

Inflation Report

August 1998

The *Inflation Report* is produced quarterly by Bank staff under the guidance of the members of the Monetary Policy Committee. It serves a dual purpose. First, its preparation provides a comprehensive and forward-looking framework for discussion among MPC members as an aide to our decision making. Second, its publication allows us to share our thinking and explain the reasons for our decisions to those whom they affect.

Although not every member will agree with every assumption, the fan charts represent the MPC's best collective judgment about the likely path for inflation and output, and the uncertainties surrounding those central projections.

This *Report* has been prepared and published by the Bank of England in accordance with section 18 of the Bank of England Act 1998.

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Overview

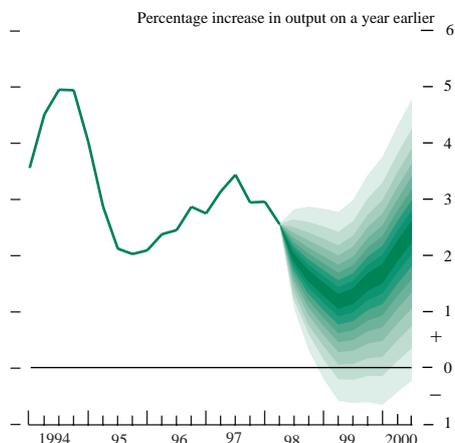
This *Inflation Report* is the first since the Bank of England Act came into effect on 1 June. The Act states that in relation to monetary policy the objectives of the Bank of England shall be to maintain price stability, and subject to that, to support the economic policy of Her Majesty's Government, including its objectives for growth and employment. The Chancellor confirmed on 3 June that the operational target for monetary policy remains an underlying inflation rate (measured by the twelve-month change in RPIX) of 2½%. The remit for the MPC set by the Chancellor states that 'The inflation target is 2½ per cent at all times: that is the rate which the MPC is required to achieve and for which it is accountable'. The remit also recognises that any economy can suffer from shocks and disturbances, which may cause the actual inflation rate on occasions to depart from its target and that 'Attempts to keep inflation at the inflation target in these circumstances may cause undesirable volatility in output'.

The expected slowdown in economic activity is now evident. In the first half of the year, GDP growth fell to around trend. That reflected not only a fall in net exports but also a decline in the growth of final domestic demand. But after six years of above-trend growth, the pressure on capacity, especially in the labour market, appears to have built up to a level which, if maintained, would jeopardise the achievement of the inflation target. Those labour market pressures have resulted in a rise in the rate of earnings growth, and, if price pressures are not to build up further, demand must return to a more sustainable path.

The expected deterioration in net trade, reflecting the appreciation of sterling over the last two years and developments in the world economy following the start of the Asian crisis a year ago, is now apparent. In the first quarter of this year, export volumes fell by 2.4% and net trade reduced GDP growth by 0.7 percentage points. In the wake of the Asian crisis, it is likely that the growth of world trade will slow. The consequence for UK exports is likely to be partially offset by a decline in sterling from the levels reached earlier in the year.

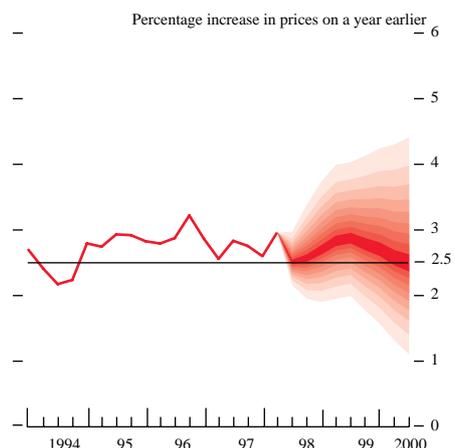
Past monetary and fiscal tightening is now clearly having an impact on the growth of consumption and

Chart 1
Current GDP projection based on constant nominal interest rates



The fan chart depicting the probability distribution for output growth is rather like a contour map. At any given point during the forecast period, the depth of shading represents the height of the probability density function over a range of outcomes for output. The darkest band includes the central (single most likely) projection and covers 10% of the probability. Each successive pair of bands is drawn to cover a further 10% of the probability, until 90% of the probability distribution is covered. The bands widen as the time horizon is extended, indicating increasing uncertainty about outcomes.

Chart 2
Current RPIX inflation projection based on constant nominal interest rates



The fan chart depicting the probability distribution for inflation is rather like a contour map. At any given point during the forecast period, the depth of shading represents the height of the probability density function over a range of outcomes for inflation. The darkest band includes the central (single most likely) projection and covers 10% of the probability. Each successive pair of bands is drawn to cover a further 10% of the probability, until 90% of the probability distribution is covered. The bands widen as the time horizon is extended, indicating increasing uncertainty about outcomes.

domestic demand more generally. Retail sales grew by 1.3% in the first half of 1998, compared with 2.2% in the second half of 1997. Consumer and business confidence is now falling, house price inflation is moderating, and equity prices have fallen from the peak levels reached earlier in the year. Those factors, together with the fall in the growth of the money aggregates, are consistent with a continuing slowdown in domestic demand growth to below trend.

The outlook for inflation depends critically upon developments in the labour market and, in particular, on the behaviour of earnings. Evidence of unemployment, vacancies, skill shortages and recruitment intentions have for some time suggested that the labour market was tight. But after a period in which they appeared to be flat, official estimates of earnings growth have increased sharply since the *May Report*. A year ago, whole-economy earnings growth was estimated at 4.25%, and that figure had risen to only 4.5% by the time of the *May Report*. The latest figure is 5.4%. That suggests that unemployment has reached a level likely to prove incompatible with price stability. As demand growth slows, unemployment is likely to rise, reducing cost pressures in the labour market.

The current projection for the growth rate of GDP—based on the assumption of constant short-term official interest rates—is shown in Chart 1. The projection is lower than in May reflecting in particular a more depressed outlook for private investment. The central projection is for the four-quarter growth rate of output to continue slowing until early 1999, reflecting weaker net trade and slower domestic demand. GDP growth then begins to rise, as the deterioration in net trade comes to an end and as government spending picks up.

The corresponding projection for RPIX inflation is shown in Chart 2. The forecast most likely path for RPIX inflation is for it to rise somewhat over the next year, but then to fall back so that, as in the *May Report*, inflation some two years ahead is close to the 2½% target. The higher profile for inflation since the May projection reflects the interaction of four developments. First, the higher-than-expected earnings figures led to a reassessment of current labour market pressures. Second, the National Minimum Wage, which takes effect in April next year, is likely to have a small temporary effect on inflation. Third, private sector investment growth is expected to weaken significantly over this period. And finally, higher government spending provides a stimulus to domestic demand, above

that assumed in May, towards the end of the forecast horizon.

The balance of risks to output is on the downside. These risks, which reflect continuing concerns about the world economy and the speed of domestic demand moderation, imply corresponding downside risks to inflation. The overall balance of risks to inflation is, however, on the upside, reflecting the possibility of a more rapid fall in the exchange rate, past money growth and a more marked acceleration of earnings.

The fan charts represent the MPC's best collective judgment about the likely paths for inflation and output, and the uncertainties surrounding those central projections. The shape of the fan charts reflects judgments about a range of key economic developments. In present circumstances, it is especially difficult to know how to calibrate some of these uncertainties, and on some of them, Committee members take somewhat different views. The sharp decline in business optimism across a broad range of surveys over the past month raises the possibility of a more pronounced downturn in activity than in the central projection in Chart 1. Equally, the interpretation of the earnings figures is unclear and will remain so for some time. Insofar as bonuses reflect past performance and profits, their contribution might fall back as real activity weakens, in such a way that aggregate earnings growth is more benign for inflation than in Chart 2. Putting these two possibilities together would imply a weaker growth profile and a lower inflation path than shown in the central projections. Alternatively, giving more weight to the view that unemployment was well below the natural rate would imply stronger earnings growth, and a correspondingly higher profile for RPIX inflation, than in the central projection.

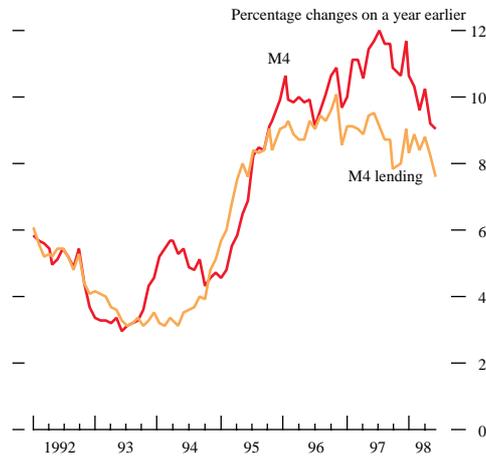
Inflation has remained at or above 2½% despite the strong pound. If the inflation target is to be met in the future, inflationary pressure in the domestic economy—especially in the labour market—will need to come down before that restraining influence wears off. The slowdown in both domestic and external demand now underway will weaken inflationary pressure. But recent evidence, especially on earnings, suggests that it is stronger than previously expected. So it may be difficult to avoid a temporary rise in inflation over the next year, after which point inflation should fall back. The monetary policy response to that prospect depends on how far and for how long inflation is expected to remain above target.

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Chart 1.1
Growth of M4 and M4 lending



Source: Bank of England.

Table 1.A
Growth rates of M4 and M4 lending^(a)

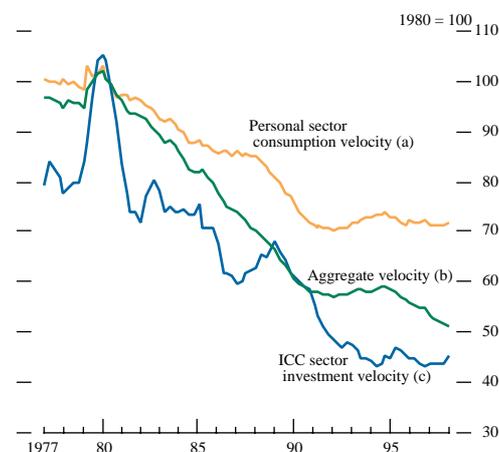
Per cent

		1 month	3 months (b)	6 months (b)	12 months
M4	April	0.9	9.4	9.3	10.2
	May	0.5	7.6	8.8	9.2
	June	0.7	8.5	8.0	9.0
M4 lending	April	0.9	10.2	9.8	8.8
	May	0.5	6.9	8.9	8.2
	June	0.3	6.7	7.9	7.6

Source: Bank of England.

(a) Seasonally adjusted.
(b) Annualised.

Chart 1.2
Aggregate and sectoral broad money velocity



Source: Bank of England.

(a) Nominal consumption divided by personal sector M4 stock.
(b) Nominal GDP divided by aggregate M4 stock.
(c) Nominal investment divided by ICCs' M4 stock.

Broad and narrow money growth has continued to slow, but from high rates. Aggregate credit growth has also fallen. On 4 June, official interest rates were raised by 0.25 percentage points to 7.5% and three-month nominal forward interest rates have risen by around 50 basis points. Long-term nominal interest rates have fallen by 15 basis points in the United Kingdom and by around 30 basis points overseas. The starting-point for the nominal effective exchange rate used in the inflation forecast, based on its average value in the 15 working days to 5 August, was 104.7, slightly lower than assumed on the basis of interest rate differentials in the *May Report*.

This section contains a broader coverage of asset prices than in previous *Reports*. Sections 1.1 and 1.2 consider money and credit respectively. Section 1.3 draws together information on developments in domestic and international bond and stock markets and in the UK property market. Section 1.4 considers developments in foreign exchange markets.

1.1

Money

Annual growth in broad money has been falling since reaching a peak of 12.0% in July 1997 (see Chart 1.1). M4 grew by 9.0% in the year to June, compared with 9.2% in May and 10.2% in April. And annualised shorter-term growth rates are below the twelve-month rate (see Table 1.A). But adjusting for the effects of inflation, the 6.1% growth of real broad money⁽¹⁾ in the year to June remains high relative to its long-run⁽²⁾ average of 4.3%.

For broad money to be a reliable indicator of inflationary pressure, there must be a reasonably stable relationship in the medium term between nominal expenditure and the stock of broad money. As Chart 1.2 shows, aggregate broad money velocity—the ratio of nominal GDP to the total stock of M4—fell throughout the 1980s, levelled off in the early 1990s and then began falling again in 1995. The decline in the 1980s reflected the impact of financial liberalisation on the demand for

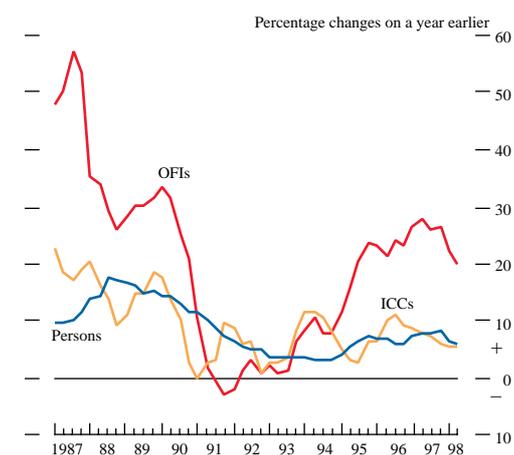
(1) Defined as M4 deflated by RPIX.

(2) Thirty-year.

money by individuals and firms. There is less evidence of this in the 1990s: personal and corporate sector money holdings have been growing broadly in line with nominal consumption and investment respectively (see Chart 1.2). The more recent decline in aggregate velocity has largely been accounted for by the build-up of liquidity in other financial institutions (OFIs), which has coincided with strong rises in equity prices. Whether this reflects a temporary or permanent shift in velocity will depend on the OFIs' behaviour, the relationship between equity prices and activity, and the future path of asset prices.

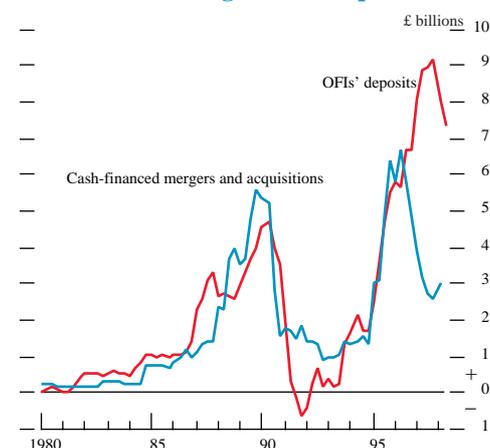
As in May, the MPC's central projection assumes that aggregate velocity will continue to fall during the remainder of 1998 and 1999, but slightly more slowly than during the past couple of years. On this basis, broad money growth will need to fall further to remain consistent with the central projection for inflation. The possibility that past rapid money growth could feed through into higher future inflation continues to pose an upside risk.

Chart 1.3
Sectoral M4 growth



Source: Bank of England.

Chart 1.4
Quarterly flows of OFIs' deposits and cash-financed mergers and acquisitions^(a)



Sources: ONS and Bank of England.

(a) Four-quarter moving average.

Other financial institutions (OFIs)

OFIs hold only one fifth of the total stock of M4, but have accounted for about half of the increase in broad money during 1998, as in the previous three years. The annual growth rate of OFIs' deposits fell to 19.9% in 1998 Q2 from 22.2% in Q1, but OFIs' money holdings are still growing much more rapidly than either personal or corporate sector deposits (see Chart 1.3).

Since the early 1980s, rises in OFIs' deposits have been correlated with cash-financed UK mergers and acquisitions activity (see Chart 1.4). A large proportion of payouts to shareholders from such activity is made to OFIs, which hold around 60% of quoted UK equities by value. More recently, this relationship has broken down: OFIs' deposits have continued to grow strongly since mid 1996, despite a fall in UK cash-financed mergers and acquisitions. This has coincided with continued strong rises in asset prices.

If OFIs aim to maintain a certain proportion of their assets in money, an increase in the value of total assets would raise OFIs' desired holdings of money. But higher money holdings can also push up asset prices. As a proportion of their gross financial assets, the broad money holdings of life assurance and pension funds (LAPFs)—which hold about 40% of total OFI deposits—rose from 3.8% at the end of 1993 to 5.6% at the end of

Chart 1.5
Growth of bank and building society retail deposits

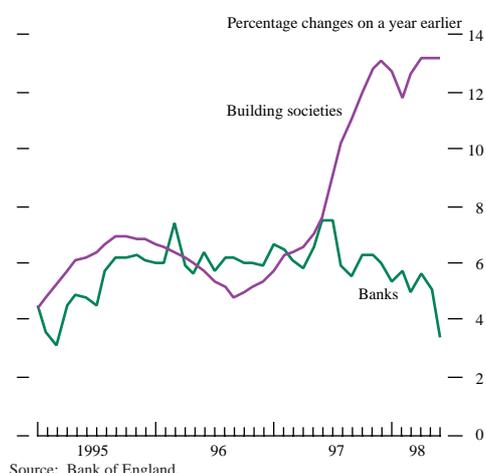


Table 1.B
Annual growth rates of Divisia and M4

Percentage changes on a year earlier

	1997		1998	
	Q3	Q4	Q1	Q2
M4	11.6	11.7	9.6	9.0
Divisia	10.0	10.8	8.6	7.9

Source: Bank of England.

1996. Part of this build-up has now unwound. LAPFs' broad money holdings accounted for 4.8% of their gross financial assets at the end of 1998 Q1, and the results of the Merrill Lynch-Gallup survey of major UK pension fund managers suggest that this fall may have continued in Q2. Some of the decline during 1998 appears to have been associated with the acquisition of foreign assets: net institutional investment in overseas securities was at a record level in Q1. Relationships between asset prices, wealth and activity are discussed later in this section and in Section 2.

Personal sector

Personal sector M4 grew at an annual rate of 6.2% in 1998 Q2, compared with 6.4% in Q1 and an average annual growth rate of 7.8% during 1997. Some of the continuing growth in personal sector M4 may have reflected speculation about future building society demutualisations. Retail building society deposits have been growing more rapidly than retail bank deposits since last summer (see Chart 1.5). But at least part of this probably reflects reallocations within personal sector M4, rather than transfers from other forms of saving.

Industrial and commercial companies (ICCs)

The growth of ICCs' money holdings has been moderating since the second half of 1996 (see Chart 1.3). The twelve-month growth rate of ICCs' M4 fell to 5.3% in 1998 Q2, compared with 5.8% in 1998 Q1 and an average of 7.5% in 1997. Money growth at this rate is consistent with slowing nominal investment growth during the rest of 1998. Part of the fall may also reflect portfolio reallocation in response to changes in relative asset prices: ICCs' deposits have fallen as a proportion of their gross financial assets since 1997 Q2.

Divisia money

One way of gauging the importance of the demand for money as a store of portfolio wealth is to compare the growth in M4 with growth in Divisia money, which weights the components of M4 according to their liquidity (proxied by the inverse of their relative interest rates). Liquid deposits are more likely to be held for transactions purposes. Table 1.B suggests that, although the demand for money as a store of wealth has accounted for some of the recent broad money growth, growth in the demand for liquid balances as measured by Divisia has also been strong but moderating.

Narrow money

Narrow money growth has slowed during 1998. Annual growth in notes and coin fell from a twelve-month high of 7.0% in February to 5.8% in July.⁽¹⁾ Slower growth in notes and coin is consistent with weaker nominal retail sales. To a lesser degree, it probably also reflects attempts to economise on cash as higher interest rates have raised the opportunity cost of holding non interest bearing balances.

Table 1.C
Large British banks: profits and capital^(a)

£ billions, unless otherwise stated

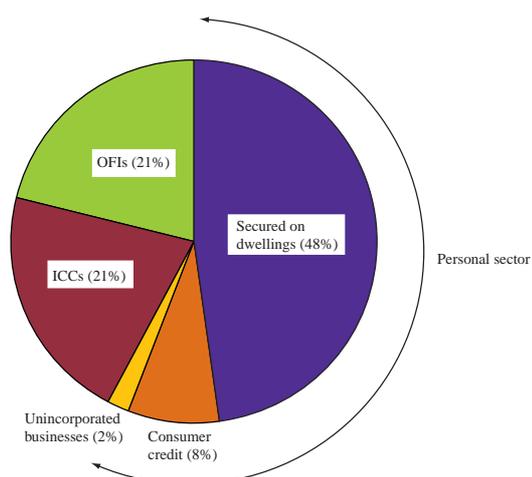
	1992	1993	1994	1995	1996	1997
Operating profits before bad debts	8.9	10.8	10.1	11.8	13.5	14.3
Charge for bad and doubtful debts	6.7	5.4	2.1	2.2	1.8	2.0
Operating profits after bad debts	2.2	5.4	8.0	9.6	11.8	12.3
Total net capital	39.5	43.3	46.3	51.6	54.5	59.5
Risk-asset ratio (per cent)	9.9	10.8	11.3	10.8	10.9	11.1

Note: Figures subject to rounding.

Source: Based on published accounts.

(a) Barclays, Lloyds-TSB, Midland, National Westminster, Abbey National, Bank of Scotland, The Royal Bank of Scotland and Standard Chartered. All data for these banks are consolidated. Calendar year-end information except for Bank of Scotland (end-February 1998) and the Royal Bank of Scotland (end-September 1997).

Chart 1.6
Sectoral composition of the stock of bank and building society lending^(a)



Source: Bank of England.

(a) As at 1998 Q1 (seasonally adjusted). Total: £869 billion (107% of annualised nominal GDP at market prices).

1.2

Credit

Annual growth in bank and building society lending to the rest of the private sector (M4 lending) has slowed since last year. M4 lending grew by 7.6% in the year to June, below its average annual growth rate of around 9% during 1997. Much of this fall reflects lower growth in borrowing by other financial institutions (OFIs). Lending growth to industrial and commercial companies has picked up since the end of last year, and growth in personal sector borrowing remains steady.

The amount of credit, and the rates of interest charged, depend on the interaction between supply and demand. In recent years, the spread between credit rates and official rates has narrowed.⁽²⁾ A number of factors might account for this. First, lenders' balance sheets have strengthened. The net capital of the major British banks grew at an average annual rate of 8.5% between 1992–97 (see Table 1.C), well above the average annual nominal GDP growth of 5.5% in this period. Second, higher profits have attracted market entrants, raising the level of competition for lending business. And third, the perceived risk of default by borrowers may have fallen since the early 1990s. It is possible that this last effect has now stabilised: the major banks' charges for bad and doubtful debts rose very slightly in 1997 (see Table 1.C).

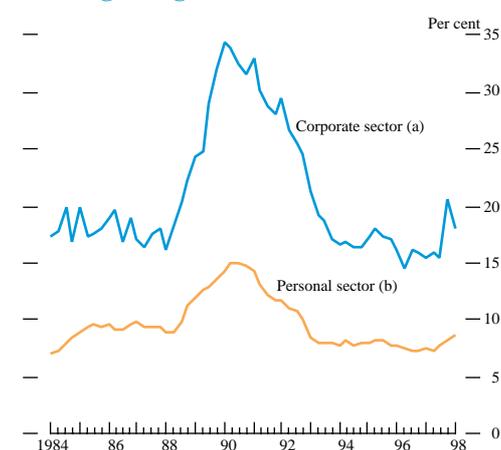
Personal sector

The personal sector consists mainly of individuals, and accounts for nearly 60% of the total stock of M4 lending (see Chart 1.6). In contrast with personal sector deposits, personal sector credit growth has shown little sign of slowing. Annual growth in total lending to individuals, including lending by institutions other than

(1) The combined effect of the new £2 and 50p coins on the annual growth rate of notes and coin is estimated to have been negligible in 1998 Q2.

(2) For a more detailed discussion of this and other indicators of credit market conditions, see Hoggarth, G and Chrystal, A (1998), 'The UK personal and corporate sectors during the 1980s and 1990s: a comparison of key financial indicators', Bank of England *Quarterly Bulletin*, August, pages 220–32.

Chart 1.7
Income gearing



(a) Interest payments as a proportion of post-tax profits.
(b) Interest payments as a proportion of personal disposable income.

Table 1.D
Indicative changes in average advertised personal mortgage rates (3 April 1997 to 2 July 1998)^(a)

Percentage points

	Changes in rates	Changes in equivalent gilt yields (b)
Official interest rate	+1.50	n.a.
Standard variable-rate mortgage	+1.62	n.a.
Two-year fixed-rate mortgage	-0.02	-0.01
Five-year fixed-rate mortgage	-0.88	-1.16
Ten-year fixed-rate mortgage	-1.58	-1.87

Sources: *Moneyfacts* and Bank of England.

(a) Changes in unweighted averages of advertised new mortgage rates published in *Moneyfacts* on selected, broadly comparable products offered by larger banks and building societies. These data are indicative only, and may not give a full representation of the rates actually paid by borrowers.

(b) Bank estimates of changes in par gilt yield curve at two, five and ten years' maturity.

banks and building societies,⁽¹⁾ has been within 0.1 percentage points of 7.4% since June last year. Within the total, consumer credit has remained robust, growing by 16.3% in the year to June. Net mortgage borrowing has moderated slightly, growing by 5.6% in the year to June, compared with an average annual growth rate of 5.8% during the second half of 1997.

Strong growth in personal incomes and wealth has allowed individuals to service and collateralise higher levels of borrowing, supporting the demand for credit. Personal sector income gearing levels remain considerably lower than in the late 1980s (see Chart 1.7). The continuing growth in personal sector borrowing probably also reflects loan supply factors, which have limited the pass-through of higher official interest rates to new borrowing rates during the past 15 months. Advertised rates available for new unsecured credit card borrowing, personal loans and authorised overdrafts have in many cases stayed constant or fallen, in part reflecting increased competition and lower perceived probabilities of default.

In the secured market, average advertised rates on new fixed-rate mortgages have fallen relative to average advertised rates on new standard variable-rate mortgages, reflecting the increased inversion of the yield curve (see Table 1.D). Fixed-rate mortgages—mostly of five years' maturity or less—account for about half of gross new lending and about one fifth of the outstanding stock, according to the latest data from the Council of Mortgage Lenders.⁽²⁾ To the extent that fixed-rate mortgages insulate household cash flows from the direct effects of higher official interest rates, they may allow credit-constrained households to maintain their consumption plans for longer than would otherwise have been possible. They may also affect the consumption behaviour of unconstrained households, by reducing uncertainty about future debt payments. But a shift from variable to fixed-rate debt should not by itself reduce the expected total cost of a mortgage, since longer-term fixed rates should reflect the expected path of future short-term rates.

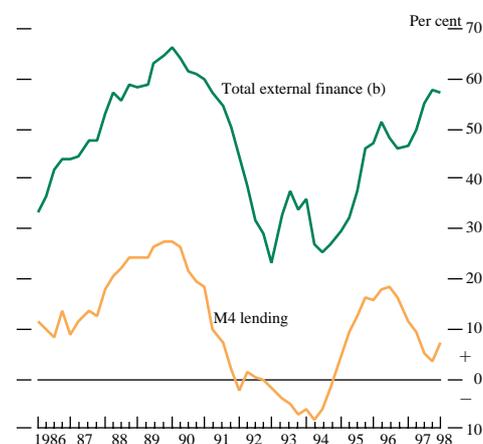
Industrial and commercial companies (ICCs)

Lending to ICCs has picked up since the end of last year. Annual growth in ICCs' sterling borrowing from banks

(1) Which accounts for about 10% of total borrowing by individuals.

(2) Gross lending data as at 1997 Q4; stock data as at 30 June 1997. These figures do not include capped mortgages, which allow the borrower to pay the lower of a given fixed rate or the lender's standard variable rate.

Chart 1.8
External finance as a proportion of total
ICCs' financing^(a)



Sources: ONS and Bank of England.

(a) Four-quarter moving averages.

(b) Includes bank borrowing, equity and other capital issuance.

and building societies⁽¹⁾ was 5.3% in 1998 Q2, up from 3.3% in 1997 Q4. Some of the increase in borrowing probably reflects firms' attempts to smooth their investment and stockbuilding expenditures as internal cash flows decline. ICCs' undistributed income fell to £14.5 billion in 1998 Q1 from a quarterly average of £16.3 billion in 1997, as profits fell and the cost of servicing floating-rate debt rose (see Chart 1.7). But some of the increase in bank borrowing may also reflect a shift between different sources of external finance.

Where internal funds and external borrowing are close substitutes, the composition of firms' financing is not likely to affect current and future investment plans much. As Chart 1.8 shows, ICCs as a whole have been raising an increasing proportion of their funds from external sources since 1993. But some industrial sectors rely on specific forms of finance. In particular, borrowers whose risk is harder to measure—such as small firms—may have to seek most of their external finance from banks, which specialise in risk assessment. Data from the major British banks suggest that the increase in ICCs' bank borrowing in the first half of 1998 has been concentrated in the non-manufacturing sectors, which have a relatively high concentration of smaller firms. Measures of investment intentions and activity in these sectors remain stronger than those in manufacturing. There are few signs that banks' willingness to lend to ICCs has deteriorated sharply. Average spreads over Libor paid by ICCs on loans from international bank syndicates have risen slightly since 1995, but remain around half a percentage point lower than in 1990. The outlook for investment is discussed in more detail in Section 2.

Other financial institutions (OFIs)

OFIs' credit growth has moderated sharply, but still remains fairly strong. M4 lending to OFIs⁽¹⁾ grew by 13.2% in the year to 1998 Q2, compared with 17.5% in 1998 Q1 and 23.3% in 1997 Q4. OFIs have little direct demand for goods and services. So their borrowing is less immediately linked to economic activity than borrowing by firms or individuals. But about one third of bank lending to OFIs during the past three years has been accounted for by leasing companies, which finance the purchase of capital and other goods for firms and consumers. Their borrowing is likely to be more closely related to future consumption and investment patterns than that of other OFIs. According to the Finance and Leasing Association, growth in business finance

(1) Excluding the effects of securitisations and loan transfers.

excluding high-value items (whose growth tends to be volatile) has been falling in recent months, but from a high level.

1.3 Interest rates and asset prices

The value of a financial asset is determined by the (risk-adjusted) discounted stream of expected future earnings from that asset. Changes in asset prices therefore typically reflect changes in expectations about future earnings (dividends in the case of equities and rents in the case of commercial property), or changes in the term structure of interest rates, appropriately adjusted for risk. So this section starts by discussing interest rates—both short, which monetary policy affects directly, and long—before considering the behaviour of equity and property prices. The implications of asset price changes for aggregate demand, through their effects on personal sector wealth and firms' valuation ratios, are considered in Section 2.

