Comments on "Credit in the Macroeconomy"

The Role of Credit in Economic Activity

*by David M. Jones**

Early in the 1990-92 period, an unusual bank credit "crunch" emerged. It involved a sudden tightening in the terms of, or in some cases, a sharp curtailment of, new loans supplied by depository institutions. This credit crunch forced many borrowers with no alternative sources of credit to curtail their borrowing and spending activities, thereby contributing importantly to the economic downturn. The latest version of a credit crunch served to shatter borrower confidence because it was so arbitrary, sudden, and unpredictable. Consumer and business borrowers who suddenly (and many thought unfairly) lost their credit lifelines were deeply shaken psychologically, and as a result, they sharply reduced spending, resulting in a decline in loan demand. Among the more lasting effects of this credit crunch have been much closer linkages between new orders and production for items ranging from new homes to machine tools.

This new version of a credit crunch was not triggered in the traditional way by Federal Reserve tightening actions that interacted with earlier Regulation Q ceilings on time deposits to produce predictable bouts of disintermediation. This credit crunch also differs from other occasions when government actions have operated to constrain the supply of bank credit—for example, the Fed's September 1966 letter threatening to restrain banks' access to the Fed discount window unless banks curtailed their business loans and President Jimmy Carter's March-July 1980 credit controls. Uniquely, the latest credit crunch arose from the coincidence of several contemporary financial events—especially the negative fallout from the savings and loan (S & L) debacle and a toughening in capital ratios by domestic bank regulators and by international agreement among regulators under the Basle Accord of July 1988. Also helping to provide a fertile environment for this credit crunch was the bursting of the financial bubble of the 1980s. Some of the major events signaling the puncturing of the financial bubble included the stock market crash of October 1987, the stock market collapse of 1989 (which finally ended the corporate takeover frenzy), the signing into law of the Financial Institution Reform, Recovery and Enforcement Act (FIRREA) in August 1989, the bankruptcy of Drexel in February 1990, and the temporary drying up of the corporate junk bond market around the same time.

The main point of this analysis is that the behavior associated with the bank credit lifeline to individual and business borrowers is central to the monetary transmission mechanism. The 1990-92 experience convincingly demonstrates that the interaction between bank loan restraint, weakened household and business balance sheets, and related recurring bouts of depressed psychology and spending operated to help produce a prolonged period of recession and slow growth.

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Factors behind the credit crunch

The primary factor behind the recent bank credit crunch was the negative public fallout from the S & L debacle. Facing a bill of perhaps as much as $200 billion to bail out the S & L industry (that is, to pay off depositors in insolvent S & Ls), angry taxpayers exerted great pressure on Congress, which had unwisely liberalized S & L investment regulations and raised deposit insurance ceilings in the early 1980s. In turn, Congress, through endless public hearings, tried to pass the buck by exerting pressure on the regulators of depository institutions (many of whom had also been too lax during the speculative financial frenzy of the 1980s). To make up for past regulatory oversights, examiners in the field began increasing their standards for rating bank risk in 1989 and launched a frantic search for bad loans that exerted extreme pressures on bank loan officers. In their effort to weed out every conceivable bad loan so as to be protected from future criticism, field examiners created a new asset category dubbed nonperforming-performing loans. These were loans that were current on interest payments but were thought by regulators to be suspect owing to the borrower's future potentially shaky financial condition. Fearful of reprimand, salary cuts, or even losing their jobs if risky new loans went bad, bank credit officers suddenly found it easy to turn prospective borrowers away. Indeed, in some cases, bank loan committees were reported to have broken into applause when no new loans were presented at their routine meetings. Moreover, for many banks, the easiest answer both for cost-cutting purposes and for purposes of avoiding new loan risks was to drastically reduce loan personnel, especially in such high-risk lending areas as real estate. The fewer the number of loan officers, the fewer the number of loan applications that could be processed.

Underlying this cutoff in the supply of depository institution credit were regulators' fears that if they allowed banks to take excessive new loan risks they could be next in line to incur the public's wrath over another bailout. It was simply easier to cut off the supply of credit to prospective individual and business borrowers altogether than to risk the kind of public condemnation that the S & Ls had suffered.

