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# The UK personal and corporate sectors during the 1980s and 1990s: a comparison of key financial indicators

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*This article draws together some key indicators of financial conditions in the personal and corporate sectors, which may provide interesting insights into aspects of the behaviour of the UK economy during the course of the two most recent business cycles. Although the main focus is retrospective, this analysis could also help to assess the likely future course of important components of aggregate demand.*

## Introduction

In this article, we examine various key financial indicators relating to the UK personal and corporate sectors in the 1980s and 1990s. The financial health of the personal and corporate sectors is potentially important as a leading indicator of changes in consumption and investment spending. When households run into financial difficulties, they are likely to cut back on spending plans. Firms in financial difficulties will postpone or cancel investment projects.

The 1980s and 1990s both began with recessions—defined as at least two consecutive quarters of falling output—which were succeeded by economic recoveries. At the time of writing, the 1990s recovery phase is not yet over, although the growth rate has slowed. One complete economic cycle runs from the start of the recovery in 1981 Q1 to the peak of 1990 Q2,<sup>(1)</sup> and the 1990s recovery started in 1992 Q2. This makes it convenient to compare the two decades by aligning the period following 1981 Q1 with the period following 1992 Q2.

We note similarities and differences between the two cycles. No two cycles are ever exactly the same, both because the shocks hitting the economy vary, and because the structure of the economy evolves. The 'boom and bust' in the first half of the 1970s was partly associated with the introduction of Competition and Credit Control and the subsequent return to quantitative controls on banks' balance sheets (the 'corset'). But the 1980s cycle was unusual in that it was the first cycle in the United Kingdom following a significant permanent liberalisation in the financial system (including the abolition of exchange controls and the corset, which led to a new competitive environment for banks and building societies). With these caveats in mind, the previous cycle may provide some interesting comparisons with the current one.

The article is in three sections: we first discuss some background issues, we then set out our selection of stylised facts, and finally we draw some conclusions.

## Financial conditions and the business cycle

Economic cycles have three main elements: (i) the endogenous behaviour of individuals and companies, including financial ones; (ii) external shocks from the rest of the world; and (iii) policy responses from the government and monetary authorities. The way in which monetary policy changes affect the economy is known as the monetary transmission mechanism.

The monetary transmission mechanism works through four broad channels—interest rates, exchange rates, asset prices and credit.<sup>(2)</sup> All these channels were operating, to varying degrees, during the 1980s and 1990s. This article focuses mainly on indebtedness and credit market conditions, which relate, in particular, to the credit channel.

An important component of the credit channel is how the market for bank credit is affected by changes in the balance sheets of borrowers, who are dependent on bank credit, and lenders.<sup>(3)</sup> Banks and other lending institutions have the problem of imperfect information about the quality of borrowers. They try to overcome the risk of moral hazard and adverse selection by securing loans on assets, charging higher interest rates for unsecured loans, or channelling funds to borrowers with high net worth. Potential borrowers find it easier to persuade lenders that they are a good risk by offering some of their assets (especially property) as security. A financial accelerator effect has been identified: as credit expands in an upturn, asset values rise, creating further valuable collateral. A cumulative process can, it is argued, occur. In a downturn, when asset prices fall, so does the value of collateral, credit risk rises, lenders become more cautious, loan-financed spending falls, and recession typically ensues (or is made worse).

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(1) Output did not rise consistently during this period—there was a minor downturn in 1984, but special factors in that year (notably the miners' strike) make it hard to argue that 1984 was a cyclical trough.

(2) See Mishkin, F S (1995), 'Symposium on the Monetary Transmission Mechanism', *Journal of Economic Perspectives*, 9(4) Autumn, pages 3–10.

(3) See, for example, Bernanke, B and Gertler, M (1995), 'Inside the Black Box: the Credit Channel of Money Policy Transmission', *Journal of Economic Perspectives*, Autumn; Kashyap, A K and Stein, J C (1995), 'The impact of monetary policy on bank balance sheets'; *Carnegie Rochester Conference Series on Public Policy*; Dale, S and Haldane, A (1993), 'Bank behaviour and the monetary transmission mechanism', *Bank of England Quarterly Bulletin*, November, pages 478–91.

Financial conditions are described below under three headings: (i) measures of the financial health of the personal and corporate sectors (Charts 1–15 and Table A); (ii) measures of the price of credit (lending rates), which reflect banks and building societies' supply of loans, as well as the personal and corporate sectors' demand for loans (Charts 16–20); and (iii) measures aimed explicitly at gauging the credit supply policies of financial institutions (Charts 21 and 22 and Table B).

### The stylised facts

The following charts and tables show the paths of various financial indicators between the 1992 Q2 trough in output and 1998 Q1. These are shown alongside the paths of the same variables during the similar phase of the 1980s cycle. The period corresponding to 1998 Q1 in the previous cycle was 1986 Q4, although output continued rising for another three and a half years before it reached a peak in 1990 Q2 (shown as the vertical dashed lines in the charts). The green lines in the charts refer to the post-1992 Q2 data, and the orange lines show the 1981 Q1–1992 Q1 period.<sup>(1)</sup> References to the 'corporate sector' mean industrial and commercial companies (ICCs) only, so exclude other financial institutions (OFIs) unless explicitly stated. Data definitions and sources are set out in the Appendix.

#### (i) Measures of the financial position of the corporate and personal sectors

Three types of measure of borrowers' financial position are presented below: measures of *sectoral liquidity*—interest payments as a fraction of income (income gearing) and differences between sectoral income and expenditure (financial balances and savings rates) (Charts 1–5); measures of *sectoral net worth*—the value of debt relative to assets (capital gearing) and variations in the price of assets (Charts 6–13); and specific measures of *financial fragility*—mortgage arrears and repossessions, and personal bankruptcies and corporate liquidations (Charts 14 and 15).

During both the previous and current upswing (prior to the tightening in monetary policy in 1988 and more modest tightening during the past year), income gearing for both the personal and corporate sectors was broadly flat—interest payments increased in line with incomes. The level of corporate sector (net) income gearing in recent years has been similar to that of the mid 1980s (see Chart 1). It has risen noticeably in the last year, but is still well below the level reached in 1989. Total personal sector (gross) income gearing has also been lower in recent years than during the mid to late 1980s (see Chart 2). But within total personal sector gearing, mortgage income gearing has been at similar levels during both upturns, owing to two offsetting influences: the stock of mortgage debt (relative to income) was much higher in the mid 1990s than in the mid 1980s, but the level of interest rates was lower.<sup>(2)</sup>

The ICCs' financial surplus (as a percentage of GDP) and the personal sector (net) saving rate were both positively correlated with sectoral M4 lending/income during the previous cycle (see Charts 3 and 4).<sup>(3)</sup> This suggests that during the 1980s, individuals and companies financed imbalances between current income and expenditure mainly through changes in the amount borrowed from banks and building societies, rather than through changes in other sources of borrowing or in asset holdings. During the late 1980s, the movement of the corporate sector into financial deficit was financed by a sharp rise in ICCs' M4 borrowing. Similarly, the movement of ICCs back into financial surplus during the previous recession was mirrored by a marked cutback in their M4 borrowing (as a percentage of GDP). During this recovery, the ICCs' financial balance has again moved into deficit, albeit so far a modest one. But this has not been financed by borrowing from banks and building societies to the same extent as in the late 1980s—after rising for a while in 1995–96, the flow of M4 lending to ICCs (as a percentage of GDP) has so far fallen back.

