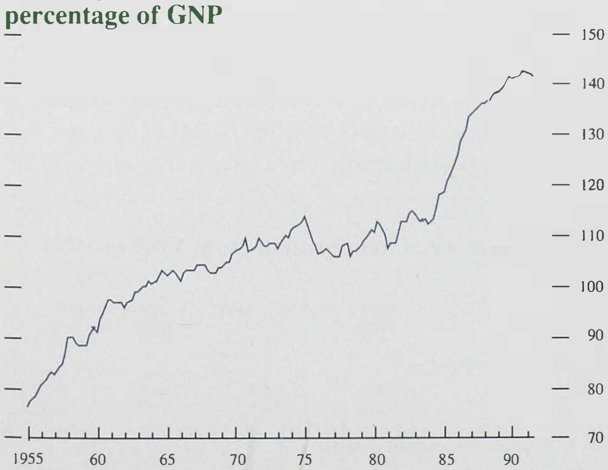
Financial retrenchment in the United States

The slow pace at which the US economy is emerging from recession has been widely linked to the rapid rise in levels of indebtedness during the 1980s. This article[1] outlines the factors that underlay first, the expansion of credit in the United States in the mid-1980s, and then, the slowdown in credit growth at the end of the decade.

The credit expansion

Total debt of the private, non-financial sectors in the United States grew by an average of 11% per annum between end-1982 and mid-1990 (the trough of the previous cycle and the peak of the latest). The most rapid growth was in the years 1984–5 (Chart 1). This build-up in debt reflected a general willingness on the part of borrowers to increase their gearing. In part, this was a response to developments such as the deregulation of interest rates and of the Savings and Loan industry, tax changes in the early 1980s, and financial and technological innovation, all of which probably had the effect of raising equilibrium ratios of debt to net worth for many households and businesses. Perhaps also because of expectations of rising incomes in the future, there were large-scale acquisitions of both physical and financial assets by businesses and households, largely financed by increases in indebtedness.

Chart 1
Debt of private non-financial sectors as a percentage of GNP



Apart from its scale, two particular features of this credit growth had important consequences. First, the counterpart of much of the debt in the non-financial corporate sector was a net reduction in equity of $640 billion between 1984 and 1990, either directly through buy-backs or indirectly through highly-leveraged takeovers and buy-outs. The ratio of debt to net worth (with physical assets at current values) rose from around 30% at the beginning of the decade to 55% in 1990 (Chart 2). The previous peak for this ratio was 45% in 1971–73, and it had never before risen by 25 percentage points in a decade.

Chart 2
Ratio of debt to net worth: non-financial corporations

The second feature was the link between the rapid growth in credit and the boom in real estate development. This real estate boom was itself partly attributable to changes in tax law in the early 1980s and partly to the ready availability of credit. Total mortgages outstanding (both residential and commercial) grew at an annual rate of 13% over the period 1983–87, and rose from 38% of borrowing by the private non-financial sectors in 1982 to 60% in 1987; within this total, commercial mortgages grew even faster. The increasing role of commercial banks was particularly important. As a consequence of both the fall in their perceived creditworthiness after the LDC debt crisis in the early 1980s and the rise of securitisation, the banks found they were less able to lend to the highest quality borrowers and turned instead to other borrowers, especially real estate developers. Real estate loans outstanding rose from 21% of banks' total loans in 1980 to 30% in 1990, with commercial real estate loans rising from 7% to 13%. Indeed, in net terms, in 1987 and 1990 mortgages more than accounted for

(1) Prepared by Hugh Simpson in the Bank's North American and Japanese Division.

the increase in US banks' total loans (in other words, non-mortgage lending fell in aggregate).

