

Banking and SME Financing in the United States

by

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Background

Commercial banks have been the leading supplier of debt capital to small firms in the United States. With the increasing availability of small business lending statistics and of research on the topic, it becomes possible to provide an overview of the small business loan markets in the United States, as well as an evaluation of the impact of major developments on the cost and availability of loans to small businesses.

The paper begins with a brief discussion of the market—the borrowers, lenders, and market organization—followed by a discussion of major developments in U.S. financial markets and the banking industry. Topics discussed include innovations in information technology and in financial modeling and financial products, as well as banking consolidation and the growth of interstate banking. The implications of increased competition in small business loan markets as evidenced by the emergence of a nationwide market for credit lines and business credit cards, and the entry of regional and national banks and bank holding companies (BHCs) into local markets are discussed.

Overall Findings

Loan markets for most small business borrowers in the United States have become more competitive over the past decade, evidenced by the emergence of a nationwide market for credit lines and credit cards and the entry of large regional banks in local markets. However, the impact of increased competition on the cost of funds to small firms, as indicated by the rate spreads between small business rates and the rates paid by the banks' best prime customers, is more difficult to assess because of data limitations.

Highlights

- With more than 6,000 banks and BHCs serving millions of small business owners, the small business loan markets in the United States are made up of hundreds or even thousands of submarkets varying in size and borrower characteristics. Many of these markets are segmented, with various degrees of intermarket connection in the flows of funds.
- Competition in different submarkets also varies significantly—from highly competitive credit card markets for small businesses at the national level, to fairly competitive markets in major urban centers, to markets with very limited competition in remote rural areas and/or for specific ethnic groups.
- The emergence of a nationwide market for small business credit lines and credit cards over the past decade is a significant development in small business financing. The number of small business loans outstanding (loans under \$100,000) increased from about 5 million in 1995 to 14 million in 2004, compared with much smaller increases in larger small business loans, up from 1 million in 1995 to 1.7 million in 2004. Most of the increases came from 15 to 20 multi-billion-dollar banks and BHCs; they accounted for more than 50 percent of the number of loans under \$100,000 outstanding. Fourteen banks/BHCs have extended business loans in more than 40 states, according to the 2003 database of information submitted by banks as required by the Community Reinvestment Act (CRA).
- The entry of large regional banks into local markets also increased market competition in local small business markets. In 2003, of 370 banks/BHCs that made larger small business loans (loans between \$100,000 and \$1 million) in more than one state, 34 have lending activities in more than 10 states.

- It is more difficult to study the impact of increased competition on interest rate spreads between small business loans and loans to the banks' best customers. The prime rate served as the proxy for the rates charged to banks' best customers in earlier years, but prime customers have generally been charged rates below prime since the 1990s. Information on the rate premium over the base (or the index) in the rate adjustment formula of loan agreements would be most useful to an understanding of this issue.

Scope and Methodology

The databases used for the analysis include Reports of Condition and Income (call reports), reports submitted under the requirements of the Community Reinvestment Act (CRA reports), and Statistical Release E.2—the Survey of Terms of Business Lending conducted quarterly by the Federal Reserve Board. Studies on small business lending using these databases, including, for example, the Office of Advocacy's annual banking studies (available at <http://www.sba.gov/advo/research/banking.html>), are reviewed and summarized. Time series statistics were generated for analysis of the trends in small business lending by banks.

This report was peer-reviewed consistent with Advocacy's data quality guidelines. More information on this process can be obtained by contacting the Director of Economic Research at advocacy@sba.gov or (202) 205-6533.

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Introduction

Defined in the broadest sense to include independent businesses with 500 or fewer hired employees, U.S. small businesses numbered 23 million in 2003, employed about half of the private sector work force, and produced about half of the nation's private sector output.¹ Small firms are important to a competitive American economy because they fill niches in both input and output markets, innovate, and contribute to the dynamism in American industries and the U.S. economy.

The small business population in the United States

Because of the lack of a nationwide business registration and deregistration system in the United States, tracking the small business population and its dynamic changes has been a challenging task. Only recently, a more comprehensive annual national profile of the business population, and thus the small and medium-sized enterprise (SME) population, has become available.²

¹ See U.S. Small Business Administration, Office of Advocacy, *The Small Business Economy*, various editions, and "Small Business Frequently Asked Questions" at <http://www.sba.gov/advo/research/>.

² While the annual profile of employer firms has been available for some time, the annual profile of nonemployer firms was made available to the public only in January 2001 for the year 1997. See U.S. Department of Commerce, Bureau of the Census, www.census.gov/epcd/nonemployer/view/pressrel.html.

Table 1 Measures of the U.S. Small Business Population, 2003 (millions)

SME Measures	
Employer firms (nonfarm)	5.7 e.
Nonemployer firms	18.0
Total	23.7
Number of nonfarm business tax returns	27.0
Number of Sole Proprietorships (IRS) in 2002	18.9
Self-employment, nonincorporated	10.3
Self-employment, incorporated	5.0

e. = estimated

Sources: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Department of Commerce, Bureau of the Census; U.S. Department of the Treasury, Internal Revenue Service, *SOI Bulletin*; and U.S. Department of Labor.

As of 2003, the number of U.S. businesses (and thus small businesses) totaled 23 million, including 5.7 million employer firms and 18 million nonemployer firms (Table 1).³

Employer firms have employee(s) and participate in payroll tax withholding programs (identified by employer identification numbers or EINs). Nonemployer firms have no employees but file business tax returns with the Internal Revenue Service (IRS) of the U.S. Department of the Treasury. Other frequently mentioned measures of the U.S. small business population include the number of business tax returns filed with the IRS and the self-employed. Tax return data include filings of subsidiaries of larger companies—a fact that means large companies are reported numerous times—as well as the individual business returns of numerous very small business entities. Self-employment is a work force population concept. Thus, the two estimates of the business population are not comparable—for example, the total of 16 million nonemployer firms reflects a universe that is somewhat different from the 15 million self-employed owners of incorporated and unincorporated businesses.⁴

³ See also *op. cit.*, “Small Business Frequently Asked Questions,” June 2004 edition.

⁴ Examples would be an S corporation with five owners or a five-person partnership with one or no employees, etc.

While the sheer number of small businesses is huge, a substantial number of these firms are very small, many generating annual receipts of less than \$10,000.⁵ Even among “full-fledged” businesses with hired employees or self-employed businesses that provide a full-time career to the owner(s), different types of businesses are observed—from young dynamic ventures involved in innovative products to established small businesses serving local or regional markets, and from established subcontractors of large multinational corporations to “mom and pop” small craft, retail, and service businesses. The business goals and motivations of these businesses are different, as are their financial strategies and financing behaviors.

The dynamics of small firms

The relative position of small businesses in the U.S. economy tends to remain constant over time; that is, they continue to account for 99.7 percent of all businesses and employ slightly more than 50 percent of private nonfarm workers. Nevertheless, the gross movements in the number of businesses and employment are huge, with constant flows of business births and deaths and with expansions and contractions in employment. These movements demonstrate the dynamics of business change and competitiveness in the American economy. Only with a continuous flow of new firms entering the market can an economy assure that an adequate number of “successful” startups emerges to become “gazelles” or small, nimble, fast-growing businesses.

In sum, SMEs in the United States⁶

- Represent 99.7 percent of all employer firms;
- Are very small, 75 percent having no employees;
- Are more than 50 percent “home-based;”
- Employ half of all private sector employees;

⁵ In 2002, 8.6 million of 18.9 million sole proprietorship returns reported receipts of less than \$10,000. An additional 5.9 million had \$10,000 to \$50,000 in receipts.

⁶ *Op. cit.*, “Frequently Asked Questions,” and Brian Headd, “Business Success: Factors Leading to Surviving and Closing Successfully,” U.S. Bureau of the Census, Center for Economic Studies, Working Paper #CES-WP-01-01, January 2001; also, *Analyses of Business Dissolution by Demographic Category of Business Ownership*, Advocacy-funded research by Richard J. Boden (see <http://www.sba.gov/advo/research/rs204.pdf>).

- Pay 44.3 percent of total U.S. private payroll;
- Contribute 60 to 80 percent of net new jobs annually;
- Contribute more than 50 percent of nonfarm, private gross product originating (GPO) in private business;
- Exhibit annual startup and closure rates (for employer firms) of about 10 percent of the total population—in 2003 there were 572,900 new employer firms and 584,800 closures;
- Declared, in total, between 35,000 and 52,000 bankruptcies annually over the most recent 10 years, an indication that most small firm discontinuances caused no losses to the creditors;⁷ and
- Had about a two-thirds likelihood of surviving (as a new firm) for at least two years and a 50 percent likelihood of surviving four years.

Financing Patterns of Small Firms

Small firms use a variety of financing sources for different purposes. The Federal Reserve Board's Survey of Small Business Finances (1998 SSBF and earlier surveys in 1993 and 1987) provides the most comprehensive database on the uses of credit and other financial services by some 5.3 million small firms in the United States in 1998.⁸

Percentages of all small firms who used credit

More than 80 percent of all small businesses had used some kind of credit previously, and thus had outstanding debt on their books at the end of 1998.⁹ Fifty-five percent of small firms used traditional loans, while 71 percent used nontraditional sources, mainly

⁷ However, many small business failures showed up in the personal bankruptcy courts. See Robert M. Lawless and Elizabeth Warren, *The Myth of the Disappearing Business Bankruptcy*. In www.kauffman.org/pdf/eship_bankruptcy_061505.pdf.

