The Weakness of Business Loans in the Current Recovery

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While the United States has experienced a brisk recovery in economic activity over the five-quarter period ended mid-1976, business loans at commercial banks have been unusually weak. Contrary to similar periods in previous business upturns, commercial and industrial loans remain well below the level at the business-cycle trough of March 1975 (see Chart I). Such atypical behavior has attracted widespread attention, as business loans are a closely watched economic barometer. This article is intended to provide perspective on a number of factors which may have contributed to the softness in business loans. On the basis of analysis of the economic variables included in a general model of business loan demand, it appears that an unusual lack of strength in inventory investment early in the recovery, a marked improvement in corporate cash flow, and the substantial capital market financing associated with restructuring of corporate balance sheets all have contributed importantly to the reduction in business loans. A large spread between the commercial bank prime lending rate and the commercial paper rate and the rather moderate expansion in business fixed investment spending during this recovery have probably played smaller roles.

This article is divided into three sections. In the first, the behavior of business loans during the current recovery is compared with the performance of such loans in four previous upturns. In the second section, factors affecting both the demand for, and supply of, business loans are examined to identify those departing from past cyclical patterns and thus helping to explain the unusual weakness prevalent in business loans since the economic recovery began in the spring of 1975. Attention in this section is focused primarily on variables influencing business demand for bank loans, such as business investment spending and reliance on alternative sources of finance. Finally, the third section contains a brief summary and conclusions.

THE RECENT BEHAVIOR OF BUSINESS LOANS

Commercial and industrial loans at all commercial banks, including loan sales to affiliates, peaked in late 1974 and have been declining almost continuously ever since.[1] (For developments in July, see "Money and Bond Markets" in this *Review*.) While business loans are regarded as a lagging indicator of business-cycle turning points, the lag in the present recovery is unprecedented for the postwar period.[2] This comparative cyclical weakness is especially striking, as the growth of current-dollar gross national product has been more rapid in the present recovery than at similar stages in earlier upturns. Had business loans at all commercial banks increased as they did on average during the previous four business upturns, they would have been in July about 9 percent above the level at the March 1975 business-cycle trough, or some $27 billion greater than reported. In fact, business loans declined by about $10 billion over the April 1975-July 1976 interval, the first sixteen months of the recovery.

The absence of strength in business loans has been

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[1] Most analysts take the position that affiliates' loan holdings should be included in commercial bank loan data because of banks' practice of selling loans to affiliates.

[2] Business loans at weekly reporting banks are one of the six series constituting the Commerce Department's recently revised index of lagging indicators.

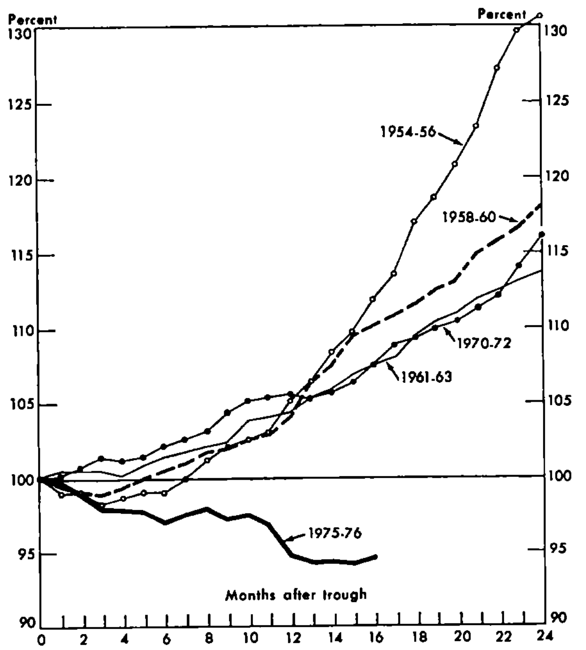
widely diffused among different categories of borrowers, more pronounced in short-term loans, and somewhat more severe at New York City banks than elsewhere. According to disaggregated data from a sample consisting of the nation's largest commercial banks, loans to most major categories of borrowers fell during the early stages of the recovery. Notable exceptions were petroleum refining and mining and loans to foreign businesses. Holdings of bankers' acceptances, which are included in business loans, also increased; this usually is the case when loan demand is weak. Subsequently, in the first half of 1976, loans to firms in wholesale trade and textiles began to expand noticeably, while lending to the service and retail sectors and most manufacturing industries continued weak. At these same large commercial banks, short-term loans—less than one-year maturity—have accounted for about four fifths of the decline in commercial and industrial loans during the first five quarters of the recovery. On a geographical basis, loans including loan sales to affiliates have been weaker at large weekly reporting banks in New York City, compared with other large weekly reporting banks.[3] At smaller banks not included in the sample of weekly reporting banks, many small business customers have limited access to nonbank external finance, and business loans expanded during most of the recovery.