The flow of M4 consumer credit relative to personal disposable income (see Chart 5) is now at comparable levels to the previous cycle. But overall lending flows to the personal sector, including mortgages, remain at levels (relative to PDI) well below those of the previous cycle. The flow of housing-related lending/income—including mortgage equity withdrawal—provides one major contrast between the 1980s and the 1990s. The surge in personal sector borrowing relative to income in 1987–88 was reflected in a significant fall in the savings ratio (see Chart 4). The personal sector savings ratio has fallen recently, but remains well above the level of the late 1980s.

We turn now to stocks of liabilities and assets. The stock of personal sector debt is measured as sterling borrowing from banks and building societies. Corporate sector debt also includes marketable securities, and foreign currency borrowing from bank and building societies. Sectoral debts are measured relative to disposable income and net financial plus tangible wealth (mainly housing) for the personal sector, and relative to fixed assets, valued at current replacement cost, for the corporate sector. Income is defined as personal disposable income for the personal sector, and post-tax income for the corporate sector. For the economy as a whole, outstanding M4 lending is measured relative to GDP.

Aggregate domestic sterling lending of banks and building societies has increased much more slowly relative to GDP during this recovery than the previous one, but started from a much higher level—total M4 lending/GDP, for example, was 2½ times larger in 1992 than in 1981 (see Chart 6). The large expansion of bank and building society lending between the late 1970s and early 1990s may have marked a sustained adjustment to the new more liberal financial environment of the 1980s. It is likely that individuals and

(1) Where the orange lines start late in the recovery, this is because earlier data were not available.

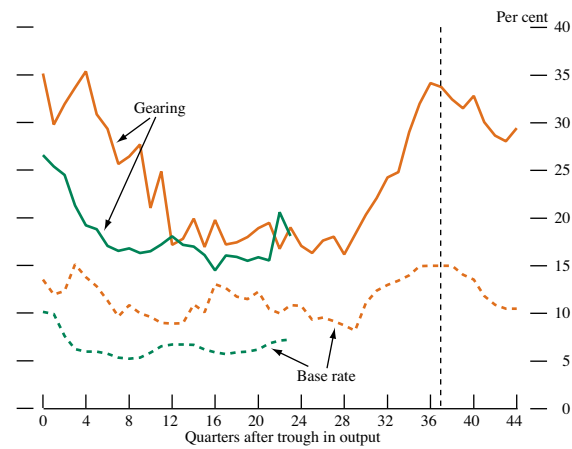
(2) In 1987, the stock of secured lending by banks and building societies was equivalent to 64% of aggregate annual personal disposable income, whereas in 1997 the figure was 75%. Official rates were around 10% in 1987, compared with 7½%–7¼% in the first half of 1998. Note that, where charts present ratios of stocks to PDI or GDP, the latter are quarterly rather than annual flows.

(3) Lending is measured as negative in the charts.

**Key for Charts 1–6**

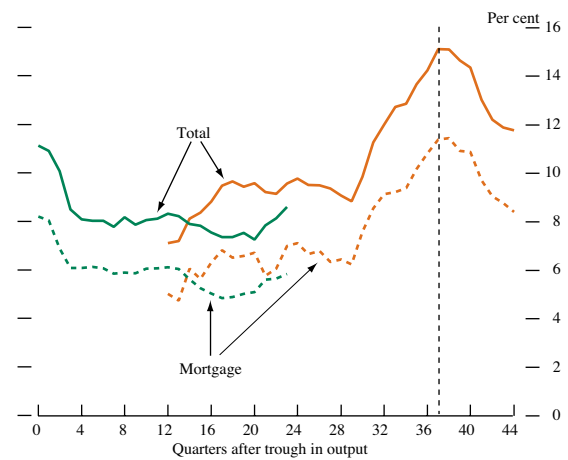
----- This recovery 1992 Q2–1998 Q1      - - - - - Previous peak 1990 Q2  
 ----- Previous cycle 1981 Q1–1992 Q1

**Chart 1**  
**ICCs' net income gearing and base rate**



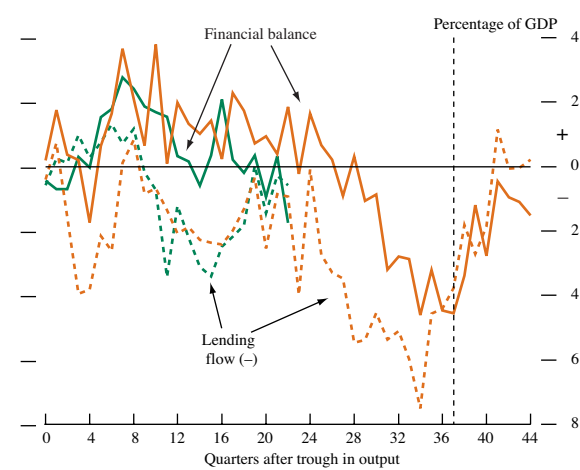
Sources: Office for National Statistics and Bank of England.

**Chart 2**  
**Personal sector income gearing**



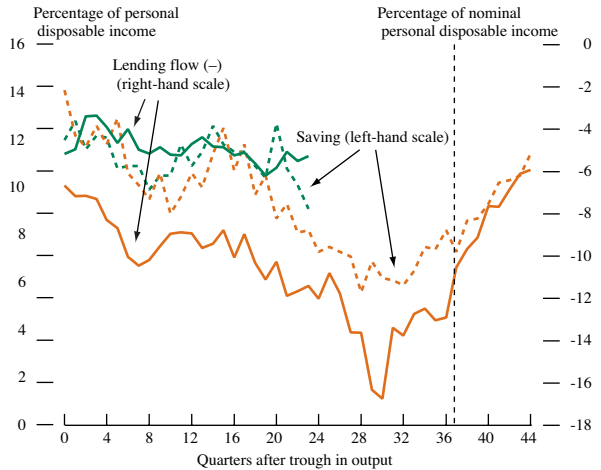
Sources: Office for National Statistics and Bank of England.

**Chart 3**  
**ICCs' financial balance and M4 lending flow**



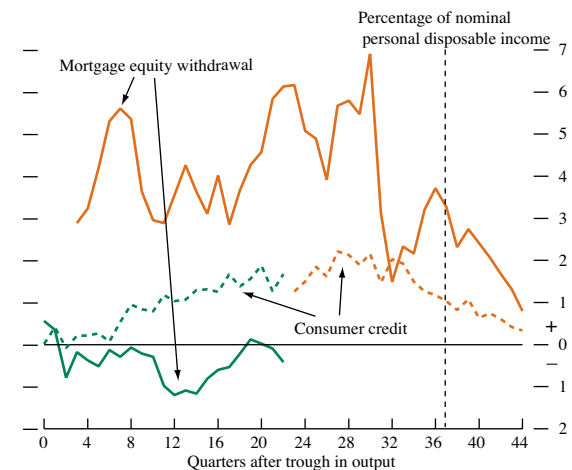
Sources: Office for National Statistics and Bank of England.