⁸ See U.S. Small Business Administration, Office of Advocacy, *Financing Patterns of Small Firms: Findings from the 1998 Survey of Small Business Finances*, September 2003 (see http://www.sba.gov/advo/stats/ssbf_98.pdf - 1060.2KB). The Federal Reserve Board has completed the collection of financial information for 2003. The final edited database for the 2003 SSBF should be available for public use in spring 2006.

⁹ Credit extended by a supplier is the debt of the borrower. For example, credit used by a small business will show up as debt in the firm's books. The terms "debt" and "credit" are therefore used interchangeably in this discussion.

owners' loans and credit cards, for their credit needs.¹⁰ Among the different types of credit used, credit cards (both personal and business), credit lines, and vehicle loans were the most commonly used types or sources of credit. Forty-six and 34 percent, respectively, of small firms used personal and business credit cards, 28 percent used credit lines; and 21 percent, vehicle loans (Table 2).

Among financial institutions, banks are the most often used credit source for small firms: 38 percent of small firms had credit outstanding from commercial banks in 1998. Owners' loans were the second most important source, used by at least 14.2 percent of small firms, an underestimate at that.¹¹ Next, 13.3 percent of small firms used finance companies as a credit source.

The smallest firms have much less access to bank financing than larger firms. Only 17 to 31 percent of firms in the two smallest size categories (with zero and 1 to 4 employees, respectively) borrowed from commercial banks, compared with 53 to 77 percent of larger small firms (Table 3).

Loans from a firm's owners are among the most important sources of financing for most small firms. However, reliance on owners' loans was not well captured for all firms in the survey because sole proprietorship owners' capital was not considered debt financing and was thus excluded.¹² An examination of the borrowing patterns of small corporations indicated that some 30 percent of small corporations borrowed from their owner(s), compared with 14 percent of all small businesses.¹³

The percentage of small firms using credit increases with firm size. The percentage of firms using any credit increased from 70 to 99.6 percent as the employment size of the firms increased from 0 to more than 100. This trend is most pronounced in loans supplied

¹⁰ Traditional loans are the six types of loans covered in the survey: lines of credit, mortgages, vehicle loans, equipment loans, leasing, and other loans. Loans from owner(s) and credit cards were covered separately and thus considered nontraditional.

¹¹ The importance of owners' loans is underestimated because loans from sole proprietors were not covered in the survey and were thus excluded. See the discussion in a later section.

¹² Borrowing from owners by sole proprietorships is, by definition, equity rather than debt borrowing.

Table 2 Percentage of All Small Firms Using Credit, by Credit Type, 1998

Category	Loan Type											
	Any Credit	Any Traditional Loan	Line of Credit	Mortgage	Vehicle	Equipment	Lease	Other	Any Non-traditional Loan	Owner Loan	Personal Credit Card	Business Credit Card
Any Firm	82.5	55.0	27.7	13.2	20.5	9.9	10.6	9.8	70.7	14.2	46.0	34.1
<i>Number of Employees</i>												
0	70.2	32.8	12.8	6.5	12.3	3.9	3.2	5.8	59.4	0.2	48.2	17.4
1-4	80.3	49.0	21.0	12.5	17.9	7.8	7.5	8.9	68.2	12.0	46.7	29.3
5 - 9	89.6	70.1	34.8	15.5	25.1	14.6	14.6	9.3	75.7	19.3	43.2	44.1
10 - 19	94.1	76.0	49.2	19.5	31.3	12.9	22.3	15.0	84.3	29.1	52.2	51.8
20 - 99	95.0	84.2	59.9	21.1	32.9	22.1	23.3	19.3	85.6	32.9	38.8	57.9
100 - 499	99.6	92.1	74.9	18.8	29.8	25.0	28.3	22.7	84.5	27.6	23.7	62.5
<i>Standard Industrial Classification</i>												
Mining and construction	84.9	66.8	32.0	11.6	38.0	11.1	8.3	10.5	67.6	13.1	40.8	33.4
Manufacturing	86.8	58.5	34.2	7.6	18.1	16.5	16.7	17.2	76.7	24.7	48.7	39.3
Transportation	85.4	62.1	29.7	10.9	28.8	12.5	14.9	12.6	76.8	18.1	44.1	45.5
Wholesale trade	88.4	64.3	47.3	12.1	27.8	9.8	10.5	10.5	82.9	21.6	45.8	46.3
Retail trade	78.3	54.1	25.2	17.4	17.8	7.7	6.4	10.1	62.3	14.0	41.0	29.9
Finance, insurance & real estate	84.3	59.8	26.9	24.8	16.6	11.5	10.0	8.9	70.0	14.2	41.5	36.3
Services	81.4	48.8	23.1	11.5	16.0	8.8	11.6	7.9	71.6	11.1	49.9	31.7

Note: Owner loans are included for partnerships and corporations only.

Source: U.S. Small Business Administration, Office of Advocacy, "Financing Patterns of Small Firms: Findings from the 1998 Survey of Small Business Finance," September 2003.

Table 3 Percentage of all Small Firms Using Credit, by Supplier of Credit, 1998

Category	Any Credit	Lender																		
		Depository Institutions					Nondepository Institutions					Nonfinancial Institutions								
		Any Traditional Loan	Any Depository Institution	Credit Union	Thrift	Commercial Bank	Any Nondepository Institution	Finance Company	Brokerage	Leasing	Other Nondepository	Any Nonfinancial Institution	Family and Friends	Other Businesses	Government	Any Nontraditional Credit	Owner Loans	Personal Credit Cards	Business Credit Cards	
Any Firm	82.5	55.0	42.0	2.3	3.3	38.2	19.8	13.3	0.4	6.8	1.5	9.6	6.0	3.0	1.0	70.7	14.2	46.0	34.1	
<i>Number of Employees</i>																				
0	70.2	32.8	21.6	3.0	2.9	17.3	10.8	7.1	0.5	2.5	1.5	6.7	3.6	2.6	0.5	59.4	0.2	48.2	17.4	
1-4	80.3	49.0	35.5	2.2	3.3	31.3	16.7	11.5	0.3	4.8	1.5	8.7	5.7	2.4	0.7	68.2	12.0	46.7	29.3	
5 - 9	89.6	70.1	55.9	2.3	2.8	53.2	23.2	15.8	0.3	9.6	1.5	9.5	5.6	3.4	0.9	75.7	19.3	43.2	44.1	
10 - 19	94.1	76.0	62.5	3.3	3.9	59.0	33.2	19.7	0.7	14.5	1.2	13.8	9.4	3.4	1.6	84.3	29.1	52.2	51.8	
20 - 99	95.0	84.2	73.5	1.0	5.0	70.2	34.9	24.3	0.8	12.4	1.9	17.7	10.5	5.6	3.2	85.6	32.9	38.8	57.9	
100 - 499	99.6	92.1	77.9	0.1	3.4	77.2	45.4	27.5	2.2	22.7	1.8	12.4	6.5	4.3	2.6	84.5	27.6	23.7	62.5	
<i>Standard Industrial Classification</i>																				
Mining and construction	84.9	66.8	55.4	3.7	3.0	50.3	22.5	18.5	0.7	3.4	1.2	6.4	3.3	2.7	0.9	67.6	13.1	40.8	33.4	
Manufacturing	86.8	58.5	46.0	1.9	2.7	42.2	21.0	12.6	0.6	9.7	0.8	15.3	9.1	5.3	1.5	76.7	24.7	48.7	39.3	
Transportation	85.4	62.1	44.2	4.7	2.5	39.3	27.5	19.5	0.3	8.9	2.1	9.5	6.2	2.8	0.0	76.8	18.1	44.1	45.5	
Wholesale trade	88.4	64.3	51.2	3.4	4.3	46.1	25.0	14.6	0.7	9.6	1.7	10.4	6.9	2.0	1.7	82.9	21.6	45.8	46.3	
Retail trade	78.3	54.1	42.7	0.8	3.3	40.3	15.0	10.5	0.1	3.8	1.8	9.5	5.4	3.0	1.7	62.3	14.0	41.0	29.9	
Finance, insurance & real estate	84.3	59.8	46.9	3.1	5.9	41.6	16.3	10.8	0.0	6.7	2.9	11.3	8.3	2.9	0.0	70.0	14.2	41.5	36.3	
Services	81.4	48.8	34.9	2.2	3.0	31.4	19.9	12.8	0.5	7.9	1.3	9.1	5.8	2.8	0.7	71.6	11.1	49.9	31.7	

Note: Owner loans are included for partnerships and corporations only.

Source: U.S. Small Business Administration, Office of Advocacy, "Financing Patterns of Small Firms: Findings from the 1998 Survey of Small Business Finances," September 2003.

by depository institutions (banks, thrifts, and credit unions). For example, only 22 percent of firms with no employees used credit from depository institutions, while 78 percent of firms with more than 100 employees did so.¹⁴

Two distinct patterns were observed in the relationships between firm size and the percentage using a certain type or supplier of credit. The positive relationship between firm size and the percentage used is observed for most commonly used credit types and sources, and seems to reflect their availability to larger small firms. These types of credit become more available as firm size increases. A flat or even inverse relationship between firm size and the use of a type or source of credit—as observed with owners’ loans and personal credit cards—reflects a different phenomenon: the need of very small firms to use alternative sources because other, usually less expensive, sources of financing are unavailable.

The relative size of each market, as indicated by the value of debt outstanding, is shown in Table 4. Lines of credit and commercial mortgages are the two largest markets, accounting for more than 60 percent of the total debt outstanding for these small firms at the end of 1998.¹⁵

In conclusion, a multitude of small business loan markets exist in the United States, serving small firms of varying sizes with different financial characteristics and financing preferences.¹⁶

¹³ *Op. cit.*, *Financing Patterns...*, Table A,11.