Chart I

BUSINESS LOANS IN THE FIRST 24 MONTHS OF RECOVERIES

ALL COMMERCIAL BANKS, SEASONALLY ADJUSTED

TROUGH EQUALS 100



Note: Business loans include loan sales to affiliates.

Source: Board of Governors of the Federal Reserve System.

DETERMINANTS OF LOAN WEAKNESS

Business loan activity is influenced by both supply and demand factors. The supply of loans may be constrained by restrictive monetary policy and/or cautious commercial bank lending behavior. In view of the banks' heavy acquisitions during the recovery of securities yielding less than the prime rate, the availability of reserves has not limited banks' ability to meet demand. On the other hand, the recent loan loss experience, concern over capital adequacy, and the need to rebuild liquid assets may have limited bank willingness to expand loans. However, this potential constraint was less likely to be binding in the recent period as modest investment spending, strong internal cash flows, and heavy capital market financing diminished loan demand at banks.

BUSINESS SPENDING.[4] Most statistical analyses confirm that inventory investment is a dominant variable affecting business loan demand. Over the past two decades, the change in the book value of manufacturing and trade inventories explains somewhat over one half of the quarterly change in business loans at all commercial banks.[5] As indicated in Table I, the increase in the book value of business inven-

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[3] In a time series analysis of the 1966-74 period, Summers [12] concludes that loans at large weekly reporting banks in New York City are more cyclically sensitive than those at other large weekly reporting banks. Also, he found that cyclical turning points in loan activity at New York City banks tended to lag behind those of loans at banks outside New York City.

The numbers in brackets refer to the literature cited at the end of this article.

[4] In a number of econometric models of the United States economy, the demand for loans depends on business spending requirements and the availability and relative cost of nonbank sources of finance. The amount of business spending is determined in separate equations by a number of variables (e.g., capacity utilization, sales growth, and interest rates). Given a model's projected level of business spending, loan demand then depends on the relative cost attractiveness of bank borrowing. For a detailed description of various econometric approaches, see Budzeika [4], Goldfeld [6], Hendershott [8], Jaffee [9], Melitz and Pardue [11], and Wood [13].

[5] When the quarterly change in business loans including loan sales to affiliates was regressed on the quarterly change in the book value of manufacturing and trade inventories, an R^2 of .54 was obtained for a sample period extending from the first quarter of 1956 through the first quarter of 1976.