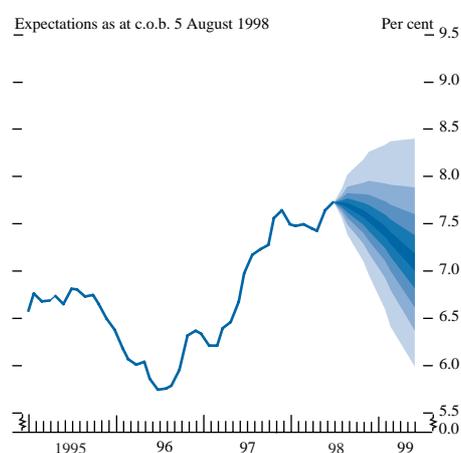
Short-term interest rates

At its meeting on 3–4 June, the MPC voted to raise the Bank's repo rate by 25 basis points to 7.5%. The repo rate was left unchanged when the MPC met on 8–9 July, and again at its meeting on 5–6 August.

Probability distributions of expected three-month market interest rates in the United Kingdom and Germany, derived from option price data, are shown in Chart 1.9. On 6 August, the outcome considered most likely by financial markets—shown by the deepest blue band—was that UK interest rates would fall slightly during the second half of 1998. Financial markets appear to have placed a broadly equal weight on the prospect of interest rates lying above and below the band.

Chart 1.10 shows how the path of short-term interest rate expectations has changed since the *May Report*. Three-month forward interest rates based on futures contracts in December 1998 have risen by around 50 basis points to 7.6% since May, but are still expected to fall over time. Average overseas forward interest rates have fallen by around 20 basis points, implying a wider differential between UK and overseas interest rates. But as Chart 1.9 shows, markets are expecting German interest rates to rise during the rest of 1998. German interest rates will coincide with rates in the prospective euro area from 1 January 1999. The expected Deutsche Mark interest rate path beyond 1998

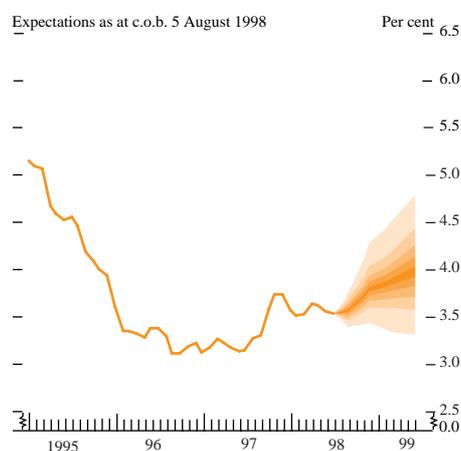
Chart 1.9
Implied distribution for sterling three-month interest rates



Sources: LIFFE and Bank of England.

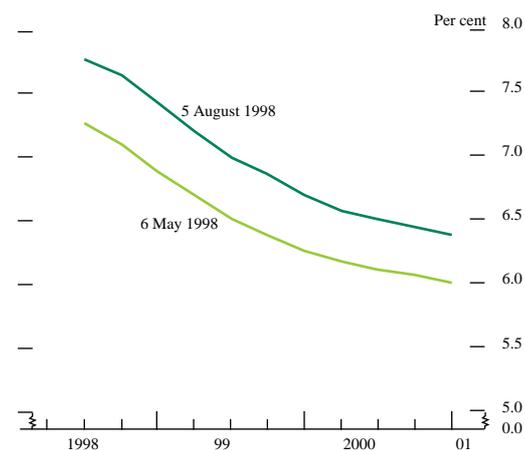
The chart depicts the probability distribution for short-term interest rates and is rather like a contour map. So at any given point, the depth of shading represents the height of the probability density function implied by the markets over a range of outcomes for short-term interest rates. The markets judge that there is a 10% chance of interest rates being within the darkest, central band at any date. Each successive pair of bands covers a further 20% of the probability distribution until 90% of the distribution is covered. The bands widen as the time horizon is extended, indicating increased uncertainty about interest rate outcomes.

Implied distributions for Deutsche Mark three-month interest rates



Sources: LIFFE and Bank of England.

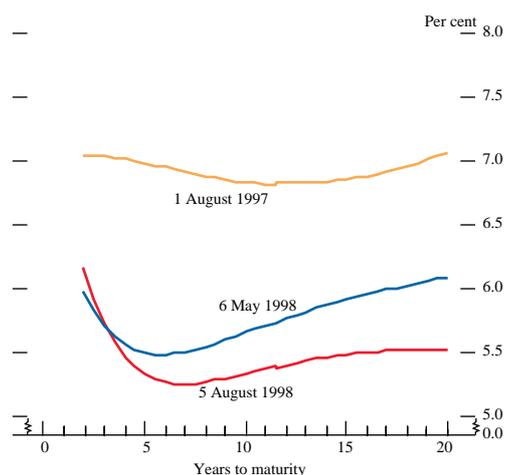
Chart 1.10
UK three-month interest rate expectations



Sources: LIFFE and Bloomberg.

(a) Based on a combination of interest rate futures contracts.

Chart 1.11
UK implied forward nominal interest rate curves^(a)



Source: Bank of England.

(a) Estimated from the prices of conventional gilts.

Table 1.E
International real long-term interest rates^(a)

Per cent

	Average for Jan. 1997	Average for Jan. 1998	Average for July 1998
United Kingdom	3.6	3.1	2.8
United States	n.a. (b)	3.7	3.8
Australia	4.3	4.0	3.4
Canada	4.2	4.1	3.9

Source: Bank of England.

(a) Based on redemption yield data from index-linked bond markets.

(b) The United States index-linked bond market began operation in January 1997.

reflects market expectations of the future path of euro interest rates.

Long-term interest rates

Bond prices have been risen substantially: the nominal yield on ten-year gilts has fallen by 180 basis points since the start of 1996, and was around 5.7% on 5 August. Nominal yields on ten-year bonds in other G7 countries have also fallen during this period, and were 5.5%, 4.8% and 1.5% in the United States, Germany and Japan respectively on 5 August. Chart 1.11 illustrates the fall in UK bond yields and shows the marked change in the shape of the UK nominal implied forward interest rate curve during the past year. Implied forward rates have fallen at both short and long maturities relative to August last year, reflecting lower expected short-term rates.

Movements in nominal interest rates primarily reflect changes in expected real interest rates and/or changing inflation expectations. Measures of UK real long-term interest rates derived from index-linked gilt markets have fallen during the past 18 months (see Table 1.E). Real long-term interest rates in Canada and Australia have also declined during this period, suggesting that the fall in real interest rates may reflect higher national saving rates arising partly from lower prospective fiscal deficits in the industrial economies as a whole. Index-linked yields appear to have changed little in the United States, but the relatively recent introduction of US index-linked bonds means that their yields may not yet be a reliable guide to prevailing real interest rates in the United States.

Measures of domestic and overseas inflation expectations, derived from index-linked bond markets, have also been falling. Chart 1.12 shows that an implicit measure of inflation expectations, the break-even inflation rate (ie the nominal rate minus the real rate), has fallen in both the United States and the United Kingdom during the past 18 months.⁽¹⁾ This is likely to reflect disinflationary policy, falls in the observed inflation rate and, in the case of the United Kingdom, some convergence of expectations towards the inflation target. Events in Asia and falling commodity prices (see Section 4) may have also contributed towards a reduction in global inflation expectations.

(1) Break-even inflation rates are used to compare US and UK inflation expectations because the US index-linked bond market is not sufficiently liquid to permit estimation of a complete inflation term-structure.

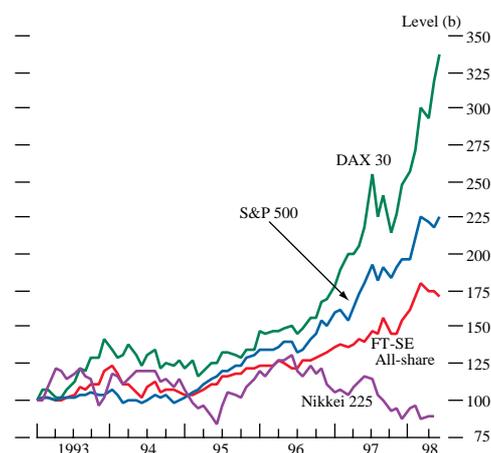
Chart 1.12
UK and US ten-year break-even inflation rates^(a)



Source: Bank of England.

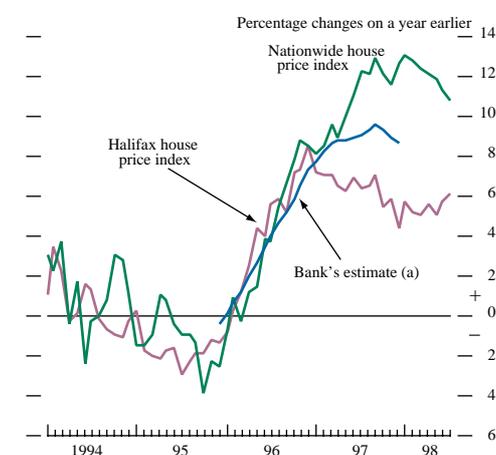
(a) The break-even inflation rate is the average inflation rate over the life of the bonds that would equalise the returns from holding a conventional bond and an index-linked bond of similar maturity.

Chart 1.13
Real international equity indices^(a)



(a) End-month data.
(b) Equity indices are deflated by domestic consumer price indices and rebased to January 1993 = 100.

Chart 1.14
Measures of UK house price inflation



Sources: Bank of England, Halifax plc and Nationwide Building Society.

(a) Land Registry data for England and Wales only.

Equity prices

Equity prices in the United Kingdom have fallen since the *May Report*—the FT-SE All-Share index fell by 6.3%. But real share prices have risen sharply in the United Kingdom and a number of G7 countries since 1995. For example, real share prices in the United Kingdom and the United States rose by 67% and 120% respectively between January 1995 and June 1998.⁽¹⁾ As Chart 1.13 shows, real share prices have risen even faster in Germany. In contrast, real share prices in Japan have fallen during the past three years, reflecting domestic events and developments elsewhere in Asia.⁽²⁾ The box on page 12 considers factors influencing UK equity prices in greater detail.

The MPC has assumed in its central projection that equity wealth grows in line with nominal income. However, in view of the level of equity prices, on balance there is felt to be a greater risk of a fall in equity wealth than of a further rise, relative to the central case.

Property prices

Property also plays a role as an investment asset or store of value, and so property prices are determined in forward-looking markets. Property prices, particularly those of commercial property and land, can be thought of as depending on expected rental values, in much the same way that share prices depend on expected future dividends. Aggregate commercial rental values rose by 6.2% in the twelve months to May.⁽³⁾ Within the aggregate, rental values have been rising in all sectors (industrial, retail and office) since the start of 1997, though growth rates remain below those of the late 1980s.

Measures of UK house price inflation appear to be showing signs of moderating, though the extent continues to vary between regions. The Bank's estimate of house price inflation, based on Land Registry data, rose by 8.7% in the year to 1998 Q1, compared with 9.6% in the previous quarter. More timely measures, based on the Halifax and Nationwide price indices, suggest that house price inflation in the year to July ranged between 6.0%, on the Halifax measure, and 10.8%, on the Nationwide measure (see Chart 1.14).⁽⁴⁾

(1) Real share prices are calculated using the FT-SE All-Share index and S&P 500 deflated by RPIX and CPI indices.

(2) A note in 'The international environment' on page 216–19 of the August *Quarterly Bulletin* examines events in the Asia-Pacific region in more detail.

(3) Based on Richard Ellis monthly indices.

(4) For a discussion of how house prices can influence financial conditions in the personal sector, see Section 2. See also Hoggarth and Chrystal (1998) *op cit* for a comparison with the late 1980s.

The determinants of equity values

The value of an equity can be thought of as the discounted stream of real dividend payments derived from that equity. So equity prices change when expectations about either future real earnings or the discount factor change. The discount factor is the sum of two components—a risk-free real return, and a premium that investors require to compensate them for equity risk.

Measures of expected real dividend growth are difficult to estimate directly. But implied estimates of the rate of real dividend growth embodied in current UK equity prices can be obtained from the observed dividend yield and real risk-free return, and by making assumptions about the real cost of equity capital (specifically the equity risk premium). It is also assumed that the real dividend growth rate and equity risk premium are constant over time.

The current dividend yield (measured using current share prices and dividends paid over the previous year) was around 2.9% in July, while the long-term risk-free spot rate derived from index-linked gilts was 2.6%. Real interest rates have fallen over the past 18 months (see Table 1.E) and may account for some of the strength in equity prices. Estimates of the equity risk premium vary widely, but typically range from 4%–8%.

The table presents possible combinations of expected real dividend growth rates and the equity risk premium consistent with given levels of the dividend yield and the risk-free real interest rate. It suggests that, with a dividend yield of 3.5% or lower and for the range of conventional estimates of the equity risk premium, the implied real dividend growth rate lies between a range of around 3% and 8%. This compares with an average compound annual growth in real corporate profits of 2.3% since 1970. So an explanation for the current high level of equity prices could be that future dividend growth rates are expected to be unusually high. Alternatively, the equity risk premium may be lower than conventionally assumed. But overall, it is difficult to reconcile the current level of equity prices with the past behaviour of these fundamental determinants of equity valuation, unless there has been a sustained fall in the equity risk premium.

Range of implied real dividend growth rates^(a)

Per cent			
Equity risk premium	Dividend yield		
	2.5	3.0	3.5
8	8.1	7.6	7.1
6	6.1	5.6	5.1
4	4.1	3.6	3.1

(a) If equities are valued as the discounted present value of expected future dividends, and if the rate of real dividend growth and the real cost of equity capital are regarded as constant, then: real dividend growth rate = risk-free rate + equity premium – dividend yield. All calculations assume a risk-free rate of 2.6%.

Table 1.F
The extent of sterling appreciation^(a)

	Level, 2 Aug. 1996	Level, 6 May 1998	Level, 5 Aug. 1998	Percentage change since Aug. 1996	Percentage change since May 1998
ERI (b)	84.9	106.2	104.7	23.3	-1.4
Broad ERI (b)	96.4	122.1	121.1	25.6	-0.8
\$/£	1.54	1.66	1.64	6.5	-1.2
DM/£	2.28	2.93	2.90	27.2	-1.0

(a) Based on dates on which data for the *Inflation Report* were finalised.
(b) 15 working day averages.

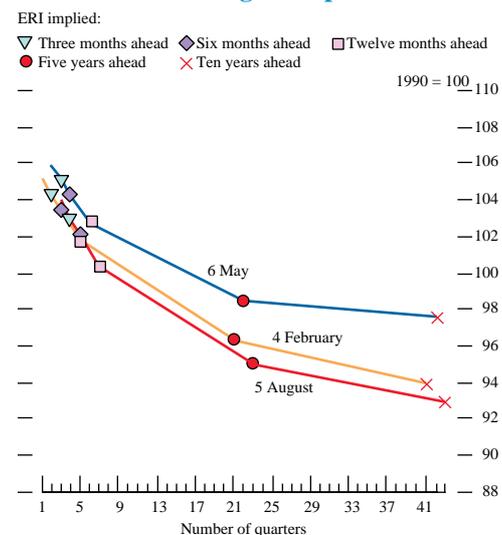
1.4

Exchange rates

The sterling effective exchange rate averaged 104.7 in the 15 working days up to and including 5 August. This was slightly below the central projection for August in the *May Report*, and is the starting-point used for the current projection. Table 1.F shows the extent of sterling's rise since the start of the appreciation in August 1996, and since the *May Report*. A broader measure of the effective exchange rate, which also includes the contribution of some Asian economies excluded from the Exchange Rate Index (ERI), has risen more over the past two years, partly reflecting the relative weakness of a number of Asian currencies.

Chart 1.15 illustrates the path for sterling implied by market nominal interest rate differentials, calculated by comparing UK interest rates at different maturities with overseas rates. The differential between UK and average overseas interest rates has widened at the short end since the *May Report*, consistent with the view that markets

Chart 1.15
UK effective exchange rate profiles



Sources: Bank of International Settlements, Datastream and Bank of England.

(a) Assuming uncovered interest rate parity.

now expect sterling to depreciate slightly faster. But at longer maturities, interest rate differentials have not changed substantially. So changes in yield curves do not suggest lower long-term UK implied forward inflation rates. Rather, market perceptions of the stance of domestic monetary policy over the shorter term appear to have changed.⁽¹⁾

Most other forecasters' views about inflation and output growth are based on a future path of sterling that differs from that implied by interest rate differentials alone. These projections mostly assume that sterling depreciates more than suggested by interest rate differentials, ie that other forecasters attach a risk premium to sterling such that investors are willing to accept a lower-than-average return on holding sterling.

In judging the likely path for sterling, conditional upon unchanged UK interest rates, the MPC has taken into account both interest rate differentials and risk considerations. In the central projection (the modal or most likely case), the sterling ERI declines to 99.7 at the two-year forecast horizon. This implies bilateral exchange rates, two years hence, of about 1.61 and 2.78 against the US dollar and the Deutsche Mark respectively. In the MPC's view, a substantial fall in sterling is more likely than a substantial rise. So, on average, the sterling ERI is expected to decline somewhat more steeply in the central projection, and reaches a level of 96.4 in two years' time.

1.5

Summary

Broad money and credit growth continue to slow. As in May, the MPC's central projection assumes that aggregate broad money velocity will continue to fall during the remainder of 1998 and 1999, but slightly more slowly than during the past couple of years. On this basis, broad money growth will need to fall further to remain consistent with the central projection for inflation. The possibility that past rapid money growth could feed through into higher future inflation continues to pose an upside risk to this projection.

The past rise in equity prices has increased personal sector financial wealth, and the MPC assumes in its central projection that equity wealth will grow in line with nominal income. But the extent to which equity

(1) For an analysis of how news in data releases and about monetary policy has influenced interest rate expectations, see the box in 'Markets and operations', *Quarterly Bulletin*, August 1998, pages 192–93.

prices reflect economic fundamentals is unclear; the MPC judges that there is a greater risk of a fall in equity wealth than of a further rise, relative to the central case.

Official interest rates were raised by 25 basis points to 7.5% on 4 June. Movements in the exchange rate during this period appear largely to have reflected expectations about the future course of monetary policy. The starting-point for the nominal effective exchange rate used in the inflation forecast, based on a 15 working day average up to and including 5 August, was 104.7, slightly lower than projected in the *May Report*.

Table 2.A
Expenditure components of GDP

Per cent

	Percentage change on previous quarter		Contribution to quarterly GDP growth (a)	
	1997 Q4	1998 Q1	1997 Q4	1998 Q1
Private consumption	1.4	0.9	1.0	0.6
Public consumption	-0.1	-0.4	0.0	-0.1
Investment	1.1	3.8	0.2	0.8
Final domestic demand (b)	1.1	1.1	1.2	1.3
Stockbuilding (c)	n.a.	n.a.	0.2	0.2
Domestic demand	1.2	1.3	1.4	1.5
Exports	0.0	-2.4	0.0	-0.9
Imports	2.0	-0.6	-0.8	0.2
Net trade	n.a.	n.a.	-0.8	-0.7
Factor cost adjustment	n.a.	n.a.	-0.1	-0.3
GDP at factor cost	0.6	0.5	0.6	0.5
GDP at market prices	0.6	0.8	0.6	0.8

(a) Contributions may not sum because of rounding.
(b) Domestic demand excluding stockbuilding.
(c) Including the alignment adjustment.

Domestic demand growth was little changed between 1997 Q4 and 1998 Q1 (see Table 2.A). The slowdown in consumers' expenditure growth was offset by a larger contribution from investment. Net trade made a further negative contribution to GDP growth: exports fell more sharply than imports. Growth in GDP at factor cost fell slightly between 1997 Q4 and 1998 Q1, while growth in GDP at market prices rose; the difference is accounted for by strong indirect tax payments in 1998 Q1. From September 1998, the ONS will make GDP at market prices its headline figure instead of GDP at factor cost (see the box on page 16 describing the new national accounts system).

The preliminary estimate for GDP growth at factor cost in 1998 Q2 was 0.5%, the same as in the previous quarter. Excluding the volatile oil and gas sector, which was depressed in 1998 Q1 and boosted in 1998 Q2 by unseasonal weather, the rate of growth slowed from 0.6% to 0.4%.

2.1 External demand⁽¹⁾

Net trade in goods and services made a negative contribution to quarterly GDP growth in 1997 Q4 and 1998 Q1. According to the more timely and detailed monthly goods data, the widening of the deficit has been dominated by trade with non-EU countries, partly reflecting a fall in exports to Asia. Further increases in the goods and services trade deficit are likely in 1998. Import growth is likely to fall in 1998 as UK domestic demand slows. But substantially weaker export growth is also projected; this reflects a continuing response to sterling's appreciation.

The prospects for world output have deteriorated somewhat since the *May Inflation Report*. The outlook is for much lower Japanese growth in 1998 than expected in May: an average of private sector forecasters, surveyed in July,⁽²⁾ expected GDP growth to be -1.4% in 1998, compared with -0.3% in a similar survey three months previously. The change in the

(1) For a detailed discussion of international economic developments, see 'The international environment' article in the *Quarterly Bulletin*, August 1998, pages 206–19.

(2) Source: Consensus Economics Inc.

Changes to the National Accounts

In September 1998, the Office for National Statistics (ONS) will change the way it presents the National Accounts. For the first time, it will publish accounts that comply with the new European System of Accounts (ESA 95).⁽¹⁾

At the same time, the ONS will introduce a new base year for the calculation of its constant price or volume data, and it will publish data that are consistent with information derived from the Inter-Departmental Business Register. This box indicates how these innovations might affect the published data.

ESA 95

The major changes cover presentation of the accounts, changes to the boundaries between intermediate production and capital formation, and a change in the treatment of many taxes. The definition of capital formation will be extended. For instance, spending on computer software, which has been counted as intermediate consumption, will be counted as capital expenditure. This will have the effect of increasing the level of GDP. ESA 95 will introduce new distinctions between taxes and charges for services provided by government. For instance, vehicle excise duty will be treated as a tax on income and wealth, rather than a charge. This will have the effect of reducing GDP(E) at market prices. Overall, the impact of the ESA 95 changes on the level and growth rate of GDP will be small. Changes to components of GDP will be more marked, but these will be largely offsetting. Another notable change will be that, in common with other EU Member States, the ONS will use GDP at market prices as its headline indicator of output in the economy, rather than GDP at factor cost.

Inter-Departmental Business Register (IDBR)

The ONS has set up a business register from which it can select its samples for estimation of economic aggregates. The main feature of this register is the wider coverage of smaller businesses. The results from the IDBR suggest that the measures of GDP currently published are an underestimate of the actual level. The GDP figures to be published in September will be corrected for this. There will be little impact on recent rates of growth.

Rebasing

At present, volume (or constant price) measures for the National Accounts are expressed in average 1990 prices

or as an index series based on 1990. Rebasing does not mean that a whole series is recalculated using weights from the new base year. Instead, a link year is chosen between the old and the new estimates. The series is only recalculated using the new weights in periods from the link year. Before the link year, data are re-scaled to the new price basis. From September 1998, the ONS will use 1995 as its base year. The ONS has simulated the effects of the imminent rebasing, using pre-ESA 95 definitions of GDP. The new link year will be 1994, so growth rates before this period will be unaffected. The results suggest that, by itself, rebasing will lead to lower estimated GDP growth from 1994–97. The estimates of the negative effect on cumulative growth range from -0.6 for GDP(E) at market prices to -1.7 for GDP(O) at factor cost. Lower growth rates are a typical result of rebasing: volume growth tends to be highest for goods and services whose prices and nominal values grow the least. So when the base year moves, the faster growth sectors have a lower weight.

Other changes

Among other changes, the ONS has been developing an improved methodology for measuring government output at constant prices. Up to now, estimates of government output have been based on measurement of inputs, which takes no account of productivity improvements. From September, estimates for around 50% of government output, dating back to 1986, will be based on output measures.

The ONS concludes that the overall effect of the revisions described above on GDP growth at constant prices is likely to be of a similar order to previous Blue Books.

Further reading

‘United Kingdom National Accounts—An illustrative guide to the new Blue Book’, Office for National Statistics, 1997.

‘Improvements to business inquiries through the introduction of the new Inter-Departmental Business Register’, by Ole Black in *Economic Trends*, Office for National Statistics, February 1998.

‘Rebasing the National Accounts’, by Francis Jones in *Economic Trends*, Office for National Statistics, June 1998.

‘Forthcoming changes to the national accounts’, by Anna Brueton in *Economic Trends*, August 1998.

(1) New balance of payments statistics will also be published on the basis of the latest International Monetary Fund standards.

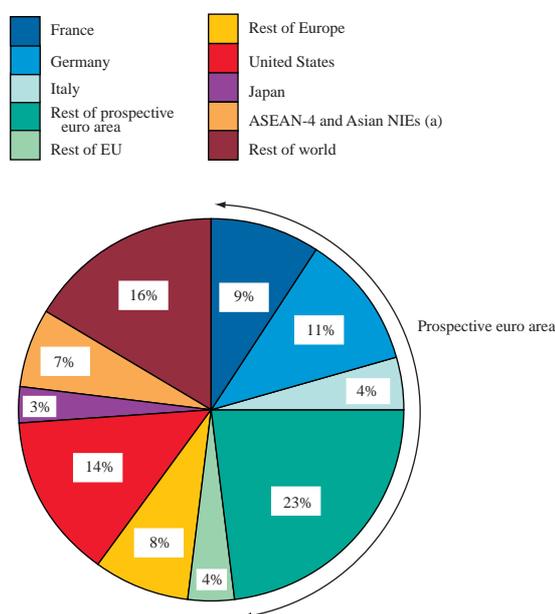
Table 2.B
International GDP growth

Percentage changes on previous period

	1997 Year	1997 Q4	1998 Q1
France	2.3	0.8	0.6
Germany	2.3	0.3	1.0
Italy	1.5	0.2	-0.1
Prospective euro area (a)	2.3	0.5	0.6
United States	3.9	0.7	1.4
Japan	0.8	-0.4	-1.3

(a) Prospective euro area growth is approximated by GDP-weighted growth for France, Germany, Italy, the Netherlands and Spain, which account for 88% of the prospective euro area's GDP.

Chart 2.1
Destination of UK exports of goods and services—1996



Note: Figures may not sum because of rounding.

(a) The ASEAN-4 are Malaysia, Indonesia, Thailand and the Philippines, and the Asian NIEs are Hong Kong SAR, Korea, Chinese Taipei and Singapore.

forecasts partly reflects the particularly weak output in 1998 Q1 (see Table 2.B). Japan is a small market for UK exports (see Chart 2.1).

As in May, the MPC believes that GDP in the prospective euro area⁽¹⁾ is likely to grow more quickly in 1998 than in 1997. GDP growth in France slowed in 1998 Q1 (see Table 2.B), but this was partly as a result of warmer than usual weather depressing energy consumption. German GDP growth rose in 1998 Q1, though tax changes probably had significant, but temporary, effects on consumption growth. The prospect is for slower growth during the rest of 1998 than in the first quarter. The level of Italian GDP fell in 1998 Q1; but this was partly influenced by temporary factors such as fewer working days, which are not adjusted for in Italian GDP data. Chart 2.1 shows the importance of the prospective euro area for UK exports.

US growth in 1998 will probably be higher than was expected at the time of the *May Inflation Report*. This largely reflects 1998 Q1, when US GDP rose by 1.4%. The growth rate fell to 0.4% in 1998 Q2. Lower US growth in 1999 than in 1998 is likely.

Compared with its central view in May, the MPC believes that higher US growth will largely offset the impact of the weaker Japanese economy on the United Kingdom's overseas markets in 1998 as a whole. Aggregate growth of below 2½% is likely in the major six overseas economies⁽²⁾ in both 1998 and 1999. There is a risk not only that Japan could be more depressed than predicted, but that growth in the United States might be lower than reflected in the central projection. Since May, the MPC has increased the downside risks to its central projection for UK demand from lower world growth.

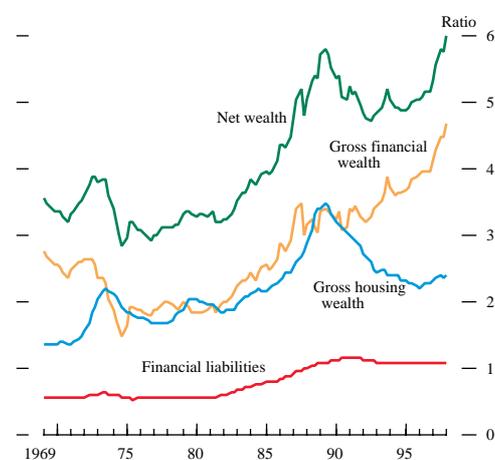
2.2 Consumption

Consumers' expenditure grew by 0.9% in 1998 Q1, compared with 1.4% in 1997 Q4. Much of the slowdown is accounted for by a fall in the level of non-durable goods consumption, particularly food. By contrast, durables consumption growth rose in 1998 Q1, with the main impetus coming from expenditure on vehicles. Growth in the consumption of services on the previous quarter slowed to 1.4%, still reasonably strong.

(1) The prospective euro area comprises the European Union excluding Denmark, Greece, Sweden and the United Kingdom.

(2) Canada, France, Germany, Italy, Japan and the United States.

Chart 2.2
Personal sector wealth to income ratios

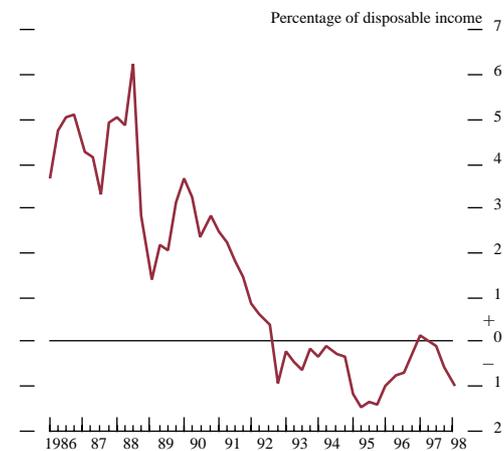


Sources: ONS and Bank of England.