¹⁴ Since credit lines are mostly provided by depository institutions, the rising trend in their use relative to firm size is even more significant. Thirteen percent of the smallest firms use them; 75 percent of the largest small firms. *Ibid.*, *Financing Patterns...*

¹⁵ Total debt outstanding was about \$700 billion for 5.3 million small firms. Trade credit was not included in the estimates.

¹⁶ They range from small local markets to larger national/regional markets for different loans. Also, there are markets for special groups of borrowers or in special areas—loans for startups, loans for women owners, loans for small rural communities or central city business owners, etc.

Table 4 Share of Total Debt Outstanding for All Small Firms in the United States, by Credit Type, 1998 (Percent, except as noted otherwise)

Category	Loan Type										
	Any Credit	Any Traditional Loan	Line of Credit	Mortgage	Vehicle	Equipment	Lease	Other	Any Non-traditional Loan	Owner Loan	Any Credit Card
Amount (\$ million)	\$700,026	\$608,730	\$207,383	\$213,534	\$33,654	\$58,545	\$35,521	\$60,093	\$91,296	\$86,525	\$4,771
Any Firm	100.0	87.0	29.6	30.5	4.8	8.4	5.1	8.6	13.0	12.4	0.7
<i>Number of Employees</i>											
0	100.0	97.8	4.1	80.3	6.3	2.0	1.9	3.3	2.2	0.2	2.0
1-4	100.0	81.3	21.4	37.4	7.7	3.5	3.3	8.0	18.7	16.2	2.6
5 - 9	100.0	86.0	23.5	39.1	5.9	5.6	3.9	8.0	14.0	13.2	0.8
10 - 19	100.0	89.0	29.5	28.4	6.0	8.8	8.8	7.4	11.0	10.5	0.6
20 - 99	100.0	83.7	28.6	26.7	3.5	10.5	5.8	8.6	16.3	16.2	0.1
100 - 499	100.0	93.3	44.0	20.5	3.1	10.8	3.9	10.9	6.7	6.7	0.0

Source: U.S. Small Business Administration, Office of Advocacy, "Financing Patterns of Small Firms: Findings from the 1998 Survey of Small Business Finance" September 2003.

Major Credit Suppliers in the Small Business Loan Markets

The 1998 SSBF also provides a comprehensive profile of financial lenders in the small business loan markets for some 5.3 million established small firms.¹⁷ Table 5 provides a profile of major participants in different small firm loan markets in 1998.¹⁸

- The credit line market is dominated by commercial banks, which supplied 87 percent of the total debt outstanding held by small firms at the end of 1998. Finance companies were a distant second, accounting for 10 percent of total outstanding debt.
- In the commercial mortgage markets, commercial banks supplied 57 percent, followed by other nondepository institutions (18 percent), finance companies, and savings and loans.¹⁹
- Banks and finance companies accounted for more than 90 percent of the market for vehicle loans.
- In equipment loans, again commercial banks dominated the market, with 59 percent, while finance companies accounted for 26 percent.
- The leasing market is the only one in which commercial banks ranked second, behind leasing companies—with 39 percent for leasing companies, 27 percent for banks, and 18 percent for finance companies.

To conclude, commercial banks are the most important lenders in most small business loan markets. However, except with credit lines (and business credit cards), nonbank lenders—namely, finance companies, mortgage lenders, and leasing companies—have

¹⁷ Again, current information on small business lending by credit suppliers is not available in the United States, except for bank loan data, which are available only by loan size.

¹⁸ George Haynes, *Finance Companies and Small Business Borrowers: Evidence from the 1993 and 1998 Surveys of Small Business Finances*, prepared for the U.S. Small Business Administration, Office of Advocacy, April 2005, online at <http://www.sba.gov/advo/research/rs255tot.pdf> - 347.2KB.

¹⁹ Most savings and loan (S&L) institutions converted or merged to become a part of federal savings banks in the early 1990s after the S&L debacle of the late 1980s.

Table 5 Share of Aggregate Value of Traditional Debt of Small Firms Held by Major Lenders, by Credit Type, 1998 (Percent, except as noted)

Lending Sources	Line of credit	Mortgage	Vehicle	Equipment	Lease	Other loans	All
Aggregate amount (\$ million)	207,383	213,534	33,654	58,545	35,521	60,093	608,729.65
Suppliers:							
Commercial bank	86.60	57.36	49.83	59.05	27.06	51.09	64.68
Finance company	9.74	8.46	39.65	26.44	18.15	2.49	12.32
Credit union	0.15	0.72	3.39	0.22	0.28	0.37	0.57
Savings and loan	1.00	7.69	1.23	0.11	0.59	1.70	3.32
Brokerage	0.31	0.09	0.03	0.07	0.94	0.75	0.27
Leasing	0.05	0.03	2.08	3.65	39.30	0.08	2.79
Other nondepository	0.16	17.06	0.11	0.04	0.07	0.65	6.11
Family	0.00	3.86	0.85	0.39	0.99	31.27	4.58
Other business	0.15	0.30	0.31	1.62	10.32	7.16	1.64
Government	0.20	1.24	0.00	1.59	0.06	3.47	1.00
Other individual	0.05	0.75	0.11	0.00	0.06	0.26	0.32
Others not identified	1.60	2.45	2.42	6.82	2.18	0.71	2.39
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: U.S. Small Business Administration, Office of Advocacy, "Financing Patterns of Small Firms: Findings from the 1998 Survey of Small Business Finances," September 2003.

been active players in the markets and have helped maintain competition in many small business loan markets in the United States.²⁰

Developments in the Banking Sector and Bank Lending to Small Firms in the U.S.

As noted, except in leasing, commercial banks are the most important small business financing market participants, accounting for 50 to 87 percent of total debt supplied to various small loan markets. Limited current information about bank lending to small firms has been available from call reports (June Reports of Condition and Income) since 1994 and from CRA reports (reports required under the Community Reinvestment Act) since 1997.²¹

Major developments that have contributed to changes in the performance of the small business loan markets over the past decade include:

- innovations in the financial markets contributed by technology, especially in information collection, processing and distribution, and financial modeling;
- banking consolidation and a decline in the number of banks in the United States; and
- globalization in the financial markets among industrialized nations.

Impacts of innovation in financial markets on the sources of funds by financial intermediaries

Innovations in U.S. financial markets during the past several decades have been significant. New products and services have been developed by different financial institutions to collect savings from individual households and businesses to lend to and/or

²⁰ In fact, it is the nonbank lenders that helped maintain competition in small business loan markets in spite of increased concentration in the banking sector. See Craig and Hardee, *The Impact of Bank Consolidation on Small Business Credit Availability*, prepared for the U.S. Small Business Administration, Office of Advocacy. Available online at <http://www.sba.gov/advo/research/rs234.pdf> - 92.7KB.

²¹ Information is available only for loan sizes of under \$100,000, \$100,000 to \$250,000, and \$250,000 to \$1 million. No information is available about business entities, loan types, and loan terms. See Advocacy's annual banking studies, such as *Small Business and Micro Business Lending in the United States., for Data Year 2002-2003*, released March 2005. Available at http://www.sba.gov/advo/research/sbl_03study.pdf.

invest in governments, businesses, and households.²² Since most small businesses and all households rely on financial intermediaries for financing—residential mortgages, automobiles, personal finances and credit cards for households; and credit lines, vehicle loans, and commercial mortgages for small businesses—the impact of developments in the financial markets on the availability of sources of funds to financial intermediaries becomes critical to the growth of small business loan markets. Most nondeposit financial institutions such as finance companies rely on the public markets for funding of their business lending; most depository institutions—banks, savings banks, and credit unions—have experienced drastic declines in deposits as the source of funding for lending.²³ Credit scoring, which allows lenders to access their borrowers’ credit profiles, especially their credit history, is one major innovation that should contribute to the growth of small business loan markets.

Banking consolidation

In spite of a large decline in the number of banks in the United States, in part because of numerous merger and acquisition (M&A) activities among banks/BHCs of all sizes over the past 10 to 15 years, the U.S. banking system is still the least concentrated banking system in the industrialized world.²⁴ As of June 2004, there were some 6,500 banks and BHCs in the United States.²⁵ The 72 multi-billion-dollar banks and BHCs with domestic assets in excess of \$10 billion held 75 percent of domestic assets, but accounted for less than 50 percent of small business lending (business loans under \$1 million) as of June 2004. Many of these giant banks maintained vast numbers of retail branches across the nation, while several were concentrated in wholesale business lending and international

²² The growth of private and public pension funds, mutual fund companies, and other institutional investors, as well as various credit products packaging loans of different risk brackets has encouraged the growth of public capital and credit markets far exceeding that of financial intermediaries in channeling savings to investment in the U.S. economy.

²³ Innovations that allow depository institutions to access public funding markets through asset securitization have found very limited success when small business loans are involved because of the difficulties in packaging small business loans, characterized by widely different risk and loan terms.

²⁴ See discussions on the markets in Japan and the United Kingdom at the conference for which this paper was prepared, “International Comparisons in the Financing of SMEs in Developed Nations,” <http://www2.warwick.ac.uk/fac/soc/wbs/conf/int-sme-finance/>.

