small business activity and identify patterns of small business financing. These sources are used throughout this report. Total small business debt, estimated as the total debt of partnerships and proprietorships, reached $1.9 trillion in the first quarter of 2002, after successive years of rapid growth in each year since 1997.[10] Total small business debt grew at an average annual rate of about 12 percent from 1997 through 2000 and by about 8 percent from 2001 through the first quarter of 2002, outpacing the growth of aggregate business debt in both periods (figure 5). From 1997 to 2000, the growth in total small business debt in the form of mortgage debt was fairly similar to the growth of bank loans (those extended without real estate as collateral). Since the beginning of 2001, mortgage debt has continued to expand, whereas bank loans have been nearly flat. Data on commercial loans by banks (both with and without real estate as collateral) equal to or less than $1 million, often extended to small firms, reveal similar patterns of growth in small business debt (table 1).

Indicators of small business financing needs suggest that demand closely tracked the pattern of debt growth from 1997 to 2002. The demand for small business financing can be inferred from small business investment plans, as reported in surveys conducted by the National Federation of Independent Businesses (NFIB).[11] The percentage of NFIB respondents that planned capital outlays and the net percentage that anticipated business expansions fluctuated around their decade highs from 1997 to 2000 (figure 6). However, these net percentages declined markedly in 2001 and the first three quarters of 2002. Results from the Senior Loan Officer Opinion Survey, which asks lenders about their perceptions of borrower demand, also indicate that loan demand has decreased, on net, since early 2000.

Credit terms and standards at banks for small businesses were generally favorable from 1997 to 2000, but they deteriorated substantially in 2001 and the first three quarters of 2002. Results from the Senior Loan Officer Opinion Survey indicate that lending

10. Partnerships and proprietorships make up about half of small businesses and tend to be smaller than small corporations, according to the 1998 SSBF. In addition, some large proprietorships and partnerships, which would not be considered small businesses, are included in the data. Data on partnerships and proprietorships are from the flow of funds accounts published by the Federal Reserve Board.

11. Each month the NFIB polls a random sample of its members to assess business conditions and the availability of credit for small businesses. For the first month of each quarter, roughly 7,000 firms receive questionnaires, and about 1,600 typically respond; for the remaining two months of each quarter, about 2,500 questionnaires are mailed, with around 600 responses. About 90 percent of the respondents have less than forty employees.

Figure 5

Total Debt of Partnerships and Proprietorships

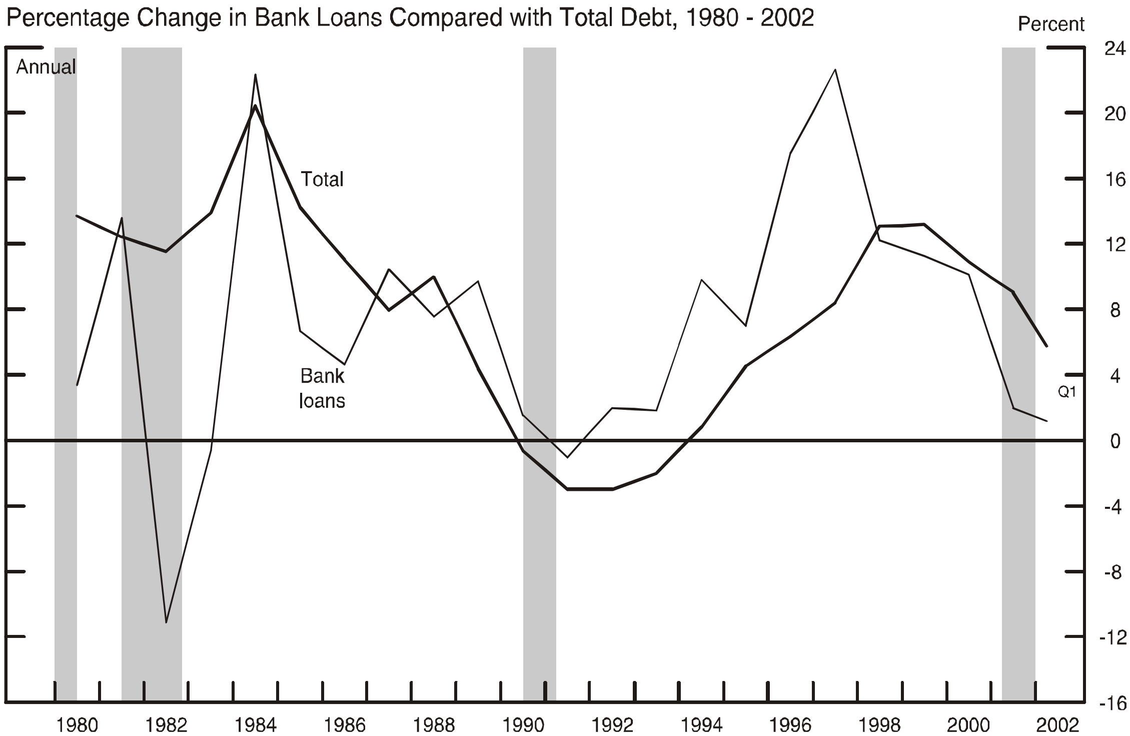
Level of Debt, 1997 - 2002

Billions of dollars

Type of debt	1997	1998	1999	2000	2001	2002:Q1
Total debt..........................	1,224	1,384	1,566	1,737	1,894	1,921
Mortgages......................	891	1,009	1,153	1,283	1,433	1,460
Bank loans [1].................	237	266	296	326	332	333
Other loans [2]................	96	109	117	128	128	127
Memo:						
Trade debt........................	148	169	210	245	265	270

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.

Percentage Change in Bank Loans Compared with Total Debt, 1980 - 2002



1. Growth of small business loan and micro-loan holdings of U.S. commercial banking organizations, by size of loan, 1997-2002

Size of loan and year (as of June 30)	All	Commercial and industrial	Nonfarm, nonresidential real estate
	Amount outstanding, June 30 (billions of dollars)		
$1 million or less			
1997	348.1	185.6	162.5
1998	369.2	195.4	173.8
1999	393.1	205.0	188.1
2000	427.7	221.8	205.9
2001	449.8	232.2	217.6
2002[1]	473.0	240.1	232.9
	Change, June to June (percent)		
1997	...	...	...
1998	6.1	5.3	7.0
1999	6.5	4.9	8.2
2000	8.8	8.2	9.4
2001	5.2	4.7	5.7
2002[1]	5.2	3.4	7.0
	Amount outstanding, June 30 (billions of dollars)		
$100,000 or less			
1997	106.4	74.2	32.2
1998	109.6	77.1	32.5
1999	110.2	78.2	32.0
2000	114.6	82.4	32.2
2001	118.7	86.4	32.3
2002[1]	120.7	89.7	31.0
	Change, June to June (percent)		
1997	...	...	...
1998	3.1	3.9	1.0
1999	.5	1.4	-1.6
2000	4.0	5.4	.6
2001	3.6	4.9	.4
2002[1]	1.6	3.8	-4.0

NOTE. Small business loans (micro-loans) for U.S. commercial banking organizations are defined as business loans of $1 million ($100,000) or less at insured U.S. domestically chartered banks, excluding credit card institutions and U.S. branches and agencies of foreign banks. Details may not sum to totals because of rounding.

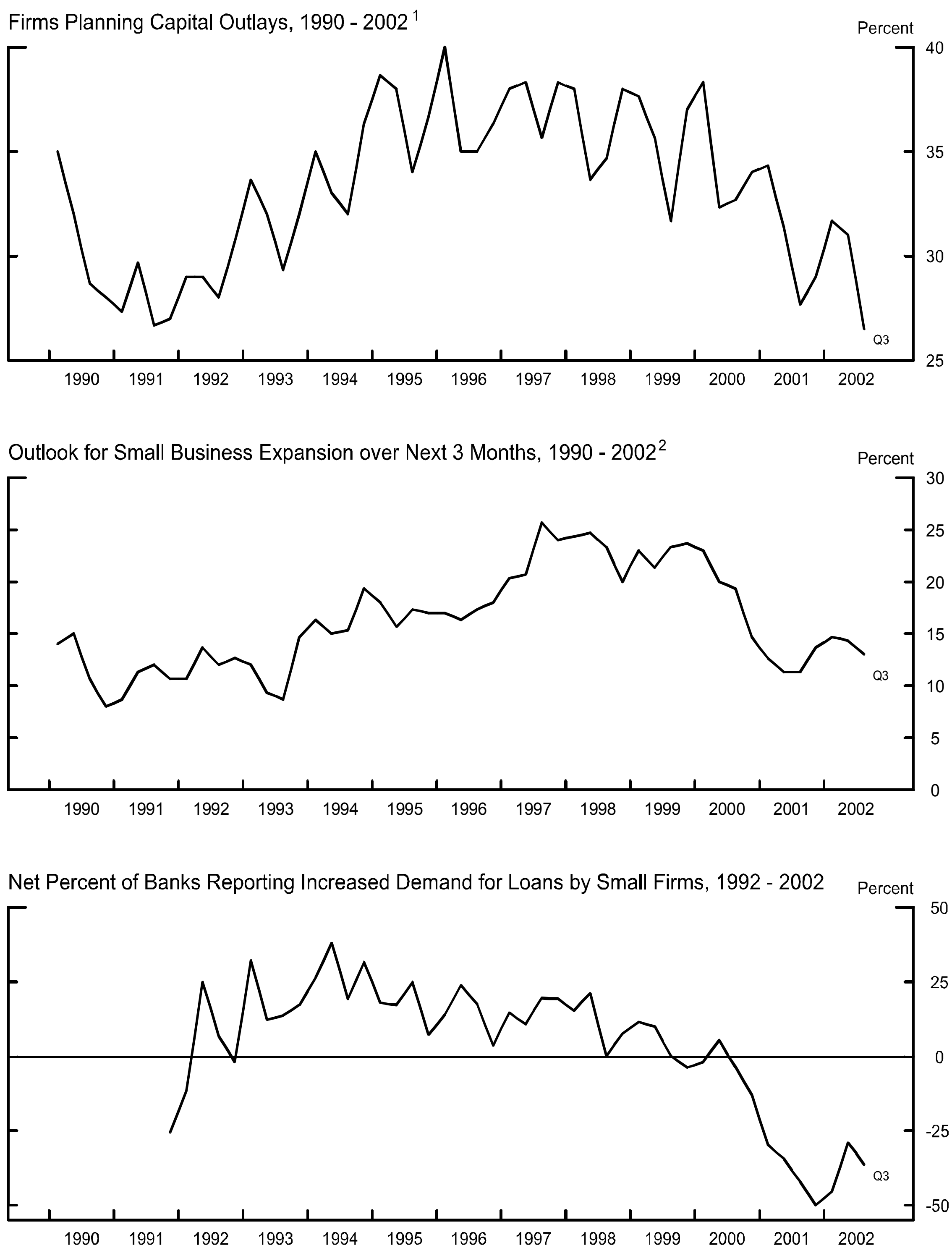
1. Data for 2002 are preliminary.

... Not applicable.

SOURCE. Call Reports (June 30), various years.

Figure 6

Demand for Small Business Credit



Note. Data are quarterly.

1. Percent of firms planning capital outlays in the next six months.

2. The proportion of respondents that consider the next three months a "good time to expand" less the proportion that do not consider the next three months a "good time to expand."

Sources. Top and middle panels are from the National Federation of Independent Businesses (NFIB), and the bottom panel is from the Federal Reserve Board Senior Loan Officer Opinion Survey.

standards for small borrowers were little changed, on net, from 1997 to 2000 (figure 4). In contrast, the net percentage of lenders that reported tightening standards to small borrowers in 2001 ranged from 32 percent to 45 percent and in the first three quarters of 2002 has averaged about 21 percent. The net tightening occurred while commercial and industrial loan delinquency rates at commercial banks, both large and small, rose, though to levels well below those reached during and immediately after the recession in the early 1990s.

However, small businesses do not appear to have found financing conditions onerous in 2001 and the first three quarters of 2002. The net percentages of NFIB respondents reporting that credit had become more difficult to obtain during this recent period, while higher than in the 1996-99 period, were well below the net percentages in the early 1990s (figure 4). In addition, the average short-term interest rate paid by NFIB respondents decreased about 3 percentage points in 2001 and another one-half of a percentage point through the third quarter of 2002 to its lowest level in more than two decades.[12]

The late 1990s were also marked by a surge in equity financing to small businesses with the potential for significant growth.[13] Annual venture capital investments increased more than six-fold from 1997 to 2000, to more than $100 billion, and the number of investments more than doubled over this period (figure 7). Firms at very early stages of development appear to have benefited in particular—the value of investments in early-stage companies rose nearly sixfold, and the number of investments almost quadrupled. Investments by angel investors, who tend to finance start-ups even before the first round of venture capital, presumably also rose over this period.[14] Even as stock prices plummeted in 2000 and 2001, the amount invested and the number of companies that received venture capital financing mark 2001 as the venture capital industry's third-best year, even though both measures were below the levels in 2000. Financing appears to have continued contracting in early 2002, but venture capital partnerships seem to have had a substantial amount of capital to provide later-stage financing for firms already in their portfolios and to fund start-ups with viable business plans.

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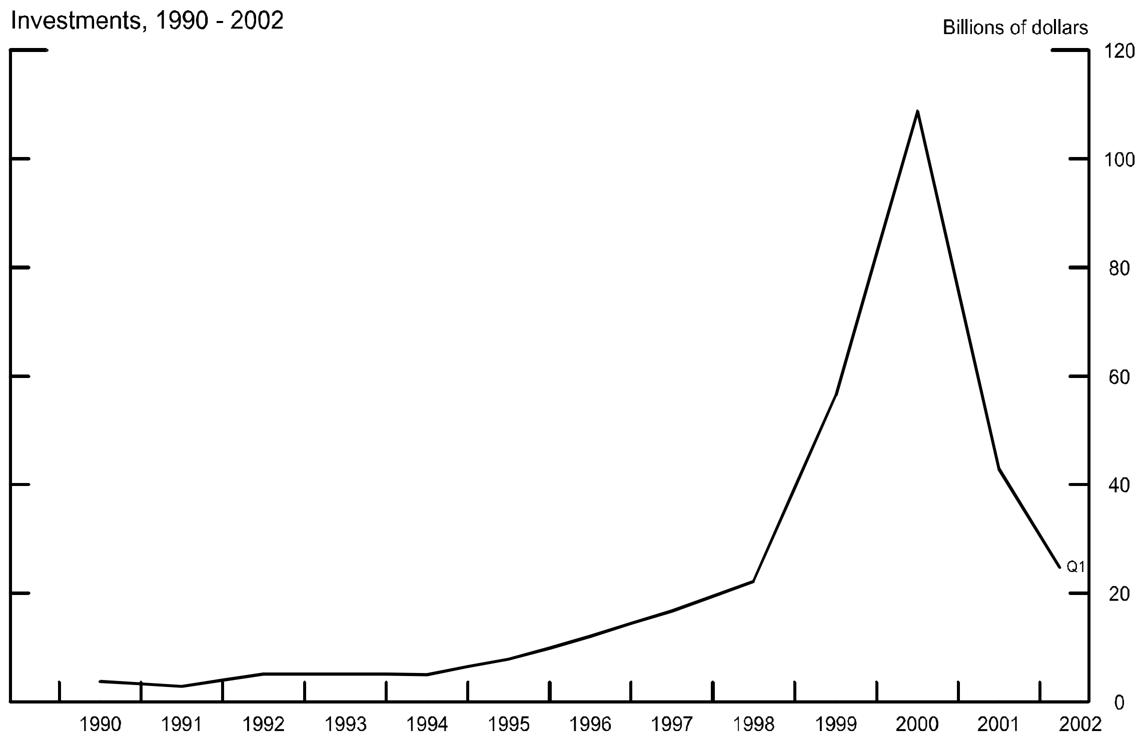
12. Data on small business loan prices (interest rates and fees) are not publicly reported or widely available. Therefore, the analysis and discussion of pricing in this report is limited.

13. Two sources of funds that have received a great deal of attention in the media and economic research have been venture capital and angel finance. To some small businesses, like high-tech firms with significant growth prospects, venture capital and angel finance are critical for financing a business. Yet despite the widespread attention that venture capital and angel finance receive, they are used by only a limited number of small businesses. For example, only twenty of the firms surveyed in the 1998 SSBF, representing 0.2 percent of all small businesses, received any venture capital that year. An even smaller number of firms, 0.1 percent of the firms sampled, received angel financing. Given the limited use of these forms of equity financing and the lack of information on angel investors, this report does not focus on them.

14. Angel capital refers to investments in small, closely-held companies by wealthy individuals, many of whom have experience operating similar companies. Angel capitalists may have substantial ownership stakes and may also be active in advising the company.

Figure 7
Venture Capital



Amount and Number of Investments, 1997-2002

Development Stage	1997	1998	1999	2000	2001	2002:Q1
Venture Capital						
Investments ($B).................	16.1	21.5	54.4	105.9	40.6	24.9
Number of deals..................	3,231	4,185	5,686	8,151	4,679	3,148
Average deal size ($M).......	5.0	5.1	9.6	13.0	8.7	7.9
Seed, Start-up, Early Stage						
Investments ($B).................	4.9	7.3	15.4	29.0	10.1	5.2
Number of deals..................	892	1,746	2,530	3,511	1,525	239
Average deal size ($M).......	3.4	4.2	6.1	8.2	6.6	5.4

Note. Data are at an annual rate.
Source. PriceWaterhouse Coopers/Venture Economics/National Venture Capital Association Money Tree Survey.

Credit Use by Small Businesses

This section examines the composition and borrowing behavior of small firms to identify characteristics that are associated with important patterns of credit use. It also discusses the special role that small businesses play in the U.S. economy and the unique challenges they face in obtaining credit.

Small Business: Definition and Background

Defining what is meant by "small business" is the first step in conducting a policy-relevant analysis of the financing needs of small business; it is also difficult. The financing needs are very different for a "mom and pop" grocery store, a microenterprise 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 a business that has neared the point of issuing public debt or equity. Yet the term "small business" encompasses all of these. According to a broad guideline used by the Small Business Administration (SBA), a small business is a firm or enterprise with fewer than 500 employees. This definition encompasses more than 99 percent of all businesses in the United States.

The vast majority of small businesses are modest in size. The 1998 Survey of Small Business Finances (SSBF), which is representative of more than 5 million nonfarm, nonfinancial businesses with fewer than 500 workers, estimates that over 91 percent of these businesses have fewer than twenty employees (including working owners) and that almost two-thirds have fewer than five (table A.1).

Just over half of the small businesses were organized as proprietorships (49 percent) or partnerships (7 percent) in 1998. The remainder were organized as either S-corporations (24 percent) or C-corporations (20 percent). The primary difference between the two types of corporations is that C-corporations are subject to corporate income tax. However, S-corporations are legally constrained to have no more than seventy-five shareholders, are restricted to one class of stock, and to avoid income tax liability, must pass all income to the owners at the end of each fiscal year.

Two other organizations gained legal status in several states during the 1990s: the limited liability corporation (LLC) and the limited liability partnership (LLP). LLCs share many characteristics of partnerships but also have the limited liability of a corporation. LLPs are partnerships in which an investor's liability is limited to his or her initial investment. In this report, LLCs and LLPs are classified as partnerships or corporations according to the way they file their taxes. LLCs may file taxes as partnerships, sole proprietorships, or corporations, and LLPs may file as either partnerships or corporations. The 1998 SSBF data imply that these organizational types make up a small proportion of small businesses, with 0.2 percent of small businesses organized as LLCs and 1.8 percent as LLPs.

Small businesses operate in every major segment of the U.S. economy. The most common industry for small businesses in 1998 was business services, which accounted for almost one-quarter of small firms (table A.1). Another fourth of small businesses were in the retail (19 percent) and wholesale (7 percent) trade sectors. The remaining half of small businesses were involved in professional services (19 percent), construction and mining (12 percent), insurance and real estate (6 percent), transportation (4 percent), and manufacturing (4 percent in primary manufacturing and 5 percent in other manufacturing).

In 1998, most of the small businesses in the United States had owners who participated in the firm's management (92 percent), had a single office (88 percent), and were located in urban areas (80 percent). Geographically, small businesses were widely dispersed throughout the nation, with 19 percent in the Northeast, 22 percent in the Midwest, 27 percent in the West, and the remaining 32 percent in the South. A demographic breakdown of the universe of nonfarm, nonfinancial small businesses in the United States according to the 1998 SSBF appears in table A.1.

Small businesses contribute significantly to the strength and vigor of the U.S. economy. According to the U.S. Small Business Administration, firms with fewer than 500 employees employ more than one-half of private-sector workers and produce more than one-half of the private-sector output. Large and successful companies often begin as smaller firms that prosper and grow. In 1999, the latest year for which data are available, businesses with fewer than 500 employees accounted for 99.9 percent of all firm births and deaths.[15] More than 35,000 more births than deaths occurred among firms with fewer than 500 employees (a net growth rate of 0.67 percent).

The concerns of the Congress and other policymaking bodies about small business financing stem from the perception that small firms have more difficulty gaining access to credit sources than do large businesses or other types of borrowers. The source of this difficulty may be the greater riskiness of small firms and the associated high costs of evaluating and monitoring credit risks, or it may be inefficiencies in markets that hinder pricing of risk or impede the effective pooling of risks. To the extent that private-market impediments or inefficiencies are the source of any difficulties for small business financing, policymakers may focus on changes that reduce these constraints. In this case, no one policy prescription would likely work for all, and no one definition of small business would be appropriate. As discussed in this report, credit needs and borrowing sources differ widely among small businesses.

15. According to the Bureau of the Census, there were 579,287 firm births and 544,040 firm deaths among firms with fewer than 500 employees in 1999. That same year, there were 322 firm births and 447 firm deaths among firms with 500 or more employees.