**Chart 4**  
**Personal sector saving rate and M4 lending flow**



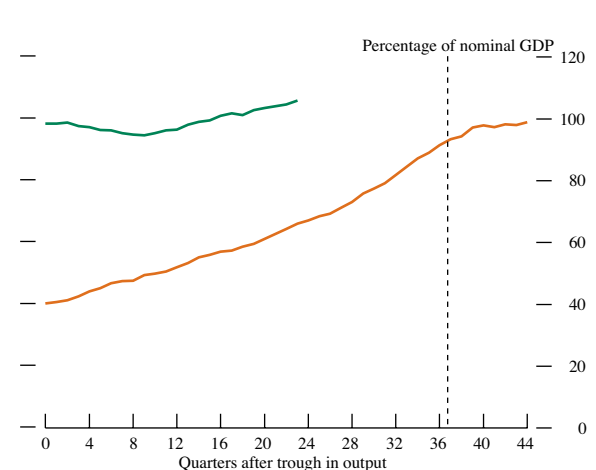
Sources: Office for National Statistics and Bank of England.

**Chart 5**  
**Flow of mortgage equity withdrawal and net consumer credit**



Sources: Office for National Statistics and Bank of England.

**Chart 6**  
**Total M4 lending**



Sources: Office for National Statistics and Bank of England.

companies started the 1990s cycle much closer to their desired levels of debt.

ICCs' M4 borrowing/income ratio has increased more slowly in recent years than before the peak of the previous cycle (see Chart 7). In addition, the personal secured M4 debt/income ratio has been flat during the present upturn, whereas it grew continuously and significantly during the 1980s (see Chart 8). M4 lending to OFIs and consumer credit, on the other hand, increased rapidly relative to income during this recovery, as it did during the last one (see Charts 9 and 10).<sup>(1)</sup> By 1998 Q1, these categories accounted for 21% and 8% respectively of total M4 lending.

Capital gearing—debt/assets—has fallen for both ICCs and the personal sector since the early 1990s, though ICCs' capital gearing remains above its level at the same stage of the previous cycle. In the late 1980s, corporate sector debt rose significantly relative to the capital stock (see Chart 7), as did personal sector capital gearing (see Chart 11), though not to the same extent. The ratio of personal sector debt to net wealth was more or less constant during the mid 1980s, only to be followed by a sharp decline in asset prices, particularly housing, and a consequent rise in personal capital gearing. In contrast with the 1980s recovery, personal sector debt has increased more slowly than net wealth in recent years.

Table A shows the percentage increase in the prices of the two most important components of personal sector wealth—housing and equity. Equity prices, and therefore financial wealth, have risen significantly during this recovery, as during the previous one (see Chart 12). Although there have been marked differences in changes in house prices on different indices during the past 18 months, all measures show that house prices rose significantly more in the previous cyclical upturn than they have so far during the current one. According to the Halifax, average (UK-wide) house prices were only around 7% higher in 1998 Q1 than in the trough of the last recession, whereas they more than doubled between 1983 Q1—the first period of data availability—and 1990 Q2. Similarly, the Nationwide and Department of Employment's house price indices have risen by 21% and 14% respectively during this recovery, whereas they rose by 149% and 176% between 1981 Q1 and 1990 Q2. Moreover, the (Halifax) house price/earnings ratio, which reached a historical peak in 1988, is now lower than at any time in the 1980s (see Chart 13); and the value of commercial property, which doubled during the 1980s, is only slightly higher than during the trough of the previous recession (see Table A).

Personal sector arrears and repossessions are now back at levels comparable to the mid 1980s (see Chart 14). By contrast, and despite a large fall during this recovery, the number of corporate insolvencies appears to have flattened out recently, at a higher absolute level than the trough

**Table A**  
**Asset prices, percentage change over period**

	1981 Q1–1990 Q2	1992 Q1–1998 Q1
Halifax house price index (sa) (a)	131	7
Nationwide house price index (sa)	149	21
Department of Employment house price index	176	14
FT-SE All-Share	281	116
	End 1980–end 1989	End 1991–end 1997
IPD commercial property prices (capital value)	99	11

sa = seasonally adjusted.

Sources: Halifax, Nationwide, ONS and Investment Property Databank.

(a) The Halifax house price index started in 1983 Q1, so the first number relates to a shorter period (1983 Q1–1990 Q2).

reached in the late 1980s. This pattern is more pronounced for the personal sector, where despite declining sharply since the previous recession, bankruptcies remain well above the levels before the peak of the previous cycle (see Chart 15).<sup>(2)</sup> If observed insolvencies proxy for banks' *ex ante* credit risk, banks may have adjusted to these trends by reducing lending spreads (although by less than in the late 1980s). Alternatively, they could have simply demanded less security, or relaxed other terms.

Chart 16 plots the percentage of firms in the CBI Industrial Trends Survey who reported that the cost of finance was a factor limiting their planned capital spending, against the banks' base rate lagged by one quarter. Not surprisingly, there is a positive correlation between perceived financing costs and the base rate, and this provides support for the proposition that high interest rates choke off some investment. These data suggest that in the current cycle, manufacturing firms felt that, up to early 1998, there was little restriction on investment activity resulting directly from the cost of finance. We now turn to the issue of whether the behaviour of financial institutions contributes to variations in the cost of finance.

### (ii) Lending spreads

Increases in debt/income ratios—across the board in the late 1980s, and for OFIs and consumer credit during the 1990s—could have resulted from either an increase in demand for loans (for given interest rates) and/or an increase in supply (easier credit conditions). The latter measures the contribution to the increase in debt from the behaviour of lending institutions, rather than as a result of macroeconomic factors at large. One way of assessing the importance of these two effects is to examine the changes in the lending spread—the premium of bank lending rates over wholesale money-market rates. If the rising demand effects outweigh supply, then the spread between the banks' lending rate and money-market rates should have widened. On the other hand, if the impact of an increase in supply outweighs demand, then the spread between the lending rate and money-market rates should have narrowed. The impact on spreads will depend both on the size of changes in supply

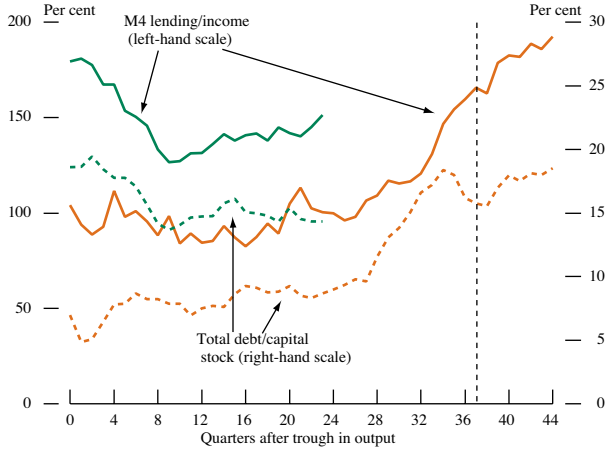
(1) Note that the sectoral money and lending aggregates separate out OFIs from persons, but that personal sector wealth includes assets held by Life Assurance and Pension Funds and other collective investment funds.

(2) It should be noted that the reported figures are absolute numbers of personal bankruptcies and corporate insolvencies. Ideally, these should be expressed as a proportion of the populations at risk, which we are unable to do, because of the unavailability of data.