²⁵ See U.S. Small Business Administration, Office of Advocacy, *Small Business and Micro Business Lending for 2003 -2004*, at <http://www.sba.gov/advo/research/rbsbl04.pdf>. Call report data were

banking.²⁶ An additional 645 medium-sized banks/BHCs (with assets between \$500 million and \$10 billion) operated in multi-state regional space. The remaining 5,600 banks/BHCs with domestic assets under \$500 million served local and within-state markets (Table 6). As the number of banks decline and many giant interstate or regional banks and bank holding companies (BHCs) emerge, more products and services are offered by more banks and nonbank institutions in different markets and locations, and banking competition in national and regional markets intensifies.²⁷

Trends in bank lending to small businesses, 1995-2004

As of June 2004, a total of 15.3 million loans outstanding of less than \$1 million each, valued at a total of \$522 billion, were owed by small businesses to commercial banks. More than 13.6 million of these, valued at a total of \$125.7 billion, were in the smallest loan category under \$100,000, and most of these were business credit card-related. Table 7 provides an analysis of the changes over the decade.²⁸

One perennial concern about banking consolidation has been its implications for small business lending, because of the relatively small share of small business loans in the asset portfolios of most giant banks. Table 8 provides a comparison of the relative importance of small business lending for banks and BHCs of varying sizes since June 1997. The following findings are observed:

- Small business lending seems to have kept pace with overall growth in business lending. The declining share of the amount in the smallest size category (under \$100,000) could be just a statistical phenomenon because of

consolidated for all BHC members to derive a total of 6,423 U.S. banks/BHCs in June 2004 (compared with a total of 7,678 banks submitting June 2004 call reports to federal financial supervisory authorities).

²⁶ The ratios of small business loans to total domestic assets for these banks, excluding American Express Centurion, range from 0.0 to 0.194, with a median of 0.06 in June 2004. *Op. cit.*, “*Small and Micro Business ...2003-2004*,” Table 1A.

²⁷ See Berger and Udell, “Small Business Finance in the 21st Century,” in Office of Advocacy, *Entrepreneurship in the 21st Century: Conference Proceedings*, March 26, 2004, available online at http://www.sba.gov/advo/stats/proceedings_a.pdf.

²⁸ Although not as comprehensive, flow data for the volume of loans made during a certain period have been available in the CRA database since 1997. For example, the total number and amount of small business loans (under \$1 million) extended by some 998 CRA reporting bank/BHCs was 6.06 million valued at \$248 billion in 2003. *Op. cit.*, *Small and Micro Business... 2003 -2004*.

**Table 6 Total Assets and the Dollar Amount and Number of Business Loans Outstanding by Loan Size and Bank Size in the United States
June 2004 (Dollar amounts in millions)**

<i>Loan Sizes</i>	<i>Amount/Number</i>	<i>Bank Asset Size</i>						<i>Total</i>
		<i>More than \$50 Billion</i>	<i>\$10 Billion to \$50 Billion</i>	<i>\$1 Billion to \$10 Billion</i>	<i>\$500 Million to \$1 Billion</i>	<i>\$100 Million to \$500 Million</i>	<i>Less than \$100 Million</i>	
<i>Number of Banks/BHCs</i>		22	45	272	357	2610	3188	6494
<i>Loans Under \$100,000 (SSBL)</i>	<i>Amount</i>	42.94	19.36	16.35	7.66	26.87	12.07	125.25
	<i>Number</i>	7,256,934	1,906,568	2,009,451	914,965	1,078,196	412,465	13,578,579
<i>Loans Under \$250,000 (MSBL)</i>	<i>Amount</i>	71.04	35.11	36.17	16.31	51.71	17.96	228.30
	<i>Number</i>	7,498,656	2,041,175	2,178,724	986,631	1,282,520	459,921	14,447,627
<i>Loans Under \$1 Million (LSBL)</i>	<i>Amount</i>	157.42	83.53	95.43	40.40	114.89	30.46	522.14
	<i>Number</i>	7,738,184	2,176,272	2,346,248	1,053,664	1,452,222	495,599	15,262,189
<i>Loans \$100,000 to \$1 Million (LSBL2)</i>	<i>Amount</i>	114.49	64.17	79.08	32.74	88.02	18.39	396.90
	<i>Number</i>	481,250	269,704	336,797	138,699	374,026	83,134	1,683,610
<i>Total Business Loans (TBL)</i>	<i>Amount</i>	640.53	228.21	230.70	74.11	165.23	34.13	1372.91
<i>Total Domestic Assets (TA)</i>	<i>Amount</i>	4214.79	1133.19	791.89	236.33	562.71	159.16	7098.07
Share of all bank/BHC								
SSBL\$	<i>Amount</i>	34.3	15.5	13.1	6.1	21.5	9.6	100.0
SSBL#	<i>Number</i>	53.4	14.0	14.8	6.7	7.9	3.0	100.0
MSBL\$	<i>Amount</i>	31.1	15.4	15.8	7.1	22.6	7.9	100.0
MSBL#	<i>Number</i>	51.9	14.1	15.1	6.8	8.9	3.2	100.0
LSBL\$	<i>Amount</i>	30.1	16.0	18.3	7.7	22.0	5.8	100.0
LSBL#	<i>Number</i>	50.7	14.3	15.4	6.9	9.5	3.2	100.0
LSBL \$(2)	<i>Amount</i>	28.8	16.2	19.9	8.2	22.2	4.6	100.0
LSBL # (2)	<i>Number</i>	28.6	16.0	20.0	8.2	22.2	4.9	100.0
Total Business Loans	<i>Amount</i>	46.7	16.6	16.8	5.4	12.0	2.5	100.0
Total Domestic Assets	<i>Amount</i>	59.4	16.0	11.2	3.3	7.9	2.2	100.0
Ratios:								
SSBL\$/TBL	<i>Amount</i>	0.067	0.085	0.071	0.103	0.163	0.354	0.091
SSBL\$/TA	<i>Amount</i>	0.010	0.017	0.021	0.032	0.048	0.076	0.018
LSBL\$/TBL	<i>Amount</i>	0.246	0.366	0.414	0.545	0.695	0.892	0.380
LSBL\$/TA	<i>Amount</i>	0.037	0.074	0.121	0.171	0.204	0.191	0.074
LSBL \$(2)/TBL	<i>Amount</i>	0.179	0.281	0.343	0.442	0.533	0.539	0.289
LSBL \$(2)/TA	<i>Amount</i>	0.027	0.057	0.100	0.139	0.156	0.116	0.056

Source: U.S. Small Business Administration, Office of Advocacy, annual banking studies, June 2004.

Table 7 Total Assets, Business Loans Outstanding by Size, and Loan-to-Asset Ratios for All Reporting Banks (June 1995-June 2004)

	2004	2003	2002	2001	2000	1999	1998*	1997*	1996	1995
(Amount in \$ million)										
SSBL\$(under \$100k)**	125.28	125.67	128.89	126.78	121.44	113.85	111.11	108.21	105.19	100.37
SSBL(Number)	13,579,962	14,093,016	15,651,289	10,794,555	9,802,330	7,726,928	7,018,226	6,725,646	5,313,182	4,885,066
LSBL\$(under \$ 1million)	522.33	495.11	483.99	460.42	436.98	398.45	370.46	348.71	333.04	315.91
LSBL(Number)	15,263,998	15,672,207	17,241,556	12,250,124	11,169,911	8,997,645	8,212,466	7,901,185	6,396,477	5,900,371
LSBL \$(2) (\$100k -<\$1 million)	397.05	369.44	355.10	333.65	315.54	284.60	259.34	240.51	227.86	215.54
LSBL (2) (Number)	1,684,036	1,579,191	1,590,267	1,455,569	1,367,581	1,270,717	1,194,240	1,175,539	1,083,295	1,015,305
Total Business Loans (\$)	1,373.27	1,318.10	1,306.95	1,324.52	1,300.27	1,142.33	1,019.19	923.24	848.10	805.99
Total Assets	7,100.75	6,607.42	5,912.04	5,548.33	5,229.59	4,736.23	4,419.40	4,046.39	3,766.85	3,556.66
Large business loans (>\$ 1 million)	850.94	822.99	822.97	864.10	863.28	743.88	648.73	574.52	515.06	490.08
Loan Ratios:										
SSBL\$/TBL	0.091	0.095	0.099	0.096	0.093	0.100	0.109	0.117	0.124	0.125
LSBL\$(2)/TBL	0.289	0.280	0.272	0.252	0.243	0.249	0.254	0.261	0.269	0.267
LSBL\$/TBL	0.380	0.376	0.370	0.348	0.336	0.349	0.363	0.378	0.393	0.392
SSBL\$/TA	0.018	0.019	0.022	0.023	0.023	0.024	0.025	0.027	0.028	0.028
LSBL\$(2)/TA	0.056	0.056	0.060	0.060	0.060	0.060	0.059	0.059	0.060	0.061
LSBL\$/TA	0.074	0.075	0.082	0.083	0.084	0.084	0.084	0.086	0.088	0.089
Number of reporting banks	7,678	7,816	7,949	8,158	8,459	8,659	8,966	9,293	9,670	10,149

* Adjusted for reporting errors.

** See Table 6 for definition of variables.

Source: U.S. Small Business Administration, Office of Advocacy, annual banking studies, various issues.