RISKS OF LENDING TO SMALL BUSINESSES

Lending to small businesses is generally considered riskier and more costly than lending to larger firms. Small businesses are much more affected by swings in the economy and have a much higher failure rate than larger operations. In addition, lenders historically have had difficulty determining the creditworthiness of applicants for some small business loans. The heterogeneity across small firms, together with widely varying uses of borrowed funds, has impeded the development of general standards for assessing applications for small business loans and has made evaluating such loans relatively expensive.

Lending to small businesses is further complicated by the "informational opacity" of many such firms. Obtaining reliable information on the creditworthiness of a small business is often difficult 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 sparse. Many small businesses also lack detailed balance sheets and other financial information often used by lenders in making underwriting decisions.

The cost to the lender does not end with the decision to grant a loan. Small business lenders typically have had to monitor the credit arrangement with individual borrowers. For very small firms, a close association between the finances of the business and those of the owner may increase loan-monitoring costs.

In general, the relatively elevated costs of evaluating small business applications and the ongoing costs of monitoring firm performance have made loans to small businesses less attractive for many lenders, especially because, when expressed as a percentage of the (small) dollar amount of the proposed loan, these non-interest costs are often quite high relative to loans to middle-market or large corporate borrowers. Financial institutions, especially commercial banks, are believed to have an advantage in dealing with information problems. Through interactions with a firm that uses its financial services, the lending institution can obtain additional information about the firm's activities, ownership, financial characteristics, and prospects that is important in deciding whether to extend credit.[16] Lenders can use information gathered over time through long-term relationships with business owners and other members of the local community to monitor

16. Banks typically provide multiple products to firms that borrow from them. The 1998 SSBF indicates that small firms that obtained at least one product at a commercial bank averaged 1.9 products at that bank. The comparable average number of products at nonbanks was 1.2. Small firms with at least one product at a bank had one or more other products at that bank at least half the time. In contrast, at least 75 percent of small firms that had a product with a nonbank provider obtained no other products from the nonbank.

the health of the business and to build appropriate incentives into loan agreements.[17] The role of relationship lending will likely continue to be significant as developments such as automated banking, credit scoring, and bank consolidation influence the competitive structure of the banking industry.[18]

CREDIT USE

Not surprisingly, up-to-date and comprehensive information about the universe of small businesses is virtually nonexistent, and evidence about financing needs and sources is based largely on surveys. Researchers have learned a great deal about the financing of small businesses from various data sources and studies, particularly from the SSBF. This survey, which was conducted most recently for year-end 1998, provides the most comprehensive and up-to-date information on small business finance available.[19]

The 1998 SSBF gathered data for fiscal year 1998 from 3,561 firms selected to be representative of small businesses operating in the United States in December 1998. The survey gathered details on the characteristics of each business and its primary owner, the firm's income statement and balance sheet, and the use and sources of financial services. It also obtained information about the firm's recent experiences in borrowing and applying for credit, the use of trade credit, and capital infusions. The previous survey had been conducted for fiscal year 1993 using a sample of 4,736 firms.

Data from the 1998 SSBF describe patterns of credit use by small businesses. Although this information is influenced by both demand and supply factors, it is nonetheless very useful in developing a picture of the demand for credit by small businesses. The data reveal patterns at both the aggregate and the firm levels.[20]

Although recent economic developments may have altered small business behavior from that reported in the 1998 SSBF, past surveys suggest that the 1998 results should still provide a good picture of current small business behavior because patterns in the use of

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17. A detailed description of the process of relationship lending and the way it differs from transactions lending is provided by Berger and Udell (2002). Boot (2000) and Berger and Udell (1998) include detailed discussions of the costs and benefits of relationship lending, including a review of the literature. Avery, Bostic, and Samolyk (1998) discuss methods of structuring contracts that address problems with monitoring small business borrowers.

18. The Office of the Comptroller of the Currency and the Office of Thrift Supervision are currently engaged in a pilot program that encourages long-term relationships by creating special, higher lending limits to a single borrower for one-to-four family mortgages and small business loans. This program addresses the problem of a small business outgrowing the ability of a local institution, with which it has had a long-term relationship, to provide sufficient credit.

19. For more information on the 1998 SSBF, see Bitler, Robb, and Wolken (2001).

20. In this report, many of the figures based on data from the 1993 and 1998 SSBFs are presented in tables. However, some figures are computed from the survey data but not reported in tables. In such instances, the SSBF is cited as the source of the information.

credit by small businesses change slowly. When significant differences exist between the 1993 and the 1998 data, these differences are discussed to highlight potentially important trends in the use of credit by small businesses.

Types of Traditional Credit Used

Most small businesses use traditional types of credit, including loans taken down under lines of credit, mortgages used for business purposes, equipment loans, motor vehicle loans, capital leases, and "other loans." In 1998, 55 percent of small businesses used one of these traditional forms of credit (table A.2).

Among all small businesses in 1998, several patterns in credit use are apparent from the figures in table A.2. Larger firms were more likely than smaller firms to use at least one of the traditional forms of credit. A large majority (92 percent) of firms with between 100 and 499 employees used credit, whereas less than one-third of firms with fewer than two employees did. Among firms that used a traditional credit product, use increased with firm size. The median credit-using firm with between 100 and 499 employees had four credit lines, loans, or leases with a total outstanding balance of more than $660,000. These figures are substantially higher than the median firm with fewer than two employees, which had one credit line, loan, or lease with a combined balance of $10,700.

Although these data reveal a strong association between firm size and the extent of borrowing, they cannot measure how much of the association may be due to relatively greater capital needs of larger firms and how much may be due to the greater difficulty that smaller firms have in obtaining credit. The relative demand for credit likely increases with firm size because credit needs tend to expand with the scope of operations and inventories that a firm needs to hold. Size also tends to be associated with various characteristics of the firm that could affect its ability to gain access to credit from external sources. For example, larger firms tend to have more assets for collateral, are likely to be more diversified, and frequently have longer performance histories.

The share of small firms in each industry that used credit was roughly the same across industries, although it was noticeably lower in the service sectors (49 percent in business services and 48 percent in professional services), which rely less on inventories or machinery. Slightly more than two-thirds of the firms in construction and mining used a credit line, loan, or lease.

Different patterns of credit use among various firms exist not just for all credit lines, loans, and leases but for the individual products in this group as well. Patterns for each product are discussed below. Much of the data illustrating differences come from the 1998 SSBF and are presented in the appendix. Specifically, table A.2 reports the percentage of each firm type that used each of the traditional credit products, and table A.8 reports the share of total outstanding balances in each of the traditional credit products by firm type. In addition, table 2 shows the median balances outstanding for

2. Median number of accounts and median outstanding balances of traditional types of credit used by small businesses, by credit type and selected category of firm, 1998

Dollars except as noted

Category of firm	Any		Credit line		Mortgage loan		Vehicle loan	
	Number	Balance	Number	Balance	Number	Balance	Number	Balance
All firms	**2**	**28,000**	**1**	**8,198**	**1**	**80,000**	**1**	**15,000**
Number of employees[1]								
0-1	1	10,700	1	2,500	1	70,000	1	9,000
2-4	1	20,000	1	7,000	1	60,000	1	13,500
5-9	2	31,972	1	10,000	1	82,834	1	15,000
10-19	3	78,609	1	20,000	1	135,000	2	26,138
20-49	3	122,351	1	19,000	1	167,201	1	20,000
50-99	4	477,000	1	90,000	1	725,000	2	40,479
100-499	4	662,000	1	100,000	1	790,000	3	50,000
Standard industrial classification								
Construction and mining (10-19)	2	24,800	1	5,000	1	80,000	1	12,400
Primary manufacturing (20-29)	3	52,500	1	10,000	1	120,000	1	14,300
Other manufacturing (30-39)	2	46,704	1	15,250	1	111,000	1	18,122
Transportation (40-49)	2	45,000	1	2,000	1	159,000	2	32,000
Wholesale trade (50-51)	2	30,000	1	22,000	1	148,000	2	18,412
Retail trade (52-59)	2	30,800	1	11,000	1	75,000	1	13,920
Insurance and real estate (60-69)	2	45,000	1	0	1	224,000	1	14,000
Business services (70-79)	2	21,982	1	5,800	1	70,239	1	15,000
Professional services (80-89)	2	25,058	1	10,000	1	60,000	1	15,000

See notes at end of table.

each credit product. Figures from each of these three tables are cited in the discussion of specific credit products.

Credit Lines

Credit lines were the most common traditional form of credit used by small businesses. They were used by 27.7 percent of all firms and accounted for 34.1 percent of the total dollar value of credit outstanding. Among firms with lines of credit, the median firm had one line of credit with a credit limit of $50,000 and a balance of nearly $8,200.

Substantial variation exists in the use of credit lines across industries. Credit lines were most important to firms involved in wholesale trade. In this industry, 47.3 percent of small firms used credit lines, which accounted for 57 percent of the value of all outstanding credit at these firms. In retail trade, credit lines were used by roughly one-fourth of the firms and accounted for 45.8 percent of outstanding credit. Figures for the share of firms using credit lines and their share of outstanding credit are 32.1 percent and 33.9 percent in primary manufacturing and 35.9 percent and 40.0 percent in other

2. —Continued

Category of firm	Equipment loan		Capital lease		Other credit	
	Number	Balance	Number	Balance	Number	Balance
All firms	**1**	**15,000**	**1**	**13,800**	**1**	**21,000**
Number of employees[1]						
0-1	1	6,637	1	9,996	1	9,500
2-4	1	6,500	1	7,500	1	12,000
5-9	1	13,000	1	10,718	1	22,036
10-19	1	53,000	1	18,729	1	35,000
20-49	1	58,070	1	23,000	1	123,209
50-99	1	135,158	2	50,000	1	100,000
100-499	1	320,000	3	75,000	1	358,890
Standard industrial classification						
Construction and mining (10-19)	1	20,000	1	12,000	1	20,000
Primary manufacturing (20-29)	1	27,521	1	69,308	1	18,000
Other manufacturing (30-39)	1	30,000	1	55,000	1	22,036
Transportation (40-49)	1	42,000	1	15,186	1	12,000
Wholesale trade (50-51)	1	13,915	1	20,000	1	56,000
Retail trade (52-59)	1	10,000	1	10,500	1	25,057
Insurance and real estate (60-69)	1	7,528	1	13,455	1	49,000
Business services (70-79)	1	8,000	1	15,500	1	10,000
Professional services (80-89)	1	13,000	1	7,500	1	31,795

NOTE. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures.

1. Number of owners working in the business plus number of full- and part-time employees. For the 1993 survey, the number of employees was calculated as the sum of owners working in the business plus full-time employees plus one-half of part-time employees; in the 1998 survey, no differentiation was made between full- and part-time employees. To make the data for 1998 and 1993 comparable, the 1993 numbers have been recalculated as the sum of the owners working in the business, full-time employees, and part-time employees.

SOURCE. 1998 Survey of Small Business Finances.

manufacturing. Heavy use by firms in these industries may be explained by the need to maintain large inventories, which is expensive and generally requires financing.

The use of credit lines is less common among younger firms than among older firms. Not only is the share of younger firms that use credit lines smaller, but among small firms with an open credit line, such lines make up a smaller share of credit outstanding. Among firms with fewer than five years under current ownership, 19.6 percent used credit lines, compared with 31.3 percent of firms with twenty-five or more years under current ownership. Credit lines accounted for 25.4 percent of outstanding credit at the youngest firms and more than 45 percent at the oldest. Comparing firms with credit lines, the credit limit of the average firm with fewer than five years under current ownership is less than half the credit limit of older firms. The balances on the credit lines of these younger firms are also noticeably lower than those at the older firms, though the difference is not so great as that between the credit limits.

Credit line use increases with firm size: Smaller small firms use this type of credit less frequently than larger small firms. This difference may reflect the lower credit needs of smaller firms or a reduced ability of young and small firms to obtain credit due to the greater information opacity or the higher risks and costs associated with lending to such firms.

The SSBF data on credit lines provide additional insight into the demand and availability of small business credit. Table 3 shows the ratio of credit line balance to credit limit for each firm type—that is, the percentage of available credit that each firm used in 1993 and 1998. That these percentages decreased for all small businesses and across industries and firm sizes suggests that, at least for firms with credit lines, the availability of credit increased more than the firms' demand for credit.

Motor Vehicle Loans

Motor vehicle loans were the second most commonly used type of traditional credit, with 20.5 percent of all firms using them. These loans, however, accounted for only 5.5 percent of the total amount of outstanding credit because motor vehicle loans are small compared with the other types of credit. Of firms with motor vehicle loans, the median firm had one motor vehicle loan with a balance of $15,000.

Not surprisingly, motor vehicle loans were most frequently used in the transportation industry, where these loans accounted for 16.8 percent of outstanding balances. The median firm in the transportation industry that used this type of loan had two motor vehicle loans outstanding with a combined balance of $32,000, which was more than 70 percent larger than the median amount in any other industry.

Mortgage Loans

Approximately 13.2 percent of all firms had mortgage loans for business purposes, making this the third most commonly used type of credit. In terms of dollar amount, mortgage loans were the largest form of credit, accounting for more than 35 percent of outstanding credit. These figures represent a significant change from the results of the 1993 survey, which showed that mortgages were used by 7.8 percent of small businesses and accounted for 24.9 percent of outstanding credit. This increase may be the result of the recovery in the commercial real estate market. Among the 13 percent of firms with mortgages, the median firm had one mortgage with a balance of $80,000.

Mortgage loans were the most important form of finance in the insurance and real estate industry. Mortgages were used by almost a quarter of the small firms in the industry, yet they accounted for 73.8 percent of the outstanding credit balances. Among firms in the

3. Percent of credit line limits used by small businesses, by selected category of firm, 1993 and 1998

Percent

Category of firm	1993	1998
All firms	**53.3**	**38.6**
Number of employees[1]		
0-1	38.1	37.1
2-4	54.9	41.1
5-9	65.1	50.5
10-19	40.0	34.3
20-49	50.4	29.9
50-99	51.0	43.4
100-499	55.1	39.6
Standard industrial classification		
Construction and mining (10-19)	51.4	29.7
Primary manufacturing (20-29)	53.3	42.1
Other manufacturing (30-39)	47.2	38.3
Transportation (40-49)	39.0	39.7
Wholesale trade (50-51)	47.7	29.2
Retail trade (52-59)	58.5	58.2
Insurance and real estate (60-69)	74.3	38.9
Business services (70-79)	54.3	47.6
Professional services (80-89)	39.8	27.9
Years under current ownership		
0-4	57.4	46.8
5-9	61.1	47.5
10-14	44.6	39.2
15-19	48.9	32.1
20-24	53.8	30.3
25 or more	51.1	39.9
Organizational form		
Proprietorship	51.2	33.7
Partnership	50.7	39.1
S-corporation	55.5	41.9
C-corporation	52.6	35.9

NOTE. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures.

1. Number of owners working in the business plus number of full- and part-time employees. For the 1993 survey, the number of employees was calculated as the sum of owners working in the business plus full-time employees plus one-half of part-time employees; in the 1998 survey, no differentiation was made between full- and part-time employees. To make the data for 1998 and 1993 comparable, the 1993 numbers have been recalculated as the sum of the owners working in the business, full-time employees, and part-time employees.

SOURCE: 1998 Survey of Small Business Finances.

industry that used mortgages, the median outstanding mortgage balance was $224,000, which was more than $60,000 higher than the median balance in any other industry.

Capital Leases

Capital leases, which are leases on equipment and are often provided by the manufacturer of the equipment or a subsidiary, were used by 10.6 percent of small businesses and accounted for 5.8 percent of outstanding credit. Among firms that used capital leases, the median firm had one capital lease with an outstanding balance of roughly $13,800.

Capital leases were most heavily used in manufacturing industries. These leases were used by 20.1 percent of firms in primary manufacturing (accounting for 11.5 percent of outstanding credit balances) and 14.1 percent of firms in other manufacturing (13.5 percent of balances). In both manufacturing industries, the median outstanding capital lease balance at firms with leases was almost triple that for any other industry. Capital leases, which include automobile leases, were also an important means of finance in the transportation industry: 14.9 percent of firms used these leases, accounting for 8.3 percent of the outstanding credit balances in the transportation industry.

Equipment Loans and Other Types of Credit

Equipment loans were used by 9.9 percent of all firms and accounted for 9.6 percent of outstanding credit. Among firms that had at least one equipment loan, the median firm had one such loan with a balance of $15,000.

Not surprisingly, equipment loans were most significant in industries that rely heavily on equipment: construction and mining (14.7 percent of balances), primary manufacturing (17.2 percent), other manufacturing (14.6 percent), and transportation (17.2 percent). In all other major industries, equipment loans accounted for less than 10 percent of outstanding balances.

Finally, unspecified other types of credit were used by 9.8 percent of small businesses and accounted for 9.9 percent of outstanding credit. The median firm with at least one "other" loan had one such loan outstanding with a balance of $21,000. Approximately equal proportions of these loans, which are normally fixed-term, were made by financial intermediaries or by family and friends.

Alternatives to Traditional Credit

Small business owners may turn to alternative forms of credit if they find themselves unable to obtain traditional forms or if they find the terms of these other products more favorable. Three such alternatives—credit cards, trade credit, and owner loans—can be examined using data from the 1993 and 1998 SSBFs. Widely used, these alternative forms of credit may be important both in financing small businesses and, as substitute products, in influencing the demand for traditional credit by small firms. According to the 1998 SSBF, 55 percent of small firms used a credit line, loan, or lease, but just over 84 percent used an alternative form of credit. Nearly 90 percent of small firms used either a traditional type of credit or a credit card, trade credit, or owner loan.

Of the three alternatives to traditional types of credit discussed in this section, only the use of credit cards increased between 1993 and 1998. Credit cards, however, are used primarily as a convenient method of payment and less often as a credit tool. The relative stability in the use of these alternative products as a means of credit suggests that these products are unlikely to have influenced changes in the demand for credit lines, loans, and leases substantially over this period. In addition, there is no reason to expect that the role of the three alternatives has changed much since the survey was conducted.

Credit Cards

Credit cards can serve as a convenient alternative to paying expenses in cash if a business pays balances on time and in full each month, or they can substitute for traditional forms of credit when balances are carried month to month. Survey evidence suggests that credit cards are used primarily for convenience and that, despite a large increase in the use of credit cards between 1993 and 1998, small businesses have not substantially increased their use of credit cards as an alternative to traditional forms of credit.

Credit cards used for business purposes can be issued to the firm itself or to the owners of the firm, who may also use their personal credit cards for business expenses. Table 4 shows the percentage of small businesses that used personal credit cards, business credit cards, or either personal or business credit cards to pay for business expenses in 1993 and 1998. The use of credit cards by small businesses increased substantially between 1993 and 1998. In 1998, more than 68 percent of small businesses used either a business or a personal credit card to pay for business expenses—an increase of 13 percentage points over the 1993 percentage of firms using credit cards. This trend may result from increased efforts by credit card companies to serve the small business market.

Personal credit cards remain a more widely used means of finance than business credit cards. Almost half the firms surveyed used personal credit cards to finance business expenses while 34 percent used business credit cards. The use of each of these credit card types differs by the size of the firm. Business use of personal credit cards decreased as firm size increased, whereas the use of business credit cards increased as firm size increased. This difference may indicate that small firms have more difficulty than larger firms in obtaining business credit cards and therefore use personal cards as a substitute.

The average monthly charges of the business that used credit cards (either business or personal) were $600. The majority (76 percent) of these firms reported that they paid their credit card balance in full each month. Such behavior suggests that most firms used credit cards for convenience and not as a substitute for traditional credit

4. Use of credit cards by small businesses, by selected category of firm, 1993 and 1998

Percent

Category of firm	1993				1998			
	Any[1]	Personal	Business	Paid balance[2]	Any[1]	Personal	Business	Paid balance[2]
All firms	**54.1**	**40.7**	**28.8**	**75.1**	**68.0**	**46.0**	**34.1**	**76.3**
Number of employees[3]								
0-1	50.7	42.0	20.4	69.0	59.0	45.6	20.0	75.2
2-4	51.8	41.7	23.9	74.2	65.3	47.1	28.8	72.5
5-9	57.1	42.1	34.8	73.2	73.4	45.4	43.2	76.5
10-19	59.4	41.4	36.1	79.9	80.0	51.5	50.8	78.5
20-49	57.4	32.1	43.2	87.1	81.9	41.7	56.9	88.5
50-99	56.4	26.3	42.5	88.8	75.2	31.3	58.6	94.1
100-499	53.0	25.8	38.6	90.7	76.8	23.7	62.5	97.5
Standard industrial classification								
Construction and mining (10-19)	52.9	37.9	32.1	78.8	65.3	40.8	33.4	80.5
Primary manufacturing (20-29)	49.4	38.4	28.3	72.1	77.5	50.6	43.5	70.0
Other manufacturing (30-39)	61.2	42.2	34.8	76.3	70.9	47.3	36.1	75.9
Transportation (40-49)	52.0	40.3	26.1	74.3	72.2	44.1	45.5	79.9
Wholesale trade (50-51)	55.9	38.5	34.7	77.3	75.1	45.8	46.3	80.8
Retail trade (52-59)	47.3	35.9	24.2	74.0	59.4	41.0	29.9	70.6
Insurance and real estate (60-69)	51.1	39.5	23.7	81.5	68.7	41.5	36.3	88.3
Business services (70-79)	50.3	42.1	21.8	72.3	64.4	47.0	28.3	70.2
Professional services (80-89)	68.9	49.6	39.1	73.6	76.8	53.9	36.2	80.5
Years under current ownership								
0-4	52.3	42.1	22.9	73.6	66.4	46.0	28.7	68.9
5-9	54.2	41.1	29.0	74.2	72.5	48.7	38.2	74.0
10-14	60.2	42.9	33.4	74.5	68.2	46.6	34.3	79.1
15-19	53.8	40.8	27.0	76.2	67.7	43.7	37.5	78.7
20-24	53.6	43.0	29.0	71.2	66.5	46.2	34.2	84.1
Organizational form								
Proprietorship	51.5	42.5	22.9	70.0	62.3	49.6	21.9	71.7
Partnership	45.8	35.0	25.0	68.2	59.6	37.0	30.4	71.9
S-corporation	60.5	45.3	34.8	78.8	77.4	44.2	47.3	80.0
C-corporation	55.8	36.4	34.7	80.9	73.9	42.3	49.7	82.3

NOTE. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures.