**Key for Charts 7–16** (excluding Chart 14)

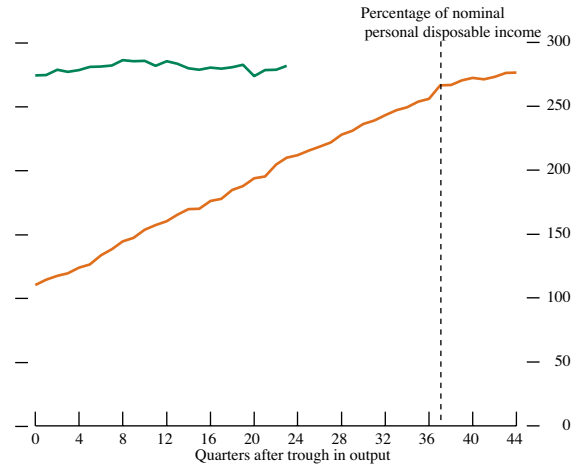
- This recovery 1992 Q2–1998 Q1
- Previous peak 1990 Q2
- Previous cycle 1981 Q1–1992 Q1

**Chart 7**  
**ICCs' capital gearing and M4 lending/income**



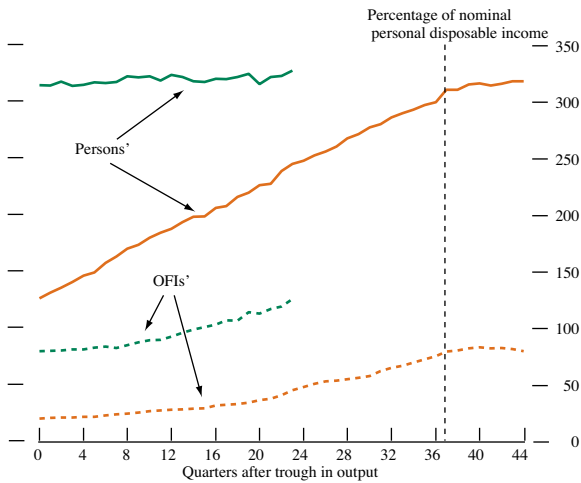
Sources: Office for National Statistics and Bank of England.

**Chart 8**  
**House purchase debt**



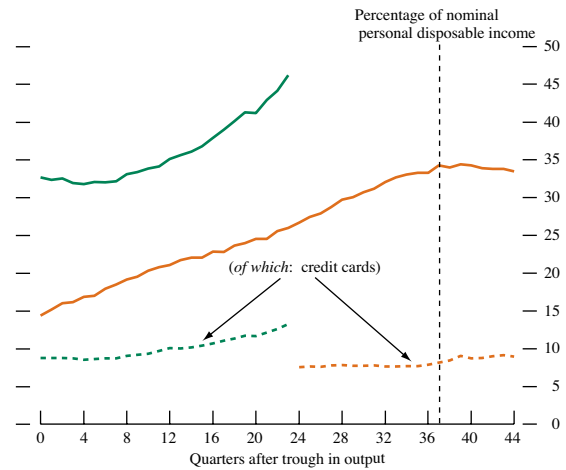
Sources: Office for National Statistics and Bank of England.

**Chart 9**  
**Personal sector and OFIs' M4 lending**



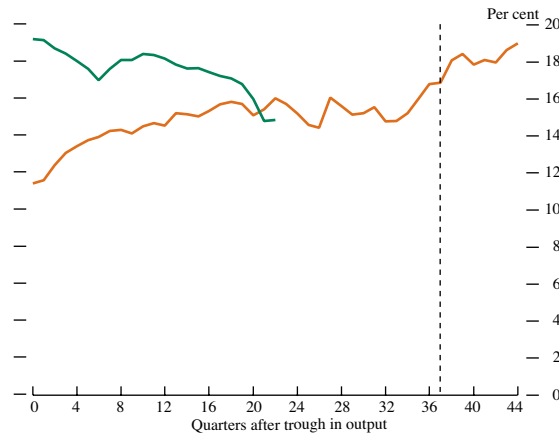
Sources: Office for National Statistics and Bank of England.

**Chart 10**  
**M4 consumer credit stock**



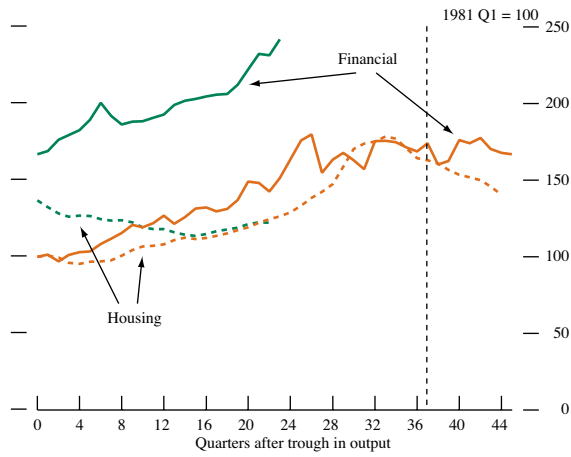
Sources: Office for National Statistics and Bank of England.

**Chart 11**  
**Personal sector capital gearing**



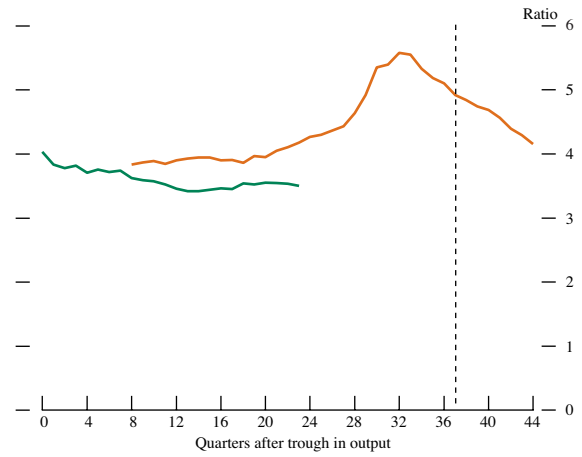
Source: Office for National Statistics.

**Chart 12**  
Value of financial and housing wealth



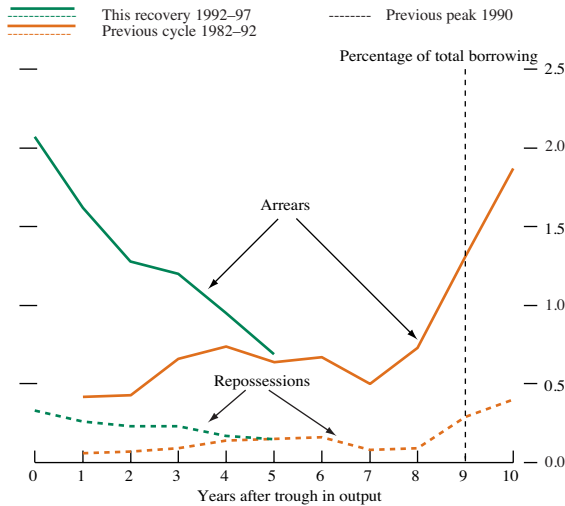
Source: Office for National Statistics.