**Table 8 Shares of Assets and Business Loans by Size for all BHCs/Banks in the United States by Bank Size
June 1997-June 2004 (Percent)**

<i>Number of Banks/ Loan Sizes</i>	<i>Amount/ Number</i>	Asset Size of Banks/BHCs					<i>Less than \$500 Million</i>	All Bks/BHCs
		<i>More than \$50 Billion</i>	<i>\$10 Billion to \$50 Billion</i>	<i>Total more than \$10 Billion</i>	<i>\$1 Billion to \$10 Billion</i>	<i>\$500 Million to \$1 Billion</i>		
June/30/1997								
<i>Number of Banks/BHCs</i>		15	43	58	193	221	6821	7293
<i>Under \$100,000</i>	<i>Amount</i>	17.48	13.51	30.99	15.76	6.83	46.41	100
	<i>Number</i>	18.80	21.35	40.15	23.51	4.24	32.11	100
<i>\$100,000 to \$1 Million</i>	<i>Amount</i>	24.64	22.20	46.84	19.52	7.30	26.34	100
	<i>Number</i>	22.35	24.05	46.39	19.54	7.11	26.95	100
<i>Total Business Loans</i>	<i>Amount</i>	38.83	27.49	66.32	14.98	4.13	14.57	100
<i>Total Domestic Assets</i>	<i>Amount</i>	40.85	25.93	66.78	14.19	3.75	15.28	100
June/30/1999								
<i>Number of Banks/BHCs</i>		15	44	59	224	234	6384	6901
<i>Under \$100,000</i>	<i>Amount</i>	20.66	15.61	36.27	15.46	6.09	42.18	100
	<i>Number</i>	25.89	24.98	50.87	18.04	3.59	27.49	100
<i>\$100,000 to \$1 Million</i>	<i>Amount</i>	25.74	21.06	46.80	20.39	7.04	25.78	100
	<i>Number</i>	24.91	21.61	46.52	19.82	7.05	26.61	100
<i>Total Business Loans</i>	<i>Amount</i>	45.83	23.65	69.48	13.97	3.65	12.89	100
<i>Total Domestic Assets</i>	<i>Amount</i>	46.68	23.01	69.69	13.50	3.39	13.42	100
June/30/02								
<i>Number of Banks/BHCs</i>		19	45	64	233	321	5954	6572
<i>Under \$100,000</i>	<i>Amount</i>	31.01	15.36	46.36	12.96	6.38	34.30	100
	<i>Number</i>	38.27	21.69	59.96	21.04	6.42	12.58	100
<i>\$100,000 to \$1 Million</i>	<i>Amount</i>	29.58	16.51	46.08	18.69	8.86	26.37	100
	<i>Number</i>	32.01	16.18	48.18	18.05	8.37	25.40	100
<i>Total Business Loans</i>	<i>Amount</i>	49.33	17.49	66.82	14.40	5.21	13.56	100
<i>Total Domestic Assets</i>	<i>Amount</i>	55.53	17.78	73.31	11.55	3.69	11.45	100
June/30/04								
<i>Number of Banks/BHCs</i>		22	50	72	300	345	5706	6423
<i>Under \$100,000</i>	<i>Amount</i>	34.27	15.45	49.72	13.08	6.12	31.08	100
	<i>Number</i>	53.44	14.04	67.48	14.81	6.74	10.98	100
<i>\$100,000 to \$1 Million</i>	<i>Amount</i>	28.83	16.16	45.00	19.96	8.24	26.80	100
	<i>Number</i>	28.58	16.02	44.59	20.02	8.24	27.15	100
<i>Total Business Loans</i>	<i>Amount</i>	46.64	16.62	63.26	16.83	5.40	14.52	100
<i>Total Domestic Assets</i>	<i>Amount</i>	59.36	15.96	75.32	11.19	3.33	10.17	100

Source: U.S. Small Business Administration, Office of Advocacy, annual banking studies, various issues.

the use of a fixed loan size category in a growing economy where average loan sizes increase over time (Table 7).

- A national market for small business credit lines and credit cards seems to have developed, as indicated by a substantial increase in the number of the smallest loans—a result of the nationwide promotion of small business credit cards by giant interstate banks (Table 7).
- The position of multi-billion-dollar banks/BHCs in the larger small business loan markets (loans of \$100,000 to \$1 million) appears to be deteriorating. Among the possible explanations are: 1. giant banks are concentrating on credit card and credit line markets and thus neglecting the larger loan size markets; 2. large banks have acquired more non-small business lenders, thus increasing their asset shares without raising their small business loan share;²⁹ and 3. acquiring banks' participation in local business markets after a merger or acquisition is passive rather than active (Table 8).

Loan rates charged by commercial banks on small business loans

Small business loan rates charged by banks are affected by many factors—the size of the market and thus the level of competition, the credit quality of the borrowers, the costs of extending and administering small business loans, and the cost of money to the lenders. The variables affecting the rates include the risk of the loans, loan size, collateral, commitment, and many other loan underwriting terms. The Federal Reserve Board began collecting information about the loan rates charged by commercial banks in the late 1970s, and has subsequently instituted several major revisions in data collection and reporting formats. Statistical Release E.2 provides information on the rates charged by banks to corporate and small business customers for the first week of February, May, August, and November of the year. Small loan rates are used as a proxy for small business loan rates. Effective weighted rates charged by banks are reported by risk category of the loan and by repricing period.³⁰ Information about other loan terms—such

²⁹ See Joe Peeks, *The Effect of Interstate Banking on Small Business Lending*, prepared for the U.S. Small Business Administration, Office of Advocacy, September 1997, available online at <http://www.sba.gov/advo/research/rs179.pdf> - 82.4KB.

³⁰ The Federal Reserve Board has reported effective loan rates by risk category since May 1998. Effective rates by loan size continue to be reported in the E.2 Release, but with no reference to the repricing periods.

as the use of collateral, commitment, and the base rate used for adjustable loans—are also reported for each loan group in the release. It is difficult to generalize about the rate spreads between loans of different sizes and different risk groups as reported in Release E.2 because, as discussed previously, small business loan markets are made up of hundreds or even thousands of submarkets characterized by the size of the geographic area in which different types of borrowers and lenders participate.³¹ Table 9 provides an overview of the loan terms charged by commercial banks on business loans of different sizes by large and small domestic banks.³²

The following observations can be made about the terms of bank loans to small firms:³³

1. Most small business loans are made in adjustable-rate loan arrangements—that is, the rates are adjustable over the term of a loan on the basis of changes in the base or index rate, which adjusts as market rates adjust. What this implies is that the cost of borrowing to small businesses changes as the interest rates in the capital and credit markets change. Small firms do not know the precise costs of borrowing anymore.³⁴

Special tabulations on the rates by loan size and by repricing period have been made available to the U.S. Small Business Administration, Office of Advocacy.

³¹ Moreover, since large loans make up a major share of the overall business loan markets, the estimated shares, weighted by loan values, as provided in Release E.2, reveal limited information about the characteristics of small business loans. In fact, it would be most revealing to look at the variation in the rates charged to small firms.

³² Special tabulations, using a simple average rather than a value-weighted average, were provided by the Federal Reserve Board to the Office of Advocacy for information on the percentages/share of loans with collateral, pre-commitment, and using the prime as the base rate.

³³ An econometric estimate for the rate determination would be the only way to identify the significant factors explaining the difference between rates charged to small and large businesses.

³⁴ This might indicate that they are more sensitive to changes in monetary policy. See William C. Dunkelberg and Jonathan A. Scott, *The Effect of Changes in Monetary Policy on the Expectations, Spending Plans and Hiring Decisions of Small Business Owners*, a report to the U.S. Small Business Administration, Office of Advocacy, under contract number SBAHQ-04-M0450, available at <http://www.sba.gov/advo/research/rs267tot.pdf> - 645.7KB.

Table 9 Survey of Terms of Business Lending, E.2, November 7-11, 2005 Percent, excepted as noted

