

# Survey Evidence of Tighter Credit Conditions: What Does It Mean?

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Since early 1990, the results of the Federal Reserve Board's Senior Loan Officer Opinion Survey on Bank Lending Practices have been cited frequently as an indicator of general credit availability. Results from the Board's survey suggest that a considerable share of respondent banks were tightening their lending standards during 1990 and early 1991. How should these results be interpreted? This article attempts to answer this question by addressing the nature of the survey, examining the recent responses more closely and comparing recent results to past results.

## **A Brief History and Description of the Senior Loan Officer Survey**

The Federal Reserve Board (hereafter, Board) first began conducting its Senior Loan Officer Opinion Survey in late 1964.<sup>1</sup> The survey was considered experimental until 1967, when it was made official and the Board began releasing its results to the public. Neither the survey's sample nor its format was changed from 1967 through 1977. Over this period, a sample of at least 121 banks from among those already participating in the Board's Survey of Terms of Bank Lending completed a written questionnaire each quarter. These respondents represented banks operating in the national business loan market, which accounted for 60 percent of business loans outstanding at all commercial banks.

The survey is qualitative rather than quantitative, focusing on loan officers' judgments about recent changes in their banks' non-price lending practices. Multiple- or dichotomous-choice questions are asked; that is, respondents must select a response from a list provided. From 1967 through 1977, the

survey contained a consistent set of 22 questions, some of which were designed to identify whether banks' non-price lending policies (e.g., their standards of creditworthiness) were, on net, tighter, easier or unchanged from three months earlier. The Board reasoned that banks first responded to changes in the cost and availability of loanable funds by changing non-price lending terms and conditions of lending; only later would they adjust their interest rates. Therefore, information on changes in bank non-price lending policies would help explain the banking industry's response to monetary policy actions.<sup>2</sup>

The Board has revised the survey's format several times since 1977.<sup>3</sup> In February 1978, it changed several questions to capture more information on bank interest rate policies and on the willingness to make loans of different maturities. In May 1981, the sample was cut to 60 large U.S. commercial banks, generally the largest banks in their Federal Reserve districts.<sup>4</sup> Also at that time, the Board stopped conducting the survey through written questionnaires; instead, Federal Reserve Bank officers familiar with bank lending practices began conducting the survey through telephone interviews with senior loan officers at sample banks. In addition, the Board reduced the set of common questions from 22 to 6, dropping the questions on willingness to make term business loans. Allowance was made for the inclusion of questions on timely issues.<sup>5</sup> Since 1984, the survey format has been even more variable, with the number and type of questions usually changing from one survey to the next; even the number of surveys may vary

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<sup>1</sup> From 1964 through 1977 the survey was called the Quarterly Survey of Changes in Bank Lending.

<sup>2</sup> See "Quarterly Survey of Changes in Bank Lending" (April 1968), pp. 362-63, and Taylor (1990).

<sup>3</sup> See Davis and Boltz (1978), Trepeta (1981) and Taylor (1990).

<sup>4</sup> In August 1990, 18 U.S. branches and agencies of foreign banks were added to the sample. See Brady (1990).

<sup>5</sup> Over the years, questions have appeared on subjects like the pricing of loan commitments, the use of standby letters of credit, the financial deterioration of business loan customers, the effect of money market deposit accounts on bank lending practices and home mortgage activity.

from year to year. Questions on standards of creditworthiness for business loans were not included from 1984 through early 1990.

### Recent Survey Results

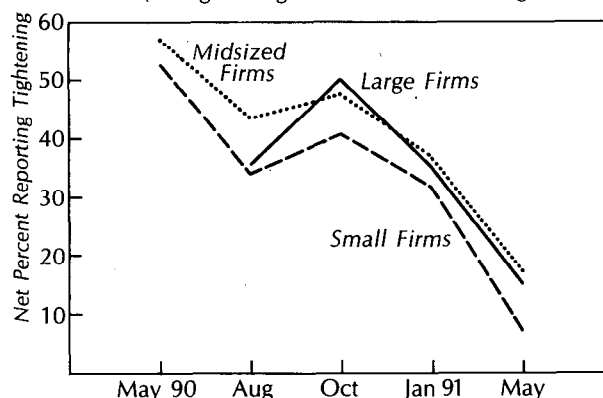
In May of 1990, the Board reintroduced questions on business lending standards. Respondents were asked the following multiple-choice question: "Since late last year, how have your bank's credit standards for approving loan applications from C&I [commercial and industrial] loan customers changed for middle market firms and for small businesses?" Respondents could answer that their banks' credit standards had "tightened considerably," "tightened somewhat," been "basically unchanged," "eased somewhat" or "eased considerably." Changes in the enforcement of standards were to be reported as a change in standards.