**Chart 13**  
House price to earnings ratio



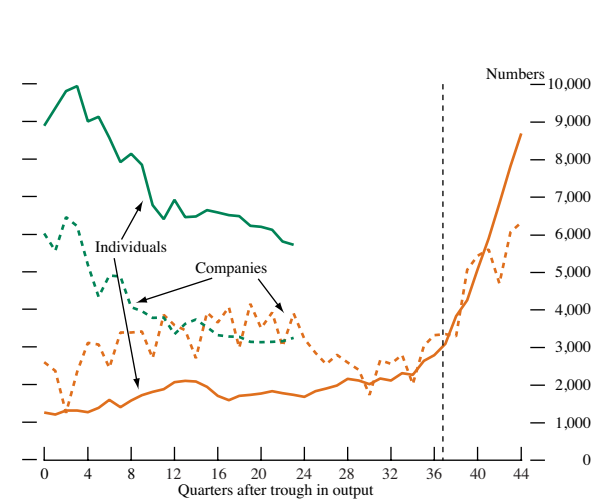
Source: Office for National Statistics.

**Chart 14**  
Mortgage arrears and repossessions



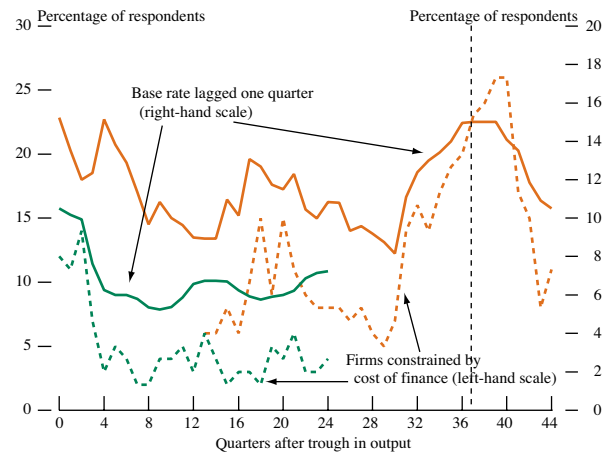
Source: Compendium of Housing Statistics.

**Chart 15**  
Company liquidations and personal bankruptcies



Source: Office for National Statistics.

**Chart 16**  
Cost of finance as a factor limiting capital expenditure and base rate



Source: Confederation of British Industry.

and demand, and on the interest rate sensitivity of the demand for and supply of loans. In practice, it is hard to identify supply and demand influences separately, but it is worth setting out some situations under which a reduction in spreads would be indicative of increasing pressures on aggregate demand coming from credit markets (or *vice versa*). There are at least three reasons why the banks' lending spreads may decline:

- *Reduced uncertainty about the credit risks attached to bank lending.* This might arise, for example, from a shift to a lower-inflation environment increasing the transparency of the price mechanism, and would suggest that the reduction of lending spreads was justified on financial risk grounds. However, it would still imply that a shift in credit supply was exerting additional upward pressure on spending.
- *An increase in the average net worth of borrowers, with unchanged uncertainty.* If this was supported by an increase in incomes or asset values, the rise in credit would be an endogenous response to an expansion already under way, rather than an independent cause of this expansion. It would contribute to the financial accelerator mechanism mentioned earlier. Clearly, if the rise in net worth were reversed in a recession, interest rate spreads might widen again in the economic downturn.
- *No change in either the net worth of borrowers or uncertainty, but an increase in competition among lenders, resulting in narrower spreads.* This could increase both inflationary pressure and financial risk—the former because an increase in the supply of credit by the banking sector might increase spending, the latter because lenders might take on some loans at the margin that they would previously have turned down.

Lending spreads have narrowed across all main lending categories since 1993–94 (see Charts 17–20). This suggests that financial institutions have contributed to an easing of credit market conditions during this recovery, or have at least delayed the pass-through of the increase in official interest rates in the past year. Bank and building societies' mortgage spreads fell markedly at the end of the previous boom (see Charts 17 and 18), and widened again after 1990, possibly as a delayed response by lenders to rising official interest rates. This suggests that for most of the 1980s, the marked increase in mortgage debt/income was not the result of easier lending rate conditions (over and above those induced by monetary policy), although this does not rule out easier access to mortgages for given interest rates (eg higher mortgage loan to income and loan to value ratios). During the current economic upswing, the ratio of mortgage loans to incomes has been flat, despite a steady decline in mortgage spreads since 1994. This reduction in spreads helped to prevent house prices from falling further, and helped them to recover modestly in 1996–98. Despite this decline in mortgage spreads, overall margins of banks and building societies in the retail market have been maintained. The

retail spread—the difference between mortgage and deposit rates—remains wide, because deposit rates have also fallen relative to base rates, particularly for building societies. One factor contributing to lower retail deposit rates for converting building societies was the potential for windfall gains from building society conversions. In fact, the inflows associated with the expectation of windfalls may have been partly responsible for the reduction in mortgage rates relative to the base rate in 1996–97; some of the benefit to building societies of being able to reduce their deposit rates may have been passed on to borrowers.

Data for interest rates on bank lending in the consumer credit market and to ICCs and OFIs are unavailable before 1992, preventing a comparison with the previous upturn. During the current recovery phase, a decline in spreads in the consumer credit market (see Chart 19) coincided with an increase in the loans/personal income ratio in 1994–95 (see Chart 10), though spreads rose again temporarily in 1996. The fall in spreads in 1994–95 could reflect either greater creditworthiness of borrowers or, for given creditworthiness, a loosening in supply conditions. The first hypothesis is supported by the decline in personal bankruptcies. However, the fact that consumer loans have increased more rapidly than personal sector incomes and that, in the consumer credit-card market at least, the number of accounts incurring interest rate charges has increased from an average of 59% in 1990 to 75% in 1997, may indicate that credit expansion has been gained through a reduction in the quality of credit-card borrowers. The number of credit-card providers has increased significantly in the last few years, and the range of rates available on credit-card lending has increased.

Chart 20 shows that bank lending spreads available to both ICCs and OFIs have also narrowed during this recovery.

### *(iii) Other measures of loan supply*

Changes in supply conditions may be reflected in factors other than lending rates. For example, because of the risk of attracting the least creditworthy borrowers, lenders may tighten non-price credit conditions, such as security required or loan to value ratios, rather than raise lending rates during a recession. Some evidence that this happens is available from the CBI Industrial Trends Survey. Firms report that their ability to raise external finance becomes more restricted during recessions and improves during recoveries (see Chart 21).

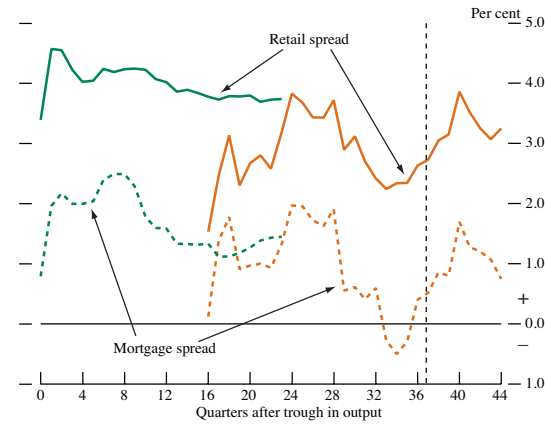
Changes in supply conditions may also be reflected in the composition of the banks' own balance sheets. In principle, faced with a deterioration in their balance sheets, banks could raise new capital rather than reduce their asset base. In practice, in times of stress it is difficult for banks to raise capital, because of the adverse signal this gives, and so they are likely to be more cautious about lending.