The credit slowdown

Since the mid-1980s, the rapid expansion of total debt owed by the private non-financial sector debt has slowed sharply, from a peak rate of growth of 14% in 1984 to 3% in the year to end-June 1991. It dropped particularly sharply during 1990, from 7% (at a seasonally adjusted annual rate) in the first quarter to 2% in the fourth. Total loans by financial intermediaries *fell* 3.6% in the first three quarters of the recession against an average *rise* of 6.6% in the five previous recessions.[1] Table A gives data for the flows of credit through depository institutions, finance companies and issues of commercial paper by non-financial US corporations. The most striking feature is the move to large

Table A
Net credit flows (selected channels)
$ billions

	1984	1985	1986	1987	1988	1989	1990	1991 (H1)
US banks	149	119	132	81	120	137	52	-16
Foreign banks	6	15	25	22	28	23	28	42
Savings institutions	121	84	43	72	102	-15	-122	-110
Sub total	276	218	200	175	250	145	-42	-84
Finance companies	38	50	55	39	39	39	54	-9
Commercial paper	22	15	-9	2	12	20	10	-9

Source: Flow of funds statistics.

negative flows by savings institutions, reflecting the substantial shrinkage of this category of financial intermediary as a result of widespread failures. For reasons set out below, US banks were not in a position to fill the gap left by the failing Savings and Loan institutions. Although constraints on the supply of credit by financial institutions could be partly offset in the markets for securitised debt, they nevertheless represented a contraction in the overall supply of credit, particularly for the construction and small business sectors which lacked access to alternative sources.

However, the response by those credit channels less affected by supply constraints—namely, foreign banks in the United States, finance companies and commercial paper —suggests that, at the same time, demand also was subdued. This is borne out by the absence of abnormally high spreads between public and private borrowers in debt markets (which would indicate demand pressures from private borrowers) and the shortage of firm evidence pointing to creditworthy borrowers generally being denied access to credit. Surveys of over 2,100 mainly small firms by the National Federation of Independent Business have found that, while credit has become harder to obtain, fewer firms have sought to borrow. In October 1991, for example, only 33% of respondents sought credit and only 5% cited credit as their greatest problem (after taxes, regulation and weak demand). This points to the conclusion that the slowdown in credit growth reflects both demand and supply effects.

Pressures on the banks

The roots of the pressures on the banks lie in the real estate markets. The easy availability of finance in the mid-1980s resulted in overdevelopment, particularly of commercial property. Office vacancy rates in major markets now range from 13% in central Washington DC to 30% in Dallas, and some analysts estimate it could take up to 12 years to absorb the overhang of empty offices now on the market. The pressures on real estate developers and owners have resulted in heavy losses for banks and the liquidation of a large number of Savings and Loan institutions, which has added to the overhang of unsold property as their portfolios are put on the market. Non-current[2] real estate loans at banks have risen from 2.7% of total real estate loans in 1986 to 4.9% now. Some areas and sectors are worse affected than others: in the north-east United States 8.6% of all real estate loans and 23% of loans for construction and development are noncurrent, but in the mid-west only 1.8% of all real estate loans are non-current. A quarter of all banks in the north-east lost money in 1990 and the first half of 1991.

This pressure on profits came at a time when banks were having to strengthen their capital positions. The total assets of those of the largest US bank holding companies that in 1988 fell below the minimum risk asset ratios due to take effect from end-1992 grew by only 1.3% in the following two years while they brought their capital ratios up to the new standards. This compared with growth of 7.4% for the 50 largest bank holding companies in aggregate. Meeting the Basle ratios, however, is only a minimum objective. There is pressure on banks to do better, coming from the markets (the average bond rating of the top ten US banks dropped two notches between 1986 and 1991, raising their costs of long-term finance), from regulators and from Congress.