The question remained in subsequent surveys, but the wording varied. In August and October of 1990 and January and May of 1991 the survey asked, "In the last three months, how have your bank's credit standards for approving applications for C&I loans or credit lines—other than those to be used to finance mergers and acquisitions—from large corporate, middle market and small business customers changed?"

Chart 1 shows the results from the May 1990 through May 1991 surveys, which have received considerable media attention.<sup>6</sup> It depicts the difference between the number of respondents reporting "tightened considerably" or "tightened somewhat" and those reporting "eased considerably" or "eased somewhat," as a percentage of all respondents. Hence, the larger the difference, the greater the net tightening of credit standards according to the survey results. On net, over 50 percent of respondents tightened standards for firms of all sizes during the first third of 1990, based on the May 1990 survey. Only one lender reported easing. The August survey showed over 33 percent tightening further on loans

<sup>6</sup> Results are shown only for the 60 U.S. banks in the survey sample, not the branches and agencies of foreign banks. It is worth noting that the responses used to calculate the net percentages of respondents tightening lending standards or less willing to lend are not weighted by the asset size of the respondent banks. Thus, if the respondents reporting tighter lending standards generally have lower asset levels than those reporting easing, true or asset-weighted credit standards may have eased even though the survey might show more respondents tightening than easing. In practice, the fact that results are not weighted by asset levels has only been a problem to date for the period 1978-83. During that period, there were usually some respondents reporting tightening and some easing.

Chart 1  
Changes in Bank Standards  
of Creditworthiness  
(% Tightening Standards - % Easing)



Source: Federal Reserve Board Senior Loan Officer Opinion Survey.

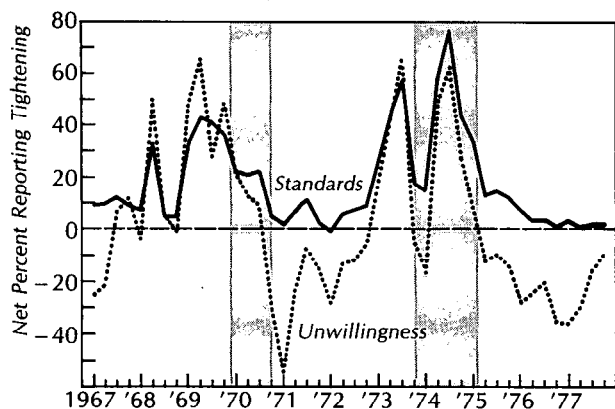
to firms of all sizes; by October, at least 40 percent reported further tightening. At most 37 percent reported having tightened again on the January 1991 survey, while 17 percent did so on the May survey. No banks reported easing on the August, October or January surveys.

### Survey Results from Earlier Periods

How should the recent survey results be evaluated? Are the results more extreme than those found typically? Do they resemble results from surveys taken during past recessions or periods of comparatively slow credit growth? Answers to these questions can be gleaned from responses to similar questions asked in earlier surveys.

**1967-77** Since the Senior Loan Officer Opinion Survey was initiated, the 1967-77 period has been the only extended period during which consistent questions about standards for and willingness to make business loans were asked. Chart 2 summarizes the responses to these two questions, neither of which is identical in wording to those asked recently. The solid line represents the responses of loan officers when asked how their banks had changed their "standards of creditworthiness for loans to nonfinancial businesses." Possible answers were "much firmer policy," "moderately firmer policy," "policy essentially unchanged," "moderately easier policy" and "much easier policy." As in Chart 1, the line depicts the difference between the number of respondents reporting "much firmer policy" or "moderately firmer policy" and those reporting "moderately easier policy" or "much easier policy," as a percentage of all

Chart 2  
**Standards and Unwillingness to Lend**  
 Measures of Tightening of  
 Lending Practices: 1967-1977



Note: Surveys were conducted in February, May, August and November of each year. The chart begins with data from February 1967.  
 Source: Federal Reserve Board Senior Loan Officer Opinion Survey.

respondents. An average of 18 percent more respondents reported firmer standards than reported easier ones over the 1967-77 period.<sup>7</sup>

The dotted line in Chart 2 shows loan officers' responses when asked how their banks' "willingness to make term loans to businesses" had changed. Officers chose from five responses ranging from "considerably less willing" to "considerably more willing." The line shows the net *unwillingness* to lend: the difference between the number of respondents *less* willing and those *more* willing, as a percentage of all respondents. That is, the greater the difference, the less willing banks are to lend. On average, 2 percent more respondents reported being less willing than reported being more willing to lend.