A second factor contributing to the credit crunch was the well-intentioned but poorly timed toughening in bank capital requirements on a worldwide scale by agreement among regulators in the form of the Basle Accord of July 1988. Domestic bank regulators, in the wake of the S & L disaster, wanted to be sure that the banking system would not follow suit, requiring yet another politically disastrous taxpayer bailout. On the legislative front, Congress passed the already noted FIRREA legislation in 1989 to bail out the S & Ls, and, after seemingly endless negotiations, it passed the FDIC Improvement Act of 1991 to try to head off a similar debacle in commercial banks. On the international front, the Basle Accord toughened bank capital requirements in all major industrialized countries. Under this accord, risk-based capital-asset ratios were to be increased to 8 percent. U.S. banks began to phase in the tougher capital requirements under the Basle Accord in 1989 with a view to fully implementing them by the end of 1992.

The main problem was that all this attention was given to stronger capital ratios during a prolonged period of recession and weak economic growth. In contrast, the traditional notion has been that a banking institution should build up its capital position in good times, when profits are plentiful, and then use this strengthened capital position as a cushion against unforeseen losses in bad times. Facing worldwide regulatory demands that capital ratios be increased in bad times—when banks were coping with bad loans, poor profits, and debt downgradings—many banks had little choice but to downsize their asset and liability footings, in many cases cutting off new lending activity altogether. Certainly, the alternative of new bank equity offerings to rebuild capital ratios seemed unattractive in these circumstances, with bank stock prices falling, the cost of capital rising, and the stigma of financial weakness increasingly attached to banks forced into the capital markets to raise equity funds in such unfavorable conditions. This stigma was akin to that traditionally associated with excessive reliance on the Fed discount window; heavy bank borrowing at the discount window has been viewed as a sign of financial weakness. In the recent past this has been underscored most prominently by heavy use of discount window advances in the cases of the depositors' run on Continental Bank in 1984, the run on First Republic Bank in 1988, and the failure of the Bank of New England in 1991.

A third coincidental factor providing a fertile environment for the credit crunch was more traditional in nature. It took the form of the unwinding of the debt excesses of the 1980s. This cycle was not much different from the traditional boom-bust financial cycles. For example, there was in the 1980s a frenzy of corporate mergers and acquisitions involving the inflation of corporate assets and a massive substitution of debt for equity on corporate balance sheets. Households also got into the act by borrowing heavily to support their spending, especially on real estate. Banks, many of whom had begun the 1980s with bad loans to less developed countries (LDCs), were not to be left out of the 1980s financial follies. But this meant that banks would end the 1980s with new categories of bad loans, including those made in connection with highly leveraged corporate takeovers and speculative real estate ventures. Finally, even the federal government had to get into the act by running huge budget deficits, thereby greatly expanding total federal debt outstanding (currently approaching $4 trillion), and sharply reducing the government's leeway to use future discretionary fiscal stimulus to counter recession.

This financial bubble led to an explosion of debt relative to GDP. The excessive rate of growth in debt supported speculation and higher asset prices By the late 1980s, the overinflated financial bubble was ready to burst.

During 1990-92, the unwinding of these debt excesses produced a "balance sheet" recession and a prolonged period of halting growth Individuals and businesses curtailed spending in order to reduce heavy debt-servicing burdens. These debt-servicing burdens were made all the more onerous by the new anti-debt balance sheet mentality of lenders judging these borrowers. To make matters worse, real estate values plummeted in most regions of the country.

Evidence of the curtailment of credit supply

The cutoff in the supply of credit by depository institutions apparently came early in the 1990-92 period, and this set in motion a progressive deterioration in economic conditions and a related decline in the demand for credit that was felt in full later in this period Clearly, these forces produced a pronounced decline in total credit growth (domestic nonfinancial debt) beginning in earnest in the final quarter of 1990 and continuing through the third quarter of 1992 As the accompanying table shows, this decline in total debt growth reflected a pronounced drop in nonfederal debt growth. Within the nonfederal debt category, both households and businesses dramatically slowed their debt growth.