Maturity/repricing interval	Weighted average effective loan rate	Total value of loans (\$Millions)	Secured by Collateral	Prime based	Made under commitment	Weighted average effective loan rate	Total value of loans	Weighted average-maturity 5 days	Secured by collateral	Prime based	Made under commitment	Average months since rate set	Prime based (%) Not value-weighted ***
By large domestic banks						By small domestic banks							
1. All C&I loans	6.07	29,784	55.3	45.3	88	7.53	3,971	1,020	87.1	66.7	77	7.1	72.2
2. Minimal risk	4.79	666	42.1	37.5	78.3	7.26	138	1,143	93.4	63.3	47.1	2.2	77.1
3. Low risk	5.04	3,721	21.8	19.3	75.2	7.15	465	1,131	78.3	65.3	78.4	9	73.5
4. Moderate risk	6.04	12,888	46.8	41.2	88.7	7.52	1,593	904	86.4	76.5	79.2	7.5	68.7
5. Other	6.55	8,066	84.4	56.1	94.6	7.82	1,074	1,245	95.2	70.8	78.7	5.9	86.1
Zero interval	6.56	9,870	54.5	71.4	90.7	7.56	1,428	605	86.5	85.1	87.7	8.3	89
7. Minimal risk	5.01	155	47.2	63.6	98.6	8	13	3,545	94.4	94.4	99.8	0	98.1
8. Low risk	5.06	1,283	19.3	23.6	90.7	7.42	149	435	69.9	87.6	87.4	6.8	93.7
9. Moderate risk	6.71	3,446	51.7	78.3	95.1	7.43	579	482	82.1	87.4	87.4	8.6	85.8
10. Other	7.25	2,570	75.1	78.9	87.7	7.87	443	577	94.6	94.2	82.3	8	96.1
Daily	5.89	6,675	45.1	41.6	73.8	7.6	831	463	88.8	85.4	81.5	8.8	95.4
12. Minimal risk	4.8	265	10.8	50.4	57.8	...	...	...	...	...	...	...	95.4
13. Low risk	4.89	1,404	15.6	22.9	48.9	7.53	91	290	90.1	94.1	80.8	6	95.1
14. Moderate risk	6	3,605	48.3	42.9	77.9	7.43	399	691	84	86.7	87.7	10.4	97.1
15. Other	6.89	628	88.7	47.2	87.1	8.11	203	311	96.7	97.1	83	6.1	90.8
2 to 30 days	5.63	6,668	50.7	19.4	96	7.07	469	267	73.3	70.2	94.8	6.4	73.3
17. Minimal risk	5.09	39	53.2	39.4	96.2	...	...	...	...	...	...	...	61
18. Low risk	5.11	609	44.8	9.2	91	...	...	...	...	...	...	...	59.7
19. Moderate risk	5.43	3,820	38.9	15.3	96.1	7.56	207	370	90.7	91	95.4	0.3	75
20. Other	6.28	1,653	77.1	27.1	99.1	7.69	98	312	99.9	97	99.2	8	87
21. 31 to 365 days	5.94	3,960	79.1	38	93	7.66	625	1,214	87.8	38.2	54.6	5.8	41.7
22. Minimal risk	4.76	75	35.5	2.6	64	5.46	26	154	67.3	8.7	85.7	5.3	68.1
23. Low risk	5.82	234	17.5	7.2	91	7.27	64	260	92.9	62.8	72.3	10	53.2
24. Moderate risk	6.14	889	61.1	9.4	87.3	7.91	256	1,902	91.1	54.7	49.5	9.6	29.4
25. Other	5.93	2,525	96.6	54.3	99.7	7.42	182	1,107	90.1	15.7	52.7	1.6	55.6
More than 365 days	6.12	2,262	61.8	30.7	84.5	7.56	596	96	95.9	26	53.8	1.5	
27. Minimal risk	...	...	...	...	...	...	...	...	...	...	...	...
28. Low risk	5.57	75	39.8	24	95.3	7.1	115	117	85.7	34.4	59.5	2.3	
29. Moderate risk	6.07	1,094	40.7	33.9	80	7.43	141	56	96	27.9	49.9	2.5	
30. Other	6.63	601	86.3	49.7	97.2	7.86	148	165	98.4	15.1	80.4	1	
Size of loan (1000)													
31. 1 - 99	7.14	1,406	87.6	71.1	91.4	7.92	1,053	279	90.8	66.8	77.6	6.7	
32. 100 - 999	6.88	5,868	75.6	72.5	93.5	7.6	2,213	301	89.6	69.3	77.2	6.2	
33. 1,000 - 9,999	6.27	10,762	59	46.7	92.7	6.65	655	316	71.9	55.2	73.5	11.8	
34. 10,000+	5.35	11,748	38	27.3	80.6	...	...	...	...	...	...	...
Base rate of loan		Average loan size					Average Loan size						
35. Prime	6.94	13,493	68.3	266	93.5	7.79	2,648	111	90.9	71	82.3	6	
36. Other	5.35	16,291	44.6	800	83.5	7	1,322	667	79.4	74	66.4	9.9	

Source: Federal Reserve Board, Statistical Release E.2 *Survey of Terms of Business Lending*, November 7-11, 2005, 12/ 13/ 2005.

*** special tabulations from the Federal Reserve Board.

2. The rate spreads and how the base rates change in response to changes in the rates in the capital and credit markets provide better indicators of the relative costs of borrowing to small firms compared with large borrowers.³⁵
3. In general, the rate spreads differ by risk category, loan size, and size of the lender—with differences of 2 to 2.5 percent between the minimal-risk group and other groups; 1.5 to 2 percent between the smallest loans (under \$100,000) and the largest small business loans (\$500,000 to under \$1 million); and 50 to 75 basis points between large domestic banks and small banks in the United States.
4. Most small business loans are made with the prime rate as the base rate.³⁶ Since the prime may not adjust as promptly to changes in the market rates, especially when the market rates are falling, the rate spreads between small business loan rates and the prime may differ significantly from the spreads in rates charged to the bank's best customers.
5. It is difficult to estimate the rate spreads over the base rate, the index rate that changes as the market rate changes. The convention is that most small business loans have a rate spread (rate premium) of 1 to 3 percent above the base rate. However, the spreads over the rates charged to the banks' best customers are much higher. Chart 2 summarizes the rate spreads between small business loans (for two loan sizes of under \$100,000 and \$100,000 to \$500,000) and the average prime rates, as well as the spread over the prime-customer rates (as defined in the E.2 release). Rates for loans with 2-30 days repricing periods are used in this analysis.
 - i. The negative rate spreads between larger small business loans and the prime is a puzzle. It is hard to imagine an adjustable-loan formula with a negative spread over the base stipulated in the loan contract for this loan size. Several explanations are offered: loans made by larger banks did not use the prime as the base rate

³⁵ It would be revealing to know how the actual rates charged at the time of borrowing compared with the rates charged on the basis of the formula in the loan contract. There is an incentive for lenders to use "teaser rates," rates below the rate based on the adjustable rate formula, when competition for borrowers is strong. This practice is likely when market rates are rising or are expected to rise in the near future.

for their larger loans; prime rates used by larger banks are lower than the market average during this period of falling interest rates; large banks used ‘teaser rates,’—rates lower than the rate determined by the formula.

- ii. The rates paid by the prime customers are 200 basis points below the average prime rates in this period. Fluctuations in the spreads between the prime and prime-customer rates were also observed during this period—possibly an indication of rigidity in the prime rates.
 - iii. The spread between the smallest loans and the rates paid by prime customers were 2.5 to 3.5 percent.
6. The repricing periods range from zero to 360 days. Two-thirds of small business loans have a zero repricing period—that is, rates are adjustable as soon as the base rate changes, as compared with a fixed interval adjustment, such as monthly, quarterly, etc.³⁷ Rate premiums over rates with shorter repricing periods were observed only for loans with an over-360-day repricing period.
7. Most small business loans were made with collateral.³⁸

To conclude, there is still much to learn about the rate spreads between the rates for small business loans and the prime or the prime-customer rates. Information about the rate spreads in a loan contract might be more useful than information about the actual rates paid by borrowers at the time of borrowing. An econometric study on factors affecting the rates or rate spreads using individual loan data would certainly be most revealing.

³⁶ The prime has become more common as the base rate (the index) for small business loans than as the rate charged to the banks’ best customers, as has been commonly assumed. The rates charged to the banks’ best customers are usually below prime, especially when money market rates are low.

³⁷ Some 80 percent of the loans have repricing periods of less than 30 days.

³⁸ It is likely that this refers to loans other than business credit cards, which show huge increases in the number of loans originated, but not in the dollar amount.

Competition and Performance of Small Business Bank Loan Markets in the United States³⁹

The degree of competition in the small business loan markets in the United States differs widely because of different degrees of participation in local markets by regional and national lenders. Large national and super-regional lenders enter the local markets through two channels—mass marketing through all public media and relationship lending through the development of “direct” relationships between bank branch officers and small business borrowers. The products/services marketed through the former channel will be general-purpose loans with limited requirements on how and where the loan funds are used. Loan applications are evaluated on the basis of the borrower’s and/or the business’s credit history as well as other business financials. In the latter channel, for special-purpose lending, specific knowledge of the borrower(s) as well the loan purposes and the characteristics of collateral are required. Specific loan covenants might be required and an effective monitoring process used to assure loan performance. Of course, there are other loan types that use a combination of these two financing channels.

It is difficult to evaluate the performance of small business loan markets in providing financing to small firms at “reasonable” prices because of the difficulty of defining the market from the statistical information collected.⁴⁰ The issue is further complicated by limited information available for statistical analysis purposes.

Competition and performance in the small business loan markets in the United States will be briefly discussed under three headings—the emerging nationwide market for credit lines and credit cards for small businesses, competition in larger small business loan markets, and interest rate spreads for small business loans over large business loans. Community Reinvestment Act (CRA) data will be used to investigate the degree of

³⁹ SSBF data have been much utilized to investigate small business lending practices of banks of different sizes. For a review of all major research using the SSBF files, go to the bibliography of the SSBF section on the Federal Reserve Board’s website.

⁴⁰ This explains why complaints that small business credit markets do not work continue to be heard, while most respondents to small business surveys indicate their satisfaction with the markets’ performance.

participation by large banks and BHCs in local markets.⁴¹ Two small business loan markets are identified—the small credit line/credit card market, approximated by the smallest loans (under \$100,000), and the larger loan market for “special purpose” loans such as nonresidential mortgages, equipment, and other loans.⁴² Entry into the local markets by large regional and national banks provides the major impetus for increased competition.

An emerging nationwide market for small business credit lines/business credit cards

With a maturing consumer credit card market and accumulated knowledge and experience in credit scoring and credit card lending, large national and super-regional banks have promoted and exploited small business credit cards over the past 10 years. As discussed in the previous section, the number of the smallest loans under \$100,000 showed a rapid increase in this period. Multi-billion-dollar banks/BHCs’ share of the number of loans under \$100,000 outstanding increased from 40 percent to 67 percent between June 1997 and June 2004, as compared with relatively insignificant changes for other measures of small business lending activities by these banks/BHCs (Table 8). A study of the CRA data for 2003 indicated that 14 large banks/BHCs have participated in the nationwide markets; these banks/BHCs had at least 10 loans in each of the 50 states in 2003⁴³ (Table 10b). Nationwide banks include such well known credit card banks as Advanta, Amex, GE Capital, MBNA, and Atlantic Bank, and BHCs such as Bank of America, Bank One, Citigroup, FleetBoston, U.S.Bancorp, Wells Fargo, etc. Most major credit card banks participated only in the under \$100,000 market, while the giant BHCs participated in this and other small business loan markets with extensive branch networks.

⁴¹ Only the CRA database provides information about the destination of a bank’s small business lending activities. *Op. cit.*, *Small Business and Micro Business Lending in the United States for Data Years 2003-3004*.

⁴² The distinction is, indeed, not very precise. The special purpose market also includes the smallest loans made by smaller banks, which include vehicle loans, lease improvement loans, etc., to small businesses.