1. Percentage of firms that used either a personal or business credit card.

2. Percentage of firms using either a personal or business credit card that paid off their credit card balances each month.

3. Number of owners working in the business plus number of full- and part-time employees. For the 1993 survey, the number of employees was calculated as the sum of owners working in the business plus full-time employees plus one-half of part-time employees; in the 1998 survey, no differentiation was made between full- and part-time employees. To make the data for 1998 and 1993 comparable, the 1993 numbers have been recalculated as the sum of the owners working in the business, full-time employees, and part-time employees.

SOURCE. 1998 Survey of Small Business Finances.

products. Smaller and younger firms, which are most likely to have difficulty obtaining traditional forms of credit, were more likely to carry balances on their credit cards. For example, roughly 75 percent of firms with fewer than twenty employees paid their balances in full each month, compared with over 94 percent of firms with fifty or more employees.

Trade Credit

Trade credit arises when a business purchases goods or services for which payment is delayed. Like credit cards, firms can use trade credit either as a form of credit or as a convenient alternative to paying cash each time a purchase is made. In 1998, 61.9 percent of small businesses used trade credit, making its use slightly less common than credit card use but more common than credit lines, loans, or capital leases (table A.10).

Trade credit is generally extended for an intermediate period (30-60 days), at which point payment is due. When payment is not made by the due date, then financing charges are applied, and trade credit becomes an alternative method of financing business expenses. Trade credit is a very costly form of credit for firms that do not make timely payment. According to the 1998 SSBF, 43 percent of firms that used trade credit paid after the due date. Frequently, suppliers will offer cash discounts (typically 1 percent to 2 percent of the purchase price) for early payment, normally five, ten, or fifteen days after delivery. According to the same data from the SSBF, 59.2 percent of firms that used trade credit were offered such cash discounts by one or more of their suppliers. Of these firms that were offered cash discounts, 79.6 percent took advantage of the discounts by making quick payment.

As shown in table A.10, trade credit was used more extensively by larger firms (more than 88 percent of small businesses with between 100 and 499 employees used trade credit in 1998) and by corporations (more than 70 percent of S- and C-corporations used trade credit, compared with less than 60 percent of proprietorships and partnerships).

The substitution of trade credit for traditional types of credit shows a different pattern than the overall use of trade credit. Larger small businesses paid off trade credit after the due date more frequently than smaller firms. This behavior indicates that larger small businesses used trade credit more frequently than smaller firms as a form of credit and not just as a convenient way to pay for transactions. Younger firms were also less likely to take advantage of cash discounts for early payment when discounts were offered by suppliers.

Loans from Owners

Members of partnerships and owners of corporations may rely on themselves as an alternative source of credit by making personal loans to their businesses.[21] Though perhaps not feasible for all small businesses, as some business owners may have insufficient wealth, this form of finance represents another alternative to the traditional forms of credit.

In some instances, owner loans may serve different functions than traditional credit loans. For example, an owner may form a corporation and pay herself a salary. At the end of the year, the owner forgoes the salary in lieu of a loan to the firm. Such behavior generally occurs in firms with cash-flow problems or in the initial stages of a firm's existence, before the venture becomes profitable. Loans from owners are different from the other types of credit in that owner loans have elements of both credit and equity. Specifically in cases of firm liquidation, creditors have senior claims to equity holders, so owners with loans to the firm are more likely to receive money from the liquidation of the firm than owners without such loans.

Small business owners made loans to 28 percent of small businesses organized as either partnerships or corporations in 1998. As shown in the last column of table A.10, these loans were used more often by small corporations (over 30 percent of S- and C-corporations had owner loans in 1998) than by partnerships (13.1 percent). Among firms that used owner loans, both the number of loans per firm and the size of the principal of those loans increased with firm size, possibly as a result of the greater capital needs of larger firms.

Owner loans are more likely to be used by younger firms than by older firms, a possible indication of another instance in which younger firms tend to rely on alternatives to traditional credit products. The use of owner loans was almost unchanged between 1993 (31 percent of small firms had one or more owner loans) and 1998 (28 percent).

Summary of Credit Use

The use of credit products exhibited several clear patterns. Among small businesses, larger firms were more likely than smaller firms to use each of the traditional credit types. However, whether this pattern reflects a greater need for credit at larger firms or whether lenders are simply more willing to extend credit to larger firms is unclear. The relationship between firm age and credit use is similar to the relationship between size and use—that is, younger firms use fewer of the credit products. Several factors may

21. By definition, small businesses organized as proprietorships cannot have owner loans because the business and owner are one.

explain the similarities in the relationship between size and credit use and between firm age and credit use. Perhaps most obviously, firm size and age are correlated. In addition, smaller and younger firms tend to be more informationally opaque. This characteristic might make evaluating creditworthiness more difficult for lenders, which could reduce the supply of credit available to small and young firms.

Patterns of credit use by small businesses observed in data from the 1993 and 1998 SSBFs were similar. The most significant differences in the use of traditional credit products involved the increased use of mortgages and the decreased use of credit lines over the period. Among the alternatives to traditional credit products, credit cards showed the largest increase, although the percentage of firms carrying balances month to month on their cards was low and approximately constant over the two surveys.

CREDIT APPLICATION EXPERIENCE

In some cases, small businesses may have wanted to use more credit than was reflected on the survey but were unable to obtain it. The analysis in this section looks at the experience of firms that sought to obtain credit but had their applications denied.

As shown in table A.9, 23 percent of small firms applied for new credit from 1996 to 1998.[22] Firms that were larger or younger applied for new credit with greater frequency than smaller or older firms. More than 30 percent of firms with between 100 and 499 employees applied for new credit over this period, double the 14.8 percent of firms with fewer than two employees. Additionally, 26.2 percent of firms with fewer than five years under current ownership applied for credit compared with 14.9 percent of firms with twenty-five or more years under current ownership.

These groups of firms had very different success rates. Larger firms were more likely than smaller firms to have their loans approved. More than 97 percent of firms with 100 to 499 employees that applied once for credit had their application approved, and 76.8 percent of such firms that applied more than once had all their applications approved. These approval rates are higher than the 79 percent of the firms with fewer than two employees that applied once for credit and the 55.4 percent of such firms that applied multiple times that had all their loans approved.

In contrast, younger firms were less likely to have one or more of their applications for credit approved. Of the firms with fewer than five years under current ownership, 81.4 percent of those that applied once for credit had their application approved, and

22. Data on credit applications do not include credit renewals, applications associated with credit cards, trade credit, or owner loans or applications that were withdrawn or upon which a decision had not yet been made.

71.5 percent of such firms that applied more than once had at least one of their applications approved. Firms with twenty-five years or more under current ownership were more successful at applying for credit, with 88.4 percent of the single-application firms being approved and 91.5 percent of the multiple-application firms being approved at least one time. The finding that smaller and younger firms have their loan applications approved less frequently is consistent with conventional wisdom that these firms are riskier, have shorter credit histories or less collateral to pledge as security, and are more informationally opaque.

Unfortunately, one cannot tell from the survey data whether the firms that had credit applications denied were able to obtain financing from other sources. Even so, unless all denied credit applications were approved elsewhere, the data on the application experience of firms indicate that the demand for credit by some small businesses may have been higher than suggested by the credit-utilization data. Since smaller and younger firms have their applications denied more frequently than their larger and older peers, the difference between credit demand and ultimate use should be greater at smaller firms.

Besides the firms that were denied credit, some firms that may have wanted additional credit may not have applied because they feared denial. The 1998 SSBF asked respondents whether they had forgone applying when they needed credit for fear of denial. According to those results, 23 percent of small businesses responded affirmatively to this question. These data indicate a similar pattern as the data on application denial rates; younger and smaller firms were more likely to forgo applying for credit. The fear of denial was particularly strong among the youngest firms, those with fewer than five years under current ownership: More than 30 percent did not apply for credit because they feared denial. These data suggest that the demand for credit at smaller and younger small businesses may have been higher than the data on credit use suggest. However, firms that feared denial may not have been shut out of the market. Firms that reported not having applied for needed credit at some point in the previous three years actually applied for credit more frequently than did small firms that did not fear denial.

Providers of Credit Lines, Loans, and Leases to Small Businesses

In this section, the providers of small business credit are examined. These providers include commercial banks, savings institutions, finance companies, nonfinancial firms, and individuals such as a family member or a friend. Of these suppliers, commercial banks are the leading source of credit, and this analysis focuses largely on their activity. It also looks at the relationship between bank size and small business lending, the industrywide structure of small business lending activity, and local lending patterns. These issues provide insight into the availability of credit to small businesses. The section also presents a more modest analysis of small business lending by savings institutions, which account for substantially less small business credit.

According to the 1998 SSBF, commercial banks provided credit lines, loans, and leases to 38.4 percent of small firms, a proportion that corresponds to about 70 percent of the 55.0 percent of small firms that obtained a traditional form of credit from any source (table A.4). In addition, 3.4 percent of small businesses obtained credit from a savings bank or a savings and loan association. Among nondepositories, finance companies supplied credit to 13.8 percent of small firms, leasing companies to 6.8 percent, and family or other individuals to 6.1 percent.

Commercial banks were the most common source of virtually every credit product included in the survey. They supplied more small businesses with lines of credit, mortgage loans, equipment loans, and vehicle loans than any other type of provider. Not surprisingly, leasing companies were the most common source of capital leases. Commercial banks and family and friends were the most frequent sources of "other" forms of credit. Finance companies were the second most common providers of vehicle loans and capital leases. In terms of the aggregate dollars borrowed, commercial banks provided 65.2 percent of the outstanding amount of lines of credit, loans, and leases used by small businesses (table A.5). Banks accounted for the largest dollar share of credit lines, mortgages, equipment loans, motor vehicle loans, and other loans.

Lending by Depository Institutions

Two sources of data exist on the small business lending activities of commercial banks and savings institutions. First, the Federal Reserve and other regulatory agencies collect small business loan information on midyear Reports of Condition and Income (Call Reports) and midyear Thrift Financial Reports (TFRs) that are filed by commercial banks, savings banks, and savings and loan associations.[23] These data, which have been collected as of June 30 since 1993, include information on outstanding small commercial

23. Analysis in this section is based on Call Report and TFR data from June 2001 because data for June 2002 are preliminary and became available in late August.

and industrial loans and loans secured by nonfarm, nonresidential properties. The number of loans and amount outstanding are collected for loans with original amounts of $100,000 or less, more than $100,000 through $250,000, and more than $250,000 through $1 million.[24]

These data are used to estimate the amount of credit extended to small firms because loan size is often used as a proxy for the size of the firm receiving credit. However, this approach to measuring small business lending introduces two sources of inaccuracy in the measurement of the number and dollar amount of loans to small businesses. First, the data likely include loans equal to or less than $1 million extended to large firms, and second, the data exclude loans of more than $1 million made to small firms.[25]

The latter source of inaccuracy probably has a greater net effect and results in an undercounting of small business lending. According to the 1998 SSBF, only about 5 percent of credit extensions to small businesses were associated with commitments above $1 million. However, these relatively few loans accounted for roughly 60 percent of the dollar value of loans to small businesses. Although a large share of the value of small business loans are excluded from Call Report and TFR data, these loans are not typical of the credit obtained by the majority of small firms.

The second source of data is annual reports by depository institutions on the number and value of small business loans that are originated in their communities. These reports are filed by large- and medium-sized depository institutions, which have been required to furnish their supervisory agencies with geographically based data since 1997 (for 1996 lending activity) under Community Reinvestment Act (CRA) regulations (Regulation BB, Section 228.45).[26] Institutions must report data for the same size classes of loans as reported on Call Reports and TFR small business loan data ($100,000 or less, more than $100,000 through $250,000, and more than $250,000 to $1 million). Unlike Call Report and TFR data, which are reported at the institution level for outstanding amounts as of a given date, CRA data are reported by each institution at the census tract level and reflect

24. For loans drawn down under lines of credit or loan commitments, the original amount of the loan is the size of the line of credit or loan commitment when it was most recently approved, extended, or renewed prior to the report date. If the amount currently outstanding exceeds this size, the original amount is the amount currently outstanding as of the report date. For loan participations and syndications, the original amount is the entire amount of the credit originated by the lead lender. For all other loans, the original amount is the total amount of the loan at origination or the amount currently outstanding as of the report date, whichever is larger.

25. Other unreported small business loans include home mortgage and other consumer loans that are used by small business owners for commercial purposes.

26. Commercial banks, savings banks, and savings and loan associations that either hold total assets of at least $250 million or are owned by a holding company with total assets of at least $1 billion must report CRA small business data. Originations for institutions not required to report are estimated as 60 percent of outstanding small business loans as of June 30 of that year.

origination activity throughout an entire year. The CRA data allow the analysis of small business lending patterns in specific geographic areas.[27]

Although information from Call Reports, TFRs, and CRA reports is useful for analyzing the small business loan activity of commercial banks and savings institutions, data collected under CRA are not comparable to those collected from Call Reports and TFRs. First, Call Report and TFR data come from balance sheets and measure the number and amount of loans outstanding as of a given date. In contrast, CRA data measure the flow of originations over the course of a year. Second, reporting rules also limit comparisons. For example, newly originated lines of credit have been reported on the CRA data as the full amount of the credit line, and credit line renewals were not reported until 2001. Lines of credit are classified on the Call Report and TFR according to the size of the line, but the amount that is actually reported is limited to the amount of credit actually drawn against the line.

Commercial Banks

Commercial banks are the leading providers of credit to small firms.[28] Lending to small businesses involves unique challenges that banks are particularly well suited to meet. Of particular significance, information on the financial condition, performance, and prospects of small firms is not readily available, so lending is often based heavily on information gathered through established relationships, which banks and their staff frequently have with small firms and their owners.

Bank Size

The relationship between bank size and the extent to which banks engage in small business lending may have implications for the availability of credit to small firms. Substantial consolidation in the banking industry over the past twenty years has dramatically reduced the number of banks, increasing the importance of large banks and the concentration of industry assets.[29] For example, more than 3,200 bank mergers involving acquired assets in excess of $3.2 trillion were completed between 1990 and 2001.[30] Even though more than 1,500 new banks were granted charters over this period, the total number of bank organizations fell nearly one-third, to 6,535 (table 5).

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27. Besides satisfying regulatory requirements, CRA data on the geographic distribution of small business loans facilitate the evaluation of market-penetration patterns for providers of small business loans. Bankers have indicated that the data are helpful in designing products and services that are more responsive to various segments of the small business loan market.

28. Except where indicated, bank data are aggregated to the banking organization level by summing data for all commonly owned commercial banking institutions. The organization is considered a single entity. Data for affiliated nonbank subsidiaries are not included.

29. See Group of Ten (2001), Pilloff (2001), Rhoades (2000), or Berger, Demsetz, and Strahan (1999) for a thorough discussion of merger activity in the banking industry.

30. Data on bank mergers and acquisitions come from SNL Financial.

5. Structural measures and the size of the U.S. commercial banking industry, 1990–2001

Year (as of June 30)	Number		Total assets held by insured U.S. commercial banks (billions of dollars)	Share of domestic commercial banking assets held by the largest organizations (percent)			
	Commercial banking organiza-tions	Insured U.S. commercial banks		Top 10	Top 25	Top 50	Top 100
1990 . . .	9,313	12,263	2,896	22.0	37.8	53.4	66.0
1997 . . .	7,154	9,139	3,924	33.5	51.5	65.4	74.4
2001 . . .	6,535	8,003	5,283	45.0	61.3	71.3	77.6

NOTE. Includes insured U.S. domestically chartered banks, excluding credit card institutions.
SOURCES. Call Reports (June 30), various years, and the National Information Center database.

One merger-related structural development that has raised concerns about the availability of credit to small businesses stems from the fact that large banks tend to be proportionately less committed than smaller banks to small business lending. As seen in table 6, the average banking organization with $1 billion or less in total assets held almost 20 percent of its portfolio as small business loans in June 2001.[31] In contrast, organizations with assets between $1 billion and $10 billion held 13.6 percent of their assets as small business loans, and the largest organizations—those with assets greater than $10 billion—held less than 8 percent of their assets as such loans.

The pattern for holdings of micro-loans, which are defined as business loans of $100,000 or less, is even clearer, with smaller banks maintaining a larger share of their asset portfolios in such loans. The smallest banks tend to be proportionately more invested in the smallest business loans for two primary reasons. First, many small banks operate as "community" banks, which provide banking services to particular local areas. As a result, the banks are likely to accumulate knowledge of their local markets, which is often important in making risky, relationship-dependent small business loans. Difficulties in evaluating and monitoring loans likely become more severe as firms, and therefore loans, decrease in size. Second, bank regulations limit the amount that banks can lend to a single borrower, so small banks are likely limited from making loans larger than a fairly modest amount. Small banks can also maintain a more diversified portfolio by making many smaller loans, rather than fewer larger loans.

31. With Call Report and TFR data, business loans of $1 million or less are considered small.

6. Average micro-loan and small business loan holdings and originations as a share of assets for U.S. commercial banking organizations of different sizes, 2001

Percent except as noted

Asset class[1]	Number of banking organizations	Small business loan holdings to assets	Micro-loan holdings to assets	Small business loan originations to assets	Micro-loan originations to assets
$250 million or less	5,368	18.9	8.6	11.3	5.2
$250 million to $1 billion	882	19.8	5.2	11.6	3.1
$1 billion to $10 billion	229	13.6	2.9	8.2	1.8
More than $10 billion	56	7.6	1.7	4.8	1.2
All organizations	6,535	18.7	7.9	11.2	4.8

NOTE. Small business loans (micro-loans) for U.S. commercial banking organizations are defined as business loans of $1 million ($100,000) or less at insured U.S. domestically chartered banks, excluding credit card institutions and U.S. branches and agencies of foreign banks.

1. Banks with assets of $1 billion are included in the $250 million to $1 billion size class, and banks with assets of $10 billion are included in the $1 billion to $10 billion size class.

SOURCES. Call Reports (June 30) and Community Reinvestment Act Reports, various years.

Smaller banking organizations tend to be relatively more vigorous small business loan originators than their larger rivals. In 2001, the average ratios for small business loan originations to assets and for micro-loan originations to assets show an inverse relationship between lending and size.[32]

Even though the largest banking organizations tend to be proportionately less active in small business lending, these banks are still significant providers of small business loans. Banking organizations with assets greater than $10 billion accounted for less than 1 percent of all commercial banking organizations in June 2001 but held 72.5 percent of the banking assets in the industry (table 7). These large organizations held a much smaller, but nonetheless substantial, share of small business loans, as roughly 45 percent of small business loans and 40 percent of micro-loans were held by banking organizations with more than $10 billion in assets. The share of small business loan and micro-loan originations reported by large banks was similar to the share of small business loan and micro-loan holdings at large banks.

Despite their declining numbers and a fall in their share of industry assets, small banks continue to account for a sizable share of small business loans. In 2001, banks with

32. Banks in the smallest group were generally not required to file a CRA report, so origination data for the smallest banks are based largely on estimates derived from Call Report data.

7. Share of small business loan and micro-loan holdings and originations of U.S. commercial banking organizations, by asset class, 1997 and 2001

Percent

Asset class[1]	Share of all organiza-tions	Share of industry assets	Share of holdings		Share of originations	
			Small business loans	Micro-loans	Small business loans	Micro-loans
	1997					
$250 million or less	87.5	11.6	24.4	38.4	23.8	35.7
$250 million to $1 billion	9.2	7.6	15.2	15.5	14.2	13.9
$1 billion to $10 billion	2.5	13.5	18.2	15.5	16.7	13.9
More than $10 billion	.8	67.3	42.2	30.6	45.3	36.5
	2001					
$250 million or less	82.1	8.4	20.2	29.8	20.0	27.2
$250 million to $1 billion	13.5	7.5	16.9	16.2	16.4	15.0
$1 billion to $10 billion	3.5	11.7	17.5	13.8	17.6	13.5
More than $10 billion	.9	72.5	45.4	40.1	46.0	44.3

NOTE. Small business loans (micro-loans) for U.S. commercial banking organizations are defined as business loans of $1 million ($100,000) or less at insured U.S. domestically chartered banks, excluding credit card institutions and U.S. branches and agencies of foreign banks. Details may not sum to totals because of rounding.

1. Banks with assets of $1 billion are included in the $250 million to $1 billion size class, and banks with assets of $10 billion are included in the $1 billion to $10 billion size class.

SOURCES. Call Reports (June 30) and Community Reinvestment Act Reports, various years.

assets of $250 million or less accounted for more than 82 percent of all banking organizations but only 8.4 percent of all banking assets. However, they held 20.2 percent of all small business loans and nearly 30 percent of micro-loans. They originated a similar share of both types of loan to small businesses.

The share of micro-loans held and originated by organizations with assets greater than $10 billion increased by an especially large amount between 1997 and 2001. Large banking organizations are growing increasingly important in providing the smallest loans, an activity which often has been, and continues to be, conducted by small banks. Increased use of sophisticated technological and analytical tools, particularly credit-scoring techniques, may have contributed to the rise in the share of micro-loans held and originated by large banking organizations. The acquisition of small banks may have contributed as well.

Changes in the lending shares for the smallest banks—those with assets of $250 million or less—decreased by an amount comparable to the increase experienced by the largest banks. Banks with assets between $250 million and $10 billion accounted for a roughly similar level of small business lending in 1997 and 2001.

Numerous research studies directly analyze the relationship between consolidation activity and the availability of credit to small firms.[33] Although mergers and acquisitions sever existing bank-firm relationships and may introduce some short-term uncertainty (Berger and Udell, 1995), the results of the research generally suggest that overall they have not reduced credit availability.