Table I

BUSINESS SPENDING IN EARLY STAGES OF ECONOMIC RECOVERIES

Percentage changes from trough quarter

Period	Change in book value of business inventories	Current-dollar change in business fixed investment
1954-III—1955-III	3.4	18.2
1958-III—1959-III	5.1	12.6
1961-II—1962-II	4.5	12.5
1971-I—1972-I	6.1	13.4
1975-II—1976-II	0.6*	7.1

* Inventories for 1976-II are an average of available data for April and May. Source: United States Department of Commerce.

tories has been much weaker in the present recovery than in any previous upturn examined. While real inventory accumulation resumed in the first quarter of 1976, the previous liquidation had lasted longer than in any earlier postwar recovery. The persistence of an inventory runoff during the first three quarters of the upturn was caused, in part, by the large inventory overhang reflected in the unusually high real inventory-sales ratio attained during the recession. For example, the deflated inventory-sales ratio for the manufacturing and trade sectors peaked in the first quarter of 1975 at 1.87 as compared with peak levels of 1.62 and 1.77 in the 1960-61 and 1969-70 recessions, respectively, the only two other downturns for which data are currently available.

Business investment in plant and equipment is also a determinant of business loan demand.[6] Most statistical analyses suggest, however, that a dollar change in fixed investment has a smaller impact on bank loans than a similar change in business inventories.[7] This is because businesses often desire to match maturities of assets roughly with liabilities, and many banks have traditionally preferred the bulk of their loans to be in the short-term category. During the present recovery, the rise in current-dollar business fixed investment has been considerably weaker than at similar stages in earlier upturns (see Table I). This has occurred partly because capacity utilization has been somewhat lower than in most other postwar recoveries. Nevertheless, compared with past recoveries, business fixed investment spending has not been quite so weak as inventory investment. This development, combined with the greater impact of inventories on bank loans, helps explain why short-term loans have fallen more than term loans.[8]

FINANCIAL FACTORS. In view of the evidence linking business loan behavior to inventory and fixed investment expenditures, many observers expected bank loans to recover in the first quarter of 1976, when inventory liquidation ended and fixed investment began to rise sizably in nominal terms. The continued slack in business loans throughout the first half of this year, however, illustrated the important independent effects of financial considerations.

The relative cost and availability of bank finance is one financial factor which may affect commercial and industrial loans. The differential between the commercial bank prime lending rate and the commercial paper rate has been greater in the current recovery than in some previous upturns (see column 2 in Table II), and a smaller differential during this period may have boosted loan demand somewhat.[9] Of course, in addition to the markup of the prime rate over the paper rate, there are other measures of the cost and availability of bank credit.[10] For example, the Board of Governors quarterly survey of changes in bank lending practices includes examination of changing commercial bank policies with respect to compensating or supporting balances, standards of creditworthiness, and the

[6] In addition to inventory and fixed investment, some models employ business sales or some similar transactions variables to represent working-capital needs. For instance, see Goldfeld [6], who used business sales, and Budzeika [4],who employed accounts receivable. Contrary to business fixed investment and inventory accumulation, these two variables have expanded at about the same pace in the present upturn relative to their average increase in previous recoveries.

[7] Budzeika [4], in an analysis covering 1952-68, found that capital expenditures were considerably more important than inventories in explaining loans at major New York City banks. He interpreted his findings as demonstrating the specific needs of large corporations that borrow heavily from New York City banks.

[8] Budzeika [4] reported that at large New York City banks capital expenditures had more of an impact on term loans while inventory investment had more of an effect on short-term loans.

[9] The differential between the two rates was unusually large at the trough in economic activity in the first quarter of 1975. The subsequent decline during most of the first half year of the recovery actually increased the relative attractiveness of bank finance until the differential began to widen again.

[10] Evaluating the availability aspect, Jaffee [9] incorporates a measure of credit rationing in his model of the commercial loan market. For a recent critique of Jaffee's approach on credit rationing, see Wood [13].

maturity of term loans.[11] A recent evaluation of survey results for 1975 concludes that banks maintained a restrictive posture with respect to the above terms and conditions throughout most of that year. By comparison, bank lending practices were evaluated as being somewhat less restrictive in the 1971 upturn, the only previous recovery included in the survey which began in 1964 [1,2]. Still, cautious lending policies do not appear to explain the drop in business loans, as banks have allowed consumer, real estate, and foreign business loans to rise, albeit at slower rates than in similar stages of earlier recoveries. Moreover, as indicated earlier, conservative lending policies have less effect on loans when weak loan demand does not exert much pressure on banks.