Three general observations can be made from Chart 2. First, changes in willingness to lend and changes in net credit standards generally move together; in fact, the correlation between the two series is 0.88. That is, when banks are less willing to lend, they tighten credit standards.

Second, the chart indicates a more generalized tightening of standards and decreased willingness to lend before and during recessions (the shaded time periods). For example, consider the December 1969 to November 1970 recession. Both series peaked in May 1969, with 43 percent of all respondents

indicating firmer standards of creditworthiness and 65 percent reporting decreased willingness to lend. In contrast, for the last three months of the recession banks firming credit standards outweighed those easing by only 5 percent; likewise, those more willing to lend dominated those less willing by 28 percent. For 1969—a year during which there was much speculation about whether a credit crunch was in progress—an average of 38 percent reported tighter lending standards, while an excess of 47 percent reported decreased willingness to lend.

The survey yielded similar results for the November 1973 through March 1975 recession. Both series peaked in August 1973 with over 57 percent of respondents on net reporting firmer standards and decreased willingness to lend. In 1973, as in 1969, on average the net percentage tightening was 38 while the net percentage reporting decreased willingness to lend was 30. Both series declined for November 1973 and February 1974 and then began rising again, reaching new peaks in August 1974. Results for the end of the downturn, as captured by the May 1975 survey, showed that a below-average percentage of respondents had somewhat firmer standards and a decreased willingness to lend.

A third observation from Chart 2 is that *respondents almost never reported a net easing of standards* on business loans.<sup>8</sup> During expansions, standards tightened less dramatically than during recessions (i.e., relatively fewer banks reported further tightening), but the number of respondents tightening continued to outweigh the number easing. We discuss this remarkable aspect of the survey results below.

**1978-83** By 1978 the Board had evidence that the role of the prime rate was changing.<sup>9</sup> Consequently, in revising the survey, the questions on business lending standards were rewritten to reflect that evidence. From 1978 through 1983, loan officers surveyed were asked about changes, compared with three months earlier, in their institutions' "standards of creditworthiness to qualify for the prime rate" and their standards "to qualify for a spread above prime." Possible responses were "much firmer," "moderately firmer," "essentially unchanged," "moderately easier" and "much easier." For a shorter period—1978 through February 1981—respondents were also asked about changes in their willingness to make

<sup>7</sup> Of banks *not* reporting a tightening of standards, the vast majority reported lending standards essentially unchanged from 1967 to 1977 and from 1978 to 1983.

<sup>8</sup> The February 1972 survey is an exception; one more respondent (0.80 percent) reportedly eased than tightened that quarter.

<sup>9</sup> See Brady (November 1985).

fixed-rate short-term (with maturities of less than one year) loans and fixed-rate long-term (maturities of one year or longer) loans. The five possible responses ranged from “considerately greater” to “much less.” Responses to the two questions on lending standards were highly correlated, as were those on the two questions on willingness to lend.

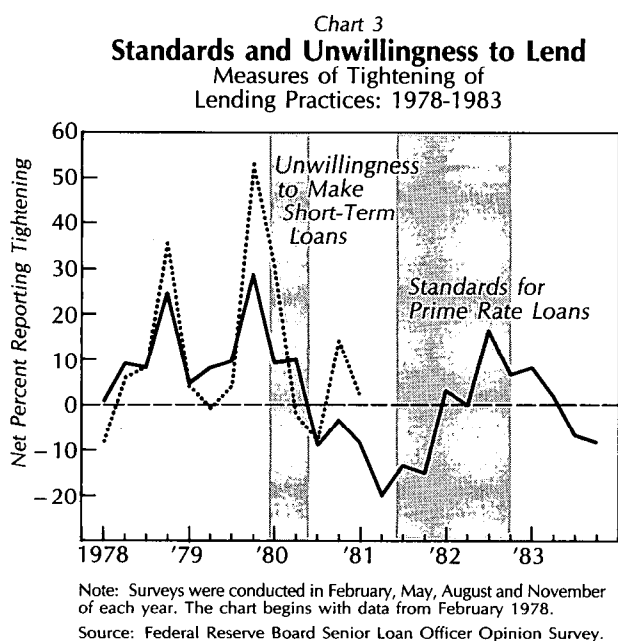
Chart 3 depicts reported changes in lending standards on prime rate loans and willingness to make fixed-rate, short-term loans. The results from the February 1978 through May 1980 surveys were similar to those from the 1967 through 1977 period. Specifically, a net tightening of standards was always reported, and changes in the willingness to lend are highly correlated with changes in lending standards. Moreover, the net tightening of standards reached a peak with the survey preceding the 1980 recession (the November 1979 survey). This peak of 29 percent is lower than the peaks preceding the two earlier recessions.