One issue that has been addressed is the effect of mergers on the small business lending activities of the banks directly involved in those mergers. The results of these studies generally indicate that deals involving at least one large bank tend to reduce small business loans as a share of assets, whereas deals between two small banks tend to increase small business loans as a share of assets (for example, Samolyk and Richardson, 2002; Avery and Samolyk, 2000; Peek and Rosengren, 1998; and Strahan and Weston, 1998).

Both results are relevant to assessing the influence of consolidation on the availability of small business credit from banks and savings institutions. Almost 90 percent of the bank assets acquired between 1990 and 2001 belonged to banks with at least $1 billion in total assets. Therefore, a large majority of the banking assets that have changed hands have been purchased in deals in which a decline in small business loans, as a share of assets, typically takes place at the consolidated bank.

Even though relatively few assets have been purchased in mergers of small institutions, deals involving target banks with total assets of $250 million or less accounted for four-fifths of all transactions completed between 1990 and 2001. About 40 percent of these deals involved an acquirer that had assets of $250 million or less, and roughly 20 percent involved an acquirer with assets between $250 million and $1 billion. Therefore, even though relatively few assets have been acquired in a deal typically associated with an increase in small business lending ratios, a fairly large number of deals have occurred with small- or medium-sized acquirers; and therefore, after merger activity, many banks have had an overall increase in the share of their asset portfolios dedicated to small business lending.

33. Studies have typically focused on small business credit supplied by commercial banks. Credit obtained from other financial or nonfinancial firms has usually not been included in the analyses. Such studies provide a somewhat incomplete picture of small business lending, but because banks are the primary supplier of credit to small businesses, findings based on bank lending are likely to be relevant to the overall provision of small business credit.

Another issue that has been studied is the “external” effect of mergers—that is, what happens to small business lending at banks that compete directly with recently merged institutions. Evidence suggests that banks competing with recent merger participants tend to increase their lending (Berger, Saunders, Scalise, and Udell, 1998; and Berger, Goldberg, and White, 2001). Two other empirical findings suggest that a growing amount of credit may be supplied by banks that compete with recently merged banks. First, consolidation increases the likelihood of new entry into a market (Berger, Bonime, Goldberg, and White, forthcoming; Seelig and Critchfield, 2002; and Keeton, 2000). Second, younger banks tend to make more small business loans than similar, but more mature, institutions (DeYoung, Goldberg, and White, 1999). These two empirical findings suggest that a common response to merger activity is greater entry of new banks, which tend to be active lenders to small businesses.

From the perspective of small firms, the effect of banking consolidation on credit availability may be not be especially substantial for the size of the banks operating in a market appears not to affect the availability of credit. Small businesses in areas with few small banks are no more credit-constrained than small firms in areas with many small banks (Jayaratne and Wolken, 1999). In addition, the likelihood that a small business will borrow from a bank of a given size is roughly proportional to the local presence of banks of that size, although some evidence shows that small banks are more likely to make very small loans (Berger, Rosen, and Udell, 2001).

Industry Structure

As large banks have acquired other institutions, especially other large ones, the number of banks has declined, and the size of the largest banks has increased. These developments may enable the leading (that is, most active) lenders to account for a growing share of all small business lending.

The structure of the relevant market for small business loans can be observed by examining patterns at the local level. Such analysis is particularly important because changes in concentration could affect the level of competition for small business lending, which, in turn, could influence the cost of borrowing and the quantity of credit demanded. In this section, the distribution of small business loan holdings and originations at the industry level is analyzed to assess the importance of the leading small business lenders in the overall provision of small business credit.

Data on industry structure have several implications for the availability of credit to small businesses. First, the share of small business lending activity attributable to the most active lenders is smaller than the share of assets held by those banks, indicating that the numerous relatively less active lenders, many of which are small banks, remain a key source of credit for small firms. The second important finding is that, though the share of small business lending attributable to the leading banks has increased, particularly with respect to micro-loans, an industry in which the dominant providers of credit to small businesses are a relatively few large banking organizations does not appear to be developing.

8. Share of assets and micro-loan and small business loan holdings and originations of leading U.S. commercial banking organizations, 1997 and 2001

Percent

Leading banking organizations	Share held by leading holders of small business loans		Share held by leading holders of micro-loans		Share originated by leading originators of small business loans		Share originated by leading originators of micro-loans	
	Small business loans	Assets	Micro-loans	Assets	Small business loans	Assets	Micro-loans	Assets
	1997							
Top 10	18.6	28.6	14.7	27.7	20.0	30.8	18.7	30.8
Top 25	31.5	46.3	23.6	44.3	35.0	46.2	29.3	47.3
Top 50	42.2	61.6	32.1	57.7	45.9	59.0	37.4	58.7
Top 100	52.3	69.8	40.4	68.0	55.3	69.9	45.2	68.3
	2001							
Top 10	23.3	35.4	23.8	36.4	22.7	40.1	26.9	40.5
Top 25	36.8	56.2	34.1	55.8	37.4	56.2	38.1	58.3
Top 50	45.5	68.0	41.2	67.2	47.1	67.5	45.5	67.9
Top 100	53.8	75.8	47.8	74.1	55.3	75.0	52.1	74.2

NOTE. Small business loans (micro-loans) for U.S. commercial banking organizations are defined as business loans of $1 million ($100,000) or less at insured U.S. domestically chartered banks, excluding credit card institutions and U.S. branches and agencies of foreign banks. For each category of loan activity, leading banking organizations account for the greatest share of that category.

SOURCES. Call Reports (June 30) and Community Reinvestment Act Reports, various years.

Table 8 indicates that the leading small business loan holders and originators account for a small share of loans relative to the share of total assets they hold. For instance, in 2001, the ten leading holders of small business loans held 23.3 percent of all such loans and 35.4 percent of all banking assets. Larger differences between the share of small business loans and the share of total assets are observed among the 25, 50, and 100 leading small business loan holders and originators.

Although large banking organizations are proportionately less active in small business lending than smaller banks, the leading small business lenders nonetheless typically include the largest banking organizations. For instance, nine of the ten banks with the largest holdings of small business loans are among the twenty-five largest banking organizations in the industry.

Changes in the share of small business loan and micro-loan holdings and originations attributable to leading banking organizations are similar across measures of small business loan activity. In general, the top ten or twenty-five leaders increased their aggregate share, and the next seventy-five to ninety lost some share. For example, as table 8 indicates, the share of small business loans held by the ten leading small business lenders increased roughly 5 percentage points from 1997 to 2001, the share held by the next fifteen leading banking organizations remained unchanged, and the share held by the next seventy-five leaders declined almost 5 percentage points. Increases were greatest for measures of micro-loan activity, perhaps because of leading banks using sophisticated technical and analytical innovations to enhance their ability to provide very small business loans.

Local Lending Patterns

To address some key issues associated with the availability of credit to small businesses, one must shift the analysis from lending at the industry level. In particular, analysis of patterns within smaller geographic areas is likely to capture more accurately the relevant structural conditions that face small firms seeking credit and that influence the level of competition in the market for small business loans.

In-market and out-of-market patterns. The 1998 SSBF indicates that a small business tends to obtain loans, leases, and lines of credit from a provider that is located near it. This proximity offers small firms convenient access to their lenders. Also, banks have traditionally preferred to extend loans to small businesses near their branches. The importance of relationships in small business lending suggests that credit providers concentrate their lending activities in geographic areas with which they are familiar (Berger and Udell, 1998).

The dependence of small firms on local lending institutions may be decreasing, however. Technological and analytical innovations such as credit scoring may allow banks to make small business loans efficiently in areas where they have no physical presence and about which they have limited knowledge. Credit scoring is an automated process that uses information about an applicant to generate a numeric score that indicates the predicted future performance (that is, the probability of delinquency or default) of a loan to that applicant. Lenders can use credit scores to determine quickly and easily whether an application should be rejected or approved or whether the applicant's local market or business should receive a more-thorough evaluation.

Although credit scoring may increase the ability of banks that are unfamiliar with a given area to make small business loans in that area, it is unlikely that such lenders would be willing to extend credit to the full range of potential small commercial borrowers. Because a credit score does not incorporate much of the unique information obtained via traditional small business lending methods, it may be an appropriate tool only for evaluating the creditworthiness of the least risky or least opaque small business borrowers. It is unclear how many small businesses are potential candidates for credit-scored loans and how many require their applications to be processed more traditionally.[34]

Data on small business loan originations collected under the CRA can be used to examine lending patterns within specific geographic areas because the data are reported for loans originated in each census tract. Not only can the data be used to measure which banks made loans in which areas, they can also be combined with the annual Summary of Deposits data, which report the location and deposit level of every commercial bank, savings bank, and savings and loan branch as of June 30, to identify which lenders in a given market were in-market banking organizations and which were out-of-market. In-market lenders are defined as banking organizations that operated at least one banking office or branch in an area where they also made small business loans. Conversely, out-of-market lenders in a given area do not operate a branch in a market where they make small business loans.[35]

Table 9 indicates that in 2001, 57.1 banking organizations originated small business loans in the average metropolitan statistical area (MSA). Of these banking organizations, 20.3 were in market, and 36.8 were out-of-market. Even though out-of-market banking organizations accounted for almost two-thirds of all lenders, such banks originated only 6.6 percent of the dollar volume of small business loans and 11.9 percent of the dollar volume of micro-loans.

The 2,340 non-MSA, or rural, counties demonstrate patterns that are similar to those of the 318 MSAs, but on a much smaller scale. On average, 14.7 banking organizations originated small business loans and micro-loans, with roughly one-third (4.5) having a branch in the county and two-thirds (10.2) being out-of-market lenders with no local branches. Although fewer, in-market lenders originated more than 90 percent of the dollar volume of small business loan and micro-loan.

Comparisons between 1997 and 2001 CRA data are not completely reliable, because reporting rules have been modified over the years. Nonetheless, they are worth making because large changes in the data over time may indicate important developments in small business lending activity.

One interesting difference in small business loan and micro-loan origination activity between 1997 and 2001 is that the number of lenders increased (table 9). An average of about ten more banking organizations originated loans in MSAs in 2001 than originated them in 1997, and the difference in non-MSA counties was an average of almost five

34. A more thorough discussion of credit scoring is provided in the “Special Issues” section of this report.

35. Estimates of local origination dollar volumes for firms that are not required to report CRA data on small business lending are made by allocating estimates of total loan origination amounts based on midyear Call Report data on business loans to geographic areas in the same proportion as deposits reported on the Summary of Deposits. Therefore, all “nonreporters” are assumed to be in-market lenders.

9. Concentration and lending patterns of in-market and out-of-market U.S. commercial banking organizations in local markets, 1997 and 2001

Item	Small business loans		Micro-loans	
	MSAs	Non-MSA counties	MSAs	Non-MSA counties
	1997			
Average number of lenders	46.6	10.1	46.6	10.2
In-market lenders	18.6	4.2	18.6	4.2
Out-of-market lenders	28.0	5.9	28.0	5.9
Total origination volume[1]	160,632.4	53,512.0	43,059.0	25,729.4
Average origination volume[1]	506.7	22.8	135.8	11.0
From in-market lenders	472.3	20.6	126.4	10.3
From out-of-market lenders	34.4	2.3	9.4	.7
Average HHI	1,576	3,809	1,545	4,109
Average 3-firm concentration[2]	57.4	84.6	56.3	86.3
Average 5-firm concentration[2]	73.3	94.4	72.0	95.2
Average 10-firm concentration[2]	89.4	99.4	88.8	99.6
Number of markets	317	2,343	317	2,340
	2001			
Average number of lenders	57.1	14.7	57.1	14.7
In-market lenders	20.3	4.5	20.3	4.5
Out-of-market lenders	36.8	10.2	36.8	10.2
Total origination volume[1]	207,156.6	65,632.6	51,005.0	27,127.3
Average origination volume[1]	651.4	28.0	160.4	11.6
From in-market lenders	608.6	25.3	141.3	10.6
From out-of-market lenders	42.9	2.8	19.1	1.0
Average HHI	1,425	3,525	1,351	3,719
Average 3-firm concentration[2]	53.2	81.5	51.5	82.1
Average 5-firm concentration[2]	68.3	92.0	66.7	92.0
Average 10-firm concentration[2]	85.8	98.6	85.5	98.6
Number of markets	318	2,340	318	2,340

NOTE. Small business loans (micro-loans) for U.S. commercial banking organizations are defined as business loans of $1 million ($100,000) or less at insured U.S. domestically chartered banks, excluding credit card institutions and U.S. branches and agencies of foreign banks. MSA refers to metropolitan statistical area, and HHI refers to the Herfindahl-Hirschman Index. Details may not sum to totals because of rounding.

1. Origination volumes are in millions of dollars.

2. Concentration figures are in percentages.

SOURCES. Call Reports (June 30), Community Reinvestment Act Reports, and Summary of Deposits, various years.

lenders. These figures represent increases in the average number of lending banks of roughly 23 percent in MSAs and 46 percent in non-MSA counties. Most of the increase in both cases is attributable to a rise in the number of out-of-market lenders, even though the dollar volume of loans originated by such banking organizations, except for micro-loans in MSAs, did not change much.

What these developments suggest about the availability and pricing of credit is unclear. A low and generally stable share of the dollar volume of originations attributable to a growing number of out-of-market lenders is consistent with the origination of loans to only a subset of borrowers by such lenders. In particular, only the most creditworthy and easy to evaluate small firms may have access to credit from out-of-market lenders. Therefore, a large amount of small business lending may still require a lender with a local, physical presence. However, even though out-of-market banking organizations may account for a small share of originations, they may still place important competitive pressure on in-market firms by serving as a possible alternative for small businesses. The relatively large increase in the share of out-of-market micro-loan origination volume made in MSAs may indicate that an increase in the availability of credit from out-of-market sources is under way.

In 2001, the lending activities of nine banking organizations had a particularly widespread influence on small business lending. These banks made loans in more than 500 markets in which they did not have a branch office. On average, MSAs had 6.9 of these nine leaders as out-of-market banking organizations and 1.4 as in-market lenders. In non-MSA counties, half (5.1) the average number of out-of-market lenders were members of this group. The nine leading lenders tended to be particularly important in the origination of micro-loans, accounting for three-quarters of the dollar volume of all out-of-market micro-loan originations and two-fifths of the dollar volume of all small business loan originations.

The finding that the nine out-of-market leaders are especially important in the origination of micro-loans is consistent with the use of small business credit-scoring methods, which are most commonly used to evaluate the creditworthiness of small loans (Frame, Srinivasan, and Woosley, 2001). In particular, many of the out-of-market loans originated by the nine banks are likely to be credit card loans, which are frequently offered to customers on the basis of credit scores.[36] The high level of credit card loans from the nine leaders suggests that lending data may overstate the importance of these banks in providing small business credit because many small firms use credit cards for convenience. In addition, the out-of-market lending leaders may be servicing only

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36. The volume of credit card lending reported on the CRA data has increased in recent years. This increase has occurred for several reasons. First, certain credit card lenders that were not required to report CRA data at one time were subsequently required to file such reports for reasons such as their establishing a commercial bank, savings bank, or savings and loan association charter or their being acquired by an existing depository institution. Second, some credit card specialists have experienced tremendous growth. Third, many banks that do not specialize in credit card lending have nonetheless increased their activity in that area.

All credit card lines opened on a particular date for a business are reported as one loan on CRA reports, assuming that the criteria for small business loan classification are met. The reported amount at origination is the sum of all credit limits. If subsequently issued credit cards increase the small business credit line, the added amount is reported as a new origination. Also, credit cards issued to a business and credit cards issued to an individual that are used as business accounts are considered business loans for purposes of CRA reporting. Credit card loans are included with all small business loans and cannot be distinguished from other loans on the CRA report.

certain segments of small business borrowers that are strong candidates for credit-scored loans.

Market concentration. Conventional economic theory predicts and empirical evidence suggests that highly concentrated markets exhibit less competition, which results in higher prices and the provision of less credit. However, it is worth noting that some theories predict that a less-competitive lending environment, to the extent that it promotes longer-term relationships, may increase credit availability to at least some firms by allowing local banks more flexibility in structuring loans programs over time (see, for example, Peterson and Rajan, 1995). Long-term relationships, which facilitate loans to many small businesses, may be more difficult to maintain in highly competitive markets because businesses that are earning good profits will likely seek out the lender offering the most favorable, low-cost loan terms. A bank in a less competitive market might offer 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 operating successfully. These theories, while interesting, have yet to be confirmed empirically.[37]

The primary measure used by antitrust authorities to assess market concentration is the Herfindahl-Hirschman Index (HHI), which is computed as the sum of the squared market shares of each firm in a market. The average HHI for the dollar volume of 2001 small business loan originations was 1425 in MSAs, which indicates that urban markets were moderately concentrated with respect to small business loan originations.[38] In addition, the three most locally active originators accounted for 53.2 percent of loan volume, and the ten most active originators accounted for 85.8 percent. Figures based on micro-loan originations are similar. These concentration levels, in conjunction with the fact that almost sixty banking organizations make small business loans in the average MSA, suggest that a fair number of small business lenders have a significant level of activity in urban markets.

Rural areas are more highly concentrated with respect to the volume of loan originations than urban areas. For example, in 2001, the average HHI for small business loans in non-MSA counties was 3525, which is well above 1800, the threshold for a market to be

37. For a thorough summary of the literature on relationship lending, see Boot (2000) or Berger and Udell (1998).

38. Under U.S. Department of Justice and Federal Trade Commission horizontal merger guidelines, a market in which the HHI is less than 1000 is unconcentrated, between 1000 and 1800 is moderately concentrated, and above 1800 is highly concentrated. For MSAs, the average HHI based on the deposits of insured commercial banks was 1889 as of June 30, 2001.

considered highly concentrated.[39] In addition, the three most active banking organizations in a rural county originated 81.5 percent of the small business loan volume on average. The next two most active originators accounted for another 10 percentage points.

Concentration declined slightly in both urban and rural markets between 1997 and 2001. As table 9 indicates, HHI levels decreased, although the structure of local markets did not change substantially. In both years, the average MSA was moderately concentrated, and the average rural county was highly concentrated. The average share of small business lending and micro-lending attributable to the three, five, and ten most active lenders in an average market also decreased somewhat. Modest deconcentration, in conjunction with an increase in the number of lenders, suggests that the availability of credit from commercial banking organizations is not likely to have declined in recent years.

Savings Institutions

Savings institutions, defined as savings banks and savings and loan associations, provide much less credit to small businesses than do commercial banks. The primary lines of business for these institutions, often referred to as thrifts, tend to provide financial services, such as residential mortgage loans, savings accounts, and NOW accounts, to consumers.[40] As of June 30, 2001, the value of small business loans held by savings institutions was less than one-tenth of the value held by banks. Savings institutions held $44.6 billion in small business loans and $9.6 billion in micro-loans, compared with $449.8 billion and $118.7 billion, respectively, held by commercial banks. Originations by savings institutions of both small business loans and micro-loans were both less than one-tenth those of commercial banks in 2001.

These differences between banks and savings institutions reflect both the disparity in overall size between the two groups of institutions and the lower proportion of small business lending conducted by the typical savings institution. About one-half the difference in the value of small business loan holdings of banks and savings institutions appears attributable to the overall size of the two industries. Roughly $6.5 trillion in total

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39. Concentration measures in rural counties may underestimate the origination volume of out-of-market banks and overstate the activity of in-market banks because CRA does not require many small banks to report small business loan originations. Originations by small banks must be estimated, and the allocation process used in estimation limits lending by "nonreporters" to markets where the nonreporter has a branch. Therefore, all loan origination by nonreporters are classified as in-market. For non-MSA counties, the average HHI based on the deposits of insured commercial banks was 3978 as of June 30, 2001.

40. Unlike commercial banks, federal savings institutions are restricted by statute to holding no more than 20 percent of their assets in commercial loans, and amounts in excess of 10 percent must be small business loans.

10. Structural measures and the size of insured U.S. savings institutions, 1990–2001

Year (as of June 30)	Insured U.S. savings institutions	Total assets (billions of dollars)	Share of domestic assets held (percent)			
			Top 10	Top 25	Top 50	Top 100
1990	3,058	1,420	16.5	26.3	36.0	47.8
1997	1,760	1,018	25.6	40.7	52.4	63.9
2001	1,490	1,261	40.8	54.4	65.6	74.2

NOTE. Includes insured U.S. domestically chartered savings banks and savings and loan associations, excluding credit card institutions.

SOURCES. Call Reports (June 30) and Thrift Financial Reports (June 30), various years, and the National Information Center database.

11. Average micro-loan and small business loan holdings and originations as a share of assets for insured U.S. savings institutions of different sizes, 2001

Percent except as noted

Asset class[1]	Number of savings institutions	Small business loan holdings to assets	Micro-loan holdings to assets	Small business loan originations to assets	Micro-loan originations to assets
$250 million or less	972	7.0	2.4	4.3	1.4
$250 million to $1 billion . .	375	8.1	1.8	3.7	.7
$1 billion to $10 billion . . .	122	4.7	.8	2.1	.6
More than $10 billion	21	2.0	.3	.8	.2
All institutions	1,490	7.0	2.1	3.9	1.2

NOTE. Small business loans (micro-loans) for insured U.S. savings institutions are defined as business loans of $1 million ($100,000) or less at insured U.S. domestically chartered savings banks and savings and loan associations, excluding credit card institutions.

1. Banks with assets of $1 billion are included in the $250 million to $1 billion size class, and banks with assets of $10 billion are included in the $1 billion to $10 billion size class.

SOURCES. Call Reports (June 30), Thrift Financial Reports (June 30), and Community Reinvestment Act Reports.

assets was held by commercial banks and savings institutions, with the latter holding about 20 percent of the total, or $1.3 trillion (table 10).