Chart 22 shows that the big clearing banks in the United Kingdom have had a large cushion of capital during the last recession and its aftermath. The minimum Basle

**Key for Charts 17–18**

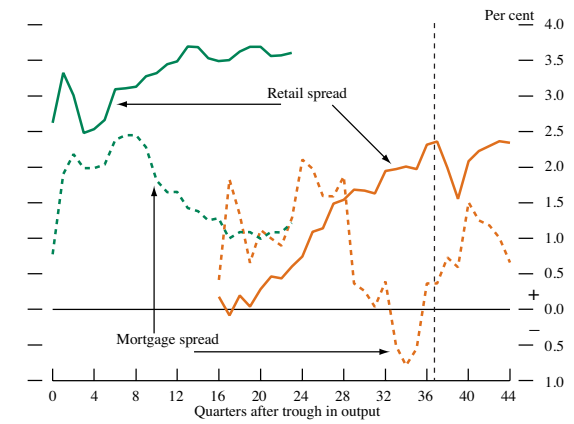
----- This recovery 1992 Q2–1998 Q1      - - - - - Previous peak 1990 Q2  
 ----- Previous cycle 1981 Q1–1992 Q1

**Chart 17**  
**Mortgage and retail spreads: banks**



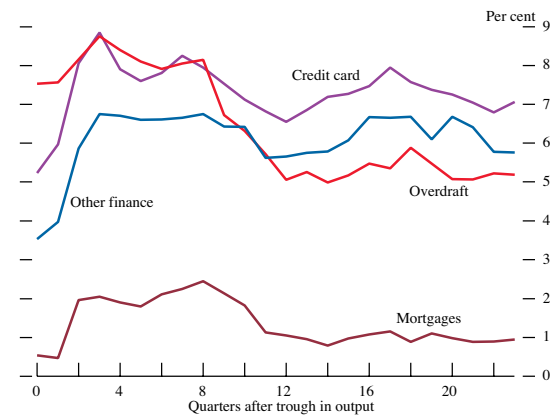
Source: Bank of England.

**Chart 18**  
**Mortgage and retail spreads: building societies**



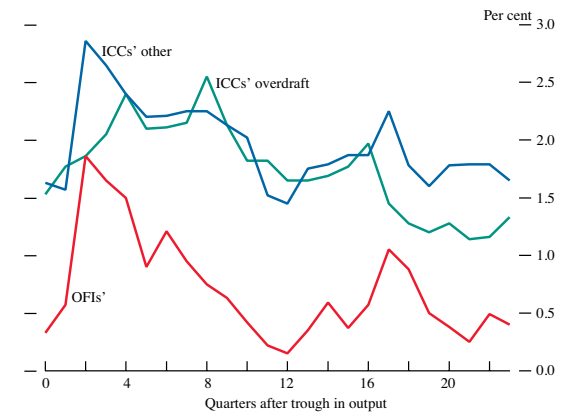
Source: Bank of England.

**Chart 19**  
**Consumer borrowing spreads 1992 Q2 to 1998 Q1**



Source: Bank of England.

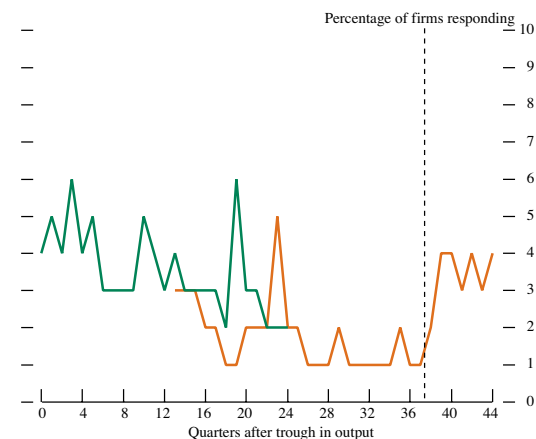
**Chart 20**  
**ICCs' and OFIs' lending spreads 1992 Q2 to 1998 Q1**



Source: Bank of England.

**Chart 21**  
**Lack of external finance limiting capital expenditure**

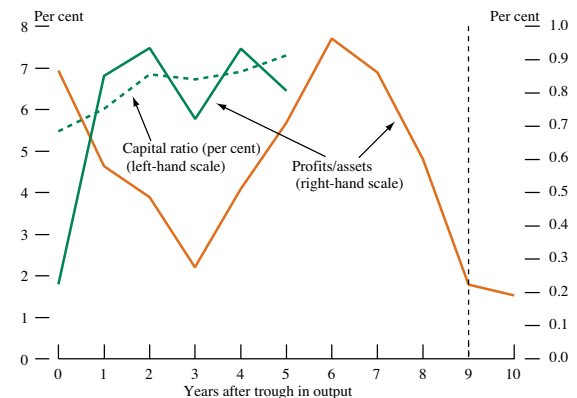
----- This recovery 1992 Q2–1998 Q1      - - - - - Previous peak 1990 Q2  
 ----- Previous cycle 1981 Q1–1992 Q1



Source: Confederation of British Industry.

**Chart 22**  
**'Big Four' (a) banks' profits/assets (b) and Tier 1 capital ratio (c)**

----- This recovery 1992–97      - - - - - Previous peak 1990  
 ----- Previous cycle 1981–91



Source: Annual accounts.

- (a) NatWest, Barclays, Midland and Lloyds (Lloyds-TSB from 1995).
- (b) Operating profits after charges for bad and doubtful debts and tax as a percentage of average assets.
- (c) Tier 1 capital as a percentage of risk-weighted assets.