In contrast, the results for the August 1980 through November 1981 surveys deviated considerably from those for 1967 through mid-1980. For this period, respondents reported a *net easing* of lending standards. These results are particularly perplexing because they are the only evidence of a net easing over a 15-year period. The July 1981 through November 1982 recession is preceded by an easing of standards that “peaks” in May 1981, with 20 percent more respondents saying that they were easing

policy, most of them doing so “moderately,” than saying they were tightening. For the question (not shown in the chart) about changes in standards to qualify for a given spread *above* prime, the results are more extreme: 42 percent reported easing on net. Throughout the recession, a tightening of standards was reported on net by at most only 17 percent of respondents, approximately the average for the 1967-77 period.<sup>10</sup>

What explains these anomalous survey results? As Brady (1985) has documented, a weakening of the link between prime rates and market rates took place during the 1970s. Banks began pricing loans to large borrowers at market rates and, to a great extent, reserving the prime rate and prime-based rates for smaller and less creditworthy borrowers.<sup>11</sup> From mid-1980 through 1981, the prime rate was *above* the average loan rate (Chart 4). With the margin on *prime rate* loans comparatively high, lenders depended more on interest rates and less on standards of creditworthiness as a means of allocating credit. It is not surprising then that survey respondents reported an even more pronounced easing of standards on *above-prime rate* loans that had even higher rates relative to the average loan rate.

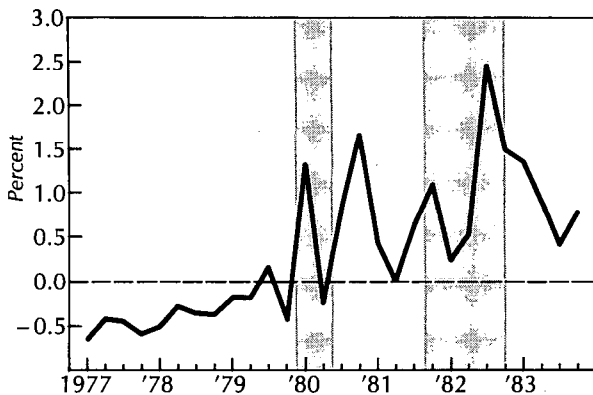
With the survey results for mid-1980 through 1981 accounted for, we conclude that the trends observed for the 1967-77 period continued to hold for 1978 through 1983. As stated above, no questions on the standards of creditworthiness for business loans appeared on the survey from 1984 until May 1990.



<sup>10</sup> The question on willingness to make fixed-rate short-term loans was not asked after February 1981, but its relationship to the standards question probably would have remained unchanged, given the high correlation between the two questions (a correlation of 0.76 from February 1978 through February 1981), had it been asked.

<sup>11</sup> Brady (November 1985, pp. 21-22) explains that interest rates (both market rates and the prime rate) were relatively stable until the mid-1960s. Thus, prime-based loan pricing, which was common during this period, resulted in relatively stable loan rates. The relationship between market rates and the prime rate began to change throughout the 1970s as market rates became more variable and U.S. branches of foreign banks, which priced loans off market rates, competed more actively in the U.S. commercial loan market. By about 1982, the practice of linking loan rates to market rates, which represented the marginal cost of funds, rather than to the prime, apparently a measure of the average cost of bank funds, was commonplace. As a measure of average costs, the prime changed more slowly in a volatile rate environment than did market rates. Thus, borrowers could obtain relatively stable interest rates with prime-based loans. Brady suggests that small borrowers may have preferred this stability.

Chart 4  
**Spread: Prime minus Weighted Average  
 Short-Term C&I Loan Rate**



Note: Quarterly data are shown beginning with the first quarter of 1977.  
 Source: Federal Reserve Board Quarterly Terms of Bank Lending.

### Interpreting the Recent Results

Looking at survey results from an historical perspective shows that recent responses resemble those from the 1969 to 1970 and 1973 to 1974 recessions.<sup>12</sup> Specifically, for the years 1969 and 1973, 38 percent of respondents on net reported a further tightening of lending standards, more than double the percentage on average from 1967 through 1983. During 1990, at least 40 percent reported further tightening on average.<sup>13</sup> The 1991 survey results thus far (those for January through May) closely match those from the middle of both the 1969 to 1970 and 1973 to 1975 recessions. The May 1991 survey indicated net tightening by at most 17 percent, the average for the 1967 to 1983 period.<sup>14</sup>

<sup>12</sup> We cannot compare the recent results to those for the 1980 or 1981 to 1982 recessions because the survey during those periods asked about standards on prime rate and above-prime rate loans and thus are not comparable, as discussed above.