The other half of the difference is due to a lower level of small business lending by savings institutions. Overall, in 2001, the average thrift held roughly 7 percent of its asset portfolio in small business loans and 2.1 percent in micro-loans (table 11). In

12. Share of assets and micro-loan and small business loan holdings and originations of leading U.S. savings institutions, 1997 and 2001

Percent

Leading savings institutions	Share held by leading holders of small business loans		Share held by leading holders of micro-loans		Share originated by leading originators of small business loans		Share originated by leading originators of micro-loans	
	Small business loans	Assets	Micro-loans	Assets	Small business loans	Assets	Micro-loans	Assets
	1997							
Top 10	15.7	16.1	16.6	4.0	13.7	14.8	19.3	17.1
Top 25	26.4	29.1	27.5	13.8	23.9	25.2	28.7	24.2
Top 50	36.5	36.2	38.5	25.3	33.7	31.3	37.7	27.6
Top 100	49.7	45.7	50.5	31.6	45.5	43.0	49.0	34.5
	2001							
Top 10	22.7	34.3	28.5	29.5	25.6	33.8	44.6	33.0
Top 25	34.2	42.9	39.8	36.8	36.4	41.1	52.5	39.0
Top 50	43.7	48.9	50.3	43.1	45.8	47.4	59.4	45.6
Top 100	55.0	56.2	61.2	50.3	56.8	53.7	67.8	50.4

NOTE. Small business loans (micro-loans) for U.S. savings institutions are defined as business loans of $1 million ($100,000) or less at insured U.S. domestically chartered savings banks and savings and loan associations, excluding credit card institutions.

SOURCES. Call Reports (June 30), Thrift Financial Reports (June 30), and Community Reinvestment Act Reports.

contrast, the average commercial bank held roughly 18.7 percent of its portfolio in small business loans and 7.9 percent in micro-loans. Origination data show a similar difference. The same year, the average savings institution originated small business loans equivalent to 3.9 percent of assets and micro-loans equivalent 1.2 percent of assets. Comparable measures for commercial banks were 11.2 percent and 4.8 percent, respectively. These substantial differences in small business lending activity between banks and thrifts clearly indicate that the typical savings institution has been much less active than the typical commercial bank in providing credit to small firms.

Among savings institutions, the most active, or leading, lenders to small businesses were not necessarily the largest institutions in terms of assets. Across holdings and originations of small business loans and micro-loans, the share of activity attributable to the 100 leading thrifts was roughly the same as or was greater than the share of assets held by those institutions (table 12). In addition, the 100 largest savings institutions, in

13. Concentration and lending patterns of in-market and out-of-market insured U.S. savings institutions in local markets, 2001

Item	Small business loans		Micro-loans	
	MSAs	Non-MSA counties	MSAs	Non-MSA counties
Average number of lenders	11.2	2.5	11.2	2.5
In-market lenders	5.5	.6	5.5	.6
Out-of-market lenders	5.7	1.9	5.7	1.9
Total origination volume[1]	17,310.0	4,087.6	4,619.7	1,545.2
Average origination volume[1]	54.4	1.8	14.5	.7
From in-market lenders	47.1	1.5	9.7	.5
From out-of-market lenders	7.3	.3	4.8	.2
Number of markets	318	2,283	318	2,283

NOTE. Small business loans (micro-loans) for U.S. savings institutions are defined as business loans of $1 million ($100,000) or less at insured U.S. domestically chartered savings banks and savings and loan associations, excluding credit card institutions. MSA refers to metropolitan statistical area. Details may not sum to totals because of rounding.

1. Origination volumes are in millions of dollars.

SOURCES. Call Reports (June 30), Thrift Financial Reports (June 30), Community Reinvestment Act Reports, and Summary of Deposits.

terms of assets, held a much larger share of assets than the 100 leading loan holders or originators. Among the groups of the ten, twenty-five, and fifty leading loan holders and originators, the relationship between the share of assets and the share of the small business loans held by the savings institutions in those groups is more varied. However, across the different groups, the top lenders to small businesses consistently held substantially fewer assets than the same number of the largest thrifts in terms of assets. Comparing the structural measures for 1997 data with such data for 2001 indicates that the leading savings institutions in terms of small business activity have been accounting for an increasing share of the small business loans and micro-loans held and originated by savings institutions as well as a growing share of all thrift assets.

In 2001, roughly eleven savings institutions originated small business loans in the average MSA, and fewer than three originated such loans in the average non-MSA (table 13). Out-of-market small business loan originations accounted for 13.4 percent of the volume of loans made by thrifts in MSAs and 16.7 percent of their loans in non-MSA counties. Respective figures for micro-loan originations were 33.1 percent and 27.9 percent. Most of this thrift out-of-market lending was conducted by two savings institutions, which accounted for 59.8 percent of small business loan and 93.1 percent of micro-loan originations. Many of the loans made by these two leading lenders were credit card loans.

Special Issues

CREDIT SCORING

Credit scoring is an automated process by which information about an applicant is used to generate a numeric score that indicates the predicted future performance (that is, the probability of delinquency or default) of a loan to that applicant. An applicant's credit score can be used in various ways, such as determining whether a loan should be approved, denied, or reviewed further, and what the appropriate risk-based interest rate should be on a loan that is made. Currently, scores are used primarily for deciding whether or not to approve a loan application and whether or not to conduct additional analysis and, to a lesser extent, for setting loan terms. Smaller loans to small businesses are more likely to be automatically approved or denied based solely on credit scores, and larger loans are more likely to receive at least some traditional analysis.

Two key assumptions underlie credit-scoring models and link the 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, applicants with similar backgrounds and characteristics will perform similarly on their loans.

Credit scoring increases the consistency and speed of credit evaluations while lowering the costs of gathering relevant information. Much of the information used in generating credit scores can be easily obtained from credit bureaus at relatively low cost. 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.[41] Credit scoring may also increase a lender's ability to accurately predict loan performance, which could improve the ability to allocate financial resources efficiently and increase social welfare. Using credit scores to set risk-based prices is a promising way that this possible benefit may be realized.

Credit scoring has been used for more than thirty years in underwriting consumer loans but only since the early to mid-1990s in small business lending. Some of the main reasons for the slower implementation of scoring in small business lending are the heterogeneity of commercial credits, the lack of standardized loan documentation, and the absence of historical databases required to establish consistent statistical relationships between applicant characteristics and loan repayment behavior (Mester, 1997). Over the past decade, the third obstacle to implementation has been partly removed, as several

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

developers have constructed sufficiently large databases of small business loan histories to build credit-scoring systems.

A significant finding in the development of these scoring systems is that information about the owner, particularly with respect to credit history, independent of any financial information on the firm, is a powerful predictor of the performance of small business loans (Mester, 1997).[42] This discovery is important for two reasons. First, if the owner's credit record is a primary predictor of small business loan performance, much of the heterogeneity across commercial credits and loan documentation can be discounted, and the complexity of evaluating applications for small business loans is greatly reduced. 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 require institutions to have thorough knowledge of the local business environment. Nearly all lenders should be able to obtain much of the information needed to adequately evaluate small business loan applications at relatively low cost.

Ready access to the information used for making credit-scored loans, combined with the fact that credit-scoring models are inexpensive to use, suggests that the use of credit scoring should reduce the costs of some small business lending, which could lead to lower prices and increase the amount of credit available to small businesses. The reliance on the credit record of the small business owner suggests that small business credit availability may increase as a result of credit scoring for another reason. Many small firms with financing needs lack a lengthy operating history, so underwriters are unable to approve loans based on traditional evaluation methods. However, if lenders use credit-scoring models based on the personal credit record of the owner, then applications, even for newly established firms, can be analyzed (Mester, 1997).

Except for a few banks that have developed proprietary models, most organizations use scoring models obtained from outside vendors. The biggest provider of such models, Fair, Isaac and Company, estimates that a large majority of the leading small business lenders use its credit-scoring systems.[43] The current scoring model provided by Fair, Isaac is based on more than 250,000 loan applications, including over 6,000 “bads,” from twenty-five financial institutions. Performance is measured from 1996 to 2000. In contrast, the first Fair, Isaac model was based on three years of performance (1992 to 1994) for 30,000 loan applications, of which roughly 2,500 were “bads,” from seventeen institutions (Bishop, 2002). The large proportion of the industry that relies on one

42. The importance of the owner’s personal financial history is greatest for the smallest loans. For example, Frame, Srinivasan, and Woosley (2001) report that the personal credit history of the business owner is especially predictive for loans of $100,000 or less.

43. According to Pryde (2001), Fair, Isaac estimated that twenty-three of the top twenty-five small business lenders in the United States use its credit-scoring systems.

vendor's model has raised concerns that, if the model performs poorly, the resulting problems could be widespread.

An important issue that has not been resolved is how small business credit-scoring models perform relative to traditional reviews of such loans. Many small business lenders assert that their portfolios of loans that were made using credit scoring have performed well relative to portfolios of older loans made with more traditional methods.[44] But an extensive performance record for scoring does not yet exist. Credit-scoring models were developed during the economic expansion of the 1990s and have not been through a full economic cycle.[45] Bankers, regulators, and builders of credit-scoring models are waiting to see how scored loans will perform during a major economic slowdown.

Because credit scoring has been used for a relatively short time, evidence regarding its effect on credit availability is limited. Much of the information in existing studies is based on a January 1998 telephone survey conducted by the Federal Reserve Bank of Atlanta. The survey attempted to discover from the lead banks of nearly all the 200 largest U.S. banking organizations whether they used credit scoring for small business lending and, if so, how they used it. Roughly half the contacted banks responded to the survey. The available evidence is limited, but it is nonetheless consistent with proponents' claims that the use of scoring models may increase the availability of credit to some small businesses.

One study (Akhavein, Frame, and White, 2001) found that, among the largest banking organizations in the industry, the larger banking organizations tended to adopt small business credit scoring before their smaller peers. In addition, anecdotal evidence and discussions with bankers indicate that, across all banks in the industry, bank size is positively correlated with the likelihood that a bank will adopt credit scoring. A primary reason that large banks have adopted credit scoring more quickly is that the costs associated with implementing a scoring model can be more easily absorbed. Large banks are also more likely to benefit from any economies of scale that may be associated with scoring-based lending because they have the resources to make a large volume of loans. Smaller banks may be less willing to adopt credit scoring because they may consider the impersonal nature of credit scoring to be inconsistent with the relationship-based approach to small business lending that many community banks adopt.

Credit scoring has also been found to be associated with higher levels of small business lending among a sample of large banks. Frame, Srinivasan, and Woosley (2001) found

44. Matthews (2001).

45. Avery, Bostic, Calem, and Canner (2000) examine the influence of economic and other factors on credit scores and find evidence that suggests that the performance of scoring models may vary as economic conditions change.

that, on average, the use of credit scoring increased the asset-portfolio share of business loans with an original amount equal to or less than $100,000 by 8.4 percent within their sample of ninety-nine large banking organizations. In addition, the propensity of sample banks to use credit scoring is not explained by either the portfolio share or the level of micro-loans. The authors caution that their results represent the effect of credit scoring on small business lending only for the organizations included in their study and that they cannot be generalized more broadly. Several other studies based largely on the same data also find that credit scoring increases the amount of small business loans equal to or less than $100,000 originated by large banking organizations (Frame, Padhi, and Woosley, 2001; and Padhi, Woosley, and Srinivasan, 1999).

Berger, Frame, and Miller (2002) conducted the most recent analysis of lending data and credit-scoring information based on the 1998 credit-scoring survey. They found some interesting results. The authors concluded that the adoption of credit scoring is associated with expanded credit availability, higher prices (loan rates), and greater risk for lenders to small businesses for credits of $100,000 or less. Over time, credit scoring is also found to be associated with expanding quantities of small business loans at rising average prices and increasing credit risk. Moreover, credit scoring appears to have this effect only when scores, and not other information, are used to make the decision whether or not to extend credit. Credit scoring does not appear to increase the availability of credit between $100,000 and $250,000, but it lowers interest rates and risk for this size group of loans. Thus, for these larger small business loans, scoring may help improve the accuracy of evaluating creditworthiness and may reduce underwriting costs.

The finding that credit scoring is associated with different prices and levels of risk suggests that credit scoring increases the ability of banks to charge prices that more closely match the riskiness of applicants. As it becomes easier to use credit scoring to implement risk-based pricing, some borrowers who might not qualify for standard-rate loans underwritten through a more-traditional process may be able to receive credit, but at a higher, more appropriate rate. In addition, some businesses that would qualify for standard-rate, traditionally underwritten loan products could find that their credit scores indicate that they should be asked to pay lower interest rates that better reflect their underlying credit risk.

Another issue that has drawn attention is the relationship between credit scoring and fair lending. Proponents of credit-scoring models believe that the use of these models 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.[46] Nonetheless, concerns have been expressed that credit scoring might have disparate effects on groups of

46. The Equal Credit Opportunity Act (ECOA) makes it unlawful for creditors to discriminate on the basis 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. Special rules are set forth dealing with creditors that use credit-scoring systems.

entrepreneurs, such as women or minorities, who might be distinguishable by demographic characteristics, or that models may not well represent businesses in certain communities.

To date, there is little quantitative evidence to determine whether such concerns are valid. Nonetheless, several studies have found that credit-scoring models are associated with greater levels of business loans of $100,000 or less in low- and moderate-income (LMI) areas. Padhi, Woosley, and Srinivasan (1999) studied micro-loan originations in urban census tracts in six southeastern states.[47] The authors found that within their sample of large banking organizations, credit scoring had a significantly positive effect on the amount of small business credit extended in low-income communities and a mixed effect in moderate-income communities. In another study, Frame, Padhi, and Woosley (2001) analyzed micro-lending in all census tracts in the same six southeastern states. They found that credit scoring is associated with increased lending in LMI census tracts, and they estimated the increase to be $16.4 million per census tract. The authors also concluded that credit scoring increases the probability that a large banking organization will make micro-loans in a given LMI census tract.

The increase in lending by banks engaged in credit scoring suggests that these models are expanding the availability of credit to small businesses. Nonetheless, concerns have been raised that the continued adoption of credit-scoring techniques may reduce the availability of credit for small firms that find it hard to qualify for loans based only on a formal credit score. At this time, it is unclear how often creditworthy firms that would not qualify for credit-scored products would be unable to obtain financing from a lender that relied on traditional methods of loan evaluation. Even though lending to such firms may be riskier and entail higher costs, community banks and other local lenders are likely to continue to provide this valuable service to many small firms that would not qualify for credit-scored loans, especially if loans are priced appropriately.

Securitization of Small Business Loans

The securitization of small business loans is a development that could substantially influence the availability of credit. Potential benefits exist for lenders, borrowers, and investors. However, the obstacles to securitizing small business loans are large. Securitization has so far been modest, and recent developments suggest that the volume of securitized small business loans is unlikely to increase over the next several years.

47. The six states are Alabama, Florida, Georgia, Louisiana, Mississippi, and Tennessee.

Process of Securitization

Securitization is the process of packaging individual loans and other debt instruments, converting the package into a security, and enhancing the credit status or rating to further the security's sale to third-party investors (Kendall and Fishman, 1998). This process has become an efficient funding supplement to direct lending in markets for certain financial assets—notably residential mortgages, credit card receivables, and automobile loans.

Active secondary markets in these assets can benefit all parties. Lenders profit from scale economies or from originating and servicing loans without having to add all of the loans to their own balance sheets. They can therefore improve their return on capital by substituting off-balance-sheet, fee-based sources of income for riskier capital-intensive direct lending, with the result of added liquidity and potentially greater balance-sheet diversity. Borrowers whose loans are eligible for securitization typically enjoy lower financing costs. Investors in the securities, while still earning attractive returns, receive greater liquidity and lower risk than they would by investing directly in the individual loans. Overall, risk is allocated more efficiently.

Successful securitization requires that the costs of pooling individual loans and administering the securities collateralized by the loans be less than the spread between the average contract rate on the underlying loans and the yield investors demand on the securities. Besides various costs for administration, costs stem from obtaining a high credit rating to reassure investors of the reliability of a security's cash flow. High ratings are often obtained through the provision of "credit enhancements" to the security's purchaser by the originator or others. These enhancements sometimes involve an agreement by the originator or other party to absorb, through the portion of the pool held by them, specified first dollar losses of the pool before any loss falls on the investors in the securitized pool.

Securitization generally has thrived in markets in which the costs of acquiring and communicating information to investors about loans and borrowers are low. These conditions usually occur as a result of standardized loan-underwriting criteria and advances in information technology, which have made estimating default probabilities and prepayment patterns easier under various economic conditions. As noted, small business loans cannot readily be grouped into large pools that credit agencies and investors can easily analyze: Loan terms and conditions 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 a degree by some form of credit enhancement mechanism. However, the more loss protection needed to sell the securities, the smaller are both the net proceeds from the sale of the securities and the incentive for lenders to securitize their loans. Small business loans are an asset for which the high transaction costs of providing credit enhancements have made many potential securitizations unprofitable.

A significant step in encouraging the development of markets for securitized small business loans has been the removal of certain regulatory impediments. 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 regulatory accommodation provided by the Secondary Mortgage Market Enhancement Act of 1984 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. Investment restrictions for federally regulated banks, thrifts, and credit unions and for state-chartered thrifts, insurance companies, and pension funds were relaxed as well. Also, risk-based capital requirements for depository institutions that securitize loans but retain "recourse" on subordinated classes of securities were reduced.

A greater impediment to the development of markets for securitized small business loans has been the lack of more uniform standards for underwriting and loan documentation. However, the use of credit-scoring systems in the origination of small business loans could address this problem, at least to some extent, by providing a credible, low-cost measure of the expected performance of small business loans. As a result, the information gap associated with small business lending could be closed and the volume of securitizations could increase.

Securitization Activity

Most of the small business loans that have been securitized involved the guaranteed portion of loans made under the Small Business Administration's 7(a) Loan Guaranty Program. Table 14 indicates that in each of the three most recent years (1999-2001) roughly $3.2 billion of slightly less than $7 billion of such loans was securitized. These securitizations have been fairly common because they do not involve the risk and information impediments typically associated with the securitization of small business loans. SBA 7(a) loans tend to be highly standardized because the underlying loans are often backed by similar types of collateral and loan documentation. In addition, the originators are SBA "preferred lenders" and are perceived to have clear and rigorous underwriting standards that are consistently applied. Perhaps most important, the SBA provides a guarantee if loan payments are missed, so packages of these loans carry much less credit risk than the typical small business loan.

Securitizations of the unguaranteed portion of SBA 7(a) loans have been much less common, equaling roughly 10 percent of such credit. Between 1994 and 2001, about $2.1 billion of credits were securitized, with $251 million of that total occurring in 2001.

Much of the difference in the rates of securitization among the guaranteed and unguaranteed portions of SBA 7(a) loans is likely due to the existence or absence of a

14. Small business loan securitization activity, 1994-2001

Millions of dollars

Year	Originated SBA 7(a) loans			Securitized SBA 7(a) loans			Securitized non-SBA loans
	Total	Guaranteed part	Unguaranteed part	Total	Guaranteed part	Unguaranteed part	
1994 . . .	8,177	5,993	2,184	2,457	2,300	157	45
1995 . . .	8,257	5,995	2,262	2,042	1,900	142	99
1996 . . .	7,695	5,736	1,959	2,667	2,409	258	384
1997 . . .	9,462	6,007	3,455	2,993	2,703	290	428
1998 . . .	9,016	6,181	2,835	3,074	2,792	282	938
1999 . . .	10,146	6,733	3,413	3,673	3,229	444	1,868
2000 . . .	10,523	6,890	3,633	3,538	3,239	299	149
2001 . . .	9,894	6,839	3,055	3,495	3,244	251	82

NOTE. For SBA 7(a) loans, volumes originated are for the fiscal year that ends on September 30, and volumes securitized are for the calendar year.

SOURCES. Moody's Investors Service, Small Business Administration, and Report to the Congress on Markets for Small-Business and Commercial-Mortgage-Related Securities, Board of Governors of the Federal Reserve System and U.S. Securities and Exchange Commission, September 2000.

guarantee. Without an SBA guarantee, it is apparently much more difficult to offer packages of SBA loans to investors at a rate that is sufficiently profitable to the lender.

Regulatory constraints may have also contributed to the fairly limited volume of securitizations of the unguaranteed portion of 7(a) loans. Before 1997, only nonbanks could be involved with such securitizations. In 1997, however, banks were allowed to securitize the unguaranteed portion of 7(a) loans on an interim basis, and in 1999, that power was granted in a final rule. The rule also requires banks that securitize 7(a) loans to maintain a low delinquency level to ensure that securitized loans are of high quality. The SBA accomplishes this goal by performing quarterly examinations of lenders, and if loan quality falls sufficiently, then the lender loses its preferred lender (PLP) status, which enables banks to fund loans without the SBA's involvement. The SBA normally conducts loan quality examinations biennially.

Even though the unguaranteed portion of 7(a) loans involves a possible disincentive for SBA preferred lenders to securitize, several billion dollars have nonetheless been packaged for sale to investors. Many of the securitized transactions have come from a few loan originators, so the loan underwriting and documentation have had some degree of uniformity. In addition, the small business loans underlying these securitizations have frequently been backed by real estate, and some have carried additional types of security, such as accounts receivable, 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 like middle-market loans than like most small business loans.

Finally, the market for securitizations of conventional, or non-SBA, loans has been marked by the most severe impediments. Between 1994 and 2001, almost $4 billion in loans were securitized, with most of this activity taking place in 1998 and 1999.[48] These volumes are small relative to the total amount of small business loans that could be securitized. As of June 2001, banks held roughly $450 billion of small business loans outstanding, and the 1998 SSBF suggests that this figure corresponds to roughly 65 percent of all small business lending. Therefore, the total amount of small business loans outstanding was roughly $700 billion.[49] A small portion of these were SBA-guaranteed loans.[50] Even though many of these loans would probably be unsuitable for securitization, the relative magnitudes of all small business loans made and those that have been securitized indicate that securitization of conventional small business loans has been modest.