Consumption is influenced less by temporary changes in income than by changes in people’s expectations about income over their lifetime, or *permanent income*. Even so, fluctuations in current income can affect consumption: they may have an important influence on expectations about permanent income, and will also be important in determining the consumption of those people who have little savings and who face high borrowing costs. Employment income continued to grow strongly in 1998 Q1, as a result of high earnings and employment growth (see Section 3).

The value of personal sector financial wealth is an indicator of individuals’ permanent investment income, because it represents expectations about the future income from financial assets. Largely because of rising equity markets, the value of personal sector financial assets increased markedly in 1997 and 1998 Q1, to reach a record high as a proportion of personal disposable income (see Chart 2.2); but equity prices, as measured by the FT-SE All-Share index, fell slightly through 1998 Q2. Outstanding debt reduces the amount of wealth and future income that can be devoted to consumption. But debt has been reasonably stable in the past five years as a proportion of disposable income (see Chart 2.2); this suggests that the direct influence of outstanding debt as a constraint on consumption has changed little in the recent past. Past increases in net financial wealth should continue to underpin future consumption growth, as they typically take several quarters to have most of their effect.

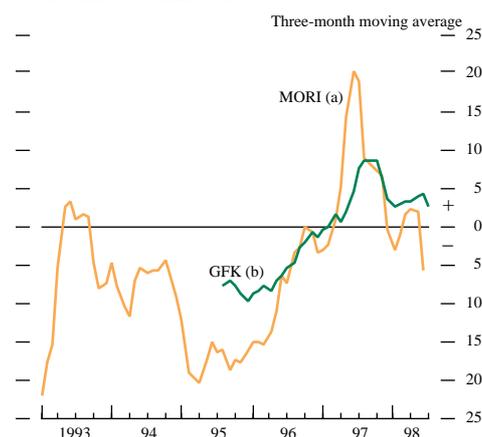
Chart 2.3
Flow of mortgage equity withdrawal (net)



Source: Bank of England.

Housing wealth has been rising less quickly than financial wealth (see Chart 2.2). Increases in housing wealth may have different implications for consumption compared with a similar increase in financial wealth. The price of a house reflects the value of housing services that the house is expected to provide. So consumers cannot use housing wealth directly to boost their other consumption, unless they reduce their future consumption of housing services. If house prices rise, some consumers may sell their houses in order to realise the resulting capital gains and to increase their non-housing consumption. But the effect of this could be largely offset by individuals who have to reduce their other consumption in order to buy more expensive housing. Nevertheless, increases in housing wealth could affect the spending of individuals who would need to use their house as collateral against borrowing, or for those who find the cost of borrowing on unsecured loans too high. This does not appear to be happening currently, as mortgage equity withdrawal is negative

Chart 2.4
Consumer confidence



Sources: MORI and GFK.

- (a) Balance of responses to question: 'Do you think that the general economic condition of the country will improve, stay the same or get worse over the next twelve months?'
- (b) Bank estimate which weights together response balances from a GFK survey about the economic situation.

Chart 2.5
Quarterly investment growth

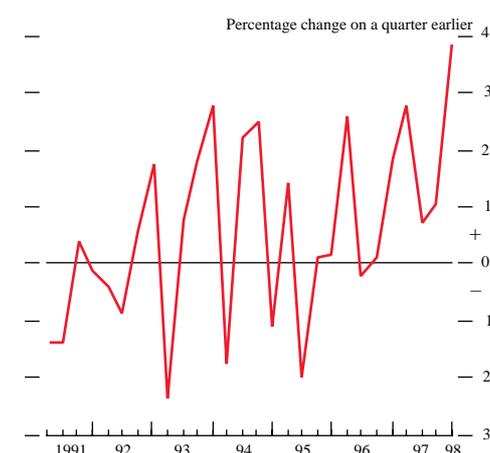


Table 2.C
Components of investment expenditure—1998 Q1

	Level in 1997 (£ billion, 1990 prices)	Percentage change on previous quarter	Percentage change on quarter a year earlier
<i>By sector:</i>			
Business investment (a)	73.0	5.8	10.0
<i>of which:</i>			
Services	47.1	-2.0	1.4
Manufacturing (b)	13.8	-1.1	4.7
Other production (c)	9.7	42.4	53.8
Public corporations (d)	2.4	60.4	41.2
General government	8.7	-9.2	-10.3
NHS trusts	1.3	34.8	22.9
Private sector dwellings	18.9	3.2	14.0
Land and existing buildings (e)	7.2	-3.7	4.0
<i>By asset:</i>			
Vehicles, ships and aircraft	11.4	12.3	5.6
Plant and machinery	38.4	2.5	8.5
Dwellings	20.8	2.5	12.3
Other new buildings and works	38.6	3.4	7.8
Total	109.2	3.8	8.6

- (a) Excluding expenditure on land and existing buildings.
- (b) Private sector only.
- (c) Includes construction.
- (d) Excluding NHS trusts.
- (e) Purchases less sales of land and existing buildings by the private sector and public corporations.

(see Chart 2.3). House prices may also act as a leading indicator of consumption, in that they are a signal of consumers' confidence about the future. House price inflation appears to be moderating (see Section 1). Moreover, consumer confidence has been falling, according to both the MORI and GFK surveys (see Chart 2.4).

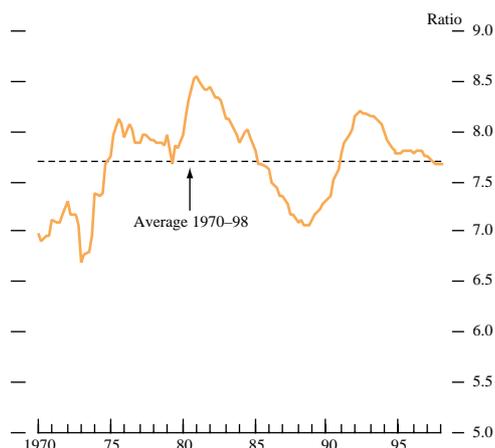
Consumption growth may have slowed in 1998 Q2. Quarterly retail sales growth declined from 0.9% in 1998 Q1 to 0.3% in 1998 Q2. There was also a sharp fall in the growth of new private car registrations on a year earlier. The goods covered by the retail sales data and car registrations account for approximately half of consumers' expenditure. The consumers' expenditure data in 1998 Q2 are likely to be affected by the weather: the wet conditions in April and June discouraged shopping and in particular purchases of seasonal goods such as summer clothes, but the cold temperatures also boosted energy consumption. A number of factors have probably contributed to a slowdown in underlying consumers' expenditure, albeit from a rapid rate: tighter monetary policy; the fading effect of building society windfalls, which temporarily boosted consumer spending last year; and a declining trend in housing turnover, which may be depressing consumer durables expenditure.

2.3 Investment demand

Investment expenditure increased by 3.8% in 1998 Q1 compared with a quarter earlier: the largest quarterly increase in the current recovery, which began in 1992 Q1. But investment is a volatile series; and as can be seen from Chart 2.5, strong growth in one quarter is often followed by weak, sometimes negative growth in the following quarter. This volatility is magnified when investment is broken down by asset or industry. For instance, in 1998 Q1, investment by public corporations rose by 60.4% on the previous quarter; while general government investment fell by 9.2% (see Table 2.C).

Investment is the means by which firms achieve their desired capital stock. The business sector's capital-output ratio is currently close to its long-run average (see Chart 2.6). This could indicate that there is neither a major shortfall nor an overhang in the capital stock. Capital goods are durable, there is a dearth of second-hand markets for them and there are often long lead times before they can be installed. As a result, firms cannot easily adjust the amount of capital they

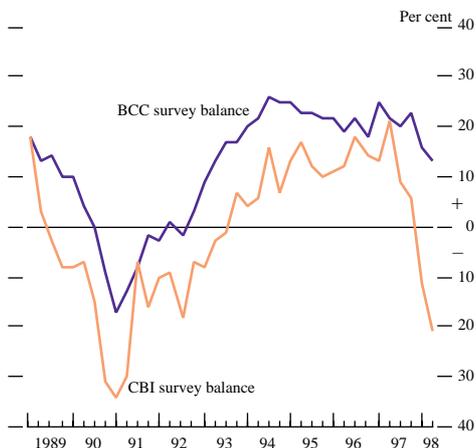
Chart 2.6
Business sector capital-output ratio^(a)



Sources: Bank of England and ONS.

(a) The business sector includes private companies plus public corporations. The capital stock (net of depreciation) and output data are measured at 1990 prices.

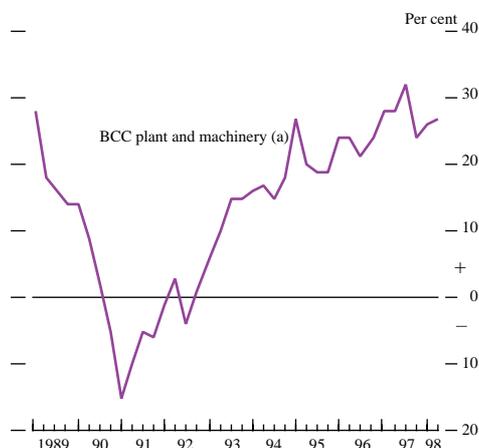
Chart 2.7
Manufacturing investment intentions^(a)



Sources: British Chambers of Commerce and CBI.

(a) Survey balances are determined by subtracting the percentage of companies reporting decreases from the percentage of companies reporting increases.

Chart 2.8
Services investment intentions



Source: British Chambers of Commerce.

(a) Survey balances are determined by subtracting the percentage of companies reporting decreases from the percentage of companies reporting increases.

own when output changes. So firms' desired capital stock and hence their investment decision is often based on expectations of their future output. As output growth is likely to decline, this will probably cause investment growth to fall also.

Lower costs of longer-term finance (see Section 1) in 1998 than in 1997 may partly offset the effects of falling expected output growth on investment. But not all firms have ready access to capital markets to finance their investment expenditure: some have to rely principally on internally generated funds. The level of industrial and commercial companies' undistributed income that is available to finance investment fell by 13.3% in 1998 Q1 compared with the first quarter of 1997.

Surveys show weakening investment intentions, particularly in manufacturing (see Charts 2.7 and 2.8). According to the CBI Industrial Trends Survey, manufacturers' investment intentions have fallen sharply during the past twelve months. In July, the survey balance on plant and machinery intentions reached -21, its lowest level since July 1991. The British Chambers of Commerce (BCC) also reported a large fall in manufacturing investment intentions in 1998 Q2, compared with 1997. The BCC service sector investment intentions in 1998 Q2 were below their level in 1997, but still high compared with a longer time horizon.

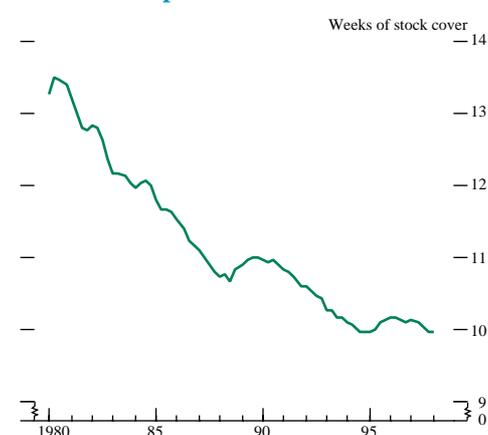
Millennium and lottery-related construction projects may continue to raise investment during the next two years. But this does not mean that they will all be a net addition to future investment. Other investment may be crowded out, and some of the Millennium spending would probably have taken place anyway. General government investment has fallen sharply in the past four years, from £14.4 billion in 1994 to £8.7 billion in 1997. But the Government's new fiscal strategy (see below) promises to raise public sector investment.

Dwellings investment growth was strong in 1998 Q1, 2.5% higher than in the previous quarter and 12.3% up on a year earlier. Investment in dwellings accounts for around 20% of total investment; of that, roughly half is in new dwellings and half is in home improvements. Dwellings investment is expenditure by the personal sector, and so will be influenced by similar factors to consumers' expenditure. Housebuilding activity appears to be slowing. The number of housing

starts fell in 1998 Q2 compared with the previous quarter; and the volume of orders for new dwellings was also well down.

In the MPC's central projection, aggregate investment growth slows in 1998 and 1999. Though Millennium-related spending will probably add to the level, the growth of private sector investment is likely to fall: lower output growth and corporate cashflow may hold back investment, particularly in the manufacturing sector; and dwellings investment will also probably slow. But lower private sector investment growth is likely to be partly offset by higher public sector investment growth.

Chart 2.9
UK stock-output ratio^{(a)(b)}



Sources: ONS and Bank of England.

- (a) Level of stocks outstanding relative to quarterly GDP in 1990 prices.
(b) Stock numbers exclude the alignment adjustment.

2.4

Stockbuilding

Improved stock-management techniques led firms to reduce their desired level of stocks as a proportion of output during the 1980s and early 1990s (see Chart 2.9). An important factor for the GDP outlook is whether this ratio will fall further. Firms' desired stock levels are negatively affected by the cost of borrowing and short-term interest rates have been rising. So this may lead firms to reduce their stock levels relative to output. It is also possible that there will be further improvements in stock-management practices.

2.5

Public sector demand

In June, the Chancellor published the Economic and Fiscal Strategy Report (EFSR), and in July he completed the Comprehensive Spending Review by announcing spending plans for individual government departments. The EFSR outlined a new three-year framework for the control of public expenditure. It stated that real current government expenditure growth would average 2¹/₄% per annum for the years from 1999–2000 to 2001–02. Additionally, the report set out plans to raise public sector investment: net public investment⁽¹⁾ is set to increase from its projected level in 1998–99 of 3³/₄% of GDP to just under 1¹/₂% of GDP by 2001–02. The EFSR also articulated two fiscal rules: a 'golden rule' that limits government borrowing to financing investment, not current spending, over the economic cycle; and a sustainable investment rule that implies net public sector debt will be reduced to below 40% of GDP over the economic cycle.

(1) Net of asset sales and depreciation.

The EFSR announced a new headline fiscal indicator to replace the public sector borrowing requirement: public sector net borrowing is more consistent with concepts of borrowing used for other sectors in the national accounts, and is a concept used internationally. Public sector net borrowing fell substantially in 1997–98 to £5.5 billion from £27.4 billion in the previous fiscal year. The Chancellor has forecast a further fall in public sector net borrowing to zero in 1998–99. The data for June 1998 indicate that the cumulative outturn in the fiscal year to date was £5.9 billion, already £4.3 billion below the outturn to June last year.

The new fiscal plans contained in the EFSR imply slightly higher government expenditure towards the end of the *Inflation Report* forecast than had been incorporated in May. Higher tax receipts than in the May forecast are also projected; some of the recent strong increase in receipts, following the introduction of self-assessment, is assumed to be permanent. There is a possibility that the increase in government spending will be proportionately greatest for those items that have the biggest impact on demand; this is partly accounted for in the MPC's central projection for inflation and partly in the upside risks. By itself, the change in the fiscal outlook implies a positive, but small, increase in the central inflation projection two years ahead compared with the May forecast.

2.6

Output

The preliminary estimate for real GDP growth in 1998 Q2 was 0.5%; the same as in 1998 Q1. Energy production⁽¹⁾ fell in 1998 Q1, because of the unusually mild winter; but it subsequently recovered strongly because of the cold weather in April and June. Excluding this weather-related effect on the energy sector, GDP growth probably fell.

According to the ONS, manufacturing output has been broadly flat since 1997 Q4. Survey data had suggested that manufacturing output growth was stronger up to 1998 Q1. But, more recently, the surveys have weakened. The CBI Industrial Trends Survey showed a negative balance on past output in July for the first time since April 1993. According to the CIPS index, manufacturing output growth was positive until March this year, but then output started to fall. The figure for July was particularly weak: the index for output

(1) Output of the mining and quarrying, and electricity, gas and water supply industries.

reached its lowest level since the survey began in July 1991.

Quarterly service sector output growth slowed from 0.7% in 1998 Q1 to 0.6% in 1998 Q2. Growth of distribution, hotels and catering, which accounts for around one fifth of service output, was especially weak at 0.1%. The BCC survey also indicated a slowing of the growth in service activity in 1998 Q2. The CIPS survey for July suggested continued increases in activity, but the index has fallen for five consecutive months indicating a slowing of growth.

Construction output growth was strong in 1998 Q1, increasing by 2% on the previous quarter. Though no official data are available for 1998 Q2, it is likely that growth fell. In 1998 Q2, the CIPS construction activity index was well below its level in the previous quarter, though it was still above 50, which indicates that the level of construction output continued to grow on a monthly basis. Construction new orders were 4.1% lower in 1998 Q2 than in the previous quarter, a possible indication that construction growth will slow later in 1998. Agricultural output is quite volatile, but it fell in the four quarters to 1998 Q1.

2.7

Summary

The central projection in May was for a slowdown—to below trend—of GDP growth. Output growth of 0.5% in the second quarter was a little stronger than envisaged in the central case of the *May Inflation Report* projection, largely because of the volatile energy component. The GDP figures, together with recent survey evidence, suggest that output growth slowed to around trend in the first half of the year, reflecting both a fall in net exports, and also a decline in the growth of final domestic demand.

The MPC's current central view is for a steeper slowdown in GDP growth than projected in May. The most likely investment profile is considerably weaker, offset to some extent by higher government spending over the next two years. There is also a smaller negative contribution from net trade: the August central projection contains a lower value for sterling and weaker domestic demand. But the MPC has increased the downside risk to its central GDP projection from the possibility of lower world growth.

Chart 3.1
Headline average earnings growth

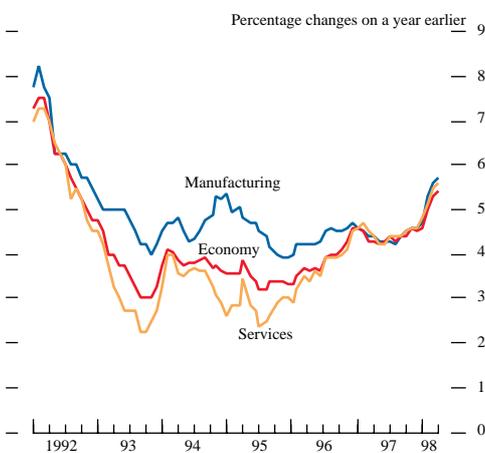
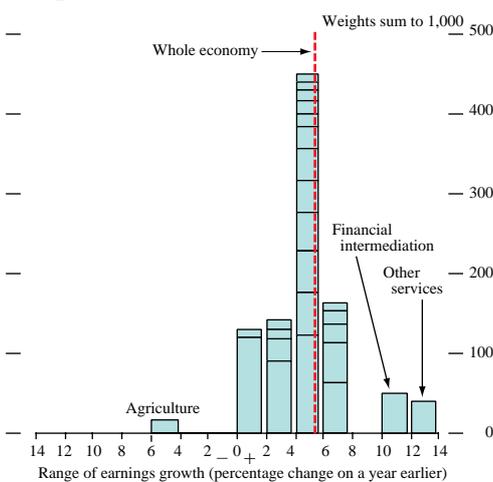


Chart 3.2
Sectoral distribution of earnings growth in April^{(a)(b)}



Sources: ONS and Bank of England.

- (a) The chart shows the sectoral distribution of earnings growth by plotting the rise in earnings in each sector against that sector's employment weight in the aggregate earnings index. There are 26 individual sectors.
(b) Not seasonally adjusted. Three-month centred moving average.

The pace of labour market tightening has slowed, but earnings growth has continued to rise, reflecting pressure from the degree of labour market tightness. Employment has continued to increase, and Labour Force Survey (LFS) unemployment has continued to fall. But the more timely—though less comprehensive—claimant-count unemployment total increased slightly in June for the second successive month. The Government announced the levels at which the National Minimum Wage is to be introduced in April 1999.

3.1

Earnings

Headline whole-economy average earnings⁽¹⁾ grew by 5.4% in the year to April, a slight increase on the figures of 5.3% for March and 5.0% for February. Despite dipping in mid 1997, the headline rate of earnings growth has been on an upward trend since 1995 (see Chart 3.1).

Chart 3.2 shows the sectoral distribution of earnings growth, by plotting the rise in earnings in each of the 26 identified industrial sectors against their employment weight in the aggregate earnings index. Headline earnings growth was particularly marked in the financial intermediation and 'other services' sectors. In both cases, growth exceeded 10%. By contrast, headline agricultural earnings fell by 4.8%. Excluding these three sectors, headline earnings growth would have been 4.9% in the year to April, compared with growth of 5.4% in the aggregate index. But that would still have represented an increase in the rate of earnings growth of 1.0 percentage point since April 1997, compared with a rise of 1.1 percentage points in the aggregate index over the same period.

Analysing the rise in earnings growth is complicated by two factors: the contribution of bonuses and profit/performance-related pay (PRP) to the rise in headline earnings growth; and the split between public and private sector earnings growth. These issues and their relation to trends in regular pay are discussed below.

(1) Centred three-month moving average of earnings growth.

The recent rise in the headline rate of earnings growth has largely been due to a pick-up in regular pay. But high bonuses and PRP awards have also been an important factor so far in 1998. It is difficult to establish accurate estimates of the size of bonuses or PRP awards. The box on page 26 discusses how performance-linked or non-basic pay affects the Average Earnings Index (AEI). Several factors could explain a rise in the contribution of performance-linked pay to total earnings growth. For example, firms may be trying to increase employee motivation, or improve recruitment and retention. And the rise in PRP awards may have been encouraged by tax relief, though this is now being phased out. Non-basic pay may also offer firms greater flexibility in the face of uncertain demand.

The Bank's regional Agencies conducted an informal survey of contacts during June on the reasons behind the rise in non-basic pay. The results were reported to the MPC before its July meeting. The Agents' contact base is predominantly private sector, and the firms surveyed were chosen on the basis that they were likely to have made bonus payments. The most important factor determining the use and size of bonuses was found to be profits, and in particular profits in the previous year. But a significant number of respondents also cited retention, recruitment, and sales or productivity targets as factors affecting their bonus payments.

Insofar as the rise in non-basic pay (or indeed earnings generally) reflected past or expected productivity improvements, the implications for unit wage costs and inflation would be neutral. It is particularly difficult to measure productivity in the service sectors currently experiencing the fastest earnings growth. But for the whole economy, measured annual productivity growth since 1995 has averaged only 1.5%, compared with a historical average of 2.1%. High bonus and PRP awards could also reflect strong sales or profit growth during the previous year. Total corporate sector sales⁽¹⁾ rose by 10.5% in 1997, compared with growth of 7.0% in 1996. But profitability, as measured by the net rate of return on capital employed, was broadly flat in 1997, though it remained at a high level. That compared with a rise of 25% in non-basic pay in the first five months of 1998 compared with a year earlier. So on balance it is likely that a substantial proportion of the recent growth in non-basic pay reflects the tightness of the labour market.

(1) Defined as the amount of sales of goods and services to third parties, relating to the normal activities of the companies involved. Sample is total United Kingdom excluding the financial sector. Source: Datastream.

Bonuses, performance-related pay and the Average Earnings Index

The ONS has released estimates of underlying earnings growth after removing estimated irregular bonus and performance-related pay (PRP) awards.⁽¹⁾ The Average Earnings Index (AEI) questionnaire asks firms to tick a box if there has been a significant change in bonuses (or PRP) since the previous pay period. Those firms that tick the box are asked to specify how much they paid out. If a firm does not consider the change in the amount it paid out in bonuses and PRP that month to be significantly different, then no separate value for the amount it did actually pay out in non-basic pay is recorded. The ONS method could thus overstate the growth in irregular non-basic pay if any firms did not consider their non-basic pay awards significant in 1997, but did so in 1998. However, the proportion of firms which said that non-basic payments were a significant component of their wage bills was largely unchanged between 1997 and 1998. That suggests that the potential bias from this source is likely to be small.

The ONS results are shown in the table. They suggest that irregular non-basic payments rose particularly strongly in March. Analysis of these data is complicated by the fact that non-basic pay has been rising as a share of the total wage bill in recent years (see Chart 3.A). Over the past two years, the contribution of irregular non-basic pay has peaked in March, before falling back in the summer. But an offsetting rise in the contribution from regular pay may keep the aggregate index rising. That happened in 1997. And the regular component has continued to rise in 1998.

Given the irregular timing of non-basic pay during the year, such payments should be smoothed back in with the regular pay components to give a more accurate picture of the underlying trend in

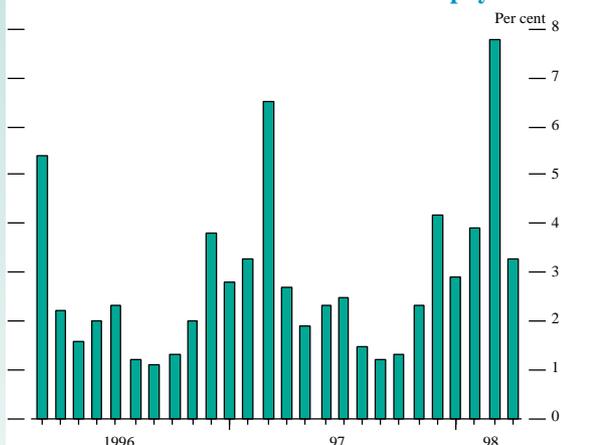
Average earnings growth in 1998^{(a)(b)}

	AEI	Excluding ticked bonuses and PRP	Ticked bonus/PRP contribution to earnings = (1) - (2)
	(1)	(2)	
January	4.2	4.1	0.1
February	4.8	4.2	0.6
March	5.6	4.2	1.4
April	5.3	4.6	0.7
May	5.3	4.7	0.6

(a) One month on the same month a year earlier.
(b) Not seasonally adjusted.

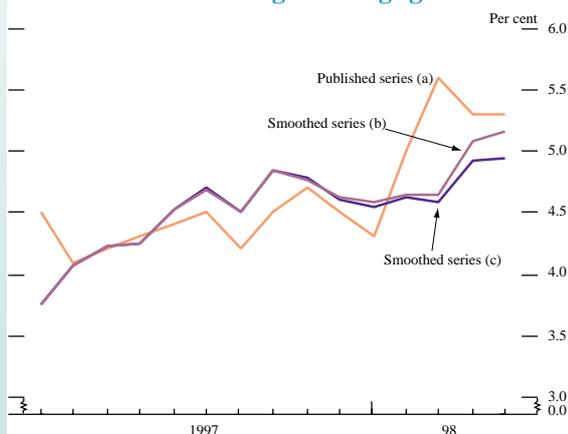
(1) Not all non-basic pay is 'irregular'. For example, an estimated 80% of firms with PRP schemes make PRP payments every month.

Chart 3.A
Ticked bonuses and PRP as a share of paybill



earnings growth. There is no single method for doing this; Chart 3.B shows Bank estimates with irregular bonus and PRP payments smoothed over the preceding eleven months. The first estimate assumes that irregular bonus and PRP awards continue to grow at around 20% per annum until April 1999—the same rate of growth as in the previous twelve months. This measure shows that smoothing March's unusually high bonus payments back in still leaves the underlying rate of earnings growth at 5.2% in May. The second estimate assumes growth of only 10% in irregular bonus and PRP awards. This measure shows less of an acceleration so far in 1998, and that the underlying rate of earnings growth was 4.9% in May.

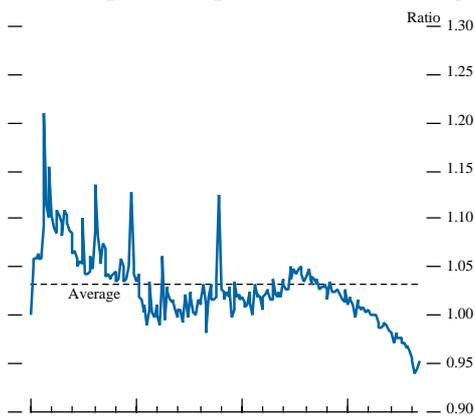
Chart 3.B
Bonus-smoothed average earnings growth



Sources: ONS and Bank of England calculations.

(a) Not seasonally adjusted.
(b) Assumes growth of 20% in irregular bonuses and PRP awards until April 1999; twelve-month moving average smoothed back in.
(c) Assumes growth of 10% in irregular bonuses and PRP awards until April 1999; twelve-month moving average smoothed back in.

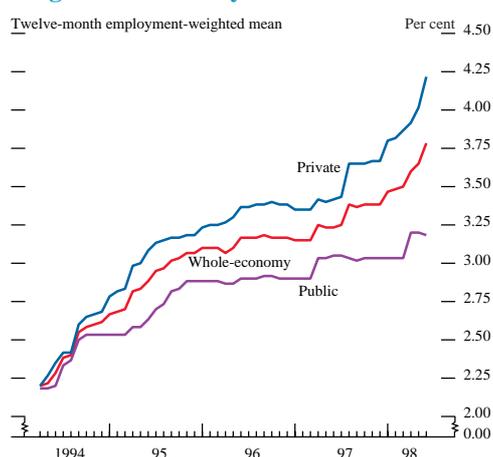
Chart 3.3
Ratio of public to private sector earnings^{(a)(b)}



Sources: ONS and Bank of England calculations. Bank calculations 1980–93 and ONS data from 1993.

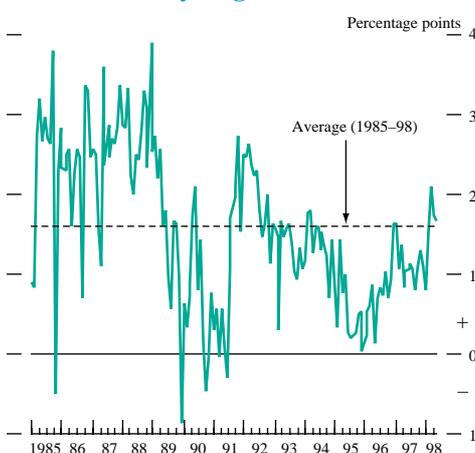
- (a) Seasonally adjusted.
(b) The public sector here is proxied by health, social services, public administration and education before 1993.

Chart 3.4
Wage settlements by sector



Source: Bank of England.

Chart 3.5
Whole-economy wage drift^(a)



- (a) The whole-economy wage drift is the difference between average earnings growth settlements levels. Prior to April 1994, the data used is the IRS three-month unweighted median. The Bank twelve-month employment-weighted mean is used between April 1994 and the present.