⁴³ While many banks reported loan activities in more than one state in the CRA, many show only one or two loans in a given state for 2003. Of a total of 1,000 banks/BHCs in the 2003 CRA reports, many had extended fewer than five loans in a given state. To exclude these “casual lenders,” banks with a significant small business program in a given state are identified as those with more than 10 loans under \$100,000 and more than 5 loans of \$100,000 to \$1 million.

Table 10a Number of Banks/BHCs Made at Least Five Loans (\$100,000 to \$1 Million) in a given state, 2003

<hr/> Number of states a bank extended loans	<hr/> Number of Banks/BHCs
One state	633
2-5 states	300
6-10 states	33
more than 10 states	34
Total number of banks/BHCs	1,000

Table 10b Number of Banks/BHCs Made at Least 10 Micro Loans (less than\$100,000) in a given state, 2003

<hr/> Number of states a bank extended loans	<hr/> Number of Banks/BHCs
One state	669
2-5 states	259
6-10 states	31
10-39 states	16
More than 40 states	14
Total number of banks/BHCs	989

Note: Many loans under \$100,000 may not be credit lines or credit card loans.

Source: Estimates derived from the CRA data for the year 2003.

Chart 1 offers a simplistic illustration of participation by banks/BHCs of different sizes in these two markets. Two small business bank loan markets in Wisconsin are described—for loans under \$100,000 and between \$100,000 and \$1 million.⁴⁴ The number of larger loans made by a certain bank/BHC is plotted against the number of the smallest loans. The market for small credit lines and credit cards is indicated on the horizontal axis. Here the market is dominated by two groups of lenders—a small number of large credit card banks that made a large number of loans in this market and no loans in the larger small business loan markets, and several large regional and national banks/BHCs with extensive lending in this and the larger loan markets.⁴⁵ With extensive use of credit scoring and other financial modeling and risk management tools, multi-billion-dollar national banks/BHCs have promoted this general-purpose credit line market to become a national market for small firms. This is the market in which large regional and national lenders extend credit lines to small firms across the country.⁴⁶ Competition in this market is mostly oligopolistic—characterized by nonprice competition more than by price competition. To the extent that the emerging credit card/credit line market promoted by giant banks/BHCs contributes to the provision of new credit products for small firms, the markets for small business loans and the availability of small business financing have expanded.

Entry into the local small business loan markets by large national and regional banks

The other small business loan market consists of different submarkets of varying sizes with different geographical expansion—including markets for very small loans (under \$100,000) extended by small community banks in local markets, large vehicle loan markets participated in by banks of all sizes as well as finance companies, markets for commercial mortgage loans also offered by banks/BHCs of all sizes (except very small

⁴⁴ Some 150 banks/BHCs reported small business lending in the State of Wisconsin in their CRA report in 2003. About 65 banks/BHCs which reported making 10 or more small business loans in Wisconsin in 2003 were plotted for examination. See CRA data in the Office of Advocacy report on *Small Business and Micro Business Lending...*, various years.

⁴⁵ The number of states in which these banks/BHCs have “extended loans” in a given year averages 35 to 45 states—an indication of the national market.

⁴⁶ This is the market where personal and business finance are integrated with owners’ wealth and payment history, constituting a major election in the credit review process.

banks) (Chart 1).⁴⁷ Active participation by national and regional banks and BHCs in the markets is indicated in Table 10a. Thirty-four national/regional banks and BHCs have branches and loan offices in more than 10 states and make at least five small business loans of \$100,000 to \$1 million in a given state.⁴⁸ It is true that many of these banks/BHCs obtained entry to the local markets through mergers and acquisitions of existing banks and may not have added much to the total number of participating lenders in a given market. However, by bringing funding sources from the national credit markets, large banks' entry into local markets creates a link to the national market.

While there is no good statistical measure of market competition in small business loan markets, competition in banking markets generally (especially in deposits) has been the subject of continuous investigation, especially by federal regulatory agencies. A concentration ratio for the banking markets in the United States, the so-called Herfindahl index (HHI), has been computed (using deposit distributions) by metropolitan statistical area (MSA) and non-MSA county for 2004.⁴⁹ Overall, banking competition in MSA markets remained competitive,⁵⁰ with little indication that banking consolidation has significantly affected banking market competition. A review of changes in the index over time also seems to indicate that most U.S. banking markets remained competitive.

To conclude, the markets for most small business loans have become more competitive, especially for some loans, as the markets become regional and national in scope with the entry of large regional and national banks/BHCs.

Interest rate competition

Another measure of market competition in the small business loan markets is the cost of borrowing to small firms. As markets become more competitive, the premiums between

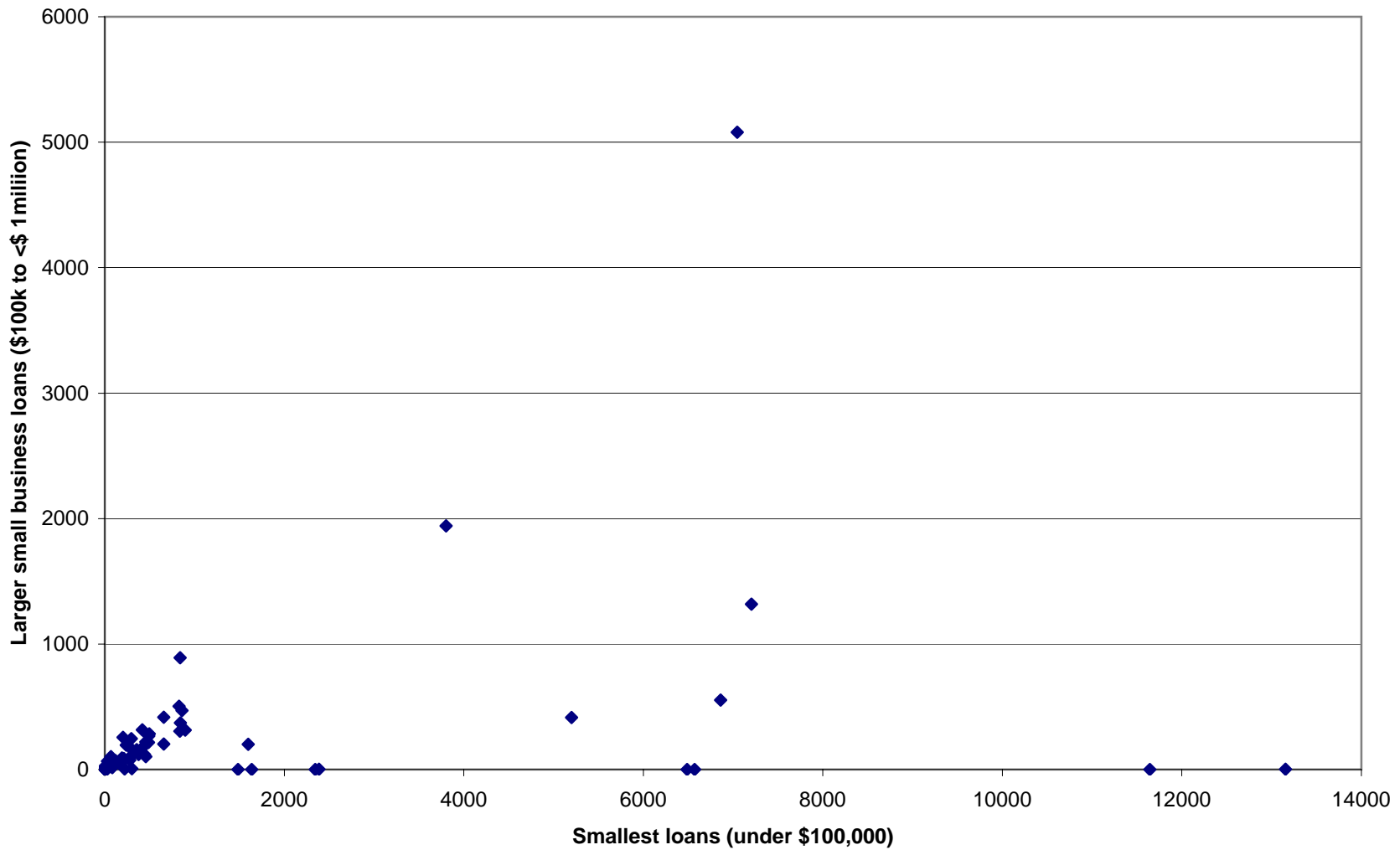
⁴⁷ An examination of CRA data for the \$100,000 to \$1 million loan market in individual states reveals that major lenders in this market were banks headquartered in the state and/or neighboring states.

⁴⁸ As of June 2005, 11 banks/BHCs had more than 1,000 branches each, according to the Federal Deposit Insurance Corporation (FDIC). See "Summary of Deposits—Top 50 Bank Holding Companies."

⁴⁹ Thanks to Dr. Wolken of the Federal Reserve Board for this calculation.

⁵⁰ The HHI measurements for 361 MSAs for commercial banks ranged from 550 to 7,701, with a median of 1,677 and a quartile of 2,100. The index for rural counties ranged from 874 through 10,000 with a median of 3,350 and a quartile of 5,000.