A study by the Federal Reserve Bank of New York[3] confirms the influence of real estate problems and capital constraints on bank lending. It compared growth rates of commercial lending at banks classified in different ways (Table B). As expected, lending by banks in regions with

Table B
Change in commercial loan growth from 1989 to 1990
Percentage points

	Real estate loan quality		Capital adequacy	
	High	Low	High	Low
Weak employment districts				
Small banks	-14.7	-14.7	-10.5	-31.8
Large banks	-0.1	-11.8	2.3	-25.9
Moderate and strong employment districts				
Small banks	-1.6	-2.5	-1.4	-8.3
Large banks	-0.4	-1.1	-1.6	1.9

Source: Johnson (1991).

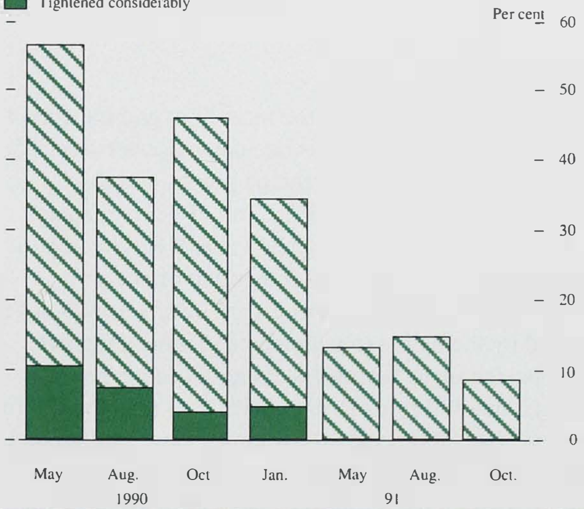
weak economic activity (proxied by employment) fell by more than lending in regions with stronger growth, reflecting weak loan demand in depressed regions. But the differences in lending growth between stronger and weaker banks in the

(1) Ben S Bernanke and Cara S Lown, 'The credit crunch', *Brookings papers on economic activity*, 1991, volume 2 (forthcoming).
(2) Loans 90 days or more past-due plus loans in non-accrual status.
(3) Ronald Johnson, The Bank Credit 'Crumble', *FRBNY Quarterly Review*, Summer 1991.

same regions, as measured by their capital position and their degree of real estate exposure, were generally more significant. Bernanke and Lown, using a different methodology,[1] come to a similar conclusion—that declines in bank capital have contributed to the slowdown in lending—though they find that only a small part of it is explained in this way.

Banks seem to have responded mainly by tightening their lending criteria. In mid-1990, according to the Federal Reserve's Senior Loan Officer Opinion Survey, over 50% of banks reported that they had 'somewhat' or 'considerably' tightened their credit standards for commercial and industrial (C&I) loans (Chart 3).[2] Tight standards were reflected in

Chart 3
Percentage of banks tightening credit standard for C & I loans



higher costs of credit, stricter covenants and collateral requirements, and smaller credit lines. The most important reason cited for the tightening was the deterioration in the economic outlook; pressure on capital positions and deterioration of their loan portfolios were given less importance. Although the tightening of lending standards appears to have diminished since mid-1990, few signs have emerged yet of banks beginning to relax standards.

An alternative approach to improving capital ratios that banks might adopt would be to remove assets from their balance sheets by selling them to other investors. Any conclusions on this subject, however, must be tentative, since data are hard to come by and it is not possible to identify which institutions originated the loans that were sold. Three types of asset account for most secondary market sales:[3] mortgages, commercial and industrial loans and consumer loans. The market for mortgage-backed securities is large and well-established and makes up the largest category of securitised assets; the secondary market for C&I loans, by contrast, is not as well developed and has

Table C
Sales of assets: credit flows and outstanding stocks
$ billions

	Flows 1988	1989	1990	Outstanding Q2 1991
Mortgages				
Securitised	94	135	157	1,183
On balance sheet:				
Commercial banks	78	94	78	871
Savings banks	91	-8	-102	755
Consumer credit				
Securitised	. .	20	28	88
On balance sheet:				
Commercial banks	38	23	5	333
Savings banks	2	-5	-10	40
Commercial and industrial loans				
Loans sold	19	8	-21	60
On balance sheet, commercial banks	*40*	*39*	*7*	*618*

. . not available.