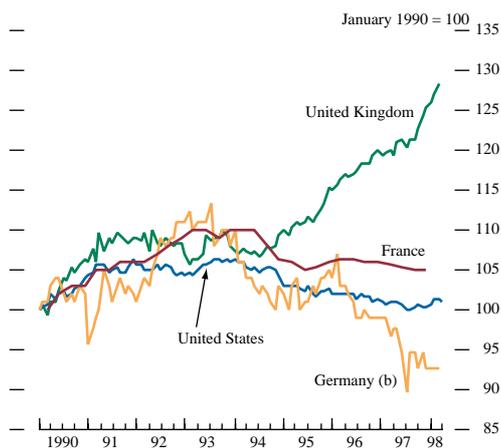
Headline public sector earnings growth rose to 2.8% in April—still significantly below the 6.2% rise in earnings in the private sector (which accounts for around 72% of total employment). The ratio of public to private sector earnings has been falling since 1993, and is now at around its lowest for at least 18 years (see Chart 3.3).

The twelve-month employment-weighted mean of wage settlements picked up further in June, to 3.8%. Private sector settlements rose to 4.2% in June, but public sector settlements were unchanged at 3.2% from the previous month (see Chart 3.4). The difference between earnings and settlements is known as ‘wage drift’, and includes factors such as compositional changes in the workforce, overtime pay, shift premia, bonuses, and merit and profit-related pay. The Bank’s measure of whole-economy wage drift fell to 1.6 percentage points in May, slightly above its historical average (see Chart 3.5).

Wage drift in the private sector has been on a broadly upward trend since 1996, and was 1.9 percentage points in May. Since 1995, public sector wage drift has mostly been negative. It would be unusual for negative wage drift to persist for a long period of time. Estimates of wage drift are very volatile from month to month, but in May, earnings grew in line with wage settlements in the public sector, implying no significant wage drift. Negative public sector wage drift may at least partly have reflected compositional changes in employment. For example, the number of teachers taking early retirement in 1997/98 rose by nearly 20% compared with a year earlier. If those taking early retirement were relatively well-paid compared with the teachers replacing them, that would have depressed earnings growth. The possibility of public sector wage drift continuing to rise, through higher earnings growth, represents an upside risk to the aggregate earnings outlook.

Whole-economy unit wage costs rose by 3.2% in the year to 1998 Q1, compared with 3.6% in 1997 Q4. However, that partly reflects the particularly strong rise in 1997 Q1. Unit wage costs rose by 1.4% in 1998 Q1, compared with a 0.8% rise in the previous quarter. Unit wage cost growth in the manufacturing sector appears to have been particularly high in the United Kingdom compared with its major trading partners (see Chart 3.6). Recorded manufacturing productivity growth has been lower in the current recovery than in the 1980s, in contrast with productivity growth in the rest of the economy.

Chart 3.6
Manufacturing unit labour costs^(a)



Source: Datastream.

(a) In domestic currency.
 (b) Data prior to 1991 are for West Germany.

Table 3.A
Barclays Basix Survey of inflation expectations^(a)

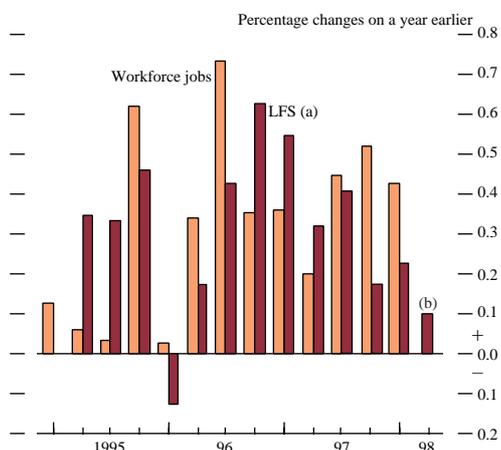
Percentage increases in prices

	1997	1998	
	Q2	Q1	Q2
12 months ahead			
Academic economists	3.0	3.0	3.2
Business economists	3.0	3.0	3.1
Finance directors	3.1	3.3	3.4
Investment analysts	3.1	3.1	3.3
Trade unions	3.4	3.5	3.3
General public	4.2	4.3	4.4
12 to 24 months ahead			
Academic economists	3.2	3.1	3.1
Business economists	3.2	2.9	2.9
Finance directors	3.6	3.3	3.2
Investment analysts	3.5	3.3	3.3
Trade unions	4.1	3.9	3.8
General public	4.7	5.1	5.1

Source: Barclays Bank.

(a) RPI inflation except for General public, for which the inflation measure is not specified.

Chart 3.7
Employment growth



(a) LFS data is centred around March, June, September and December.
 (b) March to May.

Although wages are typically negotiated in nominal terms, it is the real wage (the nominal wage adjusted for inflation) that matters to both workers and employers. So expectations about future inflation play a vital role in wage-bargaining. There is a wide range of survey-based estimates of inflation expectations, but these do not give a well-defined level of inflation expectations. The Barclays Basix Survey (see Table 3.A) indicates that RPI inflation expectations for the next twelve and twenty four months have, on the whole, risen slightly during the past year. But as noted in Section 1, measures of inflation expectations for the next three years derived from index-linked bond markets have been falling in the past 18 months, and averaged around 3% in July.

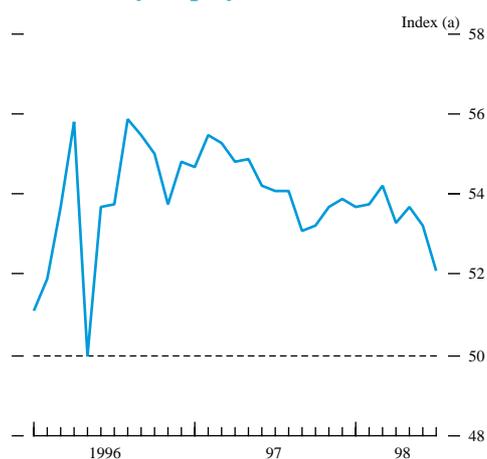
3.2 Unemployment and employment

The labour market continued to tighten in the second quarter, according to most measures, though more slowly than last year. LFS unemployment, the MPC's preferred measure, fell by 54,000 in the three months to May. That led to a further fall in the unemployment rate to 6.3%—below its lowest rate in the previous cycle. The claimant-count measure of unemployment rose slightly by 700 in June, following a rise of 4,300 in May, which was the first rise in claimant unemployment since February 1996. But the rate of claimant unemployment remained unchanged at 4.8%, its lowest rate since mid 1980.

Employment has continued to rise, according to both the LFS and the Workforce jobs survey. Employment as measured by the LFS rose by 36,000, or 0.1%, in the three months to May. The rise in LFS employment has been concentrated in an increase in part-time workers—LFS full-time employment has been broadly stable since the beginning of the year. The LFS also contains information on the total number of hours worked, which is a good measure of labour usage, as it includes changes in overtime work and the balance between part-time and full-time workers. Total hours worked in the economy rose by 0.3% in the three months to May, and by 1.0% compared with a year ago. The number of hours worked has risen strongly since 1994, but the rate of increase appears to have begun to flatten off.

The Workforce jobs survey showed a stronger rise in employment than the LFS in 1998 Q1. The number of jobs rose by 116,000, or 0.4%, the same rate of increase as in the previous year (see Chart 3.7). The difference

Chart 3.8
CIPS survey employment index



Source: The Chartered Institute of Purchasing and Supply.

(a) Weighted index of data on manufacturing, services and construction. A result of 50 indicates no change on previous month.

Table 3.B
Surveys of employment intentions

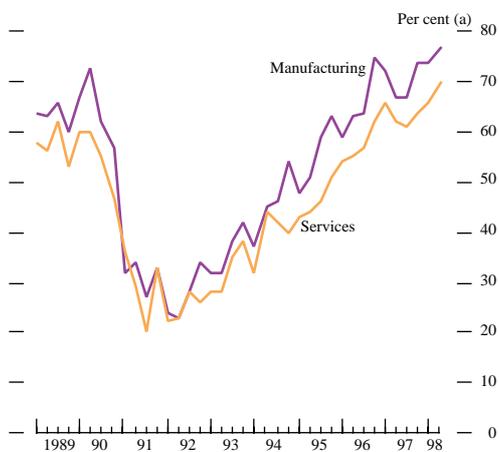
Percentage balance of employers planning to recruit staff (a)

	Series average (b)	1997			1998	
		Q2	Q3	Q4	Q1	Q2
BCC (c)						
Services	12	25	25	23	23	22
Manufacturing	3	13	9	13	8	11
CBI (d)						
Manufacturing	-21	-2	-10	-1	-17	-16
Manpower						
Total	10	16	18	17	19	17
Services	11	17	22	16	18	17
Manufacturing	14	20	22	21	21	19
Public	1	3	3	10	10	9

Sources: British Chambers of Commerce, CBI and Manpower.

(a) Seasonally adjusted by the Bank.
 (b) CBI manufacturing average since 1979; BCC average since 1989; Manpower average since 1988.
 (c) Next three months.
 (d) Next four months.

Chart 3.9
Recruitment difficulties



Source: BCC.

(a) Percentage of respondents answering 'yes' when asked whether they have experienced recruitment difficulties.

between the two measures was accounted for by differences in the numbers of self-employed. The recorded increase in the number of employees was very similar in both measures.

The sectoral pattern of employment growth continues to reflect the divergence between weak manufacturing activity and more robust service sector growth. The number of manufacturing jobs was slightly lower in May than a year earlier, but service sector employment was 258,000 higher in 1998 Q1 than a year earlier. The Chartered Institute of Purchasing and Supply (CIPS) survey shows the same pattern. The June survey showed continued strong growth in service sector and construction employment, and a marked deterioration in manufacturing employment. A new CIPS employment index⁽¹⁾ weights these series together, and suggests that employment growth is likely to have remained positive in 1998 Q2, though the pace of growth appears to be slower than in 1997 (see Chart 3.8).

Employment intentions have nonetheless remained relatively robust. The BCC survey showed that employment intentions for 1998 Q3 were still positive for both manufacturing and service sector firms. There was a slight slowdown in employment intentions for 1998 Q3, according to the Manpower survey, though balances remained at around the same levels as a year ago. But the responses in the CBI survey, which covers manufacturing, have become markedly more pessimistic since the end of 1997 (see Table 3.B).

Survey evidence also suggests that skill shortages remain a serious concern. The BCC survey for 1998 Q2 suggests that recruitment difficulties heightened further for both manufacturing and service sector firms. In both sectors, the percentage balance of firms experiencing recruitment difficulties was at its highest since the survey began in 1989 (see Chart 3.9). By contrast, the CBI survey suggests that skill shortages in the manufacturing sector have eased. Skill shortages were also a major concern in the construction industry, according to the CIPS construction report for June, but perhaps less so than they were earlier in the year.

The stock of vacancies at job centres rose by a further 2,500 in June, to around 35,000 higher than its peak in the previous recovery. The relationship between the stock of vacancies and the stock of unemployment is

(1) The CIPS employment index is derived from survey data on employment in the manufacturing, services and construction sectors, weighted by employment shares.

The National Minimum Wage and other labour market reforms

The MPC has considered the implications of the National Minimum Wage and some of the other labour market reforms introduced by the Government. This box describes how these policies have affected the MPC's inflation projection.

On 18 June, the Government announced the levels and coverage of the National Minimum Wage, to be introduced in April 1999. A rate of £3.60 per hour has been set for workers over 21 years of age. A lower development rate of £3 per hour, rising to £3.20 in June 2000, has been announced for workers aged between 18–21. Older workers in the first six months in a new job with a new employer undertaking an accredited training course will also be entitled to a National Minimum Wage of £3.20 per hour.

The rate of £3.60 per hour represents around 55% of the median of all LFS earnings per hour and around 45% of LFS full-time male median earnings per hour. That is lower than OECD estimates of the level of the minimum wage in, for example, France, but higher than in the United States.

An estimated 1.9 million workers—8½% of the workforce—will be directly affected by the introduction of the National Minimum Wage. About two thirds of these will be women.

The National Minimum Wage is expected to lead to an average increase of about one third in the wage of those directly affected by its introduction. The direct effect of this on the aggregate wage bill would be to raise its level by about 0.6%.

The overall impact on the aggregate wage bill and employment will also depend on a number of indirect factors. They include the degree of differentials restoration higher up the wage distribution; the degree of market power that firms have over the labour market from which they recruit (the degree of monopsony); the degree of compliance with the law; the extent to which firms can offset the impact of the National Minimum Wage on their total costs per hour by consolidating non-wage costs, for example, cash tips; and the degree of substitutability between those covered by the National Minimum Wage, other workers and capital. In addition, though the Government has made no formal commitment to link the rate of the National Minimum Wage to any particular price or earnings index, the long-run impact of the National Minimum Wage will depend on whether its real value is maintained at its current level. The MPC has assumed that the nominal value of the National Minimum Wage is held constant over the forecast period.

Some of these factors will tend to increase the impact on the aggregate wage bill, but others to reduce it. It is not

possible *ex ante* to know how significant any of these factors will prove to be. So there is a great deal of uncertainty surrounding any estimates of the impact of the National Minimum Wage on wages and prices. Taking all of the above factors into consideration, the MPC's central projection assumes that the net effect of the National Minimum Wage on the aggregate wage bill will be to raise its level by 0.5%. However, as some firms will have adjusted wages prior to April 1999, it is assumed that around half of the full effect will come through before then.

In addition to the factors listed above, the overall impact on wages and prices will depend on the extent to which the higher price level feeds into higher wage demands from all workers, by raising inflation expectations. The central projection assumes that inflation expectations rise slightly following the introduction of the National Minimum Wage. That raises the central estimate of the effects of the National Minimum Wage on both wages and prices.

The Bank's regional Agencies conducted an informal survey of contacts during July, asking them how they were likely to react to the National Minimum Wage. They found that 24% of the total sample had already taken some action, in anticipation of the introduction of the National Minimum Wage. But 43% of the firms surveyed did not expect to have complied in full until April 1999. Nearly half of those affected expected to reduce margins, but 35% said they expected to pass on the rise in wage costs into higher prices. The expected impact on employment was mixed, but a larger percentage of firms expected to reduce employment than to increase it in the light of the National Minimum Wage.

The relationship between wages and prices is not straightforward. The central projection assumes a small positive effect of about 0.4% on the price level. This allows for a degree of monopsony in the low-wage sector, and higher inflation expectations. The effect on RPIX inflation is spread out.

There are a number of risks to this central projection, concerning both magnitude and timing. For example, it is possible that as the introduction of the National Minimum Wage is common to all firms, there will be a more rapid adjustment to the price level than in the central case. It is also possible that the extent of differentials restoration will be greater than that assumed in the central case, which would increase the impact on both wages and prices. On balance, the MPC has assumed that the risks to the central projection of the introduction of the National Minimum Wage are on the upside for inflation.

The overall effect of the National Minimum Wage on the level of employment is even more uncertain. Studies in the United Kingdom and in the United States have found both positive and negative employment effects from the introduction of minimum wages.⁽¹⁾ A key factor is the degree of monopsony in the low-wage sector. If the labour market is perfectly competitive, then the introduction of the National Minimum Wage will lead to lower employment and potential output, and raise the natural rate of unemployment. However, the greater the degree of market power over recruitment held by firms, the smaller will be the negative effect.

The National Minimum Wage is only one of a package of labour market reforms introduced by the Government, and it is important to consider these policies together. The box on page 29 of the February *Inflation Report* sets out the key points of the Government's Welfare to Work initiative. The Welfare to Work initiative which incorporates the New Deal should increase the effective supply of labour and thereby reduce the pressure on wages. The March Budget announced a further

expansion of the Welfare to Work initiative. The MPC expects the employment effects of National Minimum Wage and the New Deal to be relatively small and offsetting.

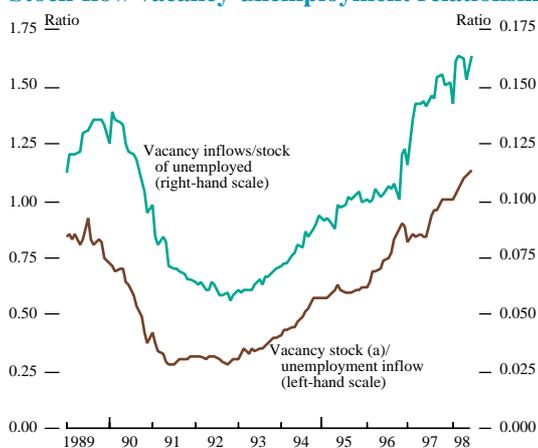
The Government also announced the introduction in October 1999 of the Working Families Tax Credit (WFTC) to replace Family Credit. Within the WFTC, a childcare tax credit will be introduced to help meet childcare costs. And the system of National Insurance is also being reformed to remove step changes in its incidence.

These further reforms will all tend to raise the participation rate⁽²⁾ by making work more financially attractive, and by increasing the incentives to employ people moving from welfare to work. These reforms could have a large impact on employment and output in the longer run. But it is unlikely that much of this will be felt within the two-year forecast period, given that the WFTC is to be introduced in late 1999.

(1) For an example of a study on the United Kingdom, see Dickens *et al* (1997) 'The Effect of Minimum Wages on Employment: Theory and Evidence from the UK'. *National Bureau of Economic Research Working Paper No 4742*, May 1994.

(2) The proportion of the working-age population either in a job or looking for a job.

Chart 3.10
Stock-flow vacancy-unemployment relationships



(a) Adjusted to allow for the overstatement in the stock and the ONS's subsequent correction.

another measure of labour market tightness. Chart 3.10 shows two measures of the relationship between vacancies and unemployment. Both show that the labour market appears tighter now than it did in the late 1980s. In the past, vacancies have been a leading indicator of turning points in output growth. Thus the continued rise in the stock of vacancies is somewhat at odds with other evidence, which suggested that the pace of activity was easing.

A new monthly survey by the Federation of Recruitment and Employment Services (FRES) and NTC Research combines information from newspaper recruitment advertisements with ONS vacancies data. The FRES job market index is intended to act as a leading indicator of employment growth (see Chart 3.11). It suggests that employment will continue to grow, but more slowly than in 1997.

3.3 Unemployment and inflation

In the short run, there tends to be a trade-off between unemployment and inflation. Wage pressure will tend to rise if the actual rate of unemployment falls below the natural rate of unemployment, at which wage inflation is stable. There is a great deal of uncertainty about the natural rate of unemployment, because it cannot be

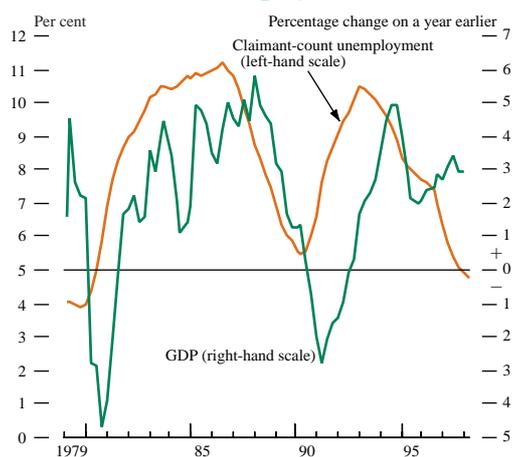
Chart 3.11
FRES job market index



Sources: ONS and The Federation of Recruitment and Employment Services.

- (a) Normalised to be consistent with the annual percentage change in whole-economy employment.
- (b) Employee jobs percentage change on a year earlier.

Chart 3.12
Claimant count unemployment and real GDP



directly measured and it changes over time in response to structural changes in the labour market. Real unit labour cost growth has been positive since 1997 Q1 and was 0.5% in the year to 1998 Q1. Positive real unit labour cost growth is consistent with the actual rate of unemployment being below the current natural rate.

The extent to which inflationary pressures will continue to build up in the labour market will depend on how quickly unemployment and employment respond to the expected slowdown in GDP growth. Unemployment is strongly counter-cyclical, and tends to lag turning-points in output growth. The lags between output and unemployment have been shorter in the present cycle than in the past, despite slightly slower GDP growth in the present recovery than in the previous recovery over the same number of quarters. In the previous economic upturn, claimant unemployment continued to rise for more than five years after the trough in GDP. By contrast, claimant unemployment began to fall around a year after the trough in GDP in the early 1990s (see Chart 3.12). Similarly, employment did not rise for eleven quarters after the trough in GDP in the previous upturn, compared with a lag of only six quarters in the present recovery.

3.4 Reforms affecting the labour market

The Government announced the levels of the National Minimum Wage to be introduced in April 1999. The box on pages 30–31 discusses the implications of the National Minimum Wage and other labour market reforms for the structure of the labour market and inflation. The MPC has incorporated these effects into its inflation projection.

3.5 Summary

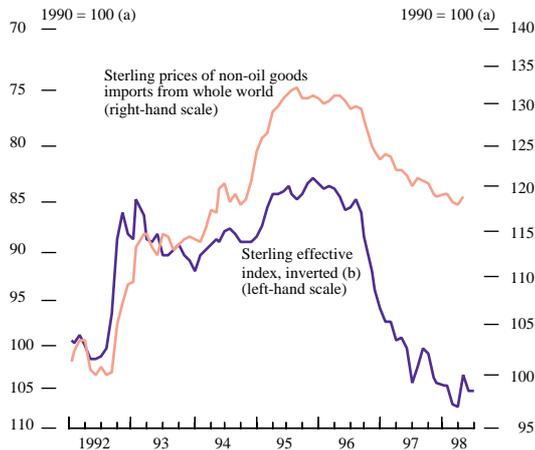
Headline earnings growth continued to rise in April, reflecting an increase in both regular and non-basic pay. The current rate of earnings growth would not be consistent with the inflation target in the long run, unless trend productivity growth were to increase markedly.⁽¹⁾ The fall in LFS unemployment in the three months to May was in line with the fall in the preceding three months, but was less than the average fall in 1997. Claimant-count unemployment rose slightly in June for

(1) In the long run, assuming trend productivity growth of 2% a year, an inflation target of 2.5% is consistent with average nominal earnings growth of 4.5%. In the shorter run, productivity may fluctuate around its trend, and the labour share of national income may vary, for example, cyclically.

the second consecutive month. Employment intentions remain positive, particularly in the service sector. The stock of vacancies is historically high, and skill shortages continue to be widely reported.

The rate at which the labour market is tightening may have slowed. Unemployment is unlikely to fall much further, and may well soon start rising if, as expected, the rate of growth of output slows through the year. But inflationary pressures in the labour market depend on the degree of tightness, as well as its rate of change. The balance of evidence suggests that the actual rate of unemployment is probably below its current natural rate.

Chart 4.1
Non-oil goods import prices and the exchange rate

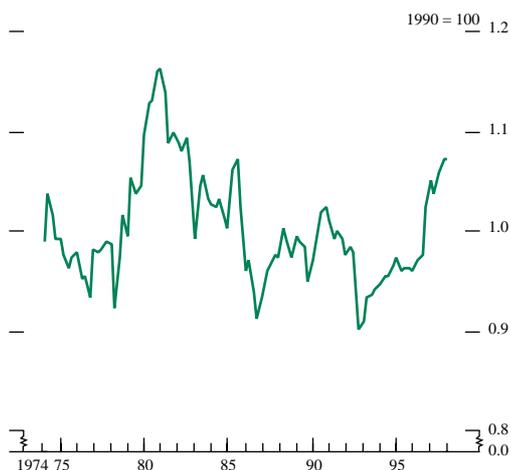


Note: The ERI is measured against 20 other industrialised countries. The import price index for the whole world covers imports from all countries.

Sources: ONS and Bank of England.

- (a) Both scales are logarithmic.
(b) Monthly average of daily data. A rise in the line reflects a depreciation.

Chart 4.2
Ratio of UK import prices to major six overseas economies' export prices^(a)



Sources: ONS and Bank for International Settlements.

- (a) The major six overseas economies (M6) are the G7 excluding the United Kingdom. UK import prices of goods and services are divided by M6 export prices of goods, and services are denominated in sterling and UK trade-weighted.

Manufacturing output prices have remained weak, because rising unit labour costs have been offset by falling world commodity prices and the appreciation of sterling. The service sector continues to show signs of inflationary pressure. Annual retail price inflation measured by RPIX rose to 3.0% in 1998 Q2, slightly higher than expected by the MPC at the time of the *May Report*. This probably reflected erratic factors such as seasonal food prices. Rising earnings have increased unit labour costs and contributed towards a rate of domestically generated inflation that is currently higher than the RPIX inflation rate.

4.1 Import prices and the exchange rate

Non-oil imported goods prices rose by 0.8% in May 1998, after falling by 0.3% in April. The non-oil import price index in May was 2.7% below its level a year earlier, and 8.3% below its level in August 1996, when sterling began to appreciate. The fall in import prices has continued to be far less marked than sterling's rise, as Chart 4.1 shows.

Because around one quarter of goods and services are imported, the speed and extent of pass-through from a currency appreciation to import prices will affect the RPIX inflation profile. But the impact of exchange rate movements on prices is complex, and depends on a number of factors, including market structure, pricing behaviour in the industries concerned, and whether firms view exchange rate movements as temporary or permanent. Foreign exporters to the United Kingdom may have been using sterling's appreciation as an opportunity to widen their margins, possibly because they viewed some of the appreciation since August 1996 as temporary. Chart 4.2 shows the ratio of UK import prices to overseas export prices since 1974. The ratio has risen sharply since 1996, as UK import prices have fallen by much less than the fall in overseas export prices measured in sterling terms. UK import prices typically move in line with overseas export prices, and divergences do not generally persist.⁽¹⁾ So the ratio is

(1) A similar rise in the ratio occurred in the early 1980s, when the oil price was high. During that period, UK import prices rose sharply relative to export prices in the other G7 countries, reflecting the fact that the other G7 countries were not oil exporters.

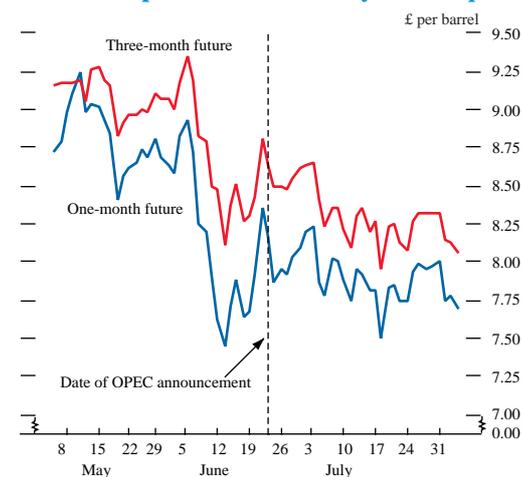
likely to fall as the lagged effects of the appreciation feed through.

Foreign exporters' margins, which had risen following the appreciation, are assumed to decline gradually during the forecast period. The MPC's central projection for inflation assumes that the effects of the exchange rate appreciation will continue to pass through to UK import prices.

4.2 Raw material and commodity prices

The sterling price of Brent crude oil has fallen by more than 40% in the past 18 months. The one-month future price at the end of July was £8.00 a barrel, compared with £14.33 a barrel at the start of 1997. The fall appears to have been influenced by several factors, including recent developments in Asia, and an unusually warm winter in the northern hemisphere. Since the *May Report*, OPEC has agreed to cut oil output by some 1.36 million barrels per day from 1 July. This is in addition to an agreement to cut daily output from April by 1.25 million barrels. The size of the OPEC cuts can be gauged by comparing them with levels of OECD crude oil stocks, which rose from 889 million barrels in November 1997 to 947 million barrels in May 1998. The OPEC cuts, if achieved and maintained, are likely to reduce these inventories and limit significant further falls in oil prices. The price of Brent crude has continued to fall since the OPEC announcement on 24 June of a second round of output cuts (see Chart 4.3). Indices of commodity prices excluding oil have also been falling. The Bank's estimate of non-oil commodity prices, which weights commodities according to UK demand, is 16.4% lower than its peak in March 1996. The strength of sterling has contributed to falling non-oil commodity prices, but it also reflects lower commodity prices in the rest of the world. For example, the *Economist* non-oil commodity price index in dollars has fallen by almost 20% since March 1996.⁽¹⁾ The MPC's central projection assumes that world commodity prices will continue to fall over the forecast period.

Chart 4.3
Oil futures prices since the May 1998 Report



Note: Daily data. Final observations on 5 August 1998.

Source: International Petroleum Exchange.

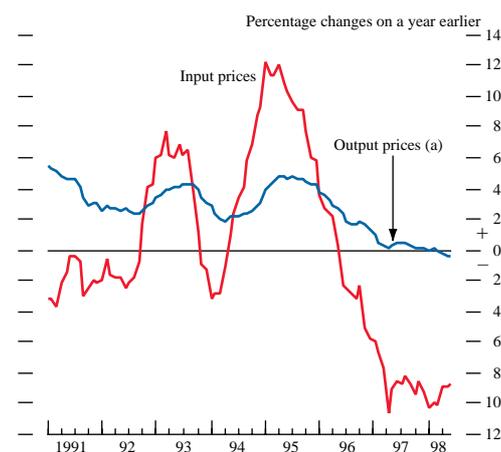
4.3 Costs and prices in the service sector

Recent evidence from the Chartered Institute of Purchasing and Supply (CIPS) suggests that average input price inflation, including labour costs, remains

(1) The weights in the *Economist* index are not based on UK demand, and its coverage is more restricted than the Bank index. So changes in the two indices are not directly comparable.

strong. The CIPS indicator of input price inflation was 58.6 in July, compared with 58.9 in April and an average reading of 57.8 since the survey began in July 1996 (readings higher than 50 denote positive growth on the month). This strength partly reflects firms' difficulties in hiring workers. The British Chambers of Commerce (BCC) July survey noted that the balance of firms reporting recruitment difficulties rose in 1998 Q2 (see Section 3). The BCC survey also noted that the balance of firms operating at full capacity remains above the average since 1992, suggesting that demand pressures are continuing to build and that input price inflation is likely to remain robust. The CIPS service sector output price indicator was 52.0 in July, after falling towards its neutral level of 50 during May and June. This suggests, in line with evidence from the Bank's regional Agencies, that firms may be finding it difficult to pass on increased input costs to consumers.