One way to judge part of the reaction of business loans to the relative cost and availability of bank finance is to gauge substitution into commercial paper. If the relative cost and availability of bank loans were influencing loan behavior, commercial and industrial loans would be expanding slower than these loans plus nonfinancial commercial paper, which is a broader measure of short-term commercial and industrial credit demand. In the first year of the recovery, business loans including loan sales to affiliates dropped 5.2 percent while business loans plus nonfinancial commercial paper fell 6.2 percent. This trend was reversed in the three-month period ended in June 1976, however, as business loans fell at a 2.3 percent annual rate while business loans plus nonfinancial commercial paper rose at a 1.9 percent annual rate. To be sure, such a comparison does not reflect the total response of loans to the cost and availability of bank finance. A high prime rate and restrictive lending policies might encourage substitution into longer term finance and depress external financing for small borrowers without access to alternative sources of funds. Nevertheless, the fairly similar weakness in both loans and nonfinancial commercial paper during most of the recovery suggests that substitution into commercial paper, a major reaction to a high prime rate, has not been a prominent factor depressing business loans. Moreover, when determining the relative importance of bank lending behavior and demand factors in present circumstances, it is well worth emphasizing the very evident weakness in demand determinants, which in most statistical business loan models have exerted far stronger impacts on loan behavior than interest rate differentials.

Another financial consideration affecting business loans is the relative attractiveness of financing with long-term debt.

[11] Harris [7] used this data to construct measures of nonprice credit rationing.

Table II

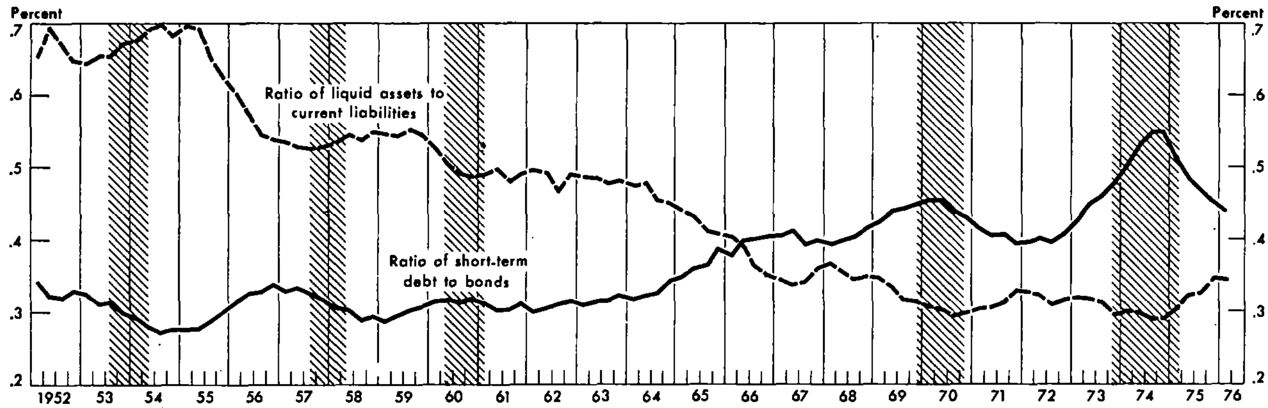
FINANCIAL VARIABLES IN THE EARLY STAGES OF ECONOMIC RECOVERIES

Period	Commercial bank average prime rate less average rate on 4- to 6-month commercial paper*	Nonfinancial corporations			
		Net funds raised through		Growth of internal funds	
		Stock sales	Bond sales	Aftertax profits	Corporate cash flow less inventory profits†
	Percent	Billions of dollars		Percentage changes from trough quarter	
(1)	(2)	(3)	(4)	(5)	(6)
1954-III—1955-II	1.32	1.02	2.95	36.9	27.0
1958-III—1959-II	0.82	2.14	4.10	61.3	34.5
1961-II—1962-I	1.45	1.51	5.16	31.6	25.5
1971-I—1971-IV	0.65	11.44	18.81	40.0	23.8
1975-II—1976-I	1.33	9.78	21.79	53.5	46.2

* Average of first five quarters of recoveries.
† Corporate cash flow is the sum of undistributed aftertax profits plus tax depreciation.
Sources: United States Department of Commerce and Board of Governors of the Federal Reserve System.