<sup>13</sup> Recall that the 1990 surveys asked about standards to large, middle-market and small firms. The average over the surveys conducted in 1990 is at least 40 percent for firms in each category.

<sup>14</sup> Each quarter since 1973, the National Federation of Independent Business has surveyed its membership about their borrowing experiences. Dunkelberg (1991) analyzes the results and finds that the net percent of members reporting credit being harder to get during 1990 and the first quarter of 1991 is *low* relative to that in 1974 and 1980.

It is also worth noting that from 1967 through 1983 respondents almost never reported a net *easing* of standards on business loans; in fact, net tightening was reported by an average of 17 percent of respondents.<sup>15</sup> This suggests that the survey responses might be biased. Why might bias arise? One possible reason stems from the incentive that regulated institutions have to report to their regulator a tightening of standards, especially when their reports are not made anonymously. This incentive would exist if respondent banks perceive a risk of closer regulatory scrutiny if they admit to having eased standards. During 1990, this risk might have been perceived as especially great, given reports that many bankers viewed regulators as being overzealous in their examination of loan portfolios.<sup>16</sup>

The persistent reports of tighter credit conditions over the history of the survey make the survey's *absolute* numerical results (that is, the net percentage of banks tightening) difficult to interpret. To some extent, however, the pattern of the reports of tightness across business cycles means that the survey's results are most meaningful when viewed *relative* to those from previous periods. Noting this, the recent results of a tightening of lending standards by a considerable share of respondents appear to be typical for an economy entering or in a recession.

<sup>15</sup> Remember that the survey results are essentially first differences: they report the change in lending standards over a three-month period, not how tight standards are at the survey date. Thus, because the results show banks continuously tightening their standards from 1967 through 1983, if we take the survey results literally, lending standards would have been unbelievably stringent by late 1983.

<sup>16</sup> Despite these reports, relatively few survey respondents cited regulatory pressures as the cause of their tightening of lending standards.

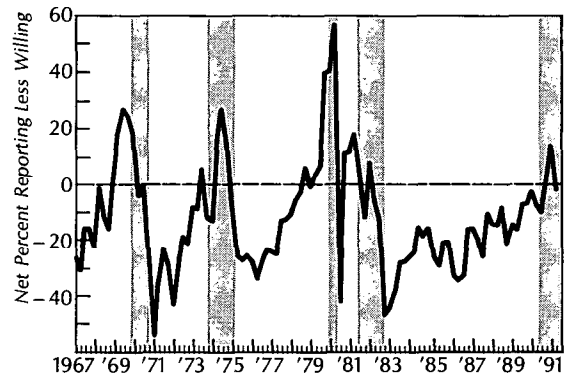
## The Consumer Installment Loan Question

Only one item has appeared consistently on the Senior Loan Officer Opinion Survey: "Indicate your bank's willingness to make consumer installment loans now as opposed to three months ago" (as worded on the January 1991 survey). Possible responses were "much more," "somewhat more," "about unchanged," "somewhat less" and "much less." Chart 5 displays the difference between the number less willing and the number more willing, as a percentage of all respondents. Answers to this question exhibit the same patterns around recent business cycles as do the answers regarding willingness to make business loans. However, the 1980 results are extreme. On the May 1980 survey, those reporting being less willing to make consumer installment loans exceeded those indicating greater willingness by 57 percent, a record number and well above the -42 percent level recorded in the August 1980 survey. The May survey was conducted while selective credit controls were in place, and it asked lenders to compare their willingness to lend in May with that in February, before the control program began. One component of the controls was a 15 percent reserve requirement on all extensions of consumer credit over

some base amount.<sup>a</sup> The controls were lifted in early July, and by August the economy had rebounded from its spring slump. Lenders were once again willing (and encouraged by policymakers) to lend.

<sup>a</sup> Schreft (1990) examines the 1980 credit control program in depth.

Chart 5  
**Unwillingness to Make Consumer Loans**  
A Measure of Tighter Lending Practices  
1967-1991



Note: Surveys were conducted in February, May, August and November of each year. The chart begins with data from February 1967.

Source: Federal Reserve Board Senior Loan Officer Opinion Survey.

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