Chart 4.4
Producer price inflation



(a) Output prices excluding excise duties (PPIY).

Table 4.A
Rates of change of manufacturers' costs and prices

Percentage changes on previous period

	1996 Year	1997 Year	Q3	Q4	1998 Q1	Q2
Unit costs						
Unit labour cost	5.7	2.9	0.4	2.0	2.5	0.9
Materials and fuels (including semi-finished manufactured imports)	-1.1	-8.4	-0.7	-2.7	-3.9	-1.8
Imports of finished manufactures	0.8	-5.6	-1.1	0.2	-0.2	-0.5
Services	0.3	2.6	0.3	0.5	0.5	0.3
Weighted costs	2.4	-1.0	0.0	0.4	0.4	0.0
Output prices (a)	2.3	0.4	0.2	0.2	-0.4	-0.3

Sources: ONS and Bank of England.

(a) Domestic sales.

4.4 Costs and prices in manufacturing

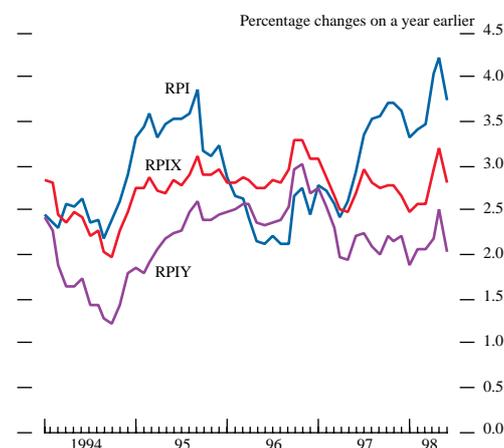
Input prices in the manufacturing sector fell by 0.7% in June 1998, after rising by 0.3% in May. Annual input price deflation, now 8.7%, has moderated slightly since 1998 Q1 (see Chart 4.4). Input prices have fallen by 16.5% since June 1996, largely because of sterling's appreciation and falling commodity prices.

Manufacturing output prices excluding excise duties (PPIY) rose by 0.1% in June, yielding an annual rate of growth of -0.4% for a second consecutive month. The three-month annualised growth rate of PPIY has been negative since the start of the year, and evidence from the Bank's regional Agencies suggests that output prices are likely to fall further in 1998 Q3.

Though manufacturers' input prices have fallen considerably, their weighted costs remain high. This is largely because unit labour costs have been rising (see Section 3 and Table 4.A). So manufacturers' profit margins on domestic sales have been falling. Though profit margins on export sales rose in 1998 Q2, they were below their levels a year earlier, as a result of the exchange rate appreciation. Movements in profit margins are an important component of changes in prices, and have implications for inflation. An article in the *Quarterly Bulletin* discusses the behaviour of price-cost mark-ups and profit margins in UK manufacturing and services.⁽¹⁾ It suggests that mark-ups and margins are pro-cyclical in both sectors, so that

(1) Small, I.(1998), 'The cyclical nature of mark-ups and profit margins', *Quarterly Bulletin*, August, pages 267-73.

Chart 4.5
Retail price inflation^(a)



RPIX = Retail price index excluding mortgage interest payments.
RPIY = RPIX excluding VAT, local authority taxes and excise duty.

(a) Adjusted by the Bank of England for ONS error in under-recording aggregate price indices between February and May 1995. Other charts and tables in this Report that include measures of retail price inflation are similarly adjusted.

price pressures move in line with the business cycle, increasing during recoveries and decreasing during slowdowns.

4.5 Retail prices

Retail prices excluding mortgage interest repayments (RPIX) rose by 2.8% in the twelve months to June, compared with 3.2% in May. The headline RPI inflation rate and RPIY annual inflation, which also excludes excise duties, were 3.7% and 2.0% respectively in June (see Chart 4.5). Annual RPIX inflation has ranged between 2.0% and 3.3% since the start of 1994.

Annual RPIX goods price inflation fell by 0.6 percentage points in June, to 2.0%, and remains below the annual rate of service price inflation of 3.1%. Service price inflation has been higher than goods price inflation since the first half of 1997. This is partly because goods have a higher import component than services, so an exchange rate appreciation lowers goods price inflation relative to service price inflation. But exchange rate behaviour alone does not explain why service price inflation exceeds goods price inflation—service price inflation has generally been higher for much of this decade. The differential is likely to reflect lower measured productivity growth in the services sector relative to manufacturing, though it is difficult to estimate productivity growth precisely.

Annual RPIX inflation in 1998 Q2, at 3.0%, included a temporary component from the timing of tax increases announced in the Budgets of July 1997 and March 1998. It was slightly higher than expected in the May Report central projection. The difference is likely to have reflected the erratic behaviour of seasonal food prices. RPIX inflation is likely to have fallen in July as the petrol duty increase twelve months previously dropped out of the calculation.

Domestic demand conditions play an important role alongside input costs as a determinant of retail prices. Retail goods prices have continued to rise, reflecting strong domestic demand, while retailers' weighted costs are estimated to have fallen in the year to 1998 Q1. The fall in weighted costs has mainly been due to lower bought-in goods prices, though unit labour costs have continued to rise. The MPC's central projection for inflation assumes that the pricing behaviour of retailers during the next two years will be influenced by the continued effects of sterling's appreciation on import

prices, and by domestically generated inflation. The extent of domestic inflationary pressures can be gauged by adjusting retail price inflation for the effects of lower import prices and changes in the terms of trade. The box on page 39 explores the concept and measures of domestically generated inflation in greater detail. These measures all suggest that, in 1998 Q1, domestically generated inflation was above 2.5% but falling. As the effects of sterling's appreciation unwind, actual inflation will increasingly reflect domestically generated inflationary pressures.

4.6 Other price indices

The UK Harmonised Index of Consumer Prices (HICP) rose by 1.7% in the twelve months to June (Table 4.B). The HICP inflation rate is the most directly comparable measure of inflation across the European Union—the average HICP inflation rate across the 15 Member States in the twelve months to May was 1.6%.⁽¹⁾ Within the European Union, the HICP inflation rates in France and Germany were 1.0% and 1.1% respectively. Broader-based measures of annual UK inflation that include measures of the owner-occupied costs of housing (HARP and THARP) were largely unchanged between April and June, but remain above their retail price inflation counterparts (RPIX and RPIY).

Conventionally measured inflation rates, for example RPIX, can be volatile in the face of shocks that cause relative prices to change. Trimmed mean measures attempt to tackle this problem by stripping out the effects of the most extreme changes from the overall distribution of price changes. Such measures of underlying inflation have fallen since the end of 1996 (see Table 4.B), and have remained largely unchanged during the first half of the year. This is consistent with the view that some of the rise in RPIX inflation during 1998 Q2 was caused by erratic factors such as seasonal food prices.

4.7 Summary

Import prices are continuing to adjust slowly to the appreciation of sterling. This, together with falling world commodity prices, has been reflected in lower input prices to the manufacturing sector. Evidence from surveys suggests that cost pressures in the service sector

Table 4.B
Other measures of annual inflation

Percentage increase in prices on a year earlier

	1996 Dec.	1997 Dec.	1998 Mar.	April	May	June
HICP (a)	n.a.	1.8	1.6	1.9	2.0	1.7
HARP (b)	3.8	2.8	2.9	3.3	3.3	3.2
THARP (b)	3.6	2.6	2.5	2.6	2.7	2.5
Trimmed mean (c)	2.8	2.3	2.3	2.4	2.4	2.2
Median (c)	2.3	2.2	2.0	1.9	2.0	1.8

Sources: ONS and Bank calculations.

- (a) Harmonised index for EU Member States. It differs from the RPI series in that it uses a geometric, rather than arithmetic, mean. It excludes owner-occupiers' housing and council tax, and includes new cars and airfares.
- (b) These measures, which contain a measure of owner-occupied costs, use the Halifax house price index. HARP and THARP would show higher inflation rates using either the Nationwide house price index or the estimate of house prices based on Land Registry data.
- (c) These measures provide a guide to underlying inflation by stripping out the most extreme changes in prices at both ends of the distribution.

(1) Harmonised measures of inflation are still being developed, so the average HICP inflation rate noted above is unlikely to be the final measure of inflation used for international comparisons across the European Union.

Domestically generated inflation

One way to think of inflation is as a weighted average of domestically generated inflation (DGI) and imported inflation. DGI is the inflation rate that would prevail in a closed economy, or in the absence of external shocks, such as large changes in commodity prices or the exchange rate. Actual inflation may be distorted by the effects of an external shock, but DGI will not. So after an external shock, DGI can help to suggest whether demand needs to slow to hit the inflation target. There is no easy way to measure DGI; this box outlines a number of methods.

The GDP deflator measures the price of value-added in the economy. It includes prices in the export sector that will be affected by external shocks. Stripping out export prices from the GDP deflator provides one measure of whole-economy DGI (see the chart).⁽¹⁾

The Government's inflation target is based on RPIX. So a better measure of DGI for monetary policy purposes would focus on RPIX inflation excluding external influences. One way to do this is to exclude the contribution of direct and indirect import prices from RPIX inflation. The Input-Output tables provide an estimate of the combined share of direct and indirect imports in consumption. This can be used to split RPIX inflation into a contribution from import prices and the remainder, which is a measure of DGI (see the chart).⁽²⁾ This method does not take account of competition between imports and UK goods and services.

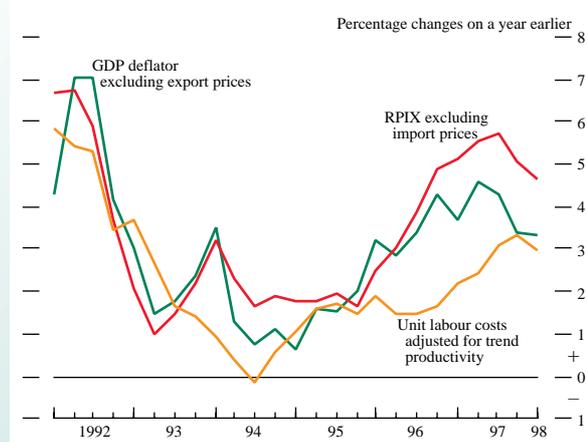
DGI is broadly an average of the growth of unit labour costs and unit profits.⁽³⁾ Profits derived from such a breakdown (using the RPIX-based measure of DGI) have risen quickly since sterling's appreciation in mid 1996. This may partly reflect 'sticky' retail prices. Retailers may have been reluctant to reflect import price falls fully in their prices, particularly if the import price changes are not expected to persist. So DGI measured by RPIX excluding import prices may be temporarily

overstating domestic inflationary pressures. Because of this, it may be better to focus only on unit labour costs.

For a given labour share of income, prices will grow in line with unit labour costs. So unit labour cost growth is another measure of DGI, though labour's share of income varies over the economic cycle. Labour cost data specific to goods and services within the RPIX basket should be used. Whole-economy earnings growth data may be representative within an integrated labour market. But wage-setting may be influenced by external shocks, because they affect the purchasing power of employees, and the ability of employers to pay higher wages.

The measure of DGI based on unit labour costs has another problem. Productivity will be affected by external shocks, and may differ across sectors. So it may be difficult to obtain unit labour costs relevant only to the domestic sector. One solution to this is to use unit labour costs based on trend, instead of actual, productivity. This is shown in the chart.

Measures of domestically generated inflation



In summary, it is useful to distinguish between domestic and external influences on inflation. DGI can be measured in a number of ways, but none is perfect. All of the measures outlined here suggest that, in 1998 Q1, DGI was above 2½% but falling.

(1) Gross export prices include a contribution from imported components. Because the GDP deflator already removes import prices, stripping out total export prices from the GDP deflator would in effect take out the contribution from import prices twice. So to obtain DGI, export prices excluding the contribution from import prices should be removed from the GDP deflator.

(2) In 1990, direct and indirect imports accounted for just over 20% of consumption. To estimate a time series of DGI requires an assumption of how this share varies over time. Total import content in consumption is assumed to vary with final imports as a share of consumption.

(3) The Input-Output tables show that labour costs accounted for 36% of the primary content of consumption in 1990, which implies that labour costs were 45% of DGI. The share is assumed to vary over time in line with movements in labour's share of GDP. The other 55% of DGI includes profits and taxes, but, for simplicity, taxes are ignored in this discussion.

remain strong. Retail price inflation in 1998 Q2 was higher than in 1998 Q1, mostly because of the timing of new taxes. This was anticipated in the *May Report*, but the final outturn marginally exceeded the May central projection, probably because of erratic seasonal food prices. Rising earnings have increased unit labour costs and have contributed towards a domestically generated inflation rate that is currently well above 2.5%. RPIX inflation is likely to have fallen in July as the petrol duty increase twelve months previously dropped out of the calculation.

This section summarises the economic news and the monetary policy decisions taken by the MPC since the *May Report*. The minutes of the May, June and July meetings are attached as an Annex to this *Report*. The Bank of England's official dealing rate—the repo rate—was raised in June from 7.25% to 7.5%.

At the time of the *May Report*, the central projection for RPIX inflation was slightly below the target, looking two years ahead, but rising towards the end of the forecast horizon. The balance of risks to inflation was thought to be on the upside. The sterling effective rate had fallen by around 2% a few days before the May meeting of the Committee. Taken in isolation and applied mechanically, the step down in the exchange rate would have been enough to raise the central projection slightly. The outlook for monetary policy remained finely balanced, and the Committee voted to leave rates unchanged.

At its meeting on 3–4 June, the Committee began by focusing on recent developments in the world economy. The outlook was for lower Japanese growth than expected at the time of the *May Report*. But there was continuing evidence of a recovery in the major continental European economies, while recent data for GDP growth in the United States had been revised upwards. Though a number of countries were facing financial and other economic difficulties, those countries were not directly very important for UK exports. The Committee concluded that the outlook for world growth as a whole might be marginally lower than a month earlier and that the downside risks to external demand had increased.

On domestic demand, the retail sales data for the three months to April had shown a significant slowdown to the lowest three-month growth rate (0.2%) since November 1995. But it was possible that the April figure had been depressed by unusually wet weather and the March figure might have been affected by the timing of Easter. In contrast, survey data had shown increasing consumer confidence. The provisional investment data for Q1 had been weaker than assumed in the *May Inflation Report* central projection, but this appeared to be accounted for by weaker-than-expected public sector

investment. GDP growth for Q1 had been revised up slightly to 0.5%, in line with the *May Inflation Report* projection.

The Committee noted that, having fallen to single figures from growth rates of 11%–12% in the summer of 1997, aggregate broad money growth had again risen above 10% in the twelve months to April. Other financial indicators were slightly weaker overall than envisaged at the time of the *May Inflation Report*, but neither they, nor the latest developments in the monetary data, were alone sufficient to alter the outlook for inflation appreciably.

At the time of the May meeting, the Committee had taken some comfort from the flat trend in earnings growth (see Table 5.A). The main news in the labour market data, released the week after the Committee's May meeting, had been a revision to January's 1998 headline figure and a significant rise to 4.9% in February. The Committee considered this news in relation to underlying trends in the labour market over the previous two years. Private sector earnings growth had been drifting up over that period to reach a headline rate of 5.6% that was disturbing in relation to the inflation target. Notwithstanding the problems of measuring and interpreting bonus payments, the earnings data suggested that it was more likely than not that unemployment was below the rate compatible with stable inflation.

The Committee discussed its immediate policy decision. Inflation was temporarily being restrained by the earlier appreciation of the exchange rate, falls in world commodity prices and the weakening of the Asian economies. But domestic demand had been growing significantly faster than trend and would need to slow down in order to keep inflation on target once the restraining effects of external factors wore off. The earnings data suggested that domestic inflationary pressures were stronger than previously thought and hence that the need for demand to slow down was more pressing. The Committee voted to raise the Bank's repo rate by 25 basis points to 7.5%.

At its meeting on 8–9 July, the Committee agreed that prospects for the Japanese economy had further deteriorated in the past month. Despite the strong 1998 Q1 GDP data in the United States, the Committee thought that a further rise in the US trade deficit seemed likely, which would restrain output growth. The recovery in continental Europe was continuing broadly

Table 5.A
Headline average earnings growth^(a)

Release date	1997		1998		
	Jan.	Jan.	Feb.	March	April
22 April	4.6	4.5			
13 May	4.6	4.6	4.9		
17 June	4.6	4.6	4.9	5.2	
15 July	4.6	4.6	5.0	5.3	5.4

(a) Percentage increase on a year earlier.

as expected, but recent data in Germany had been weaker than in France. There had been clear evidence of falling output in a number of Asian economies.

The Committee discussed the Chancellor's Economic and Fiscal Strategy Report (EFSR). The impact of the latest plans would be incorporated into the Committee's August *Inflation Report* projections.

There had been a small upward revision to the United Kingdom's 1998 Q1 domestic demand growth, offset by a small downward revision to net trade. The latest estimate suggested that investment growth in Q1 had been slightly stronger than assumed in the May forecast, but possibly for erratic reasons. Notwithstanding the revisions to the expenditure components of GDP, the overall pace of output growth had been broadly as expected at the time of the May *Inflation Report*.

Retail price inflation in May had turned out significantly higher than expected. One possible explanation was that strong earnings growth was feeding through to inflation, but this did not seem to explain all of the rise. A second explanation was that there was less pass-through from the exchange rate appreciation than had been expected. A third explanation was that the rise was due to erratic factors, which had no obvious implications for the medium-term inflation projection. So the significance of the higher-than-expected May retail prices figures for future inflation was not clear.

The Government had announced the details of the National Minimum Wage, and members and staff of the Low Pay Commission (LPC) had briefed the MPC on their report. The Committee agreed that it was important to assess the impact of the minimum wage together with an analysis of the other Government measures affecting the labour market.

Money growth had slowed in June, and the twelve-month rate of growth of M4 was now back below 10%. The sterling effective exchange rate had risen slightly since the June meeting, and in large part this could be accounted for by changes in market expectations of UK relative to overseas interest rates.

Despite the upward revision to GDP in 1998 Q1, the Committee was more confident that domestic demand was slowing. The slowdown appeared to be spreading to the service sector, although much of the evidence for this was so far dependent on surveys. The Committee voted to leave the Bank's repo rate unchanged.

At the time of the August MPC meeting, the first estimate of GDP growth in 1998 Q2 was for 0.5%, the same as in 1998 Q1. But weather-related factors distorted the figures. Survey data for activity, particularly for the manufacturing sector, were weakening.

Headline whole-economy average earnings growth increased to 5.4% in April and was revised upwards for March. LFS unemployment in the three months to May fell by 54,000 compared with the previous three months, about the same fall as in December-February. The rate fell from 6.4% to 6.3%. All measures of retail price inflation fell back sharply from their erratically high rates in May.

At its meeting on 5–6 August, the Committee decided to leave the repo rate unchanged at 7.5%.

6.1 The inflation projection assumptions

This *Report*, which the MPC approved on 7 August, contains the Committee's assessment of developments in inflation in the economy since May, and prospects for the medium term. Charts 6.1 and 6.2 below show projections for RPIX inflation and for GDP growth up to two years ahead, and the uncertainties surrounding them. The projections assume that official interest rates will remain unchanged at 7.5% during the next two years, and are conditional on the assumptions described below. Not every MPC member will agree with every assumption, but the fan charts represent the MPC's best collective judgment about the outlook for inflation and output.

The prospects for world output have deteriorated somewhat in aggregate since the *May Inflation Report*. The Japanese economy recorded its second consecutive quarterly fall in GDP in 1998 Q1, and the outlook is for lower growth there than at the time of the *May Report*. But the impact of this on the prospects for UK exports has been partly offset by stronger-than-expected US activity. Growth in the prospective euro area in 1998 Q1 was broadly as expected. Aggregate growth of below 2½% is likely in the major six overseas economies⁽¹⁾ in both 1998 and 1999. There is a risk not only that the Japanese economy could be more depressed than predicted, but that growth in the United States might be lower than reflected in the central projection. The MPC has therefore increased the downside risks to UK demand from lower world growth.

The sterling effective exchange rate index averaged 104.7 in the 15 working days up to and including 5 August, and this is the starting-point for the assumed exchange rate profile. It compares with an average of 106.2 at the time of the *May Report* (and an implied level of around 105.4 for August in the May projections), and a level of 103.9 on 6 August when the MPC met. The differential between the expected path of UK and overseas interest rates has widened since the *May Report*; this is consistent with the view that markets expect a steeper depreciation of sterling.

(1) Canada, France, Germany, Italy, Japan and the United States.

In judging the most likely path for sterling, conditional on unchanged UK nominal interest rates, the MPC has taken into account both interest rate differentials and risk considerations. In the central projection, the sterling ERI declines to 99.7 by the end of the forecast period. This implies bilateral sterling exchange rates, two years hence, of about \$1.61 and DM 2.78. In the MPC's view, a substantial fall in sterling is more likely than a substantial rise. So on average, the sterling ERI is expected to decline somewhat more steeply than in the central projection, and reaches a level of 96.4 in two years' time.

The MPC's August projections take account of the Chancellor's Economic and Fiscal Strategy Report (EFSR) and Comprehensive Spending Review, and the details of the National Minimum Wage. The EFSR confirmed the path of the fiscal deficit reductions outlined in the March Budget, such that the cumulative fall in public sector net borrowing is planned to be around 3½% of GDP between fiscal years 1996/97 and 1999/2000.⁽¹⁾ The MPC assumes that nominal public spending and effective tax rates will be consistent with the Government's policy documents. The Government's latest spending plans, though starting from a slightly lower level, imply higher current expenditure from fiscal year 1999/2000 onwards than in the illustrative assumptions contained in the March Budget. The Government also plans additional public investment expenditure. Higher revenue is assumed following the introduction of self-assessment. Taking spending and revenue together, the starting-point in the EFSR was a somewhat lower fiscal deficit in 1997/98 than thought at the time of the March Budget and the *May Inflation Report*. The higher Government expenditure does not begin to affect the profile for GDP until financial year 1999/2000, so there is little effect on inflation until towards the end of the forecast period. The central projection also makes some allowance for changes in the composition of current expenditure between the March Budget and the latest plans.

The details of the National Minimum Wage were announced in June, and its possible effects have been incorporated into the MPC's latest projections. The National Minimum Wage, which takes effect in April next year, is likely to have a small positive effect of about 0.4% on the price level over the forecast period, though its effect on measured inflation is spread out over the forecast period. That reflects both the direct and

(1) See Table 4.2 of the 1998 EFSR.

indirect effects of the policy feeding through to prices in the next two years, including effects via inflation expectations. But there is considerable uncertainty about the timing and magnitude of these effects. Since the minimum wage has been pre-announced, the effects on the price level might happen sooner than in the central case—and possibly with a smaller effect on inflation expectations—so that inflation might be lower at the end of two years than in the central projection. But there is also a risk of more wage differentials restoration than in the central case.

The effects of the minimum wage should be considered alongside the effects of other Government measures affecting the labour market. The MPC expects the introduction of the minimum wage to reduce employment, and to raise the natural rate of unemployment. But the New Deal measures targeted at specific groups, such as the long-term and young unemployed, should improve their employment prospects. The MPC expects the employment effect of these two measures to be relatively small, and offsetting. The Working Families Tax Credit (WFTC) will encourage some existing employees to increase hours worked, and others to enter the labour market. This should raise the participation rate, and so raise employment and output, putting some downward pressure on inflation. But it is unlikely that much of this effect will be felt within the two-year forecast period, given that the WFTC is to be introduced in late 1999.

6.2 The medium-term inflation projection

Output growth of 0.5% in the second quarter was a little stronger than envisaged in the central case of the May *Inflation Report* projection, largely because of the volatile energy component. The GDP figures, together with recent survey evidence, suggest that output growth slowed to around trend in the first half of the year, reflecting both a fall in net exports, and also a decline in the growth of final domestic demand.⁽¹⁾

The signs that domestic demand growth is slowing are clearer than at the time of the May *Report*. As to factors that influence demand, the MPC has assumed in the central projection that equity wealth will grow in line with nominal GDP over the forecast period. Despite the fall in equity prices since the May *Report*, past rises in

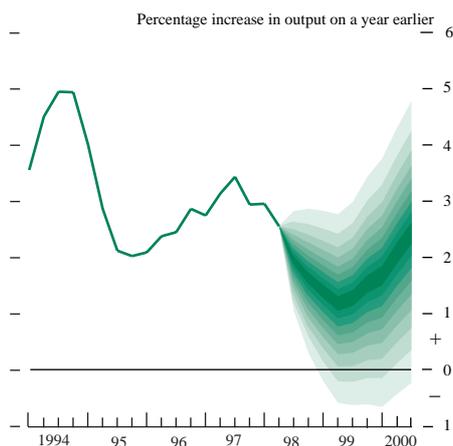
(1) The forthcoming changes to the National Accounts (see page 16) will mean that the MPC will face a new set of figures by the time of the November *Report*. But no estimates are currently available, so the projections make no allowance for this.

equity wealth will still support consumption growth for some time to come, though they will have less effect as the forecast period progresses. And notwithstanding higher unemployment, robust real labour income is likely to moderate the fall in consumption growth.

Revisions to the official investment figures prior to the *May Report* meant that the path for investment through 1996 and 1997 looked stronger, and therefore less puzzling, than previously thought. The MPC has reassessed the likely future profile for private investment in the light of recent news of weaker investment intentions and companies' cash flow. The MPC's judgment is that investment will be considerably weaker than projected three months ago, which materially affects the outlook for final demand.

Net exports fell sharply in the first quarter. The monthly trade data suggest a further fall in the second quarter, but possibly not quite as marked. The MPC's central projection is for further falls, as effects from Asia and the past appreciation of sterling continue to feed through. The prospect is for slightly lower growth in the major six overseas economies than projected in May. But the effect on UK net trade is more than offset by a lower profile for sterling and weaker domestic demand; the current account balance is nevertheless expected to move from a surplus of about $\frac{3}{4}\%$ of GDP in 1997 to a deficit of about $1\frac{3}{4}\%$ of GDP in 1998. On balance, the MPC thinks that the risks to net trade are on the downside.

Chart 6.1
Current GDP projection based on constant nominal interest rates



The fan chart depicting the probability distribution for output growth is rather like a contour map. At any given point during the forecast period, the depth of shading represents the height of the probability density function over a range of outcomes for output. The darkest band includes the central (single most likely) projection and covers 10% of the probability. Each successive pair of bands is drawn to cover a further 10% of the probability, until 90% of the probability distribution is covered. The bands widen as the time horizon is extended, indicating increasing uncertainty about outcomes.

The immediate prospect is for somewhat weaker GDP growth than previously thought, because some of the downside risks to output and demand identified in May appear to be materialising. Business and consumer survey data, which until recently suggested stronger activity than official data, have in the past month or so turned down—very sharply in manufacturing industry, but also to some degree in services. But the marked deterioration of sentiment makes the future paths of demand and output particularly uncertain. The central projection is for the four-quarter growth rate of output to continue slowing until early 1999, because of both weaker net trade and weaker domestic demand growth. Output growth then begins to rise, as the deterioration in net trade comes to an end and as government spending picks up (see Chart 6.1).⁽¹⁾

The key question for monetary policy continues to be whether the slowdown in aggregate demand already

(1) Also shown as Chart 1 in the Overview.

occurring will be sufficient to hold inflation at a level consistent with the inflation target, once the temporary restraining influence of the earlier appreciation of sterling wears off. Despite the slowdown of real activity, there has been adverse news about inflationary pressure since the *May Report*, particularly on earnings. Evidence on unemployment, vacancies, skill shortages and recruitment intentions had for some time suggested that the labour market was very tight. However, earnings did not accelerate sharply until this spring. In the longer run, the current annual headline rate of earnings growth of 5.4%, if maintained, would clearly be inconsistent with the inflation target. The possibility that productivity growth is being under-recorded in the manufacturing sector while correspondingly being over-recorded elsewhere does not alter this conclusion.

The fact that earnings growth has been significantly higher than expected at the time of the *May Report* perhaps suggests that unemployment is more clearly below its natural rate than was then thought. And the National Minimum Wage, which was not taken into account in the *May* projection, will come into effect in April 1999. So the immediate prospect is for higher earnings growth than projected in *May*. But in the medium term, there is likely to be a rise in unemployment, reflecting a period of below-trend output growth, that brings down earnings growth before the two-year forecast horizon.

There are clearly risks on both sides of the central case. The current natural rate of unemployment is highly uncertain. The apparent degree of labour market tightness, together with the recent sharp increase in earnings growth, poses the risk that earnings may accelerate more sharply than in the central projection. Moreover, there is a risk that average earnings growth in the public sector could rise towards the growth rate in the private sector. As to the risks on the downside for earnings, it may be significant that bonuses and performance-related pay appear to account for some of the recent acceleration of earnings. Insofar as bonuses reflect past performance and profits, their contribution might fall back, as real activity weakens in such a way that aggregate earnings growth is more benign for inflation than in the central projection. Moreover, past supply-side reforms may mean that the labour market is not as tight as the quantity indicators suggest. There is also considerable uncertainty about the consequences for inflation of the minimum wage, and the determinants of inflation expectations.

Broad money growth has fallen slightly since the *May Report*, and this easing seems broadly consistent with weaker real demand and output growth. Nonetheless, broad money growth (or velocity) needs to slow further if the nominal income projections are not to be exceeded. There remains a risk that past rapid money growth could presage faster rates of increase of earnings and prices than in the central case.

RPIX inflation rose sharply in both April and May, but fell in June. The rise in April was expected, and can be accounted for by the rise in fuel duties in the March Budget. The rise in May was largely unexpected, and can mostly be explained by erratic factors. The subsequent lower outturn for June was broadly consistent with the central projection in the *May Report*, so there was no overall implication for the medium-term inflation projection. RPIX inflation is likely to have fallen in July, as the petrol duty increase twelve months previously dropped out of the calculation.

The MPC's projection for the twelve-month RPIX inflation rate—assuming constant interest rates—is shown in Chart 6.2.⁽¹⁾ It is shown next to the May projection (see Chart 6.3). In the projection, the most likely path for RPIX inflation is for it to rise somewhat over the next year, but then to fall back so that, as in the *May Report*, inflation some two years ahead is close to the 2½% target. The rising profile over the next year reflects the trajectory for labour costs, which is higher than in the *May Report*. But the future path for earnings, and the consequences for the profile of retail price inflation, are both quite uncertain. As real activity weakens, price-cost margins may be expected to fall temporarily, but the likely timing and extent of that fall are hard to judge. The short-term outlook for retail price inflation is also heavily influenced by the timing and extent of further pass-through of the past exchange rate appreciation to retail prices. Thus a slightly greater sensitivity of price-cost margins to the slowdown in real activity, or a slightly faster import price pass-through, could significantly flatten the profile for RPIX inflation shown in the central projection.