Chart 1: Scatter Diagram of the Numbers of Small Business Loans by Banks/BHCs in Wisconsin, 2003
(Smallest loans versus larger small business loans)



rates for small business loans and risk-free loans for prime customers should narrow because of competition. While it is difficult to evaluate changes in the rate premiums paid by small firms for bank loans over time, changes in the rate differentials between small business loans, the prime rate, and rates charged to the banks' best customers will be analyzed.⁵¹

Rates charged for small variable-rate loans (with a 2-30-day repricing period) will be analyzed. Changes in the rate spreads for small business loans over the prime rates and the rates charged to prime borrowers (borrowers classified as risk-free) for the first quarter 1998 through the fourth quarter 2004, are provided in Chart 2 (see also Table 11).⁵² Tentative findings are:

- Overall, the spreads between small loan rates and the prime rate—the base rate for rate adjustments in small business loans—range between 0 and 1.5 percent for loans under \$100,000 and between 0.5 and -0.5 percent for larger small business loans, with a slightly declining trend in both sizes over the period.⁵³
- The spreads between rates for small borrowers and those for the banks' prime customers average between 2 and 2.5 percent for larger small loans and between 2 and 4 percent for the smallest loans. However, there were wider fluctuations in the movements and a substantial increase in the spreads over the last two years of the present recovery.
- As an index for most loans to small businesses, the prime tends to be rigid. However, over the January 1998 through December 2004 period, the spreads

⁵¹ The cost of funds for small firms is affected by factors such as the terms, collateral, and financial condition of borrowers, as well as the risk assessment of business lending by banks during different business cycles. Moreover, with floating rate arrangements, small borrowers are bearing the risk of rate changes. Furthermore, the relationship between the prime rate, especially the local prime, and rates charged in the money markets has also changed, at least in the short term.

⁵² Since May 1997, loan rates have been grouped on the basis of varying degrees of risk and presented in the Federal Reserve Board's Statistical Release E.2. The Federal Reserve tabulates original data for use by the Office of Advocacy to better reflect rates charged small firms (for loans under \$1 million). This makes the comparison of rate spreads for small loans over large loans over time difficult, if not impossible.

⁵³ Overall, the premium over the prime rate rises slightly in periods of strong demand and decreases when demand is weak and liquidity is ample in the banking sector, as in 2002-2004.

Chart 2. Rate Spreads for Business Loans by Commercial Banks, by Loan Size 1998-I — 2004-IV

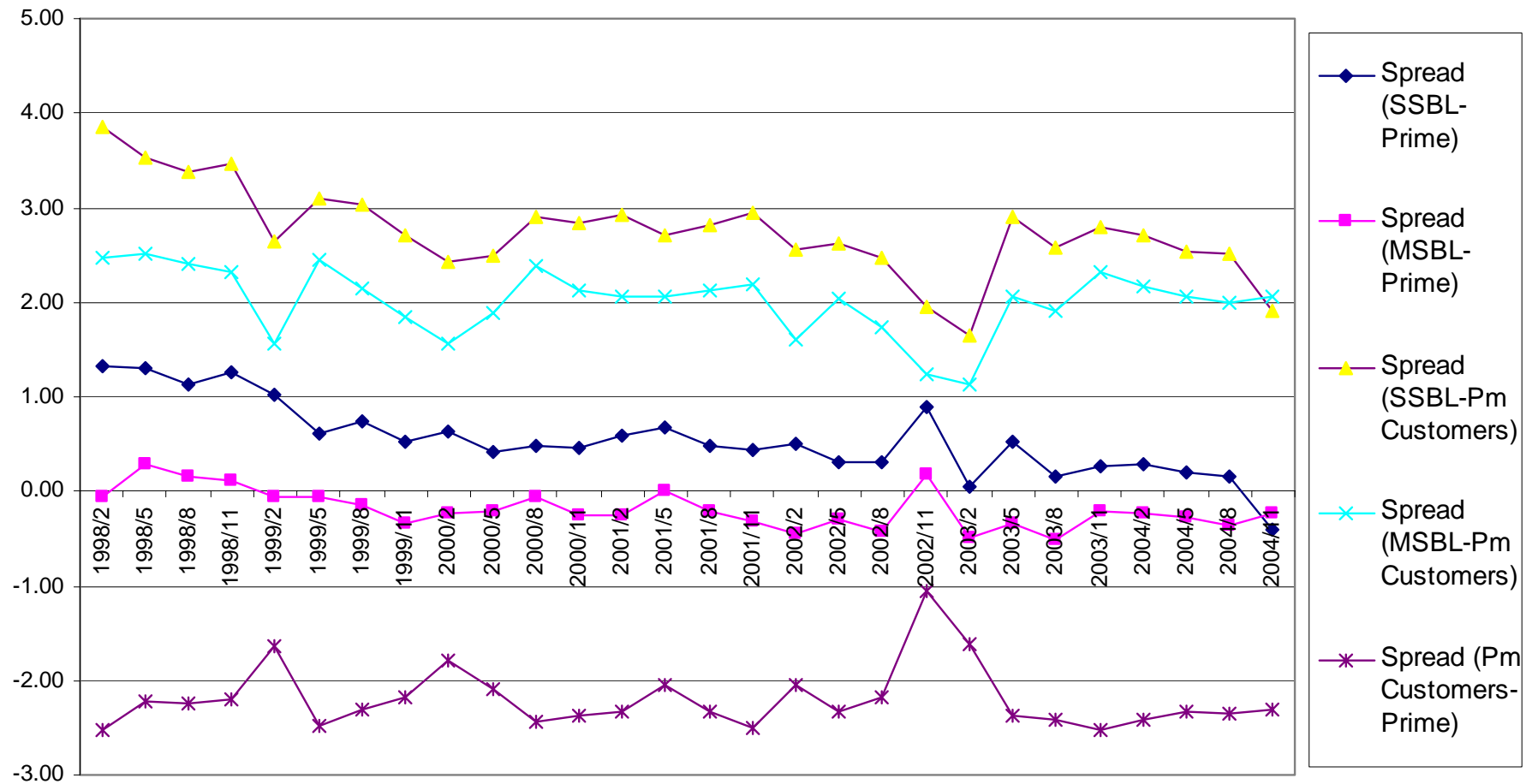


Table 11 Annual Averages for Rate Premiums of Small Loans over Prime Rates (Percents)
 (For smallest loans <\$100,000)

Year	Short-term floating **	Year	Variable rate loans (2-30 days repricing)
1987	1.74		
1988	1.75	1998	1.26
1989	1.88	1999	0.72
1990	1.91	2000	0.50
1991	1.63	2001	0.55
1992	0.58	2002	0.50
1993	1.43	2003	0.25
1994	1.15	2004	0.06
1995	1.39		

** Average of three smaller loan sizes before November 1997. No knowledge of repricing period for this period.

Source: Board of Governors of the Federal Reserve System, Statistical Release E.2; "Survey of Terms of Business Lending," various issues.

of the prime over short-term money market rates (three-month Treasury bills are the proxy here) ranged between 2.5 and 3 percent, except during the brief period between fall 2002 and spring 2003, and in 2004 when interest rate changes accelerated.

- A look at the spreads between the prime rate and the rates charged to banks' prime customers (risk-free loans), is most revealing. Banks have stopped competing by changing prime rates. The rates paid by prime customers were 2 percent below the prime rate over this period. A comparison of the movements in the spreads between small loan rates and rates for prime customers and the spreads between the prime and the prime customer rates in 2004 indicated that banks have not been cutting loan rates to attract small business borrowing—so, as the rate spreads between small loan rates and the prime narrowed slightly, the spreads between small loan rates and the rates paid by the banks' prime customers rose over the past two years..
- Although the 1986-1997 period and the 1998-2004 period are not strictly comparable, a comparison was attempted of the rate spreads between the smallest loans and the prime rates for the two periods.¹ Table 9 summarizes the results. On average, the spreads were higher in the earlier period—between 1 and 2 percent—compared with 0.5 to 1.5 percent in the later period. Again, the rate spreads increase about 50 basis points when the economy is doing well and demand is strong, as in the 1986-1990 and 1998-2001 periods.

A brief note on loan rates for small business credit cards.

- As a national/regional market served by some two dozen large competitors, the small business credit card market is very competitive.² Most competition, however, is conducted on nonprice terms—banks compete by offering teaser

⁵⁴ As discussed, the Federal Reserve Board began in May 1997 to group rates for floating-rate loans on the basis of “repricing” periods—one day, 2 to 30 days, 31 days to 365 days, etc. Short-term rates for loans reported before 1997 were for loan maturities under one year. No information on the repricing period is indicated for these loans.

⁵⁵ Major credit card issuers include American Express, MBNA, Capital One, Citicorp, Chase, Bank of America, Bank One (before it merged with Chase), Wells Fargo, Advanta, etc. Many BHCs and financial services holding companies have established a commercial banking entity or, more recently, a federal savings bank to conduct credit card operations.

rates, different grace periods for no or low interest, airline mileage advantages, and credit or cash discounts, etc. Consequently, most of the interest rates charged, after the promotion period, by lenders are 5 to 6 percent over prime rates, adjustable weekly or monthly.⁵⁶ The rates jump immediately—to 19.99 percent or higher for most lenders—when a borrower fails to make payments on time.

Conclusion

Small business banking consists of a multitude of markets of varying sizes serving the different needs of different small business groups. While most small business bank loan markets are small local markets, large regional or even national markets for small business credit lines have also developed. Most major small business bank loan markets in the United States have remained competitive or have become even more competitive in spite of banking consolidation. The continued presence of a large number of profitable community banks in many local and regional markets facing the encroachment of large national and regional banks is testimony to the competition in the small business banking markets in the United States. This explains why most small firms have indicated little concern about the availability of credit over the past decade. However, banks continue to compete on terms other than pricing—that is, competition in the small business loan markets is characterized by mostly oligopolistic pricing. Declines in the cost of borrowing to small firms over the past decade are mostly the result of ample liquidity available to the banking industry and in the overall financial markets in the United States.

⁵⁶ Obtained from a review of the terms contained in promotion materials sent by lenders.

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