Source: Flow of fund statistics, *Federal Reserve Bulletin*, Bernanke and Lown.

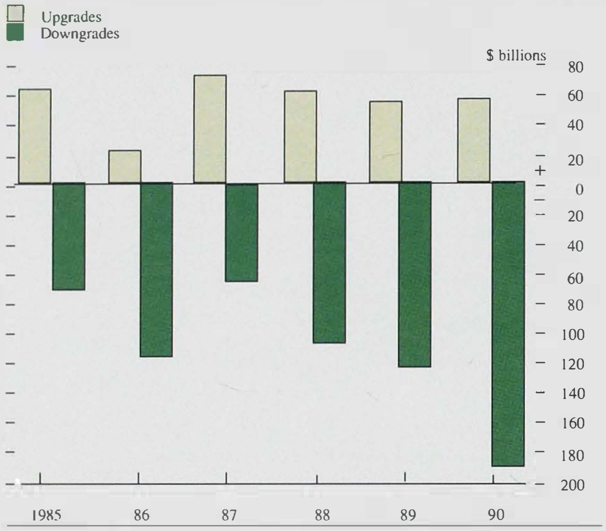
been declining lately. Some data on comparable credits that have been sold or retained on balance sheets are given in Table C. In looking at these data it is important to bear in mind that banks are not the only institutions originating credits that are sold in the secondary markets; this is particularly true of consumer credit and perhaps least true of commercial and industrial loans. Nevertheless, the table suggests that while the *stocks* of securitised credits remain relatively small, other than in the market for mortgage-backed securities, in flow terms they have been of growing significance. This is at least consistent with pressure on financial institutions to contain their balance sheet growth.

Weak demand for credit

Although banks have been less willing to provide finance, it also seems likely that the demand for credit has fallen, as demonstrated by the lack of response in non-intermediated credit, with the exception of an end to the decline in outstanding equity and an acceleration in issues of bonds. This suggests the corporate sector may have been attempting to lengthen the maturity of its liabilities and to reduce its capital gearing. The need to do so follows from the deterioration in debt/equity ratios cited earlier, which have been reflected in declining creditworthiness, with downgrades reaching record levels relative to upgrades (Chart 4). Commenting on these downgrades, Moody's drew attention to 'increased leverage, a marked slowdown in consumer spending, tighter control of business expenditures, slumping real estate markets, higher fuel costs, a possible ending of the cold war plus federal budget cuts'. It is also suggested[4] that external funding of corporations has been on a declining trend since the mid-1970s and may have accelerated since 1986. The reasons for this trend include the stronger ability of larger and more diversified corporations to finance themselves internally, the advantages resulting from internal finance, and tax policy favouring internal funding over debt.

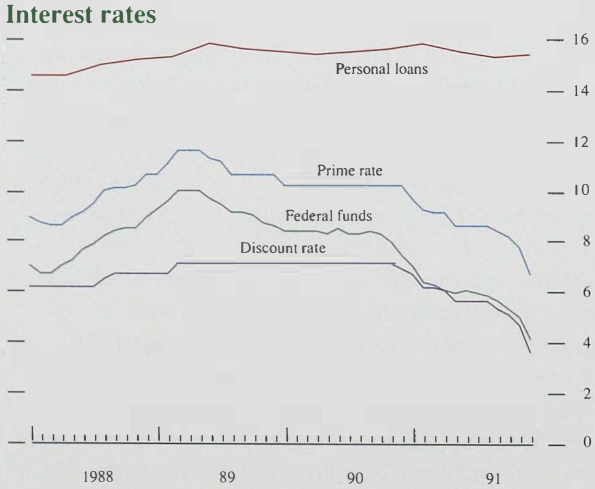
(1) They compare bank asset and capital growth rates by state, rather than by bank, without allowing for differences in regional economies.
(2) The significance of these results probably lies more in the changes than in the levels, since banks tend to report that they are tightening their credit standards throughout the cycle.
(3) This analysis draws heavily on Bernanke and Lown, though the statistics are drawn from different sources.
(4) *Chicago Fed Letter*, Number 51, November 1991.