The higher profile for inflation since the May projection reflects a number of factors. The higher-than-expected earnings figures led to a reassessment of the extent of current labour market pressures. The incorporation of the effects of the National Minimum Wage has a positive but small effect on projected inflation. The fiscal

(1) Also shown as Chart 2 in the Overview.

Chart 6.2
Current RPIX inflation projection based on constant nominal interest rates

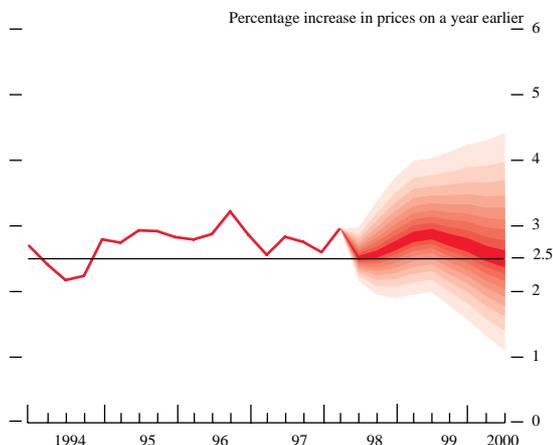
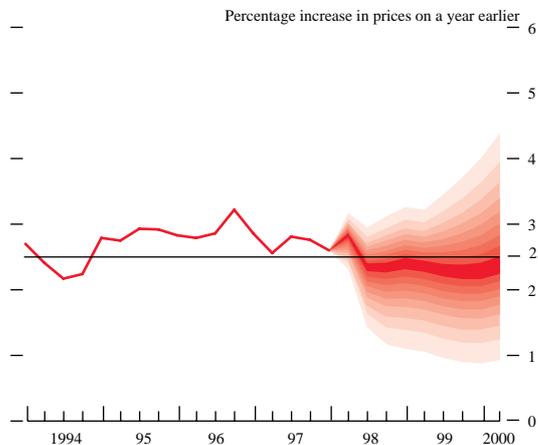


Chart 6.3
RPIX inflation projection in May based on constant nominal interest rates



The fan chart depicting the probability distribution for inflation is rather like a contour map. At any given point during the forecast period, the depth of shading represents the height of the probability density function over a range of outcomes for inflation. The darkest band includes the central (single most likely) projection and covers 10% of the probability. Each successive pair of bands is drawn to cover a further 10% of the probability, until 90% of the probability distribution is covered. The bands widen as the time horizon is extended, indicating increasing uncertainty about outcomes.

Chart 6.4
Current projection for the percentage increase in RPIX in the year to 2000 Q3

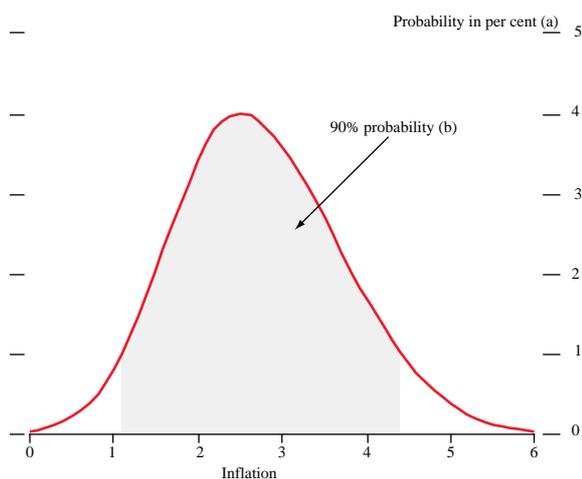
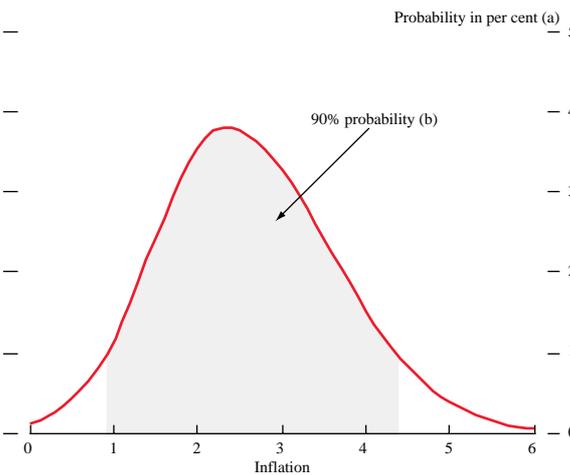


Chart 6.5
May projection for the percentage increase in RPIX in the year to 2000 Q2



Source: Bank of England.

- (a) Probability of inflation being within ± 0.05 percentage point of any given inflation rate, specified to one decimal place. For example, the probability of inflation being 2.5% (between 2.45% and 2.55%) in the current projection is around 4%.
- (b) The areas shaded light grey contain 90% of the probability, and are consistent with the widest bands shown in Charts 6.2 and 6.3. For further details see 'The Inflation Report projections: understanding the fan chart', February 1998 *Quarterly Bulletin*, pages 30–37.

Table 6.A
The MPC's expectations for RPIX inflation and GDP growth based on constant nominal interest rates^(a)

RPIX inflation		Range:			
Probability, per cent	less than	1.5% to	2.5% to	more than	
	1.5%	2.5%	3.5%	3.5%	
1998 Q4	0	37	60	3	
1999 Q4	2	26	50	22	
2000 Q3	10	33	35	22	

GDP growth		Range:					
Probability, per cent	less than	0%	1%	2%	3%	more than	
	0%	1%	2%	3%	4%	4%	
1998 Q4	2	20	48	27	3	0	
1999 Q4	12	24	32	23	8	1	
2000 Q3	7	13	22	26	20	12	

(a) These figures are from the same distributions as the GDP and inflation fan charts, Charts 6.1 and 6.2.

announcements since the *May Report* tend to raise output growth and inflation at the end of the forecast period. The profile and the starting-point for the effective exchange rate index imply higher inflation throughout the forecast period. But some factors have lowered the central projection since May. There was the rise in interest rates of 25 basis points in June. The immediate prospects for demand and output appear weaker, reflecting in particular a more depressed outlook for private investment. Furthermore, the prospects for world activity have weakened somewhat.

The balance of risks to output is on the downside. These risks, which reflect continuing concerns about the world economy and the speed of domestic demand moderation, on their own imply corresponding downside risks to inflation. The overall balance of risks to inflation is, however, on the upside, primarily reflecting the possibility of a more rapid fall in the exchange rate.

Charts 6.4 and 6.5 complement the fan charts by showing the overall balance of risks to inflation at the end of the forecast period. Table 6.A shows the MPC's assessment of the probabilities of various outturns for inflation and output.

The market expectation of the likely path of interest rates rose, following the increase in June and the publication of economic data later in the month. Nonetheless, the market expectation is that official interest rates will

Chart 6.6
Current RPIX inflation projection based on market interest rate expectations

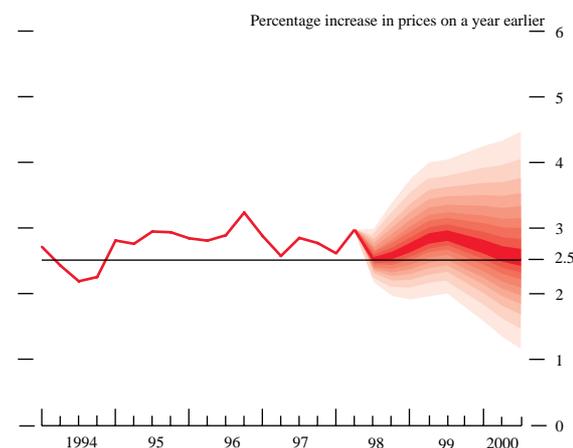


Chart 6.7
Current GDP projection based on market interest rate expectations

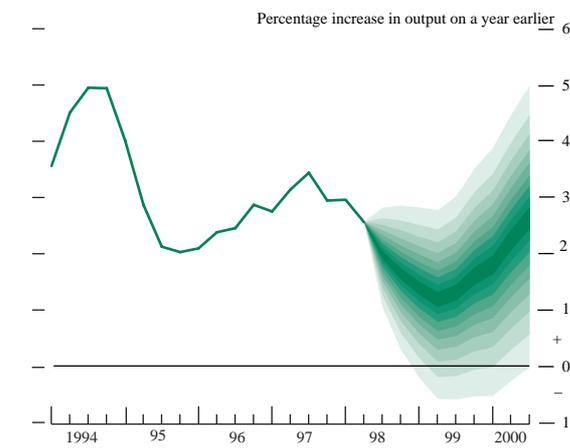
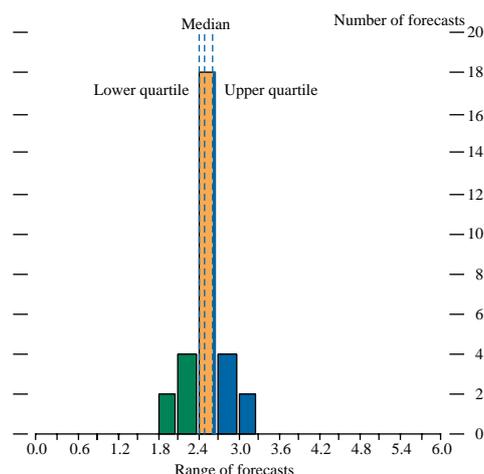


Chart 6.8
Distribution of RPIX inflation forecasts for 2000 Q3



Source: Forecasts of 30 outside forecasters as of 31 July 1998.

Table 6.B
Other forecasters' expectations of RPIX inflation and GDP growth^(a)

RPIX inflation						
Probability, per cent	Range:					
	less than 1.5%	1.5% to 2.5%	2.5% to 3.5%	3.5% to 4.5%	4.5% to 5.5%	more than 5.5%
1998 Q4	5	40	45	10		
1999 Q4	11	38	39	12		
2000 Q3 (b)	13	38	37	12		

GDP growth						
Probability, per cent	Range:					
	less than 0%	0% to 1%	1% to 2%	2% to 3%	3% to 4%	more than 4%
1998 Q4	6	23	50	17	4	1
1999 Q4	9	21	39	23	7	2
2000 Q3 (b)	6	13	29	35	13	4

(a) 32 other forecasters provided the Bank with their assessment of the likelihood, at three time horizons, of expected twelve-month RPIX inflation and four-quarter output growth falling in the ranges shown above. This table represents the means of the responses for each range. For example, on average, forecasters assign a probability of 13% to inflation turning out to be less than 1.5% in 2000 Q3. Rows may not sum to 100 because of rounding.

(b) 30 forecasters.

begin to decline by the end of 1998, falling to below 7% by end 1999 and 6½% by mid 2000. The MPC's projections for inflation and output growth under the assumption that official rates follow market expectations look broadly similar to those in the central projection (see Charts 6.6 and 6.7). That is because the path of interest rates does not diverge very far from the constant interest rate assumption until near the end of the two-year forecast period, with consequences for inflation that occur mostly beyond the end of the forecast period.

6.3 Other forecasts

Chart 6.8 shows the distribution of central forecasts for the twelve-month rate of RPIX inflation in 2000 Q3, based on information gathered from the 30 forecasters surveyed by the Bank. The median forecast was 2.5% in July, broadly the same as at the time of the April survey, and in line with the inflation target.

The forecasters surveyed by the Bank also provided their assessments of the probabilities that they attach to the various possible outcomes for inflation and growth (see Table 6.B). Overall, they assign a 49% probability to inflation being above the target in the third quarter of 2000, and a 51% probability to it being below. These estimates have changed slightly since the *May Report*, with more weight being placed on lower outcomes for inflation. The average projection for GDP growth in the year to 1998 Q4 is 1½%, rising to 1¾% in 1999 Q4. These estimates are both a quarter of a percentage point lower than in May.

The implications of the latest projections for the stance of monetary policy are discussed in the Overview at the beginning of the *Report*.

Glossary and other information

Glossary of selected terms

RPI inflation: inflation measured by the retail price index.

RPIX inflation: inflation measured by the RPI excluding mortgage interest payments.

RPIY inflation: inflation measured by the RPI excluding mortgage interest payments and the following indirect taxes: council tax, VAT, duties, car purchase tax and vehicle excise duty, insurance tax and airport tax.

HARP index: a price index that replaces the mortgage interest payments component of the RPI with a Bank estimate of the user-cost of housing.

THARP index: the HARP index excluding indirect taxes.

M0: notes and coin in circulation outside the Bank of England and bankers' operational deposits at the Bank.

M4: UK non-bank, non building society private sector's holdings of notes and coin, together with all sterling deposits (including certificates of deposit) held at UK banks and building societies by the non-bank, non building society private sector.

Divisia money: a measure of the money stock in which each component is weighted according to an estimate of its likely use for transactions.

ACT: Advance Corporation Tax.

BCC: British Chambers of Commerce.

BRC: British Retail Consortium.

CBI: Confederation of British Industry.

CIPS: Chartered Institute of Purchasing and Supply.

CSR: Comprehensive Spending Review.

DETR: Department of the Environment, Transport and the Regions.

ECB: European Central Bank.

EFSR: Economic and Fiscal Strategy Report.

EMU: Economic and Monetary Union.

ERI: exchange rate index.

ERM: Exchange Rate Mechanism.

ESA: European System of Accounts.

FT-SE: Financial Times Stock Exchange.

GfK: Gesellschaft Für Konsum, Great Britain Ltd.

ICCs: industrial and commercial companies.

IDBR: Inter-Departmental Business Register.

IMF: International Monetary Fund.

HICP: Harmonised Index of Consumer Prices.

LAPF: life assurance and pension funds.

LFS: Labour Force Survey.

MORI: Market Opinion Research International.

MPC: Monetary Policy Committee.

OFIs: other financial institutions.

ONS: Office for National Statistics.

OPEC: Organisation of Petroleum Exporting Countries.

PPI: Producer Price Index.

PPIY: Producer Price Index excluding excise duties.

PRP: Profit-related pay.

RICS: Royal Institute of Chartered Surveyors.

Three-month annualised: the percentage change in a series over three months, expressed as an annual rate.

Symbols and conventions

Except where otherwise stated, the source of the data used in charts and tables is the Office for National Statistics (ONS). The measures of inflation included in this *Report* have been adjusted by the Bank for an ONS error in under-recording RPI and RPIX inflation between February and May 1995.

n.a. = not available.

Because of rounding, the sum of the separate items may sometimes differ from the total shown.

On the horizontal axes of graphs, larger ticks denote the first observation within the relevant period, eg data for the first quarter of the year.

Other information

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This *Report* is available at: <http://www.bankofengland.co.uk/>

**Annex:
Minutes and Press Notices
of the monthly
Monetary Policy Committee
meetings**



Minutes of the Monetary Policy Committee meeting on 6–7 May 1998

1 The Committee discussed monetary developments, demand and output, and questions about the degree of labour market tightness before agreeing the May inflation forecast and turning to its immediate policy decision.

Monetary developments

2 The Committee noted the continuing signs of slowing monetary growth. The twelve-month growth rate of M4 had fallen below 10% in March, having been above 11% during the middle of 1997; and the 3 and 6 month annualised growth rates were in a 8%–9% range. Slower growth in the narrower aggregates—M0, retail M4, Divisia—and in personal sector M4 supported this picture and suggested that, in addition to a worsening external position, past increases in official interest rates were having an effect, both indirectly via slower demand growth and directly via the greater opportunity cost of holding zero or low interest-bearing deposit accounts rather than other financial assets.

3 However, after slowing during 1997, there had recently been little change in aggregate credit growth. Annual growth in total credit to households had been steady at around 7% for over a year. While it was possible that mortgage lending had edged down, unsecured credit had if anything accelerated in recent months. Bank and building society lending to industrial and commercial companies (ICCs) had risen sharply in the first quarter. Arguably this was consistent with the past pattern of ICCs increasing borrowing following a monetary tightening. It could also be consistent with businesses in externally exposed sectors of the economy needing to make greater use of credit lines to finance working capital. But it was too early to judge whether this was the explanation or whether, alternatively, steady credit growth was a sign of continuing strength in those parts of the economy which were relatively sheltered from the effects of sterling's appreciation and still growing at close to or above trend rates.

4 Overall, the Committee felt that the money numbers were broadly consistent with some slowing of demand and activity but that this was less evident in the recent credit data.

GDP growth

5 The Committee noted that the Office of National Statistics' (ONS's) first estimate of GDP growth in Q1—0.4%, 0.5% excluding oil and gas—was lower than expected. The level of GDP was, on these estimates, about ½% below the central projection in the February *Inflation Report*.

6 Annual growth of total GDP had peaked in Q3 1997 at 3.4%, with a fall since then to 2.8% by Q1 1998; quarterly growth rates had peaked in Q2 1997. Backward-looking survey data were, however, stronger than the ONS figures. When surveys had been stronger than official estimates in the past, the tendency had been for the official data to be revised up to close part of the gap. If this pattern were repeated, the official activity data for 1997 and the first part of 1998 could be revised up. It seemed likely, however, that any such revisions would leave intact the growth profile, with the turning point in mid-1997.

7 The sectoral picture varied. Growth in the energy supply industries had been depressed by the unusually mild winter, so that underlying activity growth might not have weakened as much as suggested by the headline numbers.

8 Manufacturing was clearly slowing, and quite possibly facing recession, due to the impact of sterling's appreciation on

external demand and on overseas competition in home markets. By contrast, construction seemed recently to have been buoyant, particularly on the basis of survey data and anecdotal reports from the Bank's regional Agents and other industry contacts. It was, moreover, widely expected to remain so through 1999, supported by Millennium-related projects.

9 Recent developments and prospects in the services sector were agreed to be less clear. On the one hand, the ONS first estimate of Q1 growth was 0.8%, down from 1.2% in Q4 1997; and the service sector trade surplus had fallen. On the other hand, the first estimate was not based on all the hard data that would eventually become available; and the Chartered Institute of Purchasing and Supply (CIPS) services survey suggested an increase in the growth rate in Q1 compared with Q4, although not all services were covered by CIPS. On balance it was likely that the services sector was slowing, but that its growth rate remained above trend.

Domestic demand

10 Domestic demand had grown in a 3½%–4% range for most of last year and the available data on net trade and GDP implied little if any slowdown in Q1. Domestic demand was likely to have been driven by consumption, consistent with Q1 growth of 0.9% in retail sales, which was modestly slower than through 1997 but nevertheless left the annual rate at 5%. The Bank's February forecast had not, however, expected a material slowdown in consumption growth during Q1.

11 Looking ahead, there were opposing forces. While house price inflation was relatively modest compared with past cyclical upturns, the cumulative rise in equity prices had taken the ratio of financial wealth-to-income to its highest ever level. This was likely to support continuing robust consumption growth. But consumption demand should gradually be moderated by the past tightening of monetary and fiscal policy; and annual growth rates should fall as the effects of the initial concentration of spending out of building society windfalls in 1997 unwound. The CBI distributive Trades Survey already suggested slowing retail sales growth, taking account of the month-to-month fluctuations reflecting the timing of Easter.

Net trade

12 It was clear that net exports had been weakening quite sharply, with an estimated negative contribution to Q1 GDP growth of around ½%. Data for 1997 had been progressively revised, bringing them more into line with what surveys had been saying at the time and with the Bank's earlier expectations.

13 Puzzles remained, however, about both composition and causes. The relative resilience of net exports to EU countries was difficult to understand given that sterling's appreciation had been so much greater against those currencies. The Bank's Agents suggested that this might reflect UK exporters attaching strategic importance to retaining their position in European markets, even when profitability was low. There had been a striking fall in exports to crisis-affected Asian countries since the autumn, but this was only a modest part of total overseas trade.

14 A particularly important question, which the Committee had discussed on earlier occasions, was whether net exports were being depressed by weakening external demand or by continuing strong domestic demand drawing in imports, which could be a sign of latent inflationary pressures. The latest surveys and data offered

some comfort that it was, at least in part, the former. That suggested that the effects of sterling's appreciation were slower to come through than originally expected rather than the cumulative effect being materially smaller, although some members thought that this could still not be ruled out.

15 The Committee discussed the implications of the sharp turnaround it expected in the current account, almost 3% of GDP from mid-97 to end-98. Given the forecast that the Government's finances would be close to balance, the private sector would be expected to accumulate external debt. It started with a stronger balance sheet and thus was in a better position to do so than in some previous cycles. However there might also be a larger depreciation of sterling than in the May *Inflation Report* central projection, which assumed that sterling would fall gradually in line with implied interest rate differentials. A greater depreciation was, as in February, included in the forecast as a risk.

The labour market

16 LFS unemployment had fallen to 6.4% in February from 6.5% in January. This and most other data suggested that labour market conditions were still getting tighter. One piece of contrary evidence was a recorded fall in hours worked in December-February compared with the previous three months, but this was difficult to interpret because there had been a similar fall last year which had been followed by an increase. It was, however, clear that the pace of tightening had slowed quite markedly. Surveys suggested that skill shortages were more widespread than the long-run average, but less so than during the late 1980s' upturn.

17 The Committee discussed how best to interpret the fall in long-term unemployment. One possibility was that current and earlier structural reforms were increasing the employability of the long-run employed, which would be helping to relieve labour market pressures. It might also be signalling a very tight market, with short-term employment having fallen as far as it could, forcing firms to recruit from the long-term unemployed. Another possibility was that a higher than usual proportion of the short-run unemployed might be finding jobs in conditions of continuing strong demand and activity growth, rather than becoming long-term unemployed. It was too early to tell which of these was the main explanation.

18 Headline average earnings growth had remained at 4.5% in February. Settlements, including the latest data covering the beginning of April, did not show signs of picking up further and had been steady since the autumn. These outturns were better than feared by some a quarter ago and much better than would have been expected given the fall in unemployment and rise in employment over the past year.

19 It was possible that this meant the trade-off between unemployment and earnings growth had improved, either via continuing labour market reforms bringing down the natural rate of unemployment, or via a fall in inflation expectations reducing nominal earnings growth, or a combination of the two. It was also possible, moreover, that the forecast slowdown in output and aggregate demand growth in 1998 and 1999 would moderate wage claims and earnings growth. On a benign view, therefore, it was possible that the period of greatest risk had already passed without earnings growth rising above the rate consistent with the inflation target and trend productivity growth.

20 The Committee agreed, however, that it would not be prudent to conclude this yet. First, there was a sharp contrast between private and public sector earnings growth. The former had risen at an annual rate of over 5% in the latest period, whereas public sector earnings were reported as having grown at 2½%. There were some doubts about whether the public sector figures were accurate as it was not clear in which parts of the public sector earnings growth had been below 2½%. The ratio of

public-to-private sector earnings had for some years been trending downwards and becoming less volatile. This might be consistent with labour market reforms, contracting out and retirement from the public sector of older, higher paid workers, but it was not clear how much further this process had to go or whether the pattern of the past few years was merely cyclical. Some members of the Committee thought it more likely than not that the differential would close somewhat, and that this would come about mostly via a rise in public sector earnings growth. In that case, the 5% plus growth of private sector earnings was a better indicator of labour market tightness than the headline rate of 4.5%.

21 Secondly, it was possible that the lags from a tightening labour market to rising earnings growth were longer than had been expected. This would be plausible because the moderating effect of sterling's appreciation on retail price rises had improved workers' real wages (assessed in terms of their purchasing power over consumption goods). In that case, wage claims might have been lower than otherwise. If this was part of the explanation, the effect was unlikely to be sustainable. If, as expected, sterling stopped appreciating, and *a fortiori* if it fell back, wage claims might increase.

Commodity prices

22 The Committee noted that the short-run effects on inflation from commodity price changes remained very benign. Sterling oil prices had risen slightly over the latest month but remained nearly 25% lower than a year earlier. The Bank's sterling commodity index was 14% down over the same period including oil, and 9.5% excluding oil. Manufacturing output prices (excluding excise duties) were flat since February and only 0.2% higher than a year ago.

23 Together with the effect of sterling's appreciation, these developments had made a material contribution to lower inflation over the past twelve months, offsetting higher domestically generated inflation. It could not be assumed that this would continue into the period ahead, although external price developments were expected to remain benign, partly because of the sharp fall in Asian demand for commodities and manufactured goods. However, this would partly be offset in the period ahead by the expected depreciation of sterling.

Government finances

24 The Committee noted that the 1997/98 PSBR, ignoring the effect of windfall taxes and associated spending, was £3¼ billion, around £1¾ billion less than forecast in the March Budget.

25 It remained unclear, however, to what extent this reflected an increase in the tax base through higher than so far measured activity, and to what extent it was caused by a higher tax yield and so an effective fiscal tightening.

The May inflation forecast

26 The Committee reviewed and agreed the inflation forecast to be published in the *Inflation Report* on Wednesday 13 May.

27 The main changes to the central projection since the February forecast were fourfold. First, the level of GDP was about half a percentage point lower throughout the forecast period. This reflected a lower starting point due to the -0.2% revision to the estimated Q4 1997 level and to lower than expected estimated growth in Q1; and weaker net trade and investment growth than assumed in February. This meant that forecast pressures on capacity, and so on inflation, were less than expected in February.

28 Secondly, inflation expectations, which fed into nominal earnings growth, were forecast to be slightly lower than in

February. This was in line with the recent evidence that most measures of inflation expectations had been edging down.

29 Third, February's forecast had used the broad non-employment rate as the measure of labour market tightness in the central projection, but added an upwards skew to earnings growth by using the LFS measure of unemployment in assessing the risks. The Committee decided that the LFS measure should be used in the central projection rather than in the skew. The May central projection therefore assumed a tighter labour market at the starting point and a further rise in earnings growth. The change added to inflationary pressure in the central projection, but reduced the upward skew.

30 Finally, the May forecast was based on a higher starting point for the sterling exchange rate than in February. This reflected the Committee's practice of using the 15-day average of the sterling ERI as the starting point; it had risen from 104 to 106.2 since February.

31 The Committee decided not to make any assumptions about the proposed minimum wage. It needed to know the precise terms and then consider the minimum wage alongside the Government's other labour market reforms before it could reach an assessment of the implications for inflation and identify any consequent implications for policy. There was agreement, however, that the minimum wage by itself was likely to put upward pressure on inflation.

32 The Committee noted that the first three changes to the assumptions identified above were broadly offsetting at the 2-year horizon, so that the change in the exchange rate starting point was crucial in accounting for the slight fall in the central projection since February. Sterling had, though, been falling in recent days, principally against other EU currencies, and was now close to the level used in the February forecast. This seemed to reflect the market's reaction to EU decisions about the ECB President and Executive Board. There was a range of views about whether these latest developments would mark a turning point for sterling, triggered by reduced uncertainty about EMU. The Committee agreed that the recent movements in the exchange rate underlined its earlier view, discussed at previous meetings, that policy conclusions could not be read off the forecast in a mechanical way.

33 The Committee discussed the risks to the forecast. In the short run, the net risks to inflation were on the downside, mainly through the possibility of weaker world growth than assumed, and the risk of a significant fall in equity prices, reducing wealth and so consumption growth. Towards the end of the forecast horizon, the net risks to inflation were thought to be on the upside, largely because of the possibility of sterling depreciating more quickly than implied by interest rate differentials. The Committee agreed that the inflation outturn would be affected not only by whether asset prices did depart from the paths assumed in the central projection, but also by whether they did so gradually or suddenly and, if suddenly, whether early or late in the forecast period. The Committee agreed that policy should not respond to the risk of sharp asset price movements. They would need to assess the implications for the inflation outlook if and when any such changes occurred.

The immediate policy decision

34 There was broad agreement that the news since February—the lower than expected level of current output, the clear evidence of a decline in net trade, still robust domestic demand growth, the stability of earnings growth, the slight fall in inflation expectations, signs of slowing broad money growth—were reflected in the May forecast.

35 On one view, the inflation outlook over the forecast period—out to around two years—had improved since February and, on the

May forecast, there was no longer a pressing case for an immediate rise in interest rates. The outlook was nevertheless uncomfortable. On this view, with the benefit of some hindsight, monetary policy should have been tighter during 1997 and into 1998 (although, on another view, fiscal policy should perhaps have been set more directly to reduce consumption growth). As a consequence domestically generated inflation remained high, with inflation projected to be in line, or a little below, the target over the forecast period only by virtue of the beneficial effects of sterling's appreciation and falling world commodity prices. Given the strength of domestic demand it was likely that a further slowdown in the internationally exposed sectors was now needed to achieve the inflation target on the exchange rate profile assumed in the central projection; and economy-wide unemployment would probably have to rise to hit the target on a sustainable basis. Monetary policy was in effect boxed in and would not be able to respond to any future positive shocks to inflation by accommodating their first-round effects.

36 On this first view, while interest rates did not need to increase immediately, it was still more likely than not that they would have to go up in due course (although the probability of this had fallen somewhat). This was for four reasons. First, on the assumptions in the central projection, inflation was set to rise towards and beyond the two-year horizon as domestic demand was not projected to moderate sufficiently to offset the wearing off of the beneficial but temporary external influences. Second, the risks to inflation were clearly on the upside at the end of the two-year horizon, largely because sterling might fall more rapidly than assumed on the central projection. Third, in the run up to the Committee's meeting, sterling had fallen materially below the starting point assumed in the forecast. Fourth, the forecast did not take into account the planned minimum wage; while it would be a mistake for policy to do so before its terms were clear, the implication of the minimum wage was that future policy would need to be tighter than otherwise. For those reasons, it was important that a no-change decision should not lead the market to conclude that official rates had peaked. The Overview section of the *Inflation Report* should be drafted with this in mind.