Chart II

SELECTED BALANCE-SHEET MEASURES FOR NONFINANCIAL CORPORATIONS



Note: Shaded areas represent periods of recession as defined by the National Bureau of Economic Research, except for the latest recession which is tentatively judged to have ended in March, 1975.

Source: Board of Governors of the Federal Reserve System.

For example, in one version of the MIT-Pennsylvania-SSRC (MPS) econometric model of the United States economy, a narrowing of the spread between the Aaa corporate bond rate and the rate on commercial loans tends to reduce bank loans. This differential does not help to explain the unusual loan weakness prevalent recently, however, because it actually widened in the present recovery in a manner similar to its behavior in the initial stages of past recoveries. The decision to use bank loans or bond finance is sometimes claimed to depend also upon expected changes in long-term rates. It is argued that bank loans have remained slack partly because some borrowers, who anticipate repetition of past patterns of procyclical movements in long-term rates, have secured long-term funds. As expectations are not easily subject to quantification, it is difficult to say whether this latter factor is any different than in past recoveries.

Balance-sheet restructuring is often cited as an important financial consideration holding down business loans. During the previous business upswing, such conventional measures of financial soundness as debt-equity ratios, short-term debt relative to long-term debt, and current assets compared with current liabilities departed markedly from past levels (see Chart II). To be sure, over the past quarter century the concept of normal or prudent values for such financial indicators has been liberalized. Nevertheless, the deterioration in these indexes by the end of 1974 was quite dramatic.[12] In the wake of the heightened financial and economic instability during the previous upturn and recession, there seems to be a growing consensus for some reversal of the balance-sheet trends of recent years. The implications for loan demand are that, in restructuring their balance sheets, businesses will rely less on debt, especially short-term debt, and will build up liquid assets relative to current liabilities. Such behavior will depress loan growth until desired levels of these variables are restored.

Despite emphasis by the financial community on balance-sheet restructuring, it is difficult to determine its precise contribution to the exceptional weakness in loan demand.[13] Part of the fall in the ratio of short-term debt to bonds merely reflects lack of strength in inventory investment. In addition, this ratio has also declined in the

[12] For a recent discussion of the causes and economic significance of these trends, see Board of Governors [3]. McClam [10] discusses balance-sheet trends abroad.

[13] Past econometric work on loan demand does not appear to have incorporated debt restructuring other than indirectly by inclusion of the bond rate, which helps determine the optimum balance of short- to long-term debt. Consideration of such a factor is difficult, as it has probably not exerted much of an impact until recently. Moreover, as discussed by Goldfeld [6], variables representing maximum debt or minimum liquidity are unobservable.

early stages of past recoveries (see Chart II). Nevertheless, the values of various balance-sheet indexes have departed markedly from the experience over most of the postwar period, and the incentive for balance-sheet restructuring thus has been greater than in the early stages of previous recoveries.[14]

In response to the factors discussed above, currently available data indicate that capital market financing has been heavy in the present recovery. Net funds raised by nonfinancial corporations in the bond market were greater in the first year of the most recent recovery than in the four previous upturns (see column 4 in Table II). Corporations have also relied substantially on equity financing as higher stock prices encouraged equity sales (see column 3 in Table II). Relative to the 1971 recovery, however, the volume of funds raised through stock sales in the most recent expansion has been somewhat lower while bond financing was only modestly higher. Still, considering the faster growth of internal funds (see columns 5 and 6 in Table II) and the slower recovery of business spending, recent capital market financing appears very substantial.