Chart 4
Moody's industrial upgrades/downgrades



Demand for credit from consumers also appears to have been low, reflecting depressed demand for consumer goods. This may have been exacerbated by the fact that the interest rates on consumer borrowing have fallen by less than money market interest rates (Chart 5). Ratios of debt to net worth for households have risen from under 17% before 1984 to 23% in 1990, with over 2 percentage points of this rise in 1990 alone (Chart 6). Consumers are likely to feel particularly cautious at a time when employment and income prospects are uncertain, house prices are falling and the savings ratio is already low. These factors seem to be reflected in a greater reluctance to spend and borrow.

Chart 5
Interest rates

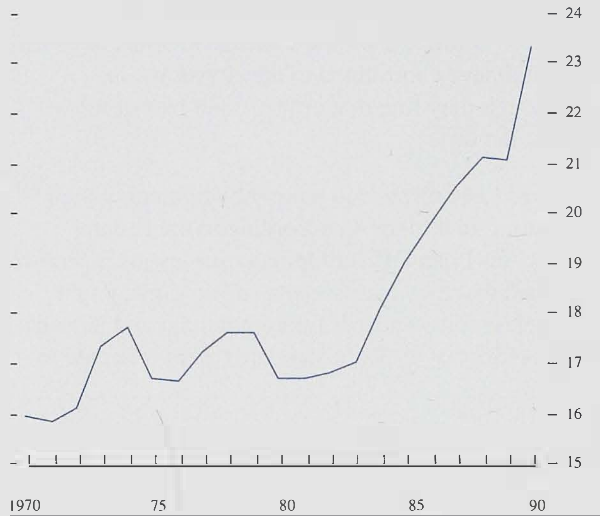


Policy actions

The US authorities have responded to the slowdown in credit with a series of measures:

- easing interest rates;
- reducing reserve requirements;
- modifying the rules on the valuation of real estate for banks;
- liberalising the rules on raising capital for bank holding companies.

Chart 6
Ratio of debt to net worth: households



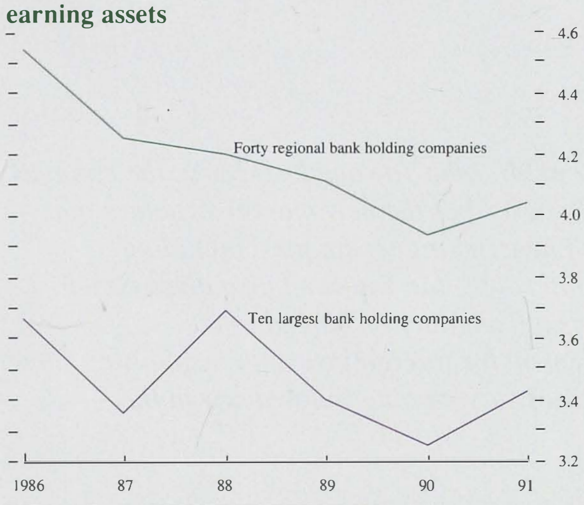
Easing interest rates

Between July 1990 (the start of the recession) and the end of 1991, the target for the Fed funds rate came down from 8.25% to 4%, a fall of 4.25 percentage points, and the discount rate fell from 7% to 3.5%, a fall of 3.5 percentage points. In reducing interest rates, the Federal Reserve has at times explicitly stated that it was moving to offset stringency in credit markets. This effect, however, will have been limited by the extent to which cuts in money market rates were passed on to borrowers. Over the same period, banks' Prime rate fell from 10% to 6.5%, less than the fall in the Fed funds rate, and personal loan rates have hardly fallen at all (Chart 5). One consequence has been a wider spread between the banks' cost of funds (related to market rates) and their administered lending rates; even so, their net interest revenue as a percentage of earning assets has risen only slightly (Chart 7), presumably held back as the banks have moved into lower-yielding Treasury securities.