37 On a second view there had not been much news over the past month materially to change the implications for policy. Net trade had clearly been weakening, and consumption in the first quarter had been broadly in line with earlier expectations, with a few signs—for example in the money numbers—that it may moderate, as it certainly needed to. The labour market remained delicately poised; the last few months' data had offered some encouragement but pressures clearly remained and it was therefore right that the effects on prospective inflation of using the LFS measure had been moved to the central projection. While the external influences might have taken current and prospective inflation below the inflation target had overall policy been tighter in 1996–97, the Committee should not conclude that it should raise interest rates now to compensate. Its job was to set policy to achieve the 2½% target; on the latest forecast, it was broadly on track to do so over the coming 2 years. Looking further ahead, the key to the outlook for inflation and policy would be the path of domestic demand. If it did not slow by more than was currently expected a further policy tightening might be needed at some point, but it was not necessary to take a firm view on that now. The outlook over the forecast horizon was sufficiently benign to give the Committee time to collect more information about developments without endangering the inflation target over the period that current policy settings could materially affect. It would in particular be a mistake to anticipate possible but highly uncertain future moves in asset markets. On this view also, while not raising rates this month, it was important that the Committee should not signal that rates had peaked.

38 A third view emphasised a need for policy to react now to the possible sources of inflationary pressure towards and through the end of the two-year forecast horizon. Four considerations were

emphasised. First, it was possible that equity prices would rise faster than assumed in the central projection, putting upward pressure on consumption and investment. Second, sterling's recent fall meant both that its starting point was lower than assumed in the central projection and also that its depreciation might be steeper as, with uncertainty about EMU reducing, it was more likely that a turning point for sterling had been reached. Third, the minimum wage was expected to put upward pressure on inflation and there was not enough leeway in the outlook for there to be no policy response at all until its terms were known. Fourth, inflation was set to be rising into the third year even on the central projection's assumptions. On these arguments the safer stance was for policy to be tightened by a further 25 basis points immediately.

39 A fourth view stressed the gathering evidence that the economy, including parts of the services sector, was now clearly slowing. On the new central projection, inflation was forecast to be below the target for virtually all of the forecast period. This was consistent with a soft landing—the desired rebalancing of external and domestic demand in the economy as it returned to trend growth. Yet with official interest rates at their current level, the yield curve remained steeply inverted and the real short-term interest rate was probably over 4%. Policy was therefore tighter than was necessary at this stage of the cycle. While there were upside risks to inflation, there were also downside risks both to output and to inflation, including the possibility that inflation expectations could moderate further as the economy slowed and the headline rate came down in the summer, which could help to contain wage pressures. The

upside implications of the minimum wage would need to be assessed with the downside effects of the Government's New Deal. Until that was done it was hard to justify a presumption either way. On these arguments, there was a case for reducing rates now, by 25 basis points, to begin the process of moving policy back to a more neutral stance, consistent with meeting the inflation target.

40 The Governor invited members of the Committee to vote on the proposition that the Bank's repo rate be left unchanged this month. Six members of the Committee (the Governor, David Clementi, Alan Budd, Charles Goodhart, Mervyn King and Ian Plenderleith) voted for the proposition, and two (Willem Buiters and DeAnne Julius) voted against. Willem Buiters preferred an immediate rise in interest rates and DeAnne Julius an immediate cut.

41 The following members of the Committee were present:

Eddie George (Governor)
David Clementi (Deputy Governor)
Alan Budd
Willem Buiters
Charles Goodhart
DeAnne Julius
Mervyn King
Ian Plenderleith

42 Terry Burns was also present as the Treasury representative.

Annex: Summary of data presented by Bank staff

1 This Annex summarises the analysis presented by Bank staff to the Monetary Policy Committee on 1 May 1998, in advance of its meeting. At the start of the Committee meeting itself, members were made aware of information that had subsequently become available, and that information is included in the Annex.

I Monetary conditions

2 The annual growth rate of notes and coin had slowed to 6.5% in April after adjusting for the effects of the introduction of the new 50p coin, which was still adding 0.1 percentage points to the twelve-month growth rate.

3 The growth of other ‘narrow’ measures of money was also slower in March. The £1.1 billion inflow into retail M4 deposits had been the smallest monthly flow since April 1997, and the twelve-month growth rate had fallen to 6.5% from 7.0% in February. However, the March inflow might have been distorted by two factors. First, February had ended at a weekend, so end-February direct debit payments would have been held over to be paid in March; second, retail inflows to unit trusts had been very strong in the wake of Budget announcements about the future of personal equity plans (PEPs).

4 Divisia money growth had also fallen sharply. Growth in the four quarters to Q1 was 8.5%, down from 10.8% in Q4. The fall in one-quarter-annualised rates was sharper, coming down from 11.5% to 3.6%. The fall had largely been accounted for by the personal sector, where the four-quarter growth rate was 6.6%, down from 9.4% in Q4, while the one-quarter-annualised growth rate had fallen to 0.8%. This partly reflected a move out of non-interest-bearing deposits in 1998 Q1.

5 Aggregate M4 growth had slowed in March, but annual growth rates from December to February had been revised up by an average of 0.3 percentage points in each month. The twelve-month growth rate had fallen below 10% in March, to 9.8%, and the six-month and three-month annualised growth rates were slightly lower than this.

6 Personal sector M4 growth had weakened in Q1, with the twelve-month growth rate falling from 8.3% to 6.3%. This was the first quarter since 1996 Q4 not to have been affected by windfall-related flows, and self-assessment tax receipts had been some £5 billion higher than in 1997 Q1. In addition, the figure would have been affected by large flows into PEPs at the end of the quarter.

7 ICCs’ M4 deposits rose sharply in March; the one-month growth rate had been 3.0%. The rise in Q1, at 2.4%, was the largest since 1996 Q2. Much of the March inflow had been into sight deposits, and in Q1 as a whole there was a large rise in deposits placed by the legal, accountancy and consultancy sub-sector.

8 OFIs’ annual M4 growth was 21.8% in Q1, down from 26.1% in Q4. The six-month annualised rate, which was not distorted by the strong rise in repo transactions in 1997 Q1, was still above 20%.

9 M4 lending had risen 0.3% on the previous month and by 8.4% on a year earlier, compared with 1.2% and 8.9% respectively in February.

10 Lending to individuals had remained steady at 7.5% in March. There had been further signs of a modest slowdown in secured lending, in line with some indicators of activity and prices

in the housing market. Although mortgage approvals were rising strongly in volume and value terms, this could be consistent with a rise in remortgaging activity, of which there was some evidence in figures released by the Council of Mortgage Lenders and estimates by Bank staff. Growth in total unsecured lending to individuals had continued to rise strongly, with the twelve-month growth rate rising to 16.6% in March; credit card lending—around 20% of the stock of unsecured credit—had been growing particularly strongly at 23.5%.

11 Lending to ICCs had fallen by 0.1% in March. Growth in Q1, however, had risen to 2.3% from 0.6% in Q4, reflecting the strength in January and February. The twelve-month growth rate had risen from 3.2% to 5.6%. ICCs’ total external finance, including sterling and foreign currency capital issues, had also been strong in Q1.

12 The counterparts to M4 were affected by the PSBR having been overfunded by around £8½ billion in 1997/98. Assuming no behavioural offsets, the overfunding would have reduced M4 growth by 1.2 percentage points in the year to March 1998. HMG had announced that the overfinancing of the CGBR would be carried forward into 1998/99, reducing the size of planned gilt issuance. Again assuming no behavioural effects, this could result in a net boost to M4 growth in 1998/99.

13 Turning to financial price developments, unsecured lending rates had fallen slightly along with those on secured fixed-rate loans, continuing the trend of 1997. In the money markets, there had been little net change in April in expected three-month interbank rates implied by short sterling futures.

14 Short-term inflation expectations, as measured by the survey of professional forecasters carried out by Consensus Economics, had changed very little since the start of the year, with the April survey showing RPIX inflation expected to average 2.7% and 2.8% in 1998 and 1999 respectively.

15 The six-monthly Consensus survey of forecasts of average inflation between 5 and 10 years ahead showed a fall of 10 basis points to 2.6% between October 1997 and April. This compared with a 28 basis point fall in the measure derived from the gilt-edged market over the same period.

16 Since October 1996, the Consensus survey of long-term inflation expectations in a number of other major industrialised countries had also fallen. This had accompanied an even greater fall in long-term nominal forward interest rates. Estimates of long maturity real rates, constructed from wholesale market nominal rates and the Consensus inflation surveys, had fallen materially over the past year. This was consistent with the fall in yields on long-maturity index-linked bonds. In some cases—for example, in the United Kingdom and Italy—a fall in the survey-based measures of real yields might be partly attributable to a fall in the inflation risk premium, given institutional changes or planned changes in monetary arrangements. Current and prospective fiscal consolidation across a number of countries was also a plausible explanation for a common fall in long-term real rates. This could have implications for underlying shorter-maturity real interest rates in due course.

17 The sterling ERI had fallen by 0.8% since the last *Inflation Report*, while the broader measure, incorporating 49 currencies, had fallen by 0.6%. The forward path of the ERI implied by uncovered interest parity had fallen since the April MPC meeting, but remained above the profile incorporated in the February *Inflation Report*. UK and overseas forward interest rates had

broadly moved together during April, implying that there was little net monetary news during the month. The cumulative relative monetary news since the *Inflation Report* implied a small depreciation.

II Demand and output

18 GDP had provisionally been estimated to have grown by 0.4% in 1998 Q1—the lowest quarterly rate of growth since 1995 Q2, and slightly weaker than that embodied in the February *Inflation Report* forecast. Although a detailed breakdown had not yet been released, the news appeared to have been concentrated in the service sector growth rate, which had fallen to 0.8% from the 1.2% recorded in the final quarter of 1997. There had not been any indication from a variety of surveys of a significant slowdown in the pace of service sector activity. There had been an acceleration in activity in 1998 Q1 compared with 1997 Q4, according to the (CIPS) service sector survey, the (CBI) Financial Services survey, and the Chartered Institute of Marketing survey. However, there had been a slight moderation in non-manufacturing turnover, according to the 3i survey. And the BCC survey had shown a marked weakening in service sector export orders. The BCC survey had also reported a slight rise in service sector capacity utilisation in 1998 Q1, though it remained lower than a year earlier.

19 Service sector growth had contributed 0.5 percentage points to GDP growth in 1998 Q1. That implied a net contraction in other sectors of the economy. The Office for National Statistics had indicated that manufacturing output growth had been flat in 1998 Q1, but further falls in energy output had led to another quarterly decline in overall industrial production. The April CBI Quarterly Industrial Trends Survey had shown a fall in the balance of manufacturers reporting a rise in output during the previous four months, principally due to a further weakening in export orders. The April CIPS survey had shown a similar split between domestic and external demand, with export orders falling further while domestic production, particularly of consumer goods, had remained buoyant. Construction output was expected to have made a positive contribution to GDP growth in 1998 Q1.

20 The total UK trade deficit in goods had widened sharply in February to £2.2 billion, compared with £1.1 billion in January. The widening of the trade deficit had largely reflected lower export growth to countries outside the European Union (EU), probably partly due to lower demand from East Asia. But at least half of the total deterioration in the trade deficit had been due to oil and erratics. The services surplus had also fallen in the first two months of 1998, in line with survey evidence of weakening service sector export growth. There had been a small bounceback in goods export volume growth in the three months to February, and despite strong monthly growth in February, import volume growth was almost flat compared with the previous three months. Nonetheless, net trade in goods and services might have contributed around -0.5 percentage points to real GDP growth in 1998 Q1. The slowdown in import volume growth from non-EU countries was probably affected by erratic swings in the December and January data. However, the weakness of growth in import volumes from the EU (-2.0% in the three months to February compared with the previous three months) was more surprising. There was still no clear evidence of a deterioration in the UK trade balance with the EU, despite sterling's greater trade-weighted appreciation against those currencies and the relatively high UK domestic demand growth. The UK balance of trade in goods with the EU had been stable since 1992. Quarterly UK trade volume growth with the EU had been quite volatile, but the underlying trend in growth had been fairly stable. In contrast, growth in the value of UK trade with the EU had been declining since the beginning of 1995. International data broadly supported the picture of flat trade trends evident in the UK data. For example, the share of EU countries' exports to, and imports from the United Kingdom, had remained fairly constant since 1994. And US data showed that the trade balance with the EU excluding the UK had also remained stable.

21 Explanations for the stability of UK trade patterns with the EU depended on expectations about the persistence of the relative strengths of sterling and UK domestic demand. In addition, the robustness of EU trade might have been reflecting strategic decisions taken by UK-based firms committed to the European market. A further possibility was that there had been a shift in European preferences towards UK goods, perhaps reflecting an improvement in their non-price competitiveness. However, the difficulty of establishing bilateral trade balances was highlighted by the size and change in the discrepancy in IMF estimates of the whole-world trade deficit.

22 The Bank's Agents had undertaken a survey of contacts involved in external trade. It had found little evidence to support the view that there had been a marked difference in the behaviour of trade flows to and from the EU and the rest of the world, during the past year. But, there was some evidence that UK-based firms were more likely to reduce prices in order to maintain market share in European markets than in more peripheral markets in the rest of the world. A number of contacts had reported that rising domestic demand growth in major continental economies was also a factor in sustaining demand for UK goods.

23 UK domestic demand and, in particular consumption, growth was likely to have remained robust in 1998 Q1. Retail sales volumes had risen by 0.9%. Private car registrations and sales of commercial vehicles had both been very strong in the first quarter, boosting consumption and investment levels respectively. The GfK and Mori survey measures of consumer confidence had both risen in April.

24 Demand for housing had also remained strong, alongside falling annual house price inflation. The gap between the Nationwide and Halifax indices had narrowed slightly in March; and both showed moderating annual inflation. A regional split had shown that the divergence between the two measures was still concentrated in the north of England and Scotland. The RICS survey had been flat in March, and the downward trend had continued. Particulars delivered rose in March, but activity remained weak compared with the previous three months. There had been a strong rise in gross lending secured on housing, but a fall in net lending, indicating a rise in re-mortgaging activity. However, loan approvals for house purchases had also risen sharply in March, leaving the index 31% higher than a year ago.

25 The cumulative PSBR for 1997/1998 was £0.9 billion, £1.7 billion lower than the March Budget forecast, and £7.6 billion lower than the November Green Budget forecast. The undershoot had reflected both lower central government spending and higher-than-expected tax receipts.

26 Survey evidence on investment intentions had been mixed. The BCC survey had shown that manufacturing investment intentions had held up. But the balance of manufacturers expecting to increase investment was the most negative since October 1992 according to the CBI. Service sector investment intentions had remained buoyant, according to the BCC survey.

27 The latest OECD and IMF forecasts had shown that growth in France, Italy and the United States was expected to be stronger than had previously been the case, but Japanese growth prospects had been revised down again. However, these forecasts had been made before the announcement of the Japanese Supplementary Budget on 24 April. The financial package was equivalent to 3.3% of nominal GDP. The extent to which the measures announced by the Japanese government would boost demand would depend on consumers' responses to the tax cuts announced, and the knock-on boost to private sector activity of the public works programmes. The latest data had shown that industrial production continued to rise strongly in the EU3 (France, Germany, Italy). In the case of Germany, rising manufacturing output growth was yet to feed through into higher domestic demand. This was despite a rise in

consumer confidence to its highest level in ten years. The first-quarter advance estimate for US GDP growth had shown growth of 1.0% on the previous quarter, with domestic demand contributing around 1.6 percentage points to growth, and net trade detracting around 0.6 percentage points.

III Labour market

28 Indicators of labour demand suggested that the pace of growth had slowed, although the evidence remained uneven. Labour Force Survey (LFS) employment rose by 41,000 (0.2%) in the three months to February 1998. This was slower than growth in the three months to November 1997 (107,000) and than the average growth per quarter in the twelve months to February (88,000). All of the net new jobs were full-time. The Workforce in Employment series had changed to Workforce Jobs, which adds in an estimate of self-employed second jobs. The new measure of employment implied that the number of jobs was higher by around 250,000 as a result, with a commensurate downward revision in the level of measured productivity per job, reflecting a fall in the number of self-employed second jobs in 1997 Q4. The growth in Workforce Jobs was revised down from 150,000 to 121,000. Workforce Jobs were growing faster than employment measured by the LFS, although the surveys only had one month of overlap, which made comparison difficult.

29 LFS total hours worked had (surprisingly) fallen by 0.7% in the three months to February 1998. That may have partly reflected lower overtime and hours worked in the energy sector, due to the unusually mild winter. And hours worked fell unexpectedly during the same months in the previous year, but were followed by strong growth in the subsequent three months. This could indicate that seasonal adjustment of hours worked is particularly difficult during the winter months.

30 The CIPS report on services suggested that service sector employment rose strongly again in April. Although the rate of increase slowed slightly, CIPS reported that employment growth was constrained by continued skill shortages and difficulties in replacing staff. Manufacturing employment fell for the second consecutive month in April, reflecting rationalisation and weaker demand in that sector. Recruitment intentions in the service sector remained buoyant, according to the BCC survey that looked ahead to the second quarter of 1998. That supported previous evidence from the Manpower survey. But clear signs of weakening were apparent in manufacturing, from both the CBI and BCC surveys.

31 LFS unemployment fell by 52,000 in the three months to February, to 6.4%. That was smaller than the 129,000 fall in the three months to November and less than the average quarterly fall in the twelve months to February (80,000). So the pace of decline in LFS unemployment had fallen. The entire fall was due to fewer people unemployed for more than twelve months, which may be consistent with tightness in the labour market. Inactivity of people aged over 16 rose by 50,000 during the latest three months. Claimant unemployment fell by 6,400 in March, still at 4.9%. That was the smallest monthly fall for two years. And claimant unemployment fell by only 27,000 in 1998 Q1, compared with 76,000 in 1997 Q4.

32 Vacancies rose by 3,000 in March. The trend in recent months suggested that vacancies had stopped increasing, but this had been distorted by adjustments to allow for the over-count of vacancies. The best estimate of the underlying trend showed vacancies continuing to rise. Notifications of new vacancies increased by 1,600 to 224,000. This was a similar rate to the level observed in 1997 H2, in contrast with the slowdown in the increase in unemployment during this period.

33 Some analysis was presented on the usefulness of the ratio of vacancies to unemployment as a measure of labour market tightness. This ratio was higher using the latest data than during the

1980s boom, using both the claimant count and LFS measures of unemployment. But the ratio of vacancies to unemployment may rise without signifying a tightening in the labour market, if matching vacancies and the unemployed becomes easier. Empirical evidence suggested that structural improvements in the labour market had increased the ratio, reducing the value of the indicator as a measure of labour market tightness. But this measure is based on the standard model which assumes that all of the unemployed can match with all of the vacant jobs. In practice, this may not be the case if the newly unemployed can search for the available vacancies quite quickly and fill vacancies that have been viewed and rejected by the existing unemployed workers. Newly created vacancies may be filled by any unemployed workers. New measures of tightness based on these ideas implied that the labour market was not as tight as the simple vacancies to unemployment ratio suggested, but they appeared to be less affected by structural improvements in the labour market. On balance, the indicators suggested that the labour market was as tight as during the 1980s boom.

34 Other indicators suggest a different picture. Skill shortages in the manufacturing sector were lower than during the 1980s boom, according to the CBI. The balance edged up from +14 to +15 in March. But the balance of firms constrained by a shortage of unskilled labour fell from +5 to +2, though recruitment difficulties were as high as the late 1980s level, according to the BCC survey. Reported difficulties may be peaking in the manufacturing sector, but strong demand in the service sector had led to a further rise in the rate in the past three months.

35 Headline underlying earnings growth remained at 4.5% in January, although growth in the service sector rose to 4.8% from 4.6% in December. Growth in the manufacturing sector remained at 4.6%, while production sector growth continued at 4.2% because of the weak contribution from utilities and mining. The more volatile monthly twelve-month growth rate for the whole economy increased from 4.3% to 4.8% in February. Headline private sector earnings growth, published for the first time this month, rose to the highest level since August 1992 (5.2%). Earnings growth remained high in the financial intermediation sector, though this was probably distorted by high bonuses. This contrasted with subdued growth in the public sector, unchanged at 2.4%. The seasonally unadjusted twelve-month growth rate in education, health and social work was only 1.3% in February. Productivity growth per workforce job in the year to 1997 Q4 was revised up to 1.5%, from 1.3%. This caused a downward revision in unit wage costs, which were up by 3.6% in 1997 Q4.

36 There was relatively little change in the Bank's measures of wage settlements, which had stabilised at around $\frac{1}{2}$ - $\frac{3}{4}$ percentage point higher than a year ago. The three-month employment-weighted median remained unchanged at 3.6% in March, and the mean was 4%. There were tentative signs that some manufacturing firms were achieving lower settlements, but these were insufficient to affect the aggregate measures.

IV Prices

37 Commodity and manufacturers' input prices continued to fall in March. The Bank's commodity price index fell by 1.3% during the month. This mainly reflected the sharp fall in the oil price. Commodity prices excluding oil fell by 0.1% during the month. Metal prices were flat, having fallen in each month since September last year. The annual rate of deflation in commodity prices in the first quarter of 1998—at 13.7%—was the largest ever recorded by the Bank's series (which began in 1986). The fall in the oil price had also contributed to a 1% fall in manufacturers' input prices in March, keeping the annual rate of deflation at around 10%. The price of some imported material prices had also fallen (textiles, rubber, pulp), reflecting both sterling's appreciation and the situation in East Asia. The CIPS report on manufacturing suggested a further fall in input prices in April.

38 The oil price had risen slightly in April, following agreements by OPEC and non-OPEC producers to cut output levels. But there appeared to be little upward pressure on the spot price, as supply remained high relative to demand. The price level was around \$6 per barrel below its level in mid October 1997. The significance of this fall for the economy as a whole was thought likely to be relatively small compared with previous oil shocks. This reflected a number of factors. First, there had been a sustained fall in the oil intensity of total production since the 1970s. Second, the real oil price (deflated by consumer price inflation) was historically low, and the recent fall in the real price had been relatively small. And third, although the United Kingdom is a net exporter of oil, net exports had declined considerably from their peak in the mid 1980s. Some direct effects of the lower oil price on retail petrol prices had been evident since the autumn of 1997. But the total direct impact on retail price inflation is likely to be small.

39 Manufacturing output price inflation had remained subdued in March. Excluding changes in excise duties, output prices were unchanged on the month, rising by 0.2% during the year to March. Higher petrol duties announced in the Budget increased total output prices to 1% above their level a year earlier. The CBI Industrial Trends Survey had recorded its lowest-ever balance for reported prices in the April survey; and the balance for price expectations had remained negative (-5, seasonally adjusted). Indications from the latest CIPS report on services suggested that cost pressures facing service sector firms had continued to rise in April, mainly owing to rising wage and salary costs: the seasonally adjusted balance was 58.9 in April, compared with 58.2 in March. Average prices charged by respondents had also risen again, though the balance had fallen from 52.5 to 51.7 (seasonally adjusted). So fewer firms had reported higher prices than higher costs.

40 Non-oil export prices were unchanged in February, while import prices had fallen by 0.3% (seasonally adjusted), leaving annual rates of change at -3.4% and -3.7% respectively. The terms of trade for goods (non-oil) had changed little since the beginning of 1997, and the overall change since the start of sterling's appreciation was small by historical standards. Bank estimates of manufacturers' margins on export sales had continued to be lower in 1998 Q1 than a year earlier, reflecting the fall in export prices. And margins on domestic sales were also lower, as rising unit labour costs had more than offset falling material costs.

41 Annual RPIX inflation was unchanged in March at 2.6%. Services price inflation had risen by 0.1 percentage points to 2.9%; goods price inflation was unchanged at 2.0%. Annual RPIX inflation averaged 2.6% in 1998 Q1, as projected in the February *Inflation Report*, compared with 2.8% in 1997 Q4. Services price inflation had fallen by 0.1 percentage points to 2.9% in 1998 Q1, in part owing to lower foreign holiday prices. And goods price inflation had fallen by 0.3 percentage points to 1.9%. The record price discounting in January had not been fully unwound in February and March, consistent with a further impact on retail prices from sterling's appreciation, alongside slower sales growth than in 1997. There was also some evidence of an impact from the East Asian situation: leisure goods prices, particularly for audio-visual goods, had fallen sharply during the first quarter. On the basis of national measures of inflation, UK RPIX inflation remained above inflation in the main EU3 economies (France, Germany, Italy). But on an EU-harmonised basis, UK inflation at 1.6% in March was around the EU average rate (data up to February).

42 Annual RPIX inflation was likely to rise sharply in April, to around 2.9%, as the increase in petrol duties announced in the March Budget fed through. This upward effect was likely to be reversed in July, as last year's increase in duties drops out of the twelve-month rate. Consequently, RPIY inflation would probably provide a better guide to the trend in inflation in the coming months.

V Financial markets

Foreign exchange

43 Sterling had fallen back a little against the Deutsche Mark during April, but was largely unchanged against the dollar. UK news had little immediate effect on the market, the most significant being earnings figures released on 21 April, which coincided with a fall in sterling. A few days earlier sterling had failed to break through 1.70 against the dollar, and this triggered a sell-off on technical grounds.

44 The German ERI was flat during the month, reflecting the stability of the Deutsche Mark against fellow euro-candidate currencies, which have large weights within the German ERI. But the Deutsche Mark appreciated against both sterling and the dollar. This reflected a more positive view on German activity, supported by stronger-than-expected M3 figures on April 21, and a feeling that uncertainty about the euro might soon diminish. A negative skew in expectations about future £/DM rates suggested that the market sees potential for a significant move down in sterling against the Deutsche Mark if technical support levels are broken.

45 The yen had remained weak, despite temporary gains following intervention by the Bank of Japan just before Easter. Details of the Japanese fiscal package on 24 April had failed to strengthen the yen, and \$/Yen continued to trade at around 133.

Bond and money markets

46 In the United Kingdom short-term interest rate expectations had eased since the last MPC, in contrast with the United States. The UK market was stable during the month, responding more to speculation about monetary policy than to economic news, which was seen as largely in line with expectations or benign. There was now little market expectation of an immediate rise in the repo rate, and the market expected a fall later in the year. Options on three-month contracts showed that since the last MPC, the market has reduced its probability of UK rates staying the same. German three-month options reveal a significant upward skew, possibly because of uncertainty about the path of the upturn in European economic performance and about the likely rate the ECB will set (a consequence of the current diversity of short rates across the eleven expected members of EMU). Expectations about future US three-month rates are more symmetric.

47 There was some steepening in the UK yield curve during April. The three-year spot rate fell by 5 basis points, while the ten-year spot rate rose by 12 basis points. Ten-year spot rates had risen by more in most international markets, reducing the UK differential over other markets. The one exception was Japan, where the fall in rates may have reflected disappointment at the fiscal package, and legal changes making Japanese government bonds more attractive to life companies.

Equity markets

48 In April, the Dow Jones had risen, while there had been a fall in Japanese and European indices (the FT-SE 100 was down by 0.7% since the last MPC announcement). Volatility in equity markets had increased in April, although it remained below the levels seen in November. Weakness in equity markets had not resulted in a 'flight to quality': bond yields had risen as equity markets had fallen, and the reverse had happened as equities recovered. The negative skewness in the FT-SE probability density functions had increased recently, reflecting a greater probability attached to a sharp fall.

49 In the United Kingdom, moves in the sub-index covering the shares of financial institutions could account for a disproportionate share of the moves in the All-Share index since the start of the year. Up to 14 April, the All-Share index had risen by 18%, while the Financials index had risen by 25%; since then, the All-Share had

fallen by 0.8%, coinciding with a fall in the Financials index of 6.2%. One explanation for the rises in the first quarter of 1998 could be a number of overseas merger announcements affecting the financial sector. Indeed, price rises for UK bank shares, relative to the overall market, were closely linked to the merger announcements. There had been no news relating to earnings' forecasts that could explain these rises. Instead the fluctuations in UK Financials appeared to reflect changing views about the likelihood that UK banks will be involved in future merger activity. If true, this explanation suggests the need for caution in inferring changes in market beliefs about the general economic environment from such moves in the All-Share index.

Minutes of the Monetary Policy Committee meeting on 3–4 June 1998

1 At the start of the meeting on 4th June, the Committee formally acknowledged receipt of a letter from the Chancellor (attached as an Annex) setting out the inflation target at which the Committee should aim in accordance with Section 12 of the Bank of England Act 1998.

2 Before considering the implications of the latest data for its immediate policy decision, the Committee discussed the external environment and the exchange rate; evidence on the pace of growth in domestic demand and activity; asset prices and monetary developments; and indicators of price and cost pressures, particularly in the labour market.

The world economy and the exchange rate

3 The Committee examined recent developments in the world economy. For the UK's major export markets, there appeared to be little evidence to change the central projection of external demand embodied in the *May Inflation Report*. The outlook for Japan had probably deteriorated further but there was continuing evidence of a recovery in the major continental European economies, while recent data for GDP growth in the United States had been revised upwards. While a number of countries in the world were facing financial and other economic difficulties those countries, even in aggregate, were not directly very important for UK exports.

4 Macroeconomic conditions in Japan remained adverse, but there were signs that difficult policy and reform decisions were being addressed. The situation elsewhere in Asia also remained unsettled, particularly in Indonesia. There had been a growing recognition that the necessary structural reforms in Asian countries would take a long time to implement and have the desired effects, but the immediate situation was not obviously deteriorating.

5 The situation in Russia was discussed. The pressures on the Rouble appeared mostly to have reflected domestic concerns, in particular the difficulty of raising government revenue, rather than contagion from other countries. The Russian economy was relatively small (around 2% of world GDP) and relatively closed. In 1996, only 1.1% of EU exports and 0.6% of UK exports went to Russia. Nevertheless it was possible that adverse developments in Russia could have knock-on effects elsewhere in the world. The main consequences for Western Europe would probably come indirectly via those East European countries with a large share of exports going to Russia: the Baltic States, Belarus and the Ukraine were the most exposed.

6 Taking these developments together the Committee concluded that the outlook for the world economy as a whole might be marginally worse than a month earlier and the downside risks to external demand had increased. These risks were reflected in some of the scenario analysis in the newly published OECD Economic Outlook. The most significant risk was of a more widespread financial and exchange rate crisis, but that could not be anticipated; policy would need to react if and when such a crisis were to occur.