The Fed's Senior Loan Officer Opinion Survey on

Growth of Domestic Nonfinancial Debt

Percent Changes

				Nonfederal			
		Total	U S Government	Total	House-holds	Business	State and Local Governments
1976		10 9	15 6	9 8	12 1	8 2	8 4
1977		13 0	11 0	13 5	16.9	11 9	8 4
1978		13 5	9 2	14 6	17 3	13 0	11 0
1979		11 9	5 8	13 3	14 9	13 8	5 4
1980		9 4	11 8	8 9	8 7	10 2	3 6
1981		9 8	11 6	9 4	7 9	11 6	5 2
1982		9 4	19 7	7 0	5 6	7 8	9 3
1983		11 7	18 9	9 9	11 6	8 3	9 7
1984		14 5	16 9	13 8	13 2	15 4	9 1
1985		15 0	16 5	14 5	14 3	11 5	31 3
1986		12 9	13 6	12 7	14 1	11 9	10 5
1987		9 2	8 0	9 6	11 5	7 1	13 4
1988		9 1	8 0	9 4	11 1	8 3	7 0
			Quarterly Data				
1989—	I	7 7	7 2	7 9	7.7	7 9	8 3
	II	7 8	6 0	8 4	8 7	8 5	6 5
	III	7 7	6 3	8 1	10 6	5 4	9 2
	IV	7 6	7 6	7 6	9 9	5 0	8 6
1990—	I	8 8	10 9	8 2	11 1	8 3	9 1
	II	6 0	8 8	5 2	6 5	3 8	5.7
	III	6 2	11 3	4 8	6 3	3 2	4 4
	IV	4 7	11 1	2 8	4 3	1 1	4 1
1991—	I	4 2	9 1	2 8	4 3	0 9	4 2
	II	5 0	10 8	3 2	4.9	1 1	4 4
	III	3 7	11 0	1 4	3 5	−1 6	4 3
	IV	3 7	11 9	1 0	3 8	−2 8	4 7
1992—	I	6 0	13 3	3 5	5 5	1 0	5 1
	II	4 7	12 3	2 2	3 6	−0 7	6 9
	III	3 3	6 5	2 2	3.7	−0 3	5 4

Source Board of Governors of the Federal Reserve System, Flow of Funds Accounts
Note Quarterly data are seasonally adjusted annual rates

Bank Lending Practices can be used to help determine the extent to which this slowing in credit growth might have been attributable primarily to constraints on the supply side early in the period and later on to a weakening in loan demand. Specifically, during the critical first four months of 1990, the percent of domestic bank respondents in this Fed survey reporting a net tightening in lending standards or terms for commercial and industrial non-merger-related loans climbed to nearly 55 percent. This suggests that the slowing in credit growth at the beginning of the prolonged period of recession and slow growth may have been largely due to depository institutions' lending restraint. During the period from May 1990 through January 1991, the percent of bank respondents reporting a net tightening in lending standards eased only slightly to a 35 to 46 percent range, suggesting that lending restraint on the supply side was still significant. In addition, it should be noted that there were also some restraints on the supply of credit in the capital markets during this period, as evidenced by the drying up of investments by mutual funds and other nonbank institutions in nonprime commercial paper (reflecting tougher Securities and Exchange Commission limits on investment in nonprime commercial paper) and in the contracting corporate junk bond market.

The early indications of the bank credit crunch spurred the Bush Administration regulators (including the head of the Federal Deposit Insurance Corporation, the Fed Chairman, and the Comptroller of the Currency, who arranged the meeting) to request an unusual May 10, 1990, meeting between regulators and senior officials of major commercial banks. In this face-to-face encounter, the regulators encouraged the skeptical bankers to continue to make loans to financially sound consumer and business borrowers. Bankers were worried that the stifling combination of tougher regulator scrutiny at a time of weakening economic activity and growing uncertainties would raise the threat that any new loan would eventually be classified a bad one. There followed other meetings involving regulators and Bush Administration officials on the dangerously escalating bank credit crunch, including one particularly contentious meeting scheduled with President Bush on November 14, 1990. At this meeting, attended by Fed Chairman Greenspan, Treasury Secretary Nicholas Brady, Commerce Secretary Robert Mosbacher, and White House Chief of Staff John Sununu, both Mosbacher and Sununu strenuously argued that bank regulators were too tough and that they were thus restricting the flow of credit needed to keep the economy healthy. To underscore his concern with the credit crunch, President Bush even called in his January 29, 1991, State of the Union message for "sound banks" to make "sound loans, now."