The dollar volume of conventional securitizations has been low, but the data nonetheless show an increasing trend between 1994 and 1999. However, securitization activity dropped dramatically in 2000 and 2001. A major reason for the drop is that securitization of conventional small business loans had been dominated by a few financial institutions, and some of these institutions were purchased in the late 1990s by larger financial or, in at least one case, nonfinancial organizations.[51] These larger organizations have discontinued securitizing conventional loans, perhaps because they have access to better funding alternatives and thereby do not view securitization of small business loans as their most cost-effective or profitable alternative. On balance, there is

48. These data reflect only securitizations that were rated by one of the rating agencies. However, almost all placements are evaluated by one of these firms, so it is likely that little, if any, securitization activity is excluded from these data.

49. This Call Report-based estimate of small business loans of roughly $700 billion is substantially lower than the $1.9 trillion amount presented in figure 5, which is based on flow of funds data. The difference is attributable largely to differences in the way data are collected for the two sources. As discussed, Call Report data do not include loans over $1 million made to small firms. This omission excludes relatively few loans. However, the excluded loans, many of which are made to firms in the real estate industry, account for a large share of the overall value of loans to small businesses. Flow of funds data include all loans made to partnerships and proprietorships and therefore do not exclude many of these large loans.

50. According to the Small Business Administration, outstanding SBA loans totaled $36 billion as of July 31, 2002. Of this amount, $25 billion of the loans were made under the 7(a) Loan Guaranty Program.

51. Examples of the acquisition of a financial institution that actively securitized small business loans include United Parcel Service's purchase of First International Bancorp (2001), The FINOVA Group's purchase of Fremont Financial Corporation (1999), and First Union Corporation's purchase of The Money Store (1998).

little evidence to suggest that the securitization of non-SBA loans will become an important component of small business financing in the foreseeable future.

COMMUNITY REINVESTMENT ACTIVITIES

Community reinvestment activities help financial institutions meet the financing needs of small businesses. Although their effect on credit availability is still difficult to measure, these efforts have become better known since 1996, when the supervisory agencies of federal financial institutions began to collect, analyze, and make public geographically coded data on small business loans under the Community Reinvestment Act (CRA). These data are starting to show the efforts of financial institutions in helping meet credit needs for very small, start-up firms and undercapitalized small businesses located in low- and moderate-income areas, often viewed as disadvantaged in credit markets.

Community Reinvestment Act

Small business lending in low- and moderate-income areas may be influenced by financial institution obligations under the CRA. The CRA does not require that banks lend to small businesses, but it reaffirms that federally insured financial institutions have continuing and affirmative obligations to help meet the credit needs of the communities in which they operate, including low- and moderate-income neighborhoods.

Under the CRA, the bank regulatory agencies regularly review the institutions' performance in this endeavor and prepare publicly available written evaluations, which include ratings. The CRA requires that supervisory agencies consider a financial institution's CRA performance when evaluating the institution's applications for expansion or relocation of depository facilities through branching, mergers, or acquisitions. Decisions on these applications are made public.

Although much of the small business lending of financial institutions occurring in low- and moderate-income areas cannot be attributed to CRA, bankers and community representatives indicate that some of it results from banks' responses to their CRA obligations. Some also results from interaction with community representatives and government agencies familiar with CRA and the possible roles that financial institutions can play in community development and reinvestment. Indeed, the CRA has been said to yield increased community reinvestment in low- and moderate-income areas, and more than two-thirds of the 143 respondents to a Federal Reserve survey of banks reported that their CRA-related lending led to new, profitable opportunities (Board of Governors of the Federal Reserve System, 2000).

Bank-Controlled Financing Vehicles

Banks can promote the extension of capital to small business in many ways. Beyond lending programs that are part of a bank's normal operating process, banks often develop or work with specially created entities focused on this objective. Some of these entities operate wholly within a bank's legal structure, some are partnerships with other service providers, and still others are stand-alone organizations in which banks invest.

Bank-Owned or Bank-Affiliated Community Development Corporations
A common type of community reinvestment intermediary used by banks to help finance small firms and minority businesses is the bank-owned or bank-affiliated community development corporation (CDC). Under certain conditions, bank holding companies, national- and state-chartered commercial banks, and savings institutions may make equity investments in small businesses through a CDC or a limited liability company. Generally, these entities can make debt and equity investments in small businesses when the firms are located in low- or moderate-income areas and the majority of the jobs created and services provided benefit low- and moderate-income persons.

Although most CDCs operate at the local level, some are statewide in their focus. For example, the Indiana Community Business Credit Corporation (ICBCC) is a for-profit, multi-bank CDC that provides supplemental financing to expanding small businesses. 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. There are currently twenty-seven financial institution members. Through year-end 2001, the ICBCC had made loans totaling $31.9 million to eighty-three companies for small business development projects totaling over $169.8 million.

Consortium Lending Organizations and Loan Pools
An increasingly common form of intermediary is the consortium lending organization that specializes in financing young or start-up small and minority businesses. By participating in such consortiums, banks can leverage the amount of capital devoted to small business finance and mitigate the risks and costs of lending to small firms. These loan consortiums are usually organized in corporate form and may be nonprofit or for-profit organizations. Although many are organized primarily by banks, they often have nonbank participants such as insurance companies, utilities, other corporations, religious institutions, and other institutional investors. Other loan consortiums are quasi-public arms of state, regional, or local governments.

One example is the California Economic Development Lending Initiative (CEDLI), a multi-bank, for-profit consortium CDC created in 1995, which gives financial and technical assistance to small businesses and nonprofit economic development groups throughout California. CEDLI makes small business loans, often to minority- and women-owned businesses that do not meet the underwriting criteria of banks or government programs. It has also financed community-based economic development corporations and small business assistance centers in urban and rural areas of California and helps finance real-estate-based loans for projects sponsored by community organizations serving local needs.

CEDLI works through various partnership arrangements with member banks, nonprofit groups, and public-sector programs. Through its co-lending program, member banks can provide financing to small businesses that do not meet standard underwriting criteria and, with CEDLI's loan participation arrangement, can reduce their risk exposure. Membership currently includes forty-six financial institutions and three private corporations. Investments totaling $67 million have been made in 233 small businesses and community organizations throughout California, primarily to small businesses or community organizations in low- or moderate-income communities. CEDLI's bank partners have matched these investments with more than $152 million in co-lending.

Partnerships with Nonprofit Organizations

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 intermediaries that support small businesses in their communities. Indeed, a major development in bank reinvestment programs has been the increasing number of formal and informal working partnerships among banks, regional or neighborhood nonprofit organizations, and community-based development corporations. These organizations identify prospective borrowers, provide loan counseling, serve as experienced developers in lower-income and minority areas, and assist banks in marketing loan programs. They have also been effective in helping reduce the high transaction costs often associated with lending to very small firms. These organizations also frequently package financial resources for small firms from several public and private sources. Overall, these types of partnerships are expected to continue to expand, enabling banks to make small business loans that might not otherwise have been financially feasible.

One example of such a relationship is found in A Business Center for Developing Enterprises, Inc., which is a decade-old small business incubator that supports more than thirty-five businesses and is located in Evansville, Indiana. Besides providing facilities and shared office services, the center offers training for new businesses related to obtaining credit, such as cash-flow management, financial-statement analysis, recordkeeping, and marketing. In 2001, Fifth Third Bank was the largest sponsor of the center.

Government-Sponsored Vehicles

Support for small business development has been a priority of policymakers for several decades, and federal, state, and local agencies have sponsored programs that assist in channeling capital to small business. At the federal level, the agency with the most direct role in this objective is the Small Business Administration (SBA), which was created by the Congress in 1953 to help entrepreneurs form successful small enterprises. More recently, the Department of the Treasury's Community Development Financial Institutions Fund was established to support growth and revitalization of low- and moderate-income communities. These agencies provide vehicles that enable depository financial institutions to leverage funds provided to small businesses and increase access to capital for entrepreneurs.

U.S. Small Business Administration Programs

7(a) Loan Guaranty Program. One of the primary SBA programs is the 7(a) Loan Guaranty Program, which provides lenders with a credit-enhancing mechanism (a loan guaranty) for extending credit to small businesses unable to secure conventional financing. By lending to borrowers that meet the agency's underwriting and eligibility criteria, the risk to lenders is significantly reduced. At least 75 percent of a qualified loan is covered by the SBA guaranty. In fiscal year 2001, almost 43,000 SBA 7(a) guaranteed loans amounting to nearly $10 billion were made. This activity accounts for roughly 90 percent of the number of SBA loans and 80 percent of the total value of SBA lending activity.

Small business investment companies. Banks and bank holding companies can own and operate small business investment companies (SBICs), which make debt and equity investments in small, expanding firms. SBICs, which are licensed and regulated by the SBA, can be organized as separate subsidiaries of one institution or of multiple institutions and other private investors or can be controlled by private interests not affiliated with financial institutions. To obtain capital, SBICs often sell long-term debentures that are guaranteed by the SBA. The proceeds of these debentures are used to provide longer-term financing for small businesses, often in conjunction with the issuance of equity interests in the small business to the SBIC. Various funding strategies are used, with 73 percent of financings taking the form of equity, 7 percent being structured as debt, and the remainder being a blend of debt and equity.

In fiscal year 2001, 331 SBICs financed 4,277 firms, resulting in $4.5 billion of funding. Included in this total are 310 financings by specialized SBICs (SSBICs) valued at $44.8 million. SSBICs specialize in providing funds to businesses owned by minorities or others considered to be socially or economically disadvantaged. The average SBIC financing was slightly more than $1 million; the average SSBIC financing, at roughly $144,000, was significantly lower. About one-quarter of SBIC program financing recorded during fiscal year 2001 went to small businesses in low- and moderate-income areas.

SBA 504 Certified Development Companies. Banks often work with certified development companies to leverage funds for small business financing. These entities, which are generally nonprofit corporations specializing in small business finance, are "certified" by the SBA to participate in the agency's Section 504 financing program. The SBA 504 program is intended to help small businesses expand and to create jobs by providing certified development companies with the ability to issue SBA-guaranteed long-term debentures to fund small firms. To obtain certification from the SBA, the applying entity 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, plant, or equipment needs. They also offer technical assistance to small businesses and develop financing packages. A typical package is a combination of at least three sources of funds: 50 percent must be 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 40 percent of the loan package.

Community Development Financial Institutions

Community development financial institutions (CDFIs) develop a range of strategies and products to fulfill their primary mission of community development. They are certified by the U.S. Department of the Treasury and have access to the CDFI Fund, which has made $353 million in investments in CDFIs. As of February 15, 2002, there were 553 CDFIs in the United States. These institutions can be banks, credit unions, loan funds, venture capital funds, or other financial service providers with community development as their primary objective. In an effort to measure the effect of CDFIs, the National Community Capital Association (a trade association composed of mostly larger CDFIs) surveyed 88 members in 2000 and found that $634.5 million in financing had been provided during that year. Although housing is the dominant investment area for CDFIs, 26 percent of funding was provided to small enterprises and another 3 percent went to microenterprise firms, resulting in more than $180 million in overall financing to businesses.

Banks can support the capitalization of CDFIs through the Bank Enterprise Award (BEA) Program, which provides incentives for regulated commercial banks and savings institutions to invest in CDFIs and to increase their lending and provision of financial services in distressed communities. To date, banks and thrifts receiving awards have provided more than $960 million in financial support or technical assistance directly to

CDFIs and more than $2.6 billion to distressed communities in the form of direct loans, investments, and services.

Emerging Trends

Numerous industry trends either are just beginning to significantly influence the delivery of capital to small businesses by financial institutions or have the potential to do so in the near future. Some of these trends are due primarily to actions of financial services firms themselves—for example, the proliferation of financial literacy and outreach programs. Others are due to the actions of government—such as the recently enacted New Markets Tax Credit—to stimulate more lending. Still other new efforts are focused on new hybrid partnerships among banks and nonbank entities such as local micro-loan funds. Following is a brief discussion of the effect of these three factors.

Education Programs and Outreach

Data from the Census Bureau indicate that, between 1992 and 1997, the number of minority-owned businesses grew more than four times as fast as the number of U.S. firms overall, increasing from 2.1 million to about 2.8 million. In addition, the Census Bureau estimates that, during this five-year period, the number of women-owned businesses increased 16 percent, to 5.4 million enterprises. These gains have occurred at the same time that financial institutions have intensified efforts at outreach and education, especially for nontraditional customers, suggesting that the rapid increases in the number of minority- and women-owned businesses may result, in part, from increased access to appropriate financing to fund the start-up and growth of businesses.

More and more financial institutions and their partners are finding it in their self-interest to engage in training and education initiatives that increase opportunity and success for business ownership to anyone with a viable business concept. The Consumer Bankers Association reports that 65 percent of its 2002 survey respondents offer small business development training either directly or through partners. For example, U.S. Bancorp developed its own training manual for small business owners; Harris Trust and Savings Bank partnered with Accion Chicago, a national Hispanic organization, to provide technical assistance and flexible loan products; and the Community Financial Resource Center in the greater Los Angeles area has provided financial literacy workshops and a Spanish Technical Assistance Program to potential and existing entrepreneurs.

New Markets Tax Credit

The New Markets Tax Credit, which is part of the Community Renewal Tax Relief Act of 2000, is expected to spur the investment of $15 billion in new private capital in a range of privately managed investment vehicles. These vehicles are known as community development entities (CDEs) and they make loans to and equity investments in targeted businesses. CDFIs and SSBICs are pre-qualified as CDEs, and other entities can become qualified to participate in this program. Investors will be able to take a 30 percent tax credit on investments in CDEs, which will then invest equity capital in businesses that are located in low-income or high-poverty census tracts and that derive 50 percent of their income from activity in a low-income community.

Community-based Microenterprise Loan Funds

A number of institutions are targeting very small firms and start-up businesses, and many are working at the neighborhood level or focusing on minority business development. Many banks are offering new programs featuring loans under $100,000, including some as small as $1,000 to $5,000 for very small businesses. They are increasingly targeting minority businesses and are continuing to use public-sector programs, such as loan guarantees, to make small business loans.

Community-based nonprofit organizations often work with financial institutions to deliver financing, technical assistance, training, and other services to microbusinesses.[52] Such organizations also develop their own funds from which to make direct loans to meet the needs of their target markets, which are often low- and moderate-income individuals or areas and women. For example, Accion USA Network, the largest micro-lending program in the country, operates several subsidiary organizations that serve twenty-three communities in several states. In 2001, Accion USA disbursed more than $15 million in loans, with an average loan size of roughly $6,000. Of the 3,330 clients that it had served by year-end, 45 percent were women.

52. A 1999 survey by the Aspen Institute reported that there were 341 microenterprise programs in forty-six states and the District of Columbia—triple the number reported in 1992. Many of these programs are seeded with funds from financial institutions as well as from federal, state, and local government sources.

Appendix: The 1998 Survey of Small Business Finances

The 1998 Survey of Small Business Finances collected information about the types and sources of financing used by small businesses in 1998. Interviews were conducted with 3,561 firms selected to provide a representative sample of all small businesses in the United States. The 1998 survey was sponsored by the Board of Governors. In it, small businesses are defined as enterprises operating under current ownership during 1998 and with fewer than 500 employees and owners working in the firm, excluding agricultural enterprises, financial institutions, not-for-profit institutions, government entities, and subsidiaries controlled by other corporations. For details about the survey, see Bitler, Robb, and Wolken (2001) or visit www.federalreserve.gov/pubs/oss/oss3/nssbftoc.htm for more information. The survey solicited information about the characteristics of each 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. The survey also obtained information about the firm's recent borrowing and credit application experience, the use of trade credit, and capital infusions. The 1998 SSBF is the most comprehensive source of data available on small businesses' use of financial services. Highlights of the 1998 survey and some comparisons with 1993 data are presented in the tables in this appendix.[53]

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53. Additional details, particularly with respect to financial services unrelated to credit, can be found in Bitler, Robb, and Wolken (2001). Statistics presented in their study were based on preliminary data and may differ somewhat from the numbers presented in this report, although generally the differences are small.

A.1. Number and population percentage of small businesses in survey sample, by selected category of firm, 1998

Category of firm	Number in sample[1]	Percentage of population[2]	MEMO 1993 percentage of population[2]
All firms	**3,561**	**100.00**	**100.00**
Number of employees[3]			
0-1	607	21.86	18.18
2-4	1,164	41.45	38.75
5-9	580	19.58	22.89
10-19	294	8.80	10.74
20-49	367	5.59	6.16
50-99	286	1.55	2.14
100-499	263	1.17	1.14
Fiscal year sales (thousands of dollars)			
Less than 25	475	16.31	10.94
25-49	269	9.37	8.50
50-99	420	14.34	12.52
100-249	606	21.90	24.68
250-499	400	13.31	15.72
500-999	327	10.15	11.85
1,000-2,499	365	8.10	8.36
2,500-4,999	234	3.30	3.56
5,000-9,999	175	1.57	1.96
10,000 or more	290	1.65	1.91
Assets at year-end (thousands of dollars)			
Less than 25	1,013	34.84	29.24
25-49	367	12.84	13.96
50-99	416	14.17	14.30
100-249	497	15.66	17.63
250-499	309	8.98	10.45
500-999	251	6.05	6.35
1,000-2,499	285	4.28	4.61
2,500-4,999	161	1.65	1.80
5,000 or more	255	1.38	1.66
Organizational form			
Proprietorship	1,429	49.35	43.22
Partnership	226	6.98	8.01
S-corporation	1,019	23.87	20.33
C-corporation	887	19.83	28.44

See notes at end of table.

A.1. —Continued

Category of firm	Number in sample[1]	Percentage of population[2]	MEMO 1993 percentage of population[2]
Standard industrial classification			
Construction and mining (10-19)	376	11.87	14.18
Primary manufacturing (20-29)	172	3.66	3.90
Other manufacturing (30-39)	217	4.68	4.16
Transportation (40-49)	144	3.72	2.77
Wholesale trade (50-51)	247	7.15	8.46
Retail trade (52-59)	704	18.95	21.70
Insurance and real estate (60-69)	213	6.48	7.09
Business services (70-79)	832	24.83	21.15
Professional services (80-89)	650	18.46	16.59
Years under current ownership			
0-4	730	22.37	14.74
5-9	747	22.82	28.46
10-14	684	19.15	19.16
15-19	474	12.86	14.40
20-24	337	8.85	8.68
25 or more	589	13.96	14.55
Census region of main office			
Northeast	595	18.90	22.31
New England	155	5.21	6.94
Middle Atlantic	440	13.69	15.37
Midwest	770	21.80	24.13
East North Central	485	14.56	15.96
West North Central	285	7.24	8.17
South	1,225	32.71	29.48
South Atlantic	641	16.88	14.84
East South Central	202	5.47	4.55
West South Central	382	10.35	10.09
West	971	26.59	24.08
Mountain	238	6.63	5.81
Pacific	733	19.96	18.27
Urbanization at main office			
Urban	2,782	79.89	78.88
Rural	779	20.11	21.12
Number of offices			
One	2,840	87.79	84.35
Two	380	8.58	10.73
Three or more	341	3.63	4.92

See notes at end of table.

A.1. Number and population percentage of small businesses in survey sample, by selected category of firm, 1998—Continued

Category of firm	Number in sample[1]	Percentage of population[2]	MEMO 1993 percentage of population[2]
Sales area			
Primarily in U.S.	3,357	95.49	...
International or global	204	4.51	...
Owners' participation			
Owner management	3,192	92.48	86.00
Hired management	369	7.52	14.00
Race, ethnicity, and sex of majority owners			
Nonwhite or Hispanic	756	14.60	11.62
Non-Hispanic white	2,805	85.40	88.38
White	3,050	90.69	92.52
Black	273	4.12	2.91
Asian or Pacific Islander	214	4.38	3.44
American Indian or Alaska Native	24	0.81	1.13
Hispanic	260	5.59	4.27
Non-Hispanic	3,301	94.41	95.73
Female	796	24.32	20.61
Male	2,618	72.01	73.92
Ownership equally divided by sex	147	3.67	5.47

NOTE. Details may not sum to totals because of rounding.

1. Numbers are unweighted.

2. Percentages are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures.

3. Number of owners working in the business plus number of full- and part-time employees. For the 1993 survey, the number of employees was calculated as the sum of owners working in the business plus full-time employees plus one-half of part-time employees; in the 1998 survey, no differentiation was made between full- and part-time employees. To make the data for 1993 and 1998 comparable, the 1993 numbers have been recalculated as the sum of the owners working in the business, full-time employees, and part-time employees.

... Not applicable—question not asked in 1993.

SOURCE. 1993 and 1998 Surveys of Small Business Finances.

A.2. Percentage of small businesses that used traditional types of credit, by selected category of firm, 1998

Percent

Category of firm	Any traditional type	Credit line	Mortgage loan	Vehicle loan	Equipment loan	Capital lease	Other traditional type
All firms	**55.0**	**27.7**	**13.2**	**20.5**	**9.9**	**10.6**	**9.8**
Number of employees[1]							
0-1	32.6	13.4	6.4	12.8	3.8	3.3	5.6
2-4	49.8	20.7	12.4	17.0	7.8	7.5	9.4
5-9	68.9	34.4	16.1	26.7	14.2	14.4	9.3
10-19	75.9	48.8	19.6	31.1	14.0	22.3	14.4
20-49	83.5	59.5	20.7	32.1	22.3	21.0	19.0
50-99	86.9	63.0	26.0	34.2	19.8	31.7	20.8
100-499	92.1	74.9	18.8	29.8	25.0	28.3	22.7
Fiscal year sales (thousands of dollars)							
Less than 25	26.5	9.0	7.6	5.6	2.4	2.6	6.7
25-49	32.6	11.2	8.0	14.2	3.7	2.4	2.4
50-99	45.1	15.3	9.5	13.6	4.9	7.8	8.5
100-249	57.0	22.5	14.9	20.4	11.6	11.3	10.5
250-499	66.6	36.4	13.2	25.9	10.6	11.1	11.3
500-999	73.7	41.9	18.0	30.8	16.0	19.8	10.1
1,000-2,499	79.1	51.8	20.7	36.3	16.6	17.7	17.3
2,500-4,999	93.6	68.0	22.9	37.2	23.6	18.6	12.5
5,000-9,999	88.8	75.9	16.4	38.4	20.0	24.6	23.0
10,000 or more	90.0	81.8	20.3	29.4	27.5	25.8	19.1
Assets at year-end (thousands of dollars)							
Less than 25	32.5	11.1	6.3	10.4	4.5	5.4	4.9
25-49	49.9	22.5	6.6	19.5	6.4	7.7	7.0
50-99	60.0	26.7	10.0	22.2	9.5	10.7	12.2
100-249	68.3	34.7	18.4	26.6	15.4	12.5	13.9
250-499	70.7	40.1	21.1	28.2	11.3	14.2	10.9
500-999	88.1	55.9	33.4	32.9	18.0	21.0	19.4
1,000-2,499	81.6	54.8	25.1	34.5	20.4	18.8	13.6
2,500-4,999	93.5	78.4	27.9	32.5	23.5	34.8	15.9
5,000 or more	95.2	80.8	30.1	36.8	29.0	21.7	18.9
Organizational form							
Proprietorship	45.6	18.5	12.4	16.0	7.1	6.5	8.1
Partnership	61.2	27.7	19.1	19.4	13.1	12.9	9.5
S-corporation	65.0	37.9	13.9	25.3	11.5	14.8	11.5
C-corporation	64.5	38.4	12.4	26.2	13.7	14.9	12.2

See notes at end of table.