Reduced reserve requirements

In December 1990, the Federal Reserve abolished reserve requirements against net eurocurrency liabilities and non-personal time deposits with an original maturity of less than eighteen months. Since, however, the reserve requirement on the liabilities affected amounted to only $13.4 billion out of a total reserve requirement of $47.4 billion, the maximum benefit to banks' income would have been limited. Furthermore, many of the banks' loan agreements with borrowers included a provision to the effect that changes in the cost of reserve requirements were to be reflected in the spread charged on the loan. (Indeed, some of the banks with loans subject to such provisions were not in fact funding themselves in eurodollars; they thus experienced cuts in their lending rates without the benefit of a reduction in their borrowing costs.) The scope for further easing of reserve requirements is limited by the perception that required reserves are now close to the minimum balances that banks would in any case choose to hold for clearing purposes.

Chart 7
Net interest revenues as a percentage of earning assets



Real estate valuation rules

In the spring of 1991, the regulators were beginning to address loan valuation rules. These were seen as too stringent, in that they required banks to take write-offs against what were thought to be only temporary falls in the price of real estate used as collateral, thus introducing undesirable volatility into their profits. Proposals were made in March for 'loan-splitting'—an accounting change to allow banks to write off part of a troubled loan, but continue to record income from the remainder of it. These proposals were withdrawn in July, however, after it was decided that they would have been in conflict with prudent accounting practices and would have done little to help bank profits. Instead, the regulatory authorities have issued guidance to encourage bankers to work constructively with borrowers experiencing temporary difficulties and to clarify that real estate loan appraisals should take full account of a property's future income potential as well as of current liquidation values. The Administration also proposed a process for banks to appeal against the conclusions of examinations. While the Federal Reserve has had an appeals process in place for some time, some other regulatory agencies have now issued clarifications of their appeals policies and practices and the others will do so soon.

Access to capital

As part of a package announced last October, the Administration proposed removing the 25% limit on the proportion of Tier I capital that may consist of non-cumulative, perpetual preferred stock at *bank holding companies*, to which the Basle rules do not apply. A regulation to this effect has since been approved by the Federal Reserve. (The 25% limit still applies to cumulative preferred stock.) The effects are thought likely to be quite limited, however, since the proposal applies to holding companies (not banks themselves), few companies are in practice up against their present limits, and those that are would be likely to face poor market terms on any issues they tried to bring.

Conclusions

Credit growth in the United States has slowed more sharply than would have been expected, even for this stage of the cycle. The underlying cause seems to be the unwinding of excessive credit growth that occurred during the 1980s. Although regulatory and technological developments earlier in the decade may have raised equilibrium ratios of debt to net worth for many sectors of the economy, these new equilibrium levels may have been overshot by the rapidity of the credit expansion, leaving businesses and individuals with higher levels of debt relative to income or net worth than they would have wished. Although banks' exposure to falling property values and the failure of large numbers of Savings and Loan institutions have caused constraints in the supply of credit through intermediaries, there is little consistent evidence of creditworthy borrowers being unable to find credit, with the exception of particular industries and regions, notably commercial real estate development and the north-east.

If supply constraints do not account for the whole of the slowdown in credit growth, then a fall in demand must also be responsible. Thus, while the policy measures described earlier are helping to restore the banks' ability to act as suppliers of credit, it is also necessary for households and businesses to restructure their balance sheets in line with changed expectations. The pick-up in equity issuance last year, the substitution of longer-term bonds for short-term debt, and restraint in incurring new short-term debt are all contributing to this process, helped by lower interest rates.