In addition to reliance on capital market financing, the increase in internally generated funds appears to be a major financial factor that has served to restrain loan demand. Reflecting, in part, inflation and the 1975 tax cuts, aftertax profits of nonfinancial corporations have risen faster in the present upturn than in three of the four previous recoveries. More telling has been the growth in cash flow less inventory profits (see columns 5 and 6 in Table II), which have a somewhat different significance for cash flow than profits from current production. When inventory levels are maintained, profits on inventories are fully offset by the increased cost of inventories needed for replacement and hence do not provide firms with internal funds for other purposes. Moreover, such profits are taxed identically with other earnings and therefore provide only part of the funds required for reinvesting in more expensive inventories. Financial analysts focusing on the quality of earnings are now tending to discount inventory profits. Budzeika [4] reported cash flow exerting a significant negative effect on business loans at large New York City banks. Experiments with a representative loan demand equation showed that cash flow adjusted for inventory profits exerted a significant negative impact on the change in business loans at all commercial banks.[15]

The growth in cash flow appears even more dramatic when compared with the modest gains in financing requirements. During the final three quarters of 1975, cash flow less inventory profits for nonfinancial corporations exceeded capital outlays for the first time in more than a decade. Such a gap has not persisted for more than a single quarter since 1958. This unusual development, along with the earlier indicated surge in capital market financing, has enabled nonfinancial corporations to raise the ratio of current assets relative to current liabilities (see Chart II). Over the first year of the recovery, liquid assets climbed 16.8 percent, compared with an average 12.4 percent rise in the first year of four previous recoveries. The increase in corporate liquidity may impinge on the near-term business loan outlook if expenditures normally financed with short-term credit are financed with existing liquid assets. Also, future cash flow may be more readily used for internal financing once a liquidity buffer is restored. As the ratio of liquid assets to current liabilities is still low by historical standards, however, firms may not wish to deplete their liquid assets or even markedly to reduce the recent rate of increase.

SUMMARY AND CONCLUSIONS

Compared with previous business upturns, the behavior of business loans in the past sixteen months has been quite unusual, as loans are still a good deal below their level at the business-cycle trough. This atypical development has stemmed largely from the relatively modest recent recovery in business spending on inventories and plant and equipment, coupled with the heavy reliance by

[14] For example, in evaluating various balance-sheet measures following the 1969-70 recession, the President's Council of Economic Advisors [5] characterized the deterioration of corporate liquidity as only "moderate". This suggests that balance-sheet restructuring was of less importance in the 1971 recovery.

[15] The following equation illustrates the effect of adjusted cash flow and some of the other factors discussed above on the change in business loans at all commercial banks.

$$\text{Change in business loans} = \underset{(1.55)}{.392} + \underset{(8.22)}{.527}\,(\text{Change in inventory book value}) + \underset{(4.00)}{.340}\,(\text{Change in business fixed investment})$$
$$- \underset{(-4.35)}{1.76}\,\text{Change in (prime rate — rate on 4- to 6-month commercial paper)} - \underset{(-4.47)}{.178}\,(\text{Change in cash flow excluding inventory profits}),$$

where

t-statistics appear in parenthesis below regression coefficients

Sample period: 1960-I—1976-I

$\bar{R}^2 = .77$

DW = 1.74

SEE = $1.24 billion

business on nonbank sources of finance. In turn, the unusually heavy buildup of inventories relative to sales in the past recession prolonged the subsequent inventory liquidation during the recovery. Also, the historically high dependence on debt, particularly short-term debt, in recent years has prompted balance-sheet restructuring in favor of longer term debt and equity. Finally, the exceptional growth in corporate cash flow witnessed recently has contributed to the sustained weakness in business loans.

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