A.2. Percentage of small businesses that used traditional types of credit, by selected category of firm, 1998—Continued

Percent

Category of firm	Any traditional type	Credit line	Mort-gage loan	Vehicle loan	Equip-ment loan	Capital lease	Other tradi-tional type
Standard industrial classification							
Construction and mining (10-19)	66.8	32.0	11.6	38.0	11.1	8.3	10.5
Primary manufacturing (20-29)	56.5	32.1	8.7	16.3	19.8	20.1	17.4
Other manufacturing (30-39)	60.2	35.9	6.9	19.5	13.9	14.1	17.1
Transportation (40-49)	62.1	29.7	10.9	28.8	12.5	14.9	12.6
Wholesale trade (50-51)	64.3	47.3	12.2	27.8	9.8	10.5	10.5
Retail trade (52-59)	54.1	25.2	17.5	17.9	7.7	6.4	10.1
Insurance and real estate (60-69)	59.8	26.9	24.8	16.6	11.5	10.0	8.9
Business services (70-79)	49.4	22.4	11.9	18.0	8.7	10.6	7.5
Professional services (80-89)	48.0	23.9	10.9	13.4	9.2	13.1	8.5
Years under current ownership							
0-4	51.1	19.6	12.0	18.5	10.2	8.9	11.2
5-9	55.7	26.8	10.7	18.0	10.3	12.0	11.0
10-14	56.2	30.9	14.0	23.7	9.3	12.1	6.8
15-19	59.2	33.6	15.9	22.7	11.8	11.4	12.5
20-24	58.3	29.3	17.7	23.9	8.2	11.4	11.4
25 or more	52.8	31.3	12.9	19.2	9.1	7.8	6.6
Urbanization at main office							
Urban	53.9	27.8	11.0	20.4	9.3	11.0	8.9
Rural	59.6	27.2	21.7	21.0	12.4	9.1	13.7
Number of offices							
One	52.7	25.4	12.5	19.7	8.9	9.8	9.2
Two	67.7	41.2	16.4	24.2	18.4	14.8	11.8
Three or more	81.6	51.2	21.6	30.2	15.3	19.3	20.3
Sales area							
Primarily in U.S.	55.1	27.3	13.5	20.7	10.0	10.5	9.8
International or global	53.5	36.7	6.9	17.0	7.3	12.7	10.0

NOTE. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures.

1. Number of owners working in the business plus number of full- and part-time employees.

SOURCE. 1998 Survey of Small Business Finances.

A.3. Percentage of small businesses that used alternatives to traditional types of credit, by selected category of firm, 1998

Percent

Category of firm	Any non-traditional type	Loan from owner[1]	Credit card		Trade credit	MEMO Traditional or non-traditional type
			Personal	Business		
All firms	**84.3**	**28.1**	**46.0**	**34.1**	**61.9**	**89.5**
Number of employees[2]						
0-1	74.0	17.5	45.6	20.1	43.9	80.4
2-4	83.2	26.2	47.1	28.8	58.6	88.9
5-9	89.4	27.2	45.4	43.2	72.1	94.2
10-19	93.4	33.3	51.5	50.8	77.6	96.9
20-49	95.4	35.4	41.7	56.9	84.1	97.5
50-99	93.0	35.9	31.3	58.6	84.5	95.8
100-499	95.9	28.6	23.7	62.5	88.4	100.0
Fiscal year sales (thousands of dollars)						
Less than 25	62.6	21.6	40.3	11.6	30.0	70.3
25-49	77.1	14.4	46.8	21.3	47.8	83.6
50-99	83.5	26.3	49.2	26.6	56.0	89.9
100-249	87.6	29.6	52.6	32.6	64.8	93.5
250-499	92.6	30.0	48.2	44.0	77.8	96.5
500-999	93.2	31.6	42.4	45.0	78.8	96.6
1,000-2,499	95.6	27.1	46.7	55.0	82.1	96.6
2,500-4,999	95.2	26.0	35.3	63.9	81.6	99.0
5,000-9,999	97.7	34.7	27.1	71.4	77.7	98.7
10,000 or more	91.2	28.8	22.2	67.5	82.5	92.7
Assets at year-end (thousands of dollars)						
Less than 25	74.2	20.5	46.0	21.5	44.0	80.4
25-49	88.0	25.3	50.5	30.0	61.6	93.3
50-99	87.8	32.8	47.4	35.0	69.7	93.2
100-249	87.5	31.1	47.8	36.7	70.8	93.2
250-499	93.5	30.4	46.0	51.5	76.5	95.5
500-999	91.6	30.1	44.1	45.2	77.8	97.9
1,000-2,499	94.6	31.5	38.6	59.1	81.7	95.4
2,500-4,999	95.1	32.0	26.6	69.2	83.1	98.0
5,000 or more	98.4	27.3	24.9	71.7	86.7	100.0
Organizational form						
Proprietorship	77.4	...	49.6	21.9	51.6	84.5
Partnership	81.2	13.1	37.0	30.4	59.1	88.3
S-corporation	93.3	30.5	44.2	47.3	73.9	95.9
C-corporation	91.6	30.6	42.3	49.7	73.9	94.7

See notes at end of table.

A.3. Percentage of small businesses that used alternatives to traditional types of credit, by selected category of firm, 1998—Continued

Percent

Category of firm	Any non-traditional type	Loan from owner[1]	Credit card		Trade credit	MEMO Traditional or non-traditional type
			Personal	Business		
Standard industrial classification						
Construction and mining (10-19)	89.9	27.6	40.8	33.4	79.1	94.6
Primary manufacturing (20-29)	91.6	45.5	50.6	43.5	75.2	93.7
Other manufacturing (30-39)	92.4	34.5	47.3	36.1	81.6	94.6
Transportation (40-49)	82.8	25.7	44.1	45.5	44.3	87.4
Wholesale trade (50-51)	89.8	29.7	45.8	46.3	70.7	91.6
Retail trade (52-59)	78.8	28.4	41.0	30.0	65.4	86.2
Insurance and real estate (60-69)	76.8	24.1	41.5	36.3	36.6	87.1
Business services (70-79)	82.5	26.9	47.0	28.3	59.8	88.0
Professional services (80-89)	84.0	24.8	53.9	36.2	51.2	89.9
Years under current ownership						
0-4	81.6	31.7	46.0	28.7	54.8	88.9
5-9	85.5	31.6	48.7	38.2	61.3	89.7
10-14	84.8	23.5	46.6	34.3	62.9	88.4
15-19	85.8	29.7	43.7	37.5	66.2	91.2
20-24	86.8	22.9	46.2	34.2	68.9	91.6
25 or more	83.0	25.1	42.8	32.5	64.3	88.7
Urbanization at main office						
Urban	84.3	28.6	46.9	35.0	61.5	89.6
Rural	84.3	25.7	42.4	30.5	63.3	89.1
Number of offices						
One	83.0	27.7	45.9	32.0	59.9	88.5
Two	93.5	31.1	46.6	46.0	74.1	95.8
Three or more	95.0	28.3	46.9	56.2	79.9	97.8
Sales area						
Primarily in U.S.	83.9	28.5	45.6	33.3	61.6	89.2
International or global	91.8	22.7	53.7	51.1	68.0	94.9

NOTE. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures.

1. By definition, owner proprietorships cannot have loans from owners, since in these cases, business and owner are one. Consequently, the statistics produced for this column have a different denominator than the other columns in this table.

2. Number of owners working in the business plus number of full- and part-time employees.

. . . Not applicable.

SOURCE. 1998 Survey of Small Business Finances.

A.4. Percentage of small businesses using various suppliers of traditional types of credit, by type of credit, 1998

A. Any supplier and financial suppliers

Percent

Type of credit	Any supplier	Financial supplier									
		Any	Depository institution				Nondepository supplier				
			Any	Commercial bank	Savings institution	Credit union	Any	Finance company	Brokerage	Leasing company	Other
Any	**55.0**	**51.6**	**42.1**	**38.4**	**3.4**	**2.4**	**20.4**	**13.8**	**.5**	**6.8**	**1.6**
Credit line	27.7	27.2	25.7	24.1	1.3	.4	2.3	1.8	.2	.3	.1
Mortgage loan	13.2	11.9	10.3	8.8	1.4	.2	2.0	.8	.1	.0	1.2
Vehicle loan	20.5	20.2	13.2	11.1	.7	1.6	8.7	8.3	.1	.4	.1
Equipment loan	9.9	8.8	5.8	5.4	.1	.3	3.3	2.2	.0	1.3	.0
Capital lease	10.6	9.6	2.8	2.6	.1	.1	7.6	2.8	.1	5.3	.0
Other credit	9.8	5.0	4.4	4.0	.2	.1	.8	.5	.0	.0	.2

B. Nonfinancial suppliers

Percent

Type of credit	Any	Family and individuals	Other businesses	Government
Any	**9.8**	**6.1**	**3.2**	**1.0**
Credit line	.8	.0	.8	.0
Mortgage loan	1.7	1.3	.2	.3
Vehicle loan	.4	.3	.1	.0
Equipment loan	1.5	.5	1.0	.1
Capital lease	1.3	.3	1.0	.0
Other credit	5.3	4.2	.6	.5

NOTE. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures.

SOURCE. 1998 Survey of Small Business Finances.

A.5. Distribution of the total outstanding dollar amount of traditional types of credit used by small businesses, by type of credit and supplier, 1998

A. Any supplier and commercial banks and nonbank suppliers

Percent

Type of credit	Any supplier	Commercial bank	Nonbank			
			Any	Depository institution	Financial non-depository	Nonfinancial supplier
Any	**100.0**	**65.2**	**34.8**	**3.9**	**23.0**	**7.9**
Credit line	34.1	28.9	5.1	.4	4.4	.3
Mortgage loan	35.1	20.9	14.2	3.0	9.1	2.2
Vehicle loan	9.6	6.0	3.7	.0	3.2	.4
Equipment loan	5.5	2.8	2.7	.3	2.4	.1
Capital lease	5.8	1.6	4.2	.1	3.5	.7
Other credit	9.9	5.1	4.8	.2	.4	4.2

B. Any supplier and financial suppliers

Percent

Type of credit	Any supplier	Financial supplier					
		Any	Depository institution				
			Any	Commercial bank	Nonbank depository		
					Any	Savings institution	Credit union
Any	**100.0**	**92.2**	**69.1**	**65.2**	**3.9**	**3.4**	**.6**
Credit line	34.1	33.7	29.3	28.9	.4	.4	.1
Mortgage loan	35.1	32.9	23.8	20.9	3.0	2.7	.3
Vehicle loan	9.6	9.2	6.0	6.0	.0	.0	.0
Equipment loan	5.5	5.5	3.1	2.8	.3	.1	.2
Capital lease	5.8	5.2	1.7	1.6	.1	.0	.0
Other credit	9.9	5.7	5.3	5.1	.2	.2	.0

A.5. —Continued

C. Financial nondepository suppliers and nonfinancial suppliers

Percent

Type of credit	Financial nondepository supplier					Nonfinancial supplier			
	Any	Finance company	Broker- age	Leasing company	Other	Any	Family and indivi- duals	Other busi- nesses	Govern- ment
Any	**23.0**	**13.4**	**.3**	**3.0**	**6.3**	**7.9**	**4.7**	**2.2**	**1.0**
Credit line	4.4	4.1	.1	.1	.1	.3	.0	.3	.1
Mortgage loan	9.1	3.0	.0	.0	6.1	2.2	1.4	.4	.4
Vehicle loan	3.2	2.7	.0	.5	.0	.4	.0	.2	.2
Equipment loan	2.4	2.3	.0	.1	.0	.1	.1	.0	.0
Capital lease	3.5	1.1	.1	2.3	.0	.7	.1	.6	.0
Other credit	.4	.3	.1	.0	.1	4.2	3.1	.7	.4

NOTE. Outstanding dollar amount measured at end of the 1998 fiscal year. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures. Details may not sum to totals because of rounding.

SOURCE. 1998 Survey of Small Business Finances.

A.6. Percentage of small businesses using traditional types of credit from selected suppliers, by selected category of firm, 1998

A. Any supplier, any financial institution, and depository institutions

Percent

Category of firm	Any supplier	Financial institution				
		Any	Depository institution			
			Any	Commercial bank	Savings institution	Credit union
All firms	**55.0**	**51.6**	**42.1**	**38.4**	**3.4**	**2.4**
Number of employees[1]						
0-1	32.6	28.6	21.8	18.3	2.8	2.5
2-4	49.8	46.5	36.1	31.6	3.4	2.4
5-9	68.9	65.6	54.5	51.9	3.0	2.5
10-19	75.9	73.2	63.2	59.8	3.8	3.6
20-49	83.5	80.1	72.8	69.1	5.7	1.0
50-99	86.9	83.5	76.5	74.6	4.3	.9
100-499	92.1	89.7	78.5	77.7	3.4	.1
Fiscal year sales (thousands of dollars)						
Less than 25	26.5	20.9	14.4	10.8	2.8	2.0
25-49	32.6	31.0	22.5	19.7	1.7	2.0
50-99	45.1	40.8	30.4	26.2	2.3	2.6
100-249	57.0	53.1	39.6	35.6	3.7	2.1
250-499	66.6	63.8	55.2	51.5	3.2	3.1
500-999	73.7	71.1	61.4	57.3	5.4	2.7
1,000-2,499	79.1	77.2	70.3	66.0	4.3	4.3
2,500-4,999	93.6	90.9	78.9	75.7	7.1	.2
5,000-9,999	88.7	88.7	87.3	86.8	3.3	2.2
10,000 or more	90.0	90.0	85.1	84.8	1.6	.0
Assets at year-end (thousands of dollars)						
Less than 25	32.5	28.7	20.3	16.5	2.2	2.2
25-49	49.9	47.4	37.5	33.5	3.1	2.1
50-99	60.0	56.4	42.6	37.3	3.6	2.9
100-249	68.3	64.4	56.3	54.3	3.9	2.0
250-499	70.7	67.3	58.0	53.5	3.6	3.9
500-999	88.1	86.2	78.4	74.7	7.9	3.1
1,000-2,499	81.6	79.2	68.7	66.1	4.5	2.5
2,500-4,999	93.5	91.9	80.4	80.0	5.2	.2
5,000 or more	95.2	95.2	84.2	82.0	2.3	.0
Organizational form						
Proprietorship	45.6	41.5	32.6	27.7	3.5	3.0
Partnership	61.2	58.3	50.6	47.9	3.3	3.0
S-corporation	65.0	62.2	51.9	49.2	4.3	1.9
C-corporation	64.5	61.9	51.1	49.0	2.0	1.3

See notes at end of table.

A.6. —Continued

A. —Continued

Category of firm	Any supplier	Financial institution: Any	Depository institution: Any	Commercial bank	Savings institution	Credit union
Standard industrial classification						
Construction and mining (10-19)	66.8	64.2	55.8	50.7	3.1	4.0
Primary manufacturing (20-29)	56.5	52.5	47.1	44.0	2.1	2.5
Other manufacturing (30-39)	60.1	57.0	45.2	40.8	3.1	1.4
Transportation (40-49)	62.1	58.5	44.2	39.3	2.9	4.7
Wholesale trade (50-51)	64.3	62.1	51.2	46.1	5.0	3.4
Retail trade (52-59)	54.1	49.3	42.9	40.5	3.3	.9
Insurance and real estate (60-69)	59.8	55.9	46.9	41.6	5.9	3.1
Business services (70-79)	49.4	46.0	34.4	30.6	3.2	2.0
Professional services (80-89)	48.0	45.2	35.6	33.0	2.9	2.8
Years under current ownership						
0-4	51.1	45.4	33.7	28.2	3.9	3.3
5-9	55.7	52.7	41.0	37.4	3.0	2.3
10-14	56.2	53.4	45.5	42.4	3.9	1.5
15-19	59.2	56.5	50.5	47.3	2.5	2.9
20-24	58.3	55.7	45.1	44.0	1.8	1.6
25 or more	52.8	50.6	43.3	39.5	4.3	2.3
Urbanization at main office						
Urban	53.9	50.6	40.3	36.7	3.3	2.3
Rural	59.6	55.6	49.5	45.5	3.7	2.8
Number of offices						
One	52.7	49.2	39.9	36.2	3.2	2.4
Two	67.7	65.1	53.1	49.7	5.5	2.3
Three or more	81.6	78.5	70.3	65.9	3.7	2.5
Sales area						
Primarily in U.S.	55.1	51.7	42.2	38.6	3.4	2.5
International or global	53.5	51.0	40.0	35.7	4.0	.6

See notes at end of table.

A.6. Percentage of small businesses using traditional types of credit from selected suppliers, by selected category of firm, 1998—Continued

B. Financial nondepository suppliers and nonfinancial suppliers

Percent

Category of firm	Financial nondepository supplier					Nonfinancial supplier			
	Any	Finance company	Broker-age	Leasing company	Other	Any	Family and indivi-duals	Other busi-nesses	Govern-ment
All firms	**20.4**	**13.8**	**.5**	**6.8**	**1.7**	**9.8**	**6.1**	**3.2**	**1.0**
Number of employees[1]									
0-1	10.7	7.0	.6	2.9	1.4	6.8	3.7	2.6	.5
2-4	17.6	12.4	.2	4.6	1.8	8.6	5.8	2.5	.6
5-9	24.1	16.6	.3	9.2	2.0	10.1	6.4	3.6	1.0
10-19	34.0	19.7	1.2	15.2	1.2	14.4	8.6	4.3	2.1
20-49	33.6	24.7	.6	9.6	1.6	19.1	12.4	5.8	3.1
50-99	43.0	27.0	1.2	21.9	3.2	18.0	8.9	7.5	3.0
100-499	46.7	29.3	2.4	22.9	1.8	12.7	6.5	5.8	3.1
Fiscal year sales (thousands of dollars)									
Less than 25	8.2	4.4	.3	2.1	1.4	7.7	5.5	1.9	.5
25-49	10.3	7.7	.8	1.1	1.9	3.6	1.7	1.5	.3
50-99	15.4	9.3	.3	5.2	1.6	6.7	4.7	2.0	.5
100-249	22.3	15.1	.5	6.9	2.5	12.5	7.4	4.6	.9
250-499	19.2	13.7	...	6.6	.7	10.3	7.3	2.3	1.3
500-999	29.1	20.0	.4	13.0	1.6	10.9	6.2	4.7	.8
1,000-2,499	36.2	26.1	.9	11.0	1.6	14.4	8.8	4.6	2.7
2,500-4,999	41.3	27.6	.6	15.5	1.0	13.2	8.1	4.1	1.5
5,000-9,999	36.1	25.4	1.8	13.4	1.9	15.0	7.7	5.3	3.7
10,000 or more	39.2	24.9	1.5	18.4	2.8	9.9	4.1	5.9	2.1
Assets at year-end (thousands of dollars)									
Less than 25	11.8	7.2	.3	3.6	1.5	6.4	3.9	2.2	.4
25-49	16.1	12.7	.0	3.8	1.6	5.2	4.2	.9	.1
50-99	22.2	15.3	.6	7.3	1.5	9.7	6.0	3.6	.9
100-249	25.1	16.7	.8	8.1	1.4	14.4	9.0	4.8	1.1
250-499	26.7	18.9	.1	9.2	1.5	11.9	7.5	3.9	2.0
500-999	32.9	21.5	.5	15.1	2.6	16.5	10.6	5.0	2.4
1,000-2,499	33.0	23.9	1.0	9.9	1.6	18.2	10.0	6.2	3.4
2,500-4,999	46.5	22.6	2.4	27.5	2.0	10.5	5.6	2.2	3.5
5,000 or more	40.8	30.9	1.6	10.9	7.8	12.6	4.5	7.5	2.7
Organizational form									
Proprietorship	15.1	10.6	.2	3.3	1.9	9.1	5.6	3.3	.6
Partnership	19.9	12.6	.0	8.6	2.2	7.2	3.1	2.1	2.0
S-corporation	26.0	17.0	1.1	10.2	0.9	10.3	6.4	3.7	.8
C-corporation	27.0	18.4	.4	11.0	1.9	11.9	8.3	2.6	2.0

See notes at end of table.