Subsequently, during the period from February 1991 through October 1991, the percent of domestic bank respondents in the Fed survey reporting a net tightening in lending standards or terms dropped to a more modest 8 to 23 percent range. Accordingly, this somewhat less aggressive tightening in bank loan terms could reflect a more equal split in relative supply and demand constraints on credit growth.

The meeting-to-end-all-meetings on the subject of the credit crunch came belatedly on December 16, 1991, in Baltimore, Maryland, when all senior bank examiners from the government regulatory agencies were called together by Bush Administration Treasury officials and browbeaten into easing up in their search for bad loans, especially in the real estate sector. The arm twisting went to the point of forcing all senior examiners to sign a "pledge" that they would, in essence, adopt a more uniform and less threatening set of criteria to identify bad real estate loans. However, there apparently was a considerable time lag before the senior examiners were able to moderate the tough attitudes towards bank loan risk of the hands-on examiners in the field. In addition, in another unprecedented move, Bush administration officials gave individual banks that felt they had been unfairly treated by their government examiners a secret "back door" means of communicating these protests to the examiners' superiors.

Because of these increasingly brazen Bush Administration anti-crunch efforts, the percent of domestic respondents reporting a net tightening in lending standards or terms fell sharply during the more recent November 1991-November 1992 period to a minimal 3 percent or less. This pronounced drop in banks' net tightening in lending standards suggests that continued slow nonfederal debt growth through the third quarter of 1992 was mostly attributable to weak credit demands.

Reflecting Federal Reserve efforts to ease money market conditions, the federal funds rate has declined to 3 percent (the lowest level in three decades) from 9¾ percent in mid-1989. During this period, short-term interest rates have fallen much more sharply than longer term rates, producing an unusually steep upward-sloping yield curve.

On the loan availability side, the sharper decline in short-term interest rates than in long-term rates has provided banks with an extremely favorable net interest margin. In this environment, banks have greatly increased their liquidity holdings through increased purchases of U.S. government securities and have, as a result of improving profits, gradually strengthened their capital positions. The resulting gain in bank stock prices underscores this progress. Thus, banks are currently showing somewhat greater willingness to make new loans, as evidenced by a recent slight pickup in business, individual, and mortgage loan growth.

On the loan demand side, there have been several major waves of debt restructuring in the lower interest rate environment. As the current decade began, both individuals and businesses were strangling on too much debt as they faced a prolonged period of weak economic growth that depressed income and profits. Thus, as interest rates fell sharply in late 1991 and again in mid-1992, individuals eagerly refinanced their high-interest-rate mortgages with debt-carrying lower interest rates to lessen their monthly debt-servicing payments and improve their cash flow. Judging from a pronounced decline in the ratio of debt-servicing payments to disposable personal income, individuals may be as much as 70 percent complete in their debt-restructuring efforts. Businesses also have replaced high coupon debt with lower coupon debt and raised funds in the equity market to repay debt. With better access to capital market funds sources, business debt-restructuring efforts are perhaps 90 percent complete, as suggested by the declining ratio of gross corporate interest payments to cash flow. These debt-restructuring efforts are absolutely essential to set the stage for renewed credit demands in support of economic expansion. With the lion's share of this debt restructuring now behind us, the prospect is for gradually accelerating economic expansion during the remainder of this year and next.

The credit transmission channel

An important credit channel that influences economic activity is clearly evident in the 1990-92 experience. The credit channel exists because bank loans and other forms of credit are imperfect substitutes. When banks tighten credit terms or cut off new loan activity altogether, many borrowers find it inconvenient, costly, or even impossible to find alternative sources of nonbank credit. The unique feature of the 1990-92 credit crunch experience was that it was not triggered, as in past instances, by Federal Reserve tightening actions. Nevertheless, the powerful impact of the credit channel was perhaps even more clearly demonstrated in the new version of the credit crunch.