**Table B**  
**Sectoral loans and defaults risk**

Figures in brackets exclude loans secured on dwellings

No	Write-offs <sup>(a)</sup> Mean per cent	Standard deviation	Percentage of total bank lending stock				Percentage of increase in total bank lending	
			1986 Q4	1989 Q2	1992 Q1	1997 Q1	1986 Q4 -1989 Q2	1992 Q1 -1997 Q1
1	0.59	0.78	4.60 (5.26)	7.76 (9.01)	8.68 (10.87)	5.14 (7.02)	12.21 (14.48)	-6.77 (-13.35)
2	0.53	0.49	2.79 (3.19)	3.83 (4.45)	3.51 (4.39)	1.48 (2.03)	5.30 (6.29)	-5.31 (-10.47)
3	0.50	0.50	0.85 (0.97)	0.85 (0.98)	0.65 (0.81)	0.40 (0.55)	0.85 (1.01)	-0.41 (-0.81)
4	0.45	0.35	3.55 (4.06)	3.04 (3.52)	2.90 (3.64)	1.89 (2.58)	2.31 (2.74)	-1.51 (-2.97)
5	0.45	0.35	1.91 (2.18)	1.83 (2.12)	1.71 (2.14)	2.32 (3.17)	1.72 (2.04)	4.36 (8.60)
6	0.39	0.31	7.12 (8.13)	7.97 (9.25)	7.88 (9.88)	6.46 (8.84)	9.17 (10.88)	1.70 (3.34)
7	0.34	0.31	2.96 (3.38)	3.57 (4.14)	3.18 (3.98)	1.92 (2.63)	4.42 (5.24)	-2.29 (-4.51)
8	0.34	0.34	11.34 (12.95)	10.49 (11.98)	9.56 (11.98)	9.54 (13.05)	9.29 (11.02)	9.49 (18.70)
9	0.33	0.35	0.98 (1.11)	0.80 (0.93)	0.66 (0.82)	0.48 (0.66)	0.55 (0.65)	-0.10 (-0.19)
10	0.30	0.24	5.22 (5.96)	3.80 (4.41)	2.90 (3.63)	2.50 (3.41)	1.81 (2.15)	1.15 (2.27)
11	0.28	0.24	1.75 (2.00)	1.50 (1.74)	1.22 (1.52)	0.93 (1.28)	1.15 (1.36)	-0.02 (-0.04)
12	0.26	0.47	0.86 (0.98)	0.41 (0.48)	0.42 (0.52)	0.53 (0.72)	-0.22 (-0.26)	0.89 (1.75)
13	0.26	0.29	12.34 (14.09)	12.56 (14.57)	10.73 (13.45)	10.14 (13.86)	12.87 (15.27)	8.14 (16.05)
14	0.20	0.43	0.84 (0.97)	0.66 (0.77)	0.73 (0.91)	0.37 (0.51)	0.41 (0.48)	-0.83 (-1.64)
15	0.19	0.29	1.05 (1.19)	0.82 (0.95)	0.69 (0.86)	0.79 (1.08)	0.50 (0.59)	1.14 (2.24)
16	0.14	0.16	2.97 (3.39)	2.68 (3.11)	2.30 (2.88)	1.84 (2.52)	2.28 (2.70)	0.31 (0.60)
17	0.13	0.10	3.00 (3.42)	1.92 (2.23)	1.53 (1.92)	1.14 (1.56)	0.40 (0.47)	-0.18 (-0.35)
18	0.13	0.18	0.54 (0.62)	0.43 (0.49)	0.43 (0.54)	0.32 (0.44)	0.26 (0.31)	-0.05 (-0.09)
19	0.12	0.48	1.43 (1.63)	1.18 (1.37)	0.75 (0.94)	0.88 (1.21)	0.83 (0.99)	1.31 (2.59)
20	0.05	0.07	12.46	13.81	20.17	26.84	15.72	49.26
21	0.04	0.18	0.68 (0.78)	0.49 (0.56)	0.47 (0.59)	0.56 (0.76)	0.21 (0.25)	0.85 (1.68)
22			1.66 (1.89)	2.00 (2.32)	2.31 (2.89)	2.73 (3.73)	2.49 (2.96)	4.14 (8.16)
23			2.00 (2.28)	2.77 (3.22)	2.83 (3.55)	1.92 (2.63)	3.87 (4.59)	-1.13 (-2.22)
24			1.83 (2.10)	2.30 (2.67)	1.58 (1.98)	1.57 (2.15)	2.95 (3.50)	1.54 (3.03)
25			3.84 (4.39)	4.00 (4.64)	5.61 (7.03)	5.92 (8.10)	4.23 (5.02)	6.97 (13.73)
26			1.06 (1.21)	0.85 (0.99)	0.76 (0.95)	0.68 (0.92)	0.55 (0.65)	0.39 (0.76)
27			1.34 (1.53)	0.98 (1.14)	1.26 (1.58)	0.87 (1.19)	0.47 (0.56)	-0.44 (-0.87)
28			0.84 (0.96)	0.19 (0.22)	0.41 (0.51)	1.58 (2.16)	-0.72 (-0.86)	5.52 (10.87)
29			0.75 (0.85)	0.44 (0.51)	0.35 (0.44)	0.25 (0.34)	0.00 (0.00)	-0.09 (-0.18)
30			1.22 (1.40)	1.08 (1.25)	1.19 (1.49)	1.09 (1.49)	0.87 (1.03)	0.73 (1.44)
31			6.24 (7.12)	5.00 (5.80)	2.63 (3.29)	6.9 (9.43)	3.26 (3.87)	21.24 (41.86)
			<b>100 (100)</b>	<b>100 (100)</b>	<b>100 (100)</b>	<b>100 (100)</b>	<b>100 (100)</b>	<b>100 (100)</b>

(a) Based on branch lending from 1976-91 by a large UK bank (see Davis, E.P., 'Bank Credit Risk', Bank of England Working Paper Series, No 8 (April 1993)).

requirement for Tier 1 capital is 4% of risk-weighted assets. The average Tier 1 capital ratio of the 'Big Four' banks was 5½% in the trough of the last recession, and has since risen to 7%. Profits after tax and provisioning at the main UK banks have also been high in recent years, and above levels at the same stage of the previous cycle.<sup>(1)</sup> In contrast, many banks in the United States were close to their required regulatory capital ratios in the early stages of the US recovery. In the early 1990s, banks in the United States substituted (zero risk-weighted) government securities for (positively risk-weighted) loans in their asset portfolios.<sup>(2)</sup> This meant that cuts in the official rate did not initially boost the quantity of bank loans, but did so only when the economy improved and the capital constraint had eased. Notwithstanding their surplus regulatory capital, UK banks also decided to substitute government debt for private sector loans in their portfolios in the first two years of this recovery. Since 1995, however, the share of private sector assets in the banks' balance sheets has been on an upward trend (not shown), reflecting better lending opportunities in the private sectors.

A sectoral breakdown of bank loans may also provide an indication of banks' loan supply policy. Table B shows domestic bank lending by industrial sector.<sup>(3)</sup> The sectors are ordered by their degree of credit risk based on default rates during the 1976–91 period (shown in columns 1 and 2). The next four columns show the share of the outstanding stock of loans by sector at various dates: the first period of data availability (1986 Q4), close to the peak

and trough of the previous cycle, and the most recent position available (1997 Q1).<sup>(4)</sup> The final two columns show the contribution of each sector to the total increase in bank lending during the two recovery phases. During the 1990s recovery, there has been a large fall in the share of bank lending to the property and construction sectors. Loans to these sectors in the 1980s contributed disproportionately to bank losses. That is, no doubt, why exposure to these sectors has been curtailed and has produced the contrast with the second half of the 1980s, when these sectors were among those where borrowing was growing most rapidly. The detailed sectoral data shows that the largest growth in bank and building society sterling lending during the 1990s has been to OFIs, particularly to securities dealers, mainly reflecting the growth in reverse repos (see Table C).

## Conclusion

There are both similarities and differences in the financial positions of the corporate and personal sectors in the 1980s and 1990s. The current level of income gearing in both sectors is similar to the comparable stage of the previous economic cycle (end 1986)—debt levels are currently higher, but nominal interest rates are lower. In the 1980s, there was little change in income gearing for either the corporate or personal sectors prior to the sharp tightening of monetary policy in 1988, but the marked rise afterwards preceded the 1990–92 recession. No comparable rise in income gearing has yet been evident in the 1990s recovery, though it has risen slightly following the interest rate rises since spring 1997.

ICCs' capital gearing has been above the level of the mid 1980s throughout the current recovery, but so far has shown no signs of the kind of deterioration that occurred after 1987. Similarly, the stock of personal sector debt began this recovery at a higher level than in the early 1980s but, unlike then, has grown no faster than incomes and slower than wealth so far during the 1990s.