A.6. —Continued

B. —Continued

Category of firm	Financial nondepository supplier: Any	Finance company	Broker-age	Leasing company	Other	Nonfinancial supplier: Any	Family and indivi-duals	Other busi-nesses	Govern-ment
Standard industrial classification									
Construction and mining (10-19)	22.5	18.5	.7	3.4	1.2	6.4	3.3	2.7	.9
Primary manufacturing (20-29)	21.3	13.1	.1	11.0	.1	18.2	7.5	10.9	1.3
Other manufacturing (30-39)	20.8	12.2	1.0	8.9	1.3	13.2	10.3	1.5	1.8
Transportation (40-49)	28.1	19.5	.4	8.9	2.7	9.6	6.5	3.4	.0
Wholesale trade (50-51)	26.6	16.2	.7	9.6	1.7	10.8	7.2	2.1	1.8
Retail trade (52-59)	16.5	11.3	.3	3.8	2.3	9.7	5.8	3.0	1.7
Insurance and real estate (60-69)	17.1	11.5	.0	6.7	2.9	11.3	8.3	4.0	.0
Business services (70-79)	20.5	13.1	.6	8.0	1.2	9.7	6.7	2.7	.7
Professional services (80-89)	20.1	13.5	.3	7.8	1.9	8.8	4.9	3.5	.7
Years under current ownership									
0-4	20.3	13.3	.6	6.0	2.1	11.3	7.7	3.2	.9
5-9	23.2	15.1	.3	9.0	1.0	9.1	6.4	2.3	.4
10-14	20.4	13.3	.3	8.7	1.1	8.0	5.0	2.8	1.0
15-19	18.7	13.0	.2	7.2	1.8	10.9	7.3	3.6	1.4
20-24	22.3	15.8	.2	4.1	3.6	13.8	6.3	5.1	2.7
25 or more	16.4	12.6	.9	3.5	1.6	7.3	3.5	3.5	.8
Urbanization at main office									
Urban	21.6	14.2	.5	7.6	1.9	9.1	5.8	3.1	.7
Rural	15.5	11.9	.1	4.0	1.0	12.4	7.3	3.5	2.0
Number of offices									
One	19.2	13.0	.4	6.3	1.6	9.3	5.8	3.0	1.0
Two	26.5	19.1	.2	9.9	1.4	11.7	6.5	4.9	.4
Three or more	35.5	20.9	2.1	13.5	3.8	17.2	12.3	4.7	1.6
Sales area									
Primarily in U.S.	20.3	13.7	.5	6.7	1.7	9.8	6.2	3.2	1.0
International or global	22.6	15.9	.3	10.4	1.4	9.7	5.2	4.3	.9

NOTE. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures.

1. Number of owners working in the business plus number of full- and part-time employees.

... Not applicable.

SOURCE. 1998 Survey of Small Business Finances.

A.7. Distribution of the total outstanding dollar amount of traditional types of credit used by small businesses, by type of supplier and selected category of firm, 1998

Percent

Category of firm	Bank	Nonbank	Financial non-depository	Nonfinancial	All traditional types
All firms	**65.2**	**34.8**	**23.0**	**7.9**	**100.0**
Number of employees[1]					
0-1	40.8	59.2	47.1	4.8	100.0
2-4	59.5	40.5	19.1	13.6	100.0
5-9	77.4	22.6	11.6	6.6	100.0
10-19	65.9	34.1	24.6	6.2	100.0
20-49	56.0	44.0	25.5	12.3	100.0
50-99	66.7	33.3	24.4	6.0	100.0
100-499	69.8	30.2	23.3	6.2	100.0
Fiscal year sales (thousands of dollars)					
Less than 25	32.4	67.6	42.6	18.0	100.0
25-49	64.1	35.9	19.3	5.9	100.0
50-99	35.1	64.9	33.7	14.6	100.0
100-249	57.3	42.7	23.2	11.2	100.0
250-499	70.5	29.5	12.4	12.6	100.0
500-999	63.3	36.7	22.5	7.9	100.0
1,000-2,499	54.7	45.3	28.8	9.6	100.0
2,500-4,999	68.0	32.1	14.4	13.4	100.0
5,000-9,999	69.9	30.1	23.4	4.4	100.0
10,000 or more	71.7	28.3	24.8	3.2	100.0
Assets at year-end (thousands of dollars)					
Less than 25	40.8	59.2	35.5	10.9	100.0
25-49	65.1	35.0	19.6	10.7	100.0
50-99	50.3	49.7	27.8	15.8	100.0
100-249	66.9	33.1	15.9	10.5	100.0
250-499	55.9	44.1	23.2	13.3	100.0
500-999	67.0	33.1	19.5	9.2	100.0
1,000-2,499	60.7	39.3	19.6	13.5	100.0
2,500-4,999	70.0	30.1	20.1	7.2	100.0
5,000 or more	68.5	31.5	26.9	3.2	100.0
Organizational form					
Proprietorship	52.3	47.7	31.9	9.2	100.0
Partnership	64.2	35.8	26.4	6.0	100.0
S-corporation	65.9	34.1	20.9	9.4	100.0
C-corporation	69.8	30.2	20.6	6.4	100.0

See notes at end of table.

A.7. —Continued

Category of firm	Bank	Nonbank	Financial non-depository	Nonfinancial	All traditional types
Standard industrial classification					
Construction and mining (10-19)	64.2	35.8	23.1	10.5	100.0
Primary manufacturing (20-29)	63.1	36.9	31.0	5.1	100.0
Other manufacturing (30-39)	76.9	23.1	16.0	6.3	100.0
Transportation (40-49)	51.7	48.3	30.5	6.6	100.0
Wholesale trade (50-51)	77.9	22.1	10.1	5.7	100.0
Retail trade (52-59)	63.1	37.0	28.8	6.1	100.0
Insurance and real estate (60-69)	51.6	48.4	37.0	6.5	100.0
Business services (70-79)	69.5	30.5	16.1	8.0	100.0
Professional services (80-89)	64.1	35.9	11.1	20.0	100.0
Years under current ownership					
0-4	57.5	42.5	23.0	9.3	100.0
5-9	63.0	37.0	26.4	7.4	100.0
10-14	58.5	41.5	27.6	10.2	100.0
15-19	76.6	23.4	13.9	8.5	100.0
20-24	61.8	38.2	28.6	8.7	100.0
25 or more	73.4	26.6	19.8	4.0	100.0
Urbanization at main office					
Urban	65.2	34.8	23.6	7.1	100.0
Rural	65.5	34.5	20.5	11.2	100.0
Number of offices					
One	64.4	35.6	22.9	8.1	100.0
Two	70.2	29.8	18.2	9.5	100.0
Three or more	64.7	35.3	25.4	6.7	100.0
Sales area					
Primarily in U.S.	64.3	35.7	23.2	8.4	100.0
International or global	74.1	25.9	21.1	2.8	100.0

NOTE. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures. Details may not sum to totals because of rounding.

1. Number of owners working in the business plus number of full- and part-time employees.

SOURCE. 1998 Survey of Small Business Finances.

A.8 Distribution of the total outstanding dollar amount of traditional types of credit used by small businesses, by type of credit and selected category of firm, 1998

Percent

Category of firm	Credit line	Mort-gage loan	Vehicle loan	Equip-ment loan	Capital lease	Other tradi-tional type	All tradi-tional types
All firms	**34.1**	**35.1**	**5.5**	**9.6**	**5.8**	**9.9**	**100.0**
Number of employees[1]							
0-1	9.8	70.3	6.5	2.0	1.8	9.6	100.0
2-4	18.9	49.8	11.5	4.7	4.9	10.2	100.0
5-9	32.5	43.7	6.4	5.8	4.0	7.7	100.0
10-19	32.7	32.7	6.7	10.1	9.8	8.0	100.0
20-49	32.6	21.5	4.8	18.3	7.0	15.8	100.0
50-99	35.7	42.3	3.5	6.7	6.9	5.0	100.0
100-499	47.2	22.0	3.4	11.6	4.2	11.7	100.0
Fiscal year sales (thousands of dollars)							
Less than 25	13.1	42.1	5.6	1.5	31.1	6.6	100.0
25-49	9.4	65.7	9.9	5.8	1.7	7.5	100.0
50-99	9.4	52.0	13.2	3.9	11.6	9.9	100.0
100-249	15.3	52.6	9.1	5.8	5.1	12.2	100.0
250-499	24.7	43.9	9.7	5.9	6.4	9.4	100.0
500-999	17.0	60.1	6.0	6.0	4.8	6.1	100.0
1,000-2,499	18.8	39.4	8.8	11.0	7.7	14.4	100.0
2,500-4,999	32.4	32.1	4.2	13.7	6.7	11.0	100.0
5,000-9,999	33.8	25.7	5.3	12.2	9.6	13.5	100.0
10,000 or more	54.1	22.3	2.8	10.3	2.5	8.0	100.0
Assets at year-end (thousands of dollars)							
Less than 25	18.3	43.8	14.8	6.8	6.7	9.7	100.0
25-49	18.7	23.9	18.7	4.5	9.2	25.1	100.0
50-99	19.7	30.3	16.7	6.4	12.5	14.4	100.0
100-249	14.7	46.5	11.7	11.1	5.8	10.2	100.0
250-499	26.6	36.1	11.3	5.8	6.7	13.6	100.0
500-999	22.2	49.5	4.4	5.8	5.8	12.5	100.0
1,000-2,499	25.9	32.7	6.9	15.3	9.9	9.3	100.0
2,500-4,999	40.7	25.4	2.4	12.4	8.9	10.2	100.0
5,000 or more	46.9	31.7	2.5	9.3	2.5	7.1	100.0
Organizational form							
Proprietorship	11.0	65.9	7.4	6.1	3.1	6.5	100.0
Partnership	32.0	54.7	2.2	1.9	1.7	7.5	100.0
S-corporation	40.7	29.6	5.8	7.4	4.6	11.9	100.0
C-corporation	36.8	22.3	5.7	15.8	9.5	10.0	100.0

See notes at end of table.

A.8. —Continued

Category of firm	Credit line	Mort- gage loan	Vehicle loan	Equip- ment loan	Capital lease	Other tradi- tional type	All tradi- tional types
Standard industrial classification							
Construction and mining (10-19)	22.7	36.1	9.5	14.7	2.5	14.6	100.0
Primary manufacturing (20-29)	33.9	32.0	1.2	17.2	11.5	4.2	100.0
Other manufacturing (30-39)	40.1	11.9	2.8	14.6	13.5	17.1	100.0
Transportation (40-49)	12.0	30.6	16.8	17.2	8.3	15.1	100.0
Wholesale trade (50-51)	57.2	20.1	4.1	8.3	2.2	8.2	100.0
Retail trade (52-59)	45.8	30.8	7.5	3.9	1.9	10.1	100.0
Insurance and real estate (60-69)	19.5	73.8	1.3	1.2	1.2	3.0	100.0
Business services (70-79)	27.4	45.6	6.5	8.9	7.3	4.4	100.0
Professional services (80-89)	36.3	23.8	6.0	8.1	5.0	20.7	100.0
Years under current ownership							
0-4	25.4	44.8	4.2	10.2	5.7	9.8	100.0
5-9	36.4	25.8	6.9	10.3	10.9	9.9	100.0
10-14	26.9	44.7	5.4	7.2	3.4	12.4	100.0
15-19	35.2	29.3	6.1	10.5	8.4	10.5	100.0
20-24	34.1	44.1	4.4	4.7	4.6	8.1	100.0
25 or more	45.4	23.4	6.2	13.0	3.4	8.6	100.0
Urbanization at main office							
Urban	36.9	34.6	5.2	7.8	6.1	9.4	100.0
Rural	21.3	37.1	7.2	17.8	4.6	12.0	100.0
Number of offices							
One	31.7	36.2	7.3	9.3	6.8	8.8	100.0
Two	41.0	20.7	5.1	14.3	7.5	11.4	100.0
Three or more	35.6	39.3	2.3	8.2	3.3	11.3	100.0
Sales area							
Primarily in U.S.	32.9	36.5	5.9	9.4	5.9	9.4	100.0
International or global	45.7	21.3	2.1	11.3	5.2	14.4	100.0

NOTE. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures. Details may not sum to totals because of rounding.

1. Number of owners working in the business plus number of full- and part-time employees.

SOURCE. 1998 Survey of Small Business Finances.

A.9 Percentage of small businesses with various recent credit application experiences, by selected category of firm, 1998

Percent

Category of firm	Applied for credit	Applied once		Applied multiple times			Did not apply for fear of denial[3]
		Share of all firms	Application approved[1]	Share of all firms	All applications approved[2]	Some applications approved[2]	
All firms	23.3	11.0	81.8	12.4	62.1	16.4	23.3
Number of employees[4]							
0-1	14.8	7.7	79.0	7.1	55.4	7.0	21.0
2-4	20.7	11.3	77.0	9.5	58.2	19.6	25.4
5-9	27.8	10.6	87.7	17.1	59.1	22.0	26.5
10-19	34.7	14.6	90.9	20.2	69.4	9.9	19.8
20-49	36.6	14.7	79.7	21.9	72.4	14.9	17.3
50-99	39.7	17.5	92.6	22.2	83.4	8.9	12.4
100-499	30.3	13.8	97.2	16.5	76.8	9.1	11.7
Fiscal year sales (thousands of dollars)							
Less than 25	12.2	6.0	70.8	6.2	47.2	2.9	25.9
25-49	13.7	5.4	73.4	8.3	44.5	6.7	23.3
50-99	19.4	9.7	71.5	9.7	48.9	18.9	32.2
100-249	24.7	14.0	84.2	10.6	55.9	25.0	23.1
250-499	26.6	13.4	84.6	13.2	56.9	25.0	25.6
500-999	26.6	11.0	82.7	15.6	71.1	13.8	18.2
1,000-2,499	39.5	14.9	83.3	24.6	75.2	16.0	17.8
2,500-4,999	38.5	12.4	97.8	26.2	81.3	3.7	12.0
5,000-9,999	34.4	10.5	99.1	23.9	86.6	13.4	5.9
10,000 or more	37.5	21.4	96.5	16.1	80.0	13.4	4.2
Assets at year-end (thousands of dollars)							
Less than 25	16.0	8.5	76.3	7.5	48.1	13.9	26.4
25-49	17.5	9.9	82.8	7.6	35.3	24.2	24.1
50-99	26.0	12.9	80.9	13.1	61.8	19.5	26.4
100-249	27.8	12.5	77.7	15.2	74.4	12.5	24.2
250-499	28.2	13.4	93.8	14.9	48.0	25.4	18.0
500-999	37.3	12.7	91.0	24.7	80.8	15.5	16.8
1,000-2,499	38.9	11.5	78.9	27.4	78.5	13.0	13.6
2,500-4,999	34.0	16.1	94.8	17.9	67.1	6.3	10.2
5,000 or more	32.0	15.7	98.6	16.3	82.6	9.7	6.1
Organizational form							
Proprietorship	19.4	9.2	81.0	10.1	52.6	16.2	23.4
Partnership	27.2	13.6	75.5	13.5	73.9	10.3	24.2
S-corporation	28.5	14.3	82.3	14.2	62.8	18.3	23.7
C-corporation	25.6	10.4	85.8	15.2	73.4	16.3	22.3

See notes at end of table.

A.9. —Continued

Category of firm	Applied for credit	Applied once		Applied multiple times			Did not apply for fear of denial[3]
		Share of all firms	Application approved[1]	Share of all firms	All applications approved[2]	Some applications approved[2]	
Standard industrial classification							
Construction and mining (10-19)	25.3	9.9	74.2	15.5	72.8	7.8	24.7
Primary manufacturing (20-29)	30.8	16.3	75.4	14.5	46.9	42.8	26.6
Other manufacturing (30-39)	27.8	12.0	83.4	15.8	54.4	19.4	25.7
Transportation (40-49)	29.9	8.5	85.1[5]	21.4	79.0	4.3	18.3
Wholesale trade (50-51)	24.8	9.9	90.9	14.9	82.3	13.9	25.3
Retail trade (52-59)	22.4	14.4	82.1	8.0	60.4	13.9	25.3
Insurance and real estate (60-69)	24.1	9.7	100.0	14.4	69.0	10.7	16.6
Business services (70-79)	23.0	9.6	76.0	13.4	48.3	25.9	25.2
Professional services (80-89)	18.4	9.9	87.1	8.5	66.4	7.5	19.7
Years under current ownership							
0-4	26.2	11.2	81.4	15.1	52.4	19.1	30.4
5-9	26.6	12.6	77.7	14.0	53.8	16.2	29.3
10-14	23.5	13.3	78.9	10.2	67.0	19.1	18.4
15-19	23.7	11.4	92.3	12.3	69.0	15.2	22.5
20-24	19.9	8.5	81.6	11.4	76.2	12.4	16.6
25 or more	14.9	6.0	88.4	9.0	81.9	9.6	14.0
Urbanization at main office							
Urban	22.4	10.5	80.3	11.9	60.0	17.2	24.0
Rural	27.0	13.0	86.7	14.0	69.3	13.4	20.6
Number of offices							
One	21.5	10.4	81.4	11.1	63.4	14.2	23.2
Two	35.1	15.2	84.0	19.9	58.0	23.8	23.5
Three or more	38.8	14.8	83.9	24.0	55.1	26.5	25.7
Sales area							
Primarily in U.S.	23.4	10.8	82.4	12.6	62.7	16.5	23.2
International or global	21.2	14.2	72.5	7.0	41.2	10.4	26.3

NOTE. Survey respondents were asked about their credit application experience from 1996 to 1998. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures.

1. Percent based on small businesses that applied once for credit.
2. Percent based on small businesses that applied multiple times for credit.
3. Survey respondents were asked if they had forgone applying for credit at any point in the previous three years (1996-98) for fear of denial.
4. Number of owners working in the business plus number of full- and part-time employees.
5. Number of respondents was less than fifteen, which is too small to calculate a reliable statistic.

SOURCE. 1998 Survey of Small Business Finances.

A.10. Percentage of small businesses using trade credit or owner loans, by selected category of firm, 1998

Percent

Category of firm	Used trade credit: Share of all firms	Used trade credit: Offered discount: Share of trade credit users	Used trade credit: Offered discount: Took cash discount[1]	Used trade credit: Share of trade credit users that paid after due date	Loan from owner[2]
All firms	**61.9**	**59.2**	**79.6**	**43.0**	**28.1**
Number of employees[3]					
0-1	43.9	48.6	82.2	39.0	17.5
2-4	58.6	52.0	80.3	40.7	26.2
5-9	72.1	64.5	77.4	43.6	27.2
10-19	77.6	75.1	82.6	50.9	33.3
20-49	84.1	68.7	77.4	46.7	35.4
50-99	84.5	71.5	76.5	44.2	35.9
100-499	88.4	86.3	71.4	57.0	28.6
Fiscal year sales (thousands of dollars)					
Less than 25	30.0	39.7	86.2	35.0	21.6
25-49	47.8	43.6	79.9	29.0	14.4
50-99	56.0	45.7	81.5	46.0	26.3
100-249	64.8	54.3	81.6	41.9	29.6
250-499	77.8	64.4	77.4	42.5	30.0
500-999	78.8	64.9	78.4	46.1	31.6
1,000-2,499	82.0	74.0	73.8	50.3	27.1
2,500-4,999	81.6	84.3	82.6	45.7	26.0
5,000-9,999	77.7	83.7	87.5	43.7	34.7
10,000 or more	82.4	92.7	77.9	55.9	28.8
Assets at year-end (thousands of dollars)					
Less than 25	44.0	44.7	78.7	35.8	20.5
25-49	61.6	49.6	80.6	44.9	25.3
50-99	69.7	64.8	81.8	43.5	32.8
100-249	70.8	56.3	76.4	45.9	31.1
250-499	76.5	69.1	79.5	41.1	30.4
500-999	77.8	76.8	76.9	55.0	30.1
1,000-2,499	81.7	73.7	85.0	42.3	31.5
2,500-4,999	83.1	82.6	76.9	44.8	32.0
5,000 or more	86.7	92.7	85.7	57.1	27.3
Organizational form					
Proprietorship	51.6	50.7	84.4	38.0	...
Partnership	59.1	61.1	76.7	36.6	13.1
S-corporation	73.9	63.5	77.2	47.1	30.5
C-corporation	73.9	68.0	76.7	48.5	30.6

See notes at end of table.

A.10. —Continued

Category of firm	Used trade credit				Loan from owner[2]
	Share of all firms	Offered discount		Share of trade credit users that paid after due date	
		Share of trade credit users	Took cash discount[1]		
Standard industrial classification					
Construction and mining (10-19)	79.1	79.1	85.0	42.8	27.6
Primary manufacturing (20-29)	75.2	72.6	76.9	44.8	45.5
Other manufacturing (30-39)	81.6	73.4	74.5	48.2	34.5
Transportation (40-49)	44.3	55.3	73.3	45.4	25.7
Wholesale trade (50-51)	70.7	78.1	77.6	44.4	29.7
Retail trade (52-59)	65.4	64.1	85.2	42.2	28.4
Insurance and real estate (60-69)	36.6	40.3	87.4	30.9	24.1
Business services (70-79)	59.8	46.9	78.1	42.6	26.9
Professional services (80-89)	47.0	34.2	63.5	46.1	24.8
Years under current ownership					
0-4					
5-9	54.8	53.0	73.1	43.1	31.7
10-14	61.3	59.4	76.8	49.1	31.6
15-19	62.9	56.3	78.5	39.7	23.5
20-24	66.2	62.5	77.7	44.0	29.7
25 or more	68.9	60.8	86.5	45.0	22.9
Urbanization at main office	64.3	66.8	89.0	35.5	25.1
Urban					
Rural					
Number of offices	61.5	57.4	78.7	43.9	28.6
One	63.3	65.8	82.6	39.5	25.7
Two					
Three or more					
Sales area	59.9	57.7	80.8	41.8	27.7
Primarily in U.S.	74.1	65.0	71.4	48.1	31.1
International or global	79.9	73.0	78.1	54.6	28.3

NOTE. Data are weighted to adjust for differences in sampling and response rates and reflect population rather than sample measures.

1. Percent based on small businesses that were offered a cash discount on trade credit.

2. By definition, owner proprietorships cannot have loans from owners, since in these cases, business and owner are one. Consequently, the statistics produced for this column have a different denominator than the other columns in this table.

3. Number of owners working in the business plus number of full- and part-time employees.

... Not applicable.

SOURCE. 1998 Survey of Small Business Finances.

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