The timing of the credit supply restriction is crucial to understanding how the credit channel worked in the latest economic downturn. The credit crunch probably began in early 1990. This initial constraint on the supply of credit was shocking to debt-heavy borrowers because it was so abrupt, arbitrary, and unpredictable. Borrowers' psychology plunged and spending was curtailed for a prolonged period. Once the recession got under way, debt contraction and asset price deflation began to become a self-reinforcing process. Debt-heavy borrowers were forced to cut back on spending to try to reduce their excessive 1980s debt exposure, eventually sharply curtailing credit demands. To make matters worse, balance sheets were further strained on the asset side as prices of homes, land, and other items plummeted. Furthermore, declining wealth positions served to further depress consumer spending.

It is interesting to note that the powerful behavioral forces in the credit channel seem to far exceed those in the weaker money supply channel. This is evident in the recent efforts of most Fed policymakers to downplay the monetary aggregates as intermediate policy targets. The monetary aggregates have always proven inadequate as intermediate policy indicators because they represent the arbitrary selection of certain bank liabilities. This limited "slice" from the liability side of the bank balance sheet simply fails to tell the whole story of credit availability. In the case of the most closely followed M2 aggregate in particular, several factors have operated to loosen its relationship with economic activity. (The M2 monetary aggregate is defined as M1 plus overnight repurchase agreements, overnight Eurodollars, household money market mutual fund balances, savings, and small-denomination time deposits.) Most important, there has been a sharply depressing impact on M2 from the closings of many S & Ls and banks under the already noted government assistance programs. In addition, at a time when the yield curve has had an extremely steep upward slope (that is, short-term interest rates have been far below longer term interest rates), there has been a massive shift of funds out of the lower yielding CD components of M2 into bond funds and other capital market instruments not included in M2. These forces have served to depress M2 growth greatly relative to its expected relationship to economic activity. In late 1992, for example, M2 growth remained weak despite a pronounced acceleration in nominal GDP growth.

In view of the importance of the credit channel, Fed officials should permanently deemphasize the M2 monetary aggregate as an intermediate policy target. In evaluating whether financial conditions are adequately supporting maximum sustainable noninflationary growth, the monetary authorities should instead focus on bank loan growth and on household and business borrowing in the capital markets, as reflected in the nonfederal domestic nonfinancial debt aggregate.

The nonfederal domestic nonfinancial debt aggregate (measuring credit extended by both bank and nonbank sources) is especially important as a monetary indicator because it reflects the powerful structural force of securitization. To an increasing extent, banks have been originating, pooling, and then selling into the capital markets various mortgage loans and loans to individuals, including those in connection with credit cards, automobiles, and even boats. Banks increasingly favor the steady fee income arising from this securitization process, and they also experience a strengthening in their ratios of capital to assets as these loans are removed from their balance sheets. Bank-originated home mortgages are bundled together and used as backing for marketable debt sold by issuing agencies (mainly the Government National Mortgage Association and the Federal National Mortgage Association) to such investors as mutual bond funds and pension funds. Investors in the asset- and mortgage-backed securities markets—the latter of which has soared to more than $1 trillion—benefit directly from the stream of revenues generated by the interest and principal payments made by borrowers on the underlying individual loans.

In addition, the monetary authorities should rely on the shape of the yield curve to provide insight into whether underlying financial conditions are capable of supporting maximum sustainable growth. For example, the current steep upward-sloping yield curve suggests an abundance of liquidity, reflecting earlier Fed easing moves, together with investor expectations of a future acceleration in price pressures. Conversely, a steeply inverted yield curve (that is, short-term interest rates in excess of longer term interest rates) reflects an acute scarcity of liquidity and declining inflationary expectations.

In sum, the 1990-92 experience began with credit supply constraints and eventually evolved into a prolonged slump in economic activity, accompanied by weakening credit demands. Most striking is the overwhelming power of the credit channel relative to the weaker money supply channel as an influence on economic activity. In the future, the cost and availability of credit is likely to remain the dominant force in the linkage between our financial and real sectors.