There are other contrasts between the 1980s and 1990s recoveries. With regard to lending flows, in the 1980s boom, there was a channelling of funds to ICCs and personal housing loans. But in the current recovery, lending has been channelled more towards unsecured consumer credit and to OFIs. With regard to asset prices, in the 1980s, property and equity prices rose markedly in tandem. Although equity prices have again risen strongly in the 1990s, property prices have so far risen slowly in comparison.

During the 1980s, the spread of bank and building society mortgage rates over base rate fell only towards the end of the boom and only as a result of a delayed response to the increase in official rates. In contrast, since the early 1990s, lending spreads in the mortgage market have fallen, as they

**Table C**

**(a) Share of bank and building society loans by main asset categories**

Per cent

	1990 Q2	1998 Q1
Housing	45.3	47.5
Consumer credit	7.7	7.8
Other personal (a)	8.0	2.2
ICCs	25.4	21.2
OFIs	13.6	21.3
<i>of which:</i>		
Leasing companies	3.0	4.3
Securities dealers	0.5	4.0
Insurance and pension funds	0.7	1.5

**(b) Change in share of total loans since the trough**

Percentage point change

	1981 Q1– 1990 Q2	1992 Q1– 1998 Q1
Housing	-1.4	-0.6
Consumer credit	0.6	0.4
Other personal (a)	0.3	-4.9
ICCs	-4.3	-2.3
OFIs	4.9	7.3
<i>of which:</i>		
Leasing companies	n/a	0.4
Securities dealers	n/a	3.6
Insurance and pension funds	n/a	1.0

n/a = not applicable.

Source: Bank of England.

(a) The marked decline in the share of 'other personal' loans is largely because of the reallocation of unincorporated businesses to ICCs or OFIs in 1997.

(1) See the *Banking Act Report* (1997/98), Bank of England.

(2) For evidence of capital constraints in the United States in the early 1990s, see the *Federal Reserve Bulletin* (various issues) and Thakor, A V (1996), 'Capital requirements, monetary policy, and aggregate bank lending: theory and empirical evidence,' *The Journal of Finance*, March.

(3) Data are shown excluding and including housing loans. The latter data are affected by the breaks in the series over the period, caused by the conversion of some building societies into banks.

(4) Due to a change of industrial classification, a sectoral composition on the same basis is unavailable after 1997 Q1.

appear to have done in other main lending markets. This may have contributed to the growth in lending during this recovery, but does not necessarily imply an increase in financial risk, so long as the financial status of borrowers has improved.

The evolution of the financial position of the personal sector during the 1980s probably reflected a steady response to financial liberalisation from a starting position of sub-optimal debt levels—total personal debt rose much more rapidly than incomes, and at least in line with the

rapid growth in personal wealth. Although consumer credit has increased at least as much relative to incomes during the current upswing as in the previous one, it now still accounts for only around one eighth of personal sector debt. As noted above, the relatively slow growth in lending for house purchase so far during this upswing has meant that the personal sector debt/income ratio has remained flat, while the debt/wealth ratio has fallen. This suggests that the upward adjustments in personal sector debt levels that followed the 1980s liberalisation may have been completed before the current recovery.

## Appendix

### Data definitions for charts

**Chart 1:** ICCs' net income gearing is the ratio of net interest payments by ICCs on all forms of debt to income after tax (but before payment of interest and dividends) x 100. Source: ONS. Base rate is a quarterly average of banks' base rates. Source: Bank of England.

**Chart 2:** Personal sector total gearing is the ratio of gross interest payments to personal disposable income x 100; mortgage gearing is the ratio of mortgage interest payments to personal disposable income x 100. Sources: ONS and Bank of England.

**Chart 3:** ICCs' financial balance is the difference between ICCs' undistributed income and investment spending as percentage of quarterly nominal GDP. Source: ONS. M4 lending flow (measured as negative) is the bank and building society sterling lending to ICCs as percentage of quarterly nominal GDP. Source: Bank of England.

**Chart 4:** Personal sector savings rate is the ratio of saving (defined as PDI minus consumer spending) to personal disposable income x 100. M4 lending flow (measured as negative) is total personal sector M4 lending flow as percentage of PDI. Sources: ONS and Bank of England.

**Chart 5:** Mortgage equity withdrawal is the value of the lending flow to individuals secured on housing but not used directly for house purchase, as a percentage of personal disposable income. Consumer credit is the flow of unsecured M4 lending to individuals as a percentage of personal disposable income. Source: Bank of England.

**Chart 6:** Ratio of M4 lending stock to the private sector to current GDP at market prices, where the quarterly flow of GDP is annualised. Sources: Bank of England and ONS.

**Chart 7:** Ratio of stock of M4 lending to ICCs to income after tax (but before interest payments and dividends); and ratio of ICCs' stock of total debt (consisting of loans from banks and building societies in sterling and foreign currency and outstanding debt instruments net of liquid assets) to the capital stock (measured as the replacement value of fixed assets) as a percentage. Sources: ONS and Bank of England.

**Chart 8:** Stock of secured M4 debt to the personal sector as a percentage of quarterly personal disposable income. Sources: ONS and Bank of England.

**Chart 9:** Stock of M4 loans outstanding to personal sector and to OFIs as percentage of quarterly personal disposable income. Sources: Bank of England and ONS.

**Chart 10:** Stock of unsecured M4 consumer loans to individuals (and subset related to credit cards) as percentage of quarterly personal disposable income. Sources: Bank of England and ONS.

**Chart 11:** Personal sector ratio of M4 lending to net financial plus tangible wealth. Sources: Bank of England and ONS.

**Chart 12:** Index of the value of gross personal sector financial assets and the nominal value of the housing stock, where 1981 Q1 = 100. The value of the housing stock is an annual series interpolated to give quarterly observations. Source: ONS.

**Chart 13:** Ratio of the Halifax index of average house prices to average annual earnings per worker. Source: ONS.

**Chart 14:** Percentage of loans outstanding by value that are in arrears on loan repayments, and percentage (by value of loans) of mortgage holders subject to repossession—relates to the Council of Mortgage Lenders (CML) members only. Source: Compendium of Housing Statistics.

**Chart 15:** Number of companies being liquidated and persons filing for bankruptcy. Source: ONS.

**Chart 16:** Percentage of firms in CBI Quarterly Industrial Trends Survey responding positively to the question: 'What factors are likely to limit (wholly or partly) your capital expenditure authorisation over the next twelve months—cost of finance?' Also shown, quarterly average base rate lagged one quarter. Sources: CBI and Bank of England.

**Charts 17 and 18:** Retail spread is the difference between average quarterly variable mortgage rates and retail deposit rates. The mortgage spread is the difference between the average quarterly variable mortgage rate and base rate. Source: Bank of England.

**Charts 19 and 20:** Lending spread over base rate. Lending rates are calculated as the ratio of interest receipts to loans outstanding. Source: Bank of England.

**Chart 21:** Percentage of firms responding positively to the question: ‘What factors are likely to limit (wholly or partly) your capital expenditure authorisation over the next twelve months—inability to raise external finance?’ Source: CBI.

**Chart 22:** Ratio of Tier 1 capital of NatWest, Barclays, Lloyds (Lloyds-TSB from 1995) and Midland relative to risk-weighted assets and their profits (post-tax and bad debt charges) as a percentage of assets. Source: Published annual accounts.