7 In conjunction with external developments, the Committee considered movements in the sterling exchange rate. The effective rate had fallen by around 2% a few days before the May meeting of the Committee and had since fallen slightly further. It stood at 103.6 at close of business on the first day of the June meeting compared with 104.4 on the first day of the May meeting. The sustained lower rate had implications for the central projection of inflation published in the *May Inflation Report*, which had been based on a starting rate of 106.2: the 15-day average prior to the Committee's May meeting. Taken in isolation and applied

mechanically, the step down in the exchange rate would be enough to raise the central projection back to around the level published in the February *Inflation Report*.

8 The external trade data for the first quarter of 1998 had shown the largest deficit since 1990, making a contribution of -0.6 percentage points to GDP growth, a negative contribution for the third successive quarter. In aggregate this was in line with the May central projection, but the geographical composition remained puzzling. It was not clear why net exports to the EU countries remained stronger than net exports to the non-EU countries. It was also somewhat surprising that import growth had been weak in the first quarter, given the apparent strength of both final demand and stockbuilding. However, the breakdown of imports by commodity suggested that growth in imports of consumption goods remained strong. Since a considerable proportion of other imports were subsequently embodied in exports, it was possible that weaker imports in part simply reflected weaker exports.

9 Taking the world economy and the exchange rate together, one view was that the net change in the external environment compared with the *May Inflation Report* assumptions was adverse for UK inflation, with the effects of the sustained lower exchange rate more than offsetting developments in the world economy, although the downside risks to world demand had increased. An alternative view placed more emphasis on the deterioration of the external environment, and noted that the magnitude of the exchange rate depreciation since the latest *Inflation Report* was commensurate with the magnitude of the exchange rate appreciation in the month following previous *Inflation Reports*.

The pace of domestic demand and output growth

10 The *May Inflation Report* had projected strong demand growth in the first quarter of the year, with a slowdown in subsequent quarters. Domestic demand growth had subsequently been estimated at 1.5% in the first quarter, but this included a large contribution from stockbuilding. Excluding stockbuilding, final domestic demand growth had been estimated at 0.8% in the first quarter, (and growth of 4.0% since 1997 Q1) and was in line with the May central projection. Within the expenditure total, consumption growth of 1.0% had been marginally stronger than expected and investment growth of 1.3% had been weaker.

11 As yet there were few data to confirm or contradict the Committee's projection that demand growth would slow in the second quarter. The retail sales data for the three months to April did show a significant slowdown: to the slowest three-month growth rate (0.2%) since November 1995. However, it was possible that the April figure had been depressed by unusually wet weather and the March figure might have been affected by the timing of Easter. The Confederation of British Industry (CBI) Distributive Trades survey for May confirmed a weakening over the previous three months, but both the reported and expected balances had picked up slightly since a low point in March and were now at similar levels to August and September 1997. The reports of the Bank's regional Agents had been mixed, but with a majority indicating some weakening in sales growth. In contrast, survey data showed increasing consumer confidence, with consumers indicating strongly that this remained a good time to make a major purchase.

12 Other indicators of personal sector demand were also mixed. The Halifax and Nationwide measures of house price inflation were still divergent (5.0% and 11.9% respectively in the twelve months

to May), although both showed signs of moderating. The Department of the Environment, Transport and the Regions (DETR) produced a quarterly series which estimated house price inflation of 9.1% in the year to Q1. The DETR figure seemed consistent with earlier Bank estimates based on Land Registry data, showing an inflation rate roughly midway between the Halifax and Nationwide estimates. Some activity measures of the housing market were slowing but net mortgage lending had risen in April. The rate of consumer credit growth remained high and personal sector money growth was still robust.

13 Given the mixed data, there was no clear confirmation yet as to whether personal sector demand growth was slowing as the Committee had projected, although the data could be interpreted as being broadly consistent with that projection.

14 The investment data for Q1 were weaker than assumed in the May *Inflation Report* central projection, but this appeared to be accounted for by weaker-than-expected public sector investment (government consumption had been stronger than expected). Evidence from the Bank's regional Agents suggested that strong borrowing figures for Industrial and Commercial Companies reflected a variety of reasons including some need for working capital and continuing strong investment programmes, with little evidence of borrowing because of financial distress. However, in the agricultural sector, the Agents' inquiries about borrowing confirmed output and income data in showing severe difficulties.

15 In April, the public sector debt repayment had again been larger than generally expected, reflecting both higher revenues and lower outlays. Some of this was simply a timing effect but it now appeared more likely that self-assessment of income tax had generated a higher level of tax receipts which would carry forward. It seemed possible that the strong tax receipts in the 1997/98 financial year would cause the Office for National Statistics (ONS) to revise upwards the level of income for that period.

16 GDP growth for Q1 had been revised up slightly to 0.5%, in line with the May *Inflation Report* projection. The official data suggested that manufacturing output remained weak, with a small fall in the level of output in Q1. Looking backwards, staff estimates based on survey data suggested that the true level of manufacturing output could be higher than officially recorded. It was unclear what implications this would have for inflation without knowing what had happened to trend growth, but it would help explain the unusual weakness in recorded manufacturing productivity growth, and the high rate of increase in manufacturing unit labour costs.

17 Looking ahead, surveys of manufacturing output continued to show a deterioration in output and orders, with the CBI survey much more pessimistic than the Chartered Institute of Purchasing and Supply (CIPS) survey. The former showed a declining total orders balance (down to -17 in May) whereas the latter showed new orders close to flat (an index level of 49.0, just below the neutral 50 level). The Bank's regional Agents reported a broadly flat level of manufacturing output overall.

Monetary developments and asset prices

18 The Committee noted that, having fallen from growth rates of 11%–12% in the summer of 1997, aggregate broad money growth had since remained stubbornly robust, growing at a rate of 10.2% in the twelve months to April. Retail and personal sector M4 growth had both increased on a twelve-month basis but three- and six-month annualised rates were showing slower growth.

19 Credit growth was stronger, largely on account of a rising rate of ICCs' borrowing. In contrast, narrow money growth was weakening slightly, perhaps in line with weaker retail sales growth.

20 The already inverted yield curve had steepened further; its level and shape contrasted sharply with that of other countries. For some time, markets had been expecting domestic interest rates to fall over the next two years, but the timing of the expected fall was being pushed slowly further out, most recently in response to the earnings data.

21 The FT-SE 100 index of equity prices had fallen slightly during May, although the FT-SE 250 index had continued to rise. Movements in the FT-SE 100 were likely to have been influenced by international factors, given that multi-national companies were some of the largest in the index.

22 These financial indicators were slightly weaker overall than envisaged in the May *Inflation Report*, but neither they, nor the latest developments in the monetary data, were sufficient in the Committee's view to alter the outlook for inflation.

Prices and earnings

23 Price indicators for commodities, imports, manufacturing inputs and outputs all continued to show remarkably benign conditions for retail goods price inflation. And Bank estimates of retail margins in the first quarter of 1998 had fallen back to their 10-year average. These downwards pressures on retail price inflation had been offset by rising service sector price inflation, perhaps reflecting strong domestically generated inflation. This was most clearly seen in the stable level of RPIY inflation (the Retail Prices Index excluding mortgage interest payments and indirect taxes).

24 The labour market data released the week after the Committee's May meeting had confirmed that unemployment was still falling, but at a slower rate than in 1997. The main news had been a significant rise in headline earnings growth in the three months centred on February to an aggregate figure of 4.9% higher than the same period a year earlier (from an upwardly revised 4.6% in the three months centred on January). Surprisingly, the rise was bigger in manufacturing (to 5.3%, from a revised 4.7%) than in services (to 5% from 4.8%). Actual earnings growth in the twelve months to March was even stronger: 6.1% in manufacturing and 5.4% in services. The strength was almost entirely in the private sector for which the headline rate reached 5.6% in the three months centred on February (6.5% in the twelve months to March). A potential pick-up in earnings growth had been signalled previously by some industrial contacts; on one view it was surprising that it had not happened sooner.

25 The Committee considered the impact and implications of bonus payments on the latest earnings data. The ONS had produced estimates of the impact of bonuses based on a survey question about whether bonuses, performance-related or profit-related pay had been a significant element of the total pay bill that month. There was no direct evidence on the size of bonuses paid by all firms. The ONS had confirmed that there might also be an upward bias induced by the box-ticking survey procedure on the size of the effect. Despite these doubts about the magnitude, it was clear that there was an upward effect on average earnings growth which was likely to boost the headline rate for at least another two months before dropping out of the calculation. After that point earnings growth was likely to fall back. But it was misleading to focus on earnings growth excluding bonuses. Bonus payments might be backward looking, reflecting earlier profits, but on the other hand they could be an indication of a tightening labour market. Total wage drift—the difference between earnings and settlements—did not seem historically high.

26 Not wishing to place too much weight on the latest numbers, the Committee considered the underlying trend in the labour market over the previous two years. Private sector earnings growth had been drifting up over that period to reach a rate that was disturbing

in relation to the inflation target. Notwithstanding the problems of measuring and interpreting bonus payments, the earnings data suggested that it was more likely that unemployment was below the rate compatible with stable inflation. In that case, it was probable that unemployment would have to rise to hit the inflation target on a sustainable basis.

27 The prospects for a significant fall-back in earnings growth were not particularly encouraging: the rise in inflation on the headline Retail Prices Index to 4% pa—reflecting higher taxes and last year's interest rate increases—could have the effect of increasing pay demands and possibly settlements. And the low rate of public sector earnings growth was not considered to be especially comforting, as it was unlikely to be sustainable indefinitely if the labour market remained tight.

28 The Government had not yet announced its decision on the rates and coverage of the National Minimum Wage. The Committee would consider the minimum wage in due course, in conjunction with the Government's other policies on the New Deal.

The immediate policy decision

29 The Committee discussed its immediate policy decision in the context of the balance between external and domestic pressures on inflation. On the one hand, output and prices were both being depressed by the earlier appreciation of the exchange rate, falls in world commodity prices and the weakening of the Asian economies. The restraining effects of these influences on inflation were expected to be temporary—prices, exports and imports would eventually adjust to new levels. On the other hand, domestic demand had been growing significantly faster than trend and would need to slow down if the inflation target was to be achieved. The issue was whether domestic demand would slow sufficiently quickly to bring down domestically generated inflation before the temporary restraining effects of external pressures on inflation wore off.

30 Committee members agreed that the demand and output indicators for recent months showed the economy to be broadly on track with the May *Inflation Report* central projection. A range of views was discussed as to whether domestic demand might be slowing slightly more than expected or slightly less: the data were not convincing in either direction.

31 Committee members agreed that although the latest news did not obviously warrant a change to the assumption for growth in UK export markets made in the May central projection, the downside risks to the world economy had become greater since the May meeting. The most significant risk, though with a low probability attached, was of a more widespread financial crisis. As it had discussed at previous meetings, the Committee agreed that policy should not anticipate such a development.

32 One view was that the increased downside risks to inflation from the external environment were more than offset by the fact that the exchange rate fall had been sustained so that, other things being equal, the central projection for inflation published in the May *Inflation Report* was too low. An alternative view was that the exchange rate movement since last month should not be assumed to be permanent and, in any case, was unlikely to dominate the effects from weakening world demand, especially given the long lags in price effects from the exchange rate.

33 Members agreed that the recent earnings data heightened concern about inflationary pressures in the labour market. The trend in earnings over the previous two years had been clearly

upwards and the latest release had to be interpreted in the context of a cumulative tightening of the labour market. The earnings data showed that domestic inflationary pressures were stronger than previously thought and so the need for domestic demand growth to slow down became more pressing.

34 On one view it was necessary for interest rates to rise in order to bring this about and to curb rising domestically generated inflationary pressures. The data over the past month meant that it would be imprudent to delay and that rates should therefore rise immediately. The question was raised as to whether a quarter point rise in rates would prove sufficient, particularly if the spike in headline RPI inflation fed through to earnings growth. But no member of the Committee wished to press that case this month.

35 On another view, although the earnings data were worrying, they did not outweigh the other evidence on the domestic economy: sharply falling orders for manufacturing output, slowing retail sales growth, falling import volumes, rising inventories and a more steeply inverted yield curve. And to the extent that the recent earnings data reflected bonuses stemming from earlier profits growth, they were a misleading signal of current and future inflationary pressure. Quantity measures of the labour market suggested that it was no longer tightening. The peak of the economic growth cycle was now six months past and the international environment was fragile. Yet real short-term interest rates remained high and the yield curve signalled a tight monetary stance. On this view, a modest cut in interest rates towards a more neutral stance was still the prudent and appropriate move consistent with achievement of the inflation target.

36 The Committee discussed the possible market impact of an immediate change in rates, given that markets and commentators generally appeared to be expecting no further rise in rates and indeed, a gradual decline over the next two years. It seemed likely that the markets would raise their expected short-run path of official rates. It was judged unlikely that a 25 basis point move would, in itself, have a major impact on the equity market. It was possible that there would be an exchange rate reaction, but the upward pressure on sterling appeared to have moderated recently. Some Committee members felt that raising rates against such a background ran fewer risks than in previous months of exacerbating the imbalances in the economy.

37 The Governor invited members of the Committee to vote on the proposition that the Bank's repo rate be increased by 25 basis points, the change to be announced immediately. Eight Committee members (The Governor, Mervyn King, David Clementi, Alan Budd, Willem Buiter, Charles Goodhart, Ian Plenderleith and John Vickers) voted for the proposition. One member (DeAnne Julius) voted against, preferring an immediate cut.

38 The following members of the Committee were present:

Eddie George, Governor
 Mervyn King, Deputy Governor responsible for monetary policy
 David Clementi, Deputy Governor responsible for financial stability
 Alan Budd
 Willem Buiter
 Charles Goodhart
 DeAnne Julius
 Ian Plenderleith
 John Vickers

39 Gus O'Donnell was also present as the Treasury representative.

Annex: Summary of data presented by Bank staff

1 This Annex summarises the analysis presented by Bank staff to the Monetary Policy Committee on 29 May 1998, in advance of its meeting. At the start of the Committee meeting itself, members were made aware of information that had subsequently become available, and that information is included in the Annex.

I Monetary conditions

2 Growth in the very narrow measures of money had continued to fall. Notes and coin rose by 0.4% in May. Annual growth fell to 6.2%, from 6.7% at the start of the year; and the three- and six-month annualised rates were 5.0% and 5.8%.

3 Growth in the non-interest-bearing component of retail deposits had remained low. Average monthly flows into non-interest-bearing money (including notes and coin) had been £0.2 billion during 1998 so far, in comparison with an average monthly flow of £0.5 billion during 1997. Current account deposits might have been used to finance PEP purchases by persons, which had again been strong in April.

4 Both retail and personal sector M4 rose more strongly in April, by 0.8% and 1.0% respectively, than in March, having been depressed in the first quarter by *inter alia*, higher self-assessment tax payments.

5 ICCs' M4 rose by only 0.1% in April, with annual growth falling to 6.3%. The pattern of ICCs' deposits remained volatile month to month, but the underlying picture suggested a gradual slowing in annual growth to around 5%–6%. By contrast, OFIs' M4 remained buoyant, rising by 1.2% in April, with annual and period growth rates all around 22%–23%.

6 Aggregate M4 rose by a robust 0.9% in April. Annual growth in April had nudged back above 10%, in part because of weak M4 growth in April 1997.

7 Looking at the counterparts to M4, overfunding of the public sector deficit might, in an accounting sense, have reduced M4 by as much as £8.5 billion during FY 1997/98. This negative influence on M4 had continued during April (£1.3 billion). However, it was likely that the true effect on M4 was smaller than this, because of offsetting movements in the other M4 counterparts. For example, although higher tax payments by ICCs and persons at the end of the financial year might have been financed by running down deposits, these payments could, alternatively, have been financed by higher borrowing, leaving M4 unaffected.

8 Aggregate M4 lending rose strongly in April, by 0.9%. Annual growth picked up to 8.8%, with period rates at or above 10%.

9 Personal sector borrowing rose by 0.6% in April, in line with monthly growth in the past two years. Annual growth remained around 7%. Within this, however, there was a slightly different split of borrowing from in the recent past, with annual growth in secured lending picking up to 5.8%, while annual growth in unsecured lending edged back to 16.2%. But credit card borrowing (around 20%–25% of the stock of unsecured lending and 4% of total personal sector lending) remained strong, rising by more than 20% in the year to April.

10 OFIs' borrowing rose strongly in April, by 2.2%. Annual growth rate remained high, at 19.3%, with three- and six-month annualised rates above 20%.

11 ICCs' borrowing rose by 0.5% in April. Three- and six-month annualised growth rates were above the twelve month rate of 5.2%. An industrial breakdown of this borrowing indicated that the pick-up was reasonably widely spread across different industries. For example, growth had recently picked up strongly in the construction and agriculture sectors. However, this probably signalled very different patterns in activity in the two sectors, with construction output growing but the agricultural sector slowing.

12 In May, the Agents undertook a special survey on the factors behind the rise in ICCs' borrowing. The survey covered 111 firms from the manufacturing, (non financial) services, agricultural and construction sectors, as well as 33 contacts at bank branches. The overall message across the whole economy from both firms and banks was that the reasons for increased borrowing had generally been positive, for example to finance fixed investment or acquisitions. The main exception was the agricultural sector, where there were severe problems, largely on account of sterling's appreciation being reflected in the green pound. In this sector, much borrowing had been in response to a worsening financial situation. Some manufacturers also suggested that lower margins and turnover were factors behind increased borrowing. Typically, these were firms facing intense international competition in home or export markets, such as textiles; a number were fearing for their survival, but would tend to seek alternative solutions to increasing bank debt.

13 On price developments, there had been little change on the month in bank savings and loan rates. But some building societies had cut rates on fixed rate mortgages (eg, the Nationwide reduced their rate on five-year mortgages by 20 bp). And more lenders had abolished mortgage indemnity guarantees for mortgages of up to 90% of the purchase price, following a similar move by a number of banks and building societies earlier in the year. This provided what was in effect a discount on the first year of mortgage payments. Overall, it appeared that competition in the mortgage market remains intense.

14 There was little new survey evidence on inflation expectations during the month. The Merrill Lynch Survey of UK fund managers' inflation expectations for the twelve months to end 1998 and end 1999 had both fallen by 10 bp, to 2.9% and 2.7% respectively, while the public's inflation forecast for the next year as implied by the GFK survey had fallen by 20 bp to 3.4%. The Merrill's survey was carried out before the publication of the *Inflation Report* and recent data, eg, February's average earnings and April's retail sales. The survey period for the GFK survey was 1–14 May.

15 In the money markets, expected three-month interbank rates implied by sterling futures contracts rose slightly—by around 7 bp—to June 2000, and were broadly unchanged at longer maturities. 15-year forward rates derived from nominal bonds had fallen by 19 bp over the month; this was more than accounted for by a 27 bp fall in the real forward rates derived from index-linked bonds.

16 The effective exchange rate had depreciated during the month, by 0.8% since the MPC's 6–7 May meeting and by 2.4% compared with the starting point used in the *Inflation Report* projection. Thus the current value of sterling was already significantly below the central projection embodied in the *Report*. A faster depreciation was identified as a specific risk in the *Report*, and the current rate implied by interest rate differentials for sterling in June 2000 lay between the central and mean projections for sterling.

17 Sterling's effective exchange rate had reached a closing peak on 1 April. During April, movements in yield curves in the United Kingdom and the rest of the G7 were consistent with a depreciation, suggesting that news about monetary policy prospects had initially contributed to sterling's fall. But since the start of May, UK interest rates had risen slightly compared with the rest of the G7. An alternative explanation could be that the required 'excess return' on sterling compared with overseas assets had changed. This excess return can be defined as the difference between the expected depreciation of sterling over a given period and interest rate differentials. By using Consensus survey data of forecasts of sterling's future value, Bank staff had inferred the expected change in sterling (between end 1998 and end 2002) at specific dates over the past two years on the assumption that the surveys reported the expectations of price-setters in the bond market. The surveys suggest that sterling was expected to depreciate by around 2% over that period in June 1996, but by April 1998 the expected depreciation had increased to just over 10%. Conversely, expected interest rate differentials with the M6 for 1998–2002 had not varied much: expected UK rates remained cumulatively about 6–8 pp higher than overseas in the four-year window. This suggested that the required excess return on sterling in June 1996 was positive, at around 4%, but was negative, at around -5%, in April 1998. The change in required excess return was most obvious for sterling against continental European currencies, rather than the US dollar. Possible explanations included growing uncertainty about the monetary prospects for the EMU area, and a portfolio shift out of prospective 'EMU currencies' into sterling in order to diversify portfolios.

18 Turning to the more recent fall in sterling's effective rate, shorter-term surveys suggest that the (negative) required excess returns on sterling over the next two years had decreased by around 3 pp between mid April and mid May. A possible explanation was that the 'Euro-weekend' on 2–3 May had reduced uncertainties about the prospects for ECB policy.

19 Despite the uncertainties about its causes, sterling's recent fall was likely to put potential upward pressure on the inflation projection—directly via higher import prices, and indirectly by relieving some of the pressure on net trade from sterling's cumulative appreciation, which was now 24% since August 1996, rather than nearly 30% as at April 1.

II Demand and output

20 GDP growth in 1998 Q1 had been revised up by 0.1 percentage points to 0.5% on the previous quarter, in line with the *May Inflation Report* forecast. The upward revision had partly been due to higher than previously recorded energy output. The contributions to growth from final domestic demand (domestic demand excluding stockbuilding) and net trade were consistent with the *May Inflation Report* forecast. However, domestic demand growth, at 1.5% on the previous quarter, had been considerably stronger than expected, due primarily to a £1.4 billion rise in stockbuilding. Although the rise in stockbuilding had been widespread, it had included a rise of £450 million in the stock of silver. The factor cost adjustment, which extracts taxes (less subsidies) from GDP at market prices in order to bring the expenditure measure of GDP into line with the income and output measures of GDP, had also been considerably larger than might have been expected given the rest of the expenditure data. The 4.3% rise in the factor cost adjustment between the last quarter of 1997 and the first quarter of 1998 had led to a marked divergence in the recorded rate of growth between GDP at market prices (1.0%) and GDP at factor cost (0.5%). That had reversed the pattern in 1997 Q4, when GDP at market prices had risen by only 0.3%, while GDP at factor cost had risen by 0.6%.

21 Real consumer expenditure had risen by 1.0% in 1998 Q1 from the previous quarter. Increased spending on durables, and in particular on vehicles, had driven the rise. However, the increase in

spending had been more than matched by a 1.7% rise in income from employment (60% of income before tax). The consumption:labour income ratio had been rising since 1990, and had reached a historical high by the end of 1997. By contrast, the consumption:real personal disposable income ratio was below its historical average and had fallen back since the early 1990s. That implied that the rise in consumer spending in the present recovery has been supported by increases in financial wealth and investment income.

22 More recent data on retail sales volumes had shown a rise of only 0.1% in April, reducing the three-month growth rate to 0.2%—the lowest rate of growth since November 1995. Moreover, the annual rate of increase in sales volumes had also fallen back in the three months to April, and was expected to continue to do so as the windfall-boosted increases of last year dropped out of the calculation. Nonetheless, the GfK consumer confidence indicator had risen in May for the second successive month, to 6.7%. The balance of respondents saying that it was a good time to make a major purchase had also remained high, at 18%, compared an average balance of 8.5% for the recovery as a whole. It was possible that the optimism regarding major purchases had been related to the recent appreciation of sterling, which had made some imported durable goods cheaper. Private car registrations had been around 20% higher in the first quarter than a year earlier, and import penetration of the UK car market was at a record high.

23 The gap between the Nationwide and Halifax measures of annual rates of house price inflation had begun to widen again. The Nationwide index rose by 1.2% in May compared with April, though the annual rate of inflation moderated slightly to 11.9%. The Halifax measure of annual inflation had risen to 5.6% in April, but fell back to 5.0% in May, following a monthly rise of only 0.3% in May compared with April. The number of particulars delivered had been falling since mid 1997 and had weakened further in April. But net lending secured on dwellings had risen by £0.5 billion in April to £2.3 billion, suggesting that the rise in approvals in the previous two months had begun to feed through into higher activity.

24 The PSBR had continued to undershoot expectations in the first month of FY 1998/99. The net repayment of £3.4 billion in April was significantly larger than most commentators had expected. The undershoot had been due to a combination of lower spending, particularly by public corporations, and higher tax receipts. It now seemed likely that the introduction of self-assessment had led to greater compliance.

25 Total investment had risen by 1.3% on the previous quarter. Business investment had risen by 1.5%, implying a small negative contribution from public sector investment. The rise in business investment had been due to a 13% rise in investment by utilities and oil companies, which had more than offset a 0.5% fall in investment by private service sector firms. Manufacturing investment rose slightly on the quarter. By asset, investment in vehicles, ships and (in particular) aircraft had accounted for around one third of the rise in total investment, in line with the contribution such investment had made during 1997 as a whole. Dwellings investment and investment in plant and machinery had also risen on the quarter.

26 Industrial and commercial companies (ICCs) had run a financial deficit in 1997, the first since 1992. That implied that further growth in investment would rely more heavily on external finance. However, the prospects for further investment growth still looked positive. ICCs' capital gearing had been falling, and equity market valuations implied that future profit streams were expected to outstrip significantly the level of current debt commitments. And though income gearing had risen in 1997 Q4, at least half of that rise had been due to the introduction of the windfall levy. Survey evidence from the BCC indicated that service sector plant and machinery investment plans had remained positive, and that

this was expected to more than offset any weakness in manufacturing investment plans. Continued growth in new construction orders suggested that construction-related investment should also continue to rise.

27 The real net trade balance in goods and services had deteriorated further in 1998 Q1. The deficit was the largest since 1990 Q3. The deterioration had been less excluding oil and erratics, but net trade excluding these items had made a third consecutive negative contribution to GDP growth. In value terms, the total deficit in trade in goods had narrowed in March, primarily because of a narrowing in the deficit with non-EU countries, which had continued into April. Excluding oil and erratics, there had been little change in the goods trade deficit, but it seemed probable that the trend had remained downwards. The deficit in goods trade with other EU countries had remained surprisingly flat. There had been a similar pattern in the French trade data. The French trade surplus with the rest of the European Union had risen sharply since the beginning of 1997, and despite a 10% real depreciation of the French franc against the dollar, the balance with the rest of the world had slipped into deficit. Underlying UK import volume growth had remained surprisingly weak during the first quarter, though to some extent that had been because of a 6% fall in imports of cars. Imports of finished consumer goods rose by 3% on the previous quarter.

28 On the output side, 1998 Q1 service sector growth had been revised down by 0.1 percentage point the previous quarter to 0.7%, though the published index numbers had remained unchanged. Growth in the distribution, hotels and catering sector had been revised down by 0.3 percentage points to 0.6%. Manufacturing output had contracted slightly during the quarter, as implied by the preliminary GDP estimate. Overall industrial production output fell by 0.3%, though it remained slightly higher than a year earlier. Construction sector growth, at 1.1% over the quarter, was stronger than had been indicated in the preliminary GDP release.

29 The weakness in the official manufacturing data, which showed the output of the manufacturing sector falling in two successive quarters, contrasted with the relatively more buoyant survey data. Although recent survey data had weakened, ONS data had shown virtually no increase in the level of manufacturing output since 1995. Using a statistical technique to quantify CBI balances on the volume of output in the previous four months implied a significantly higher level of manufacturing output. That would fit past sectoral experience better. The official data showed a marked divergence in growth between the output of the manufacturing and service sectors during the current recovery, which was unusual in an historical context and had begun well before the appreciation of sterling.

30 International comparisons had continued to show UK industrial production declining relative to the other major EU economies. Industrial production in the EU15 had risen by 4.6% in the three months to January compared with the same period a year earlier. That contrasted with growth of only 0.3% in the United Kingdom in 1998 Q1 compared with a year earlier. However, the expected recovery in EU domestic demand had remained patchy, with Germany in particular showing only a gradual recovery to date. US first-quarter GDP had been revised up by 0.2 percentage points to 1.1% on the previous quarter. The upward revision had been due to higher than previously recorded stockbuilding, which had offset a more negative contribution from net trade.

III Labour market

31 Indicators of labour demand suggested that the pace of growth had slowed in recent months. LFS employment was 39,000 higher in the three months to March 1998 than in the fourth quarter of 1997. This was similar to the rise in the three months to February, but slower than either the rise during Q4 or the average rise in the past twelve months.

32 Part-time employment accounted for almost all of the recent rise: full-time employment had been flat over the past quarter. By contrast, the LFS series for hours worked increased by 0.8% in Q1 from the previous quarter, and by 2.1% compared with a year earlier. Stronger growth in hours worked than in employment suggested a rise in overtime. But the hours worked data are very volatile, making firm conclusions difficult.

33 The CIPS survey suggested that manufacturing employment fell for the third consecutive month in May. That was consistent with reports from the Bank's Agents, although less timely ONS data suggested that manufacturing employment rose in 1998 Q1, albeit slowly. The CIPS service sector survey for May indicated continued rapid growth in service sector employment, though some Agents suggested that service sector recruitment was slowing.

34 A slowdown in the pace of tightening was also apparent from the unemployment data. LFS unemployment fell by 33,000 in the three months to March, to 6.4% of the workforce. That fall was smaller than the 78,000 fall in the previous quarter, and than the average decline during the previous year. It was also smaller than the fall of 52,000 in the three months to February. Almost all of the recent fall was accounted for by the long-term unemployed (defined as those unemployed for more than one year). In fact, the long-term unemployed accounted for 238,000 of the 275,000 fall in unemployment in the past year. That could reflect either a fall in the inflow to long-term unemployment, or a fall in the average duration of the long-term unemployed. It is difficult to extract flows data from the LFS, but work using claimant count data to measure outflow rates suggested that the average duration fell during 1997.

35 Continuing falls in the number of long-term unemployed have meant that they account for a declining proportion of total unemployment. This is normal in a recovery: the share of the long-term unemployed among the unemployed has been counter-cyclical since at least 1984. This could indicate that as the labour market tightens, employers extend their recruitment activity more widely, improving the job prospects of the longer-term unemployed. This implies that the long-term unemployed are an imperfect substitute for the short-term unemployed, and a fall in their share of total unemployment is indicative of labour market tightness. Econometric work by Bank staff had provided support for this theory: it suggested that the long-term unemployed do exert downward wage pressure, but less so than the short-term unemployed.

36 Claimant unemployment fell by 18,000 in April, to 4.8%. That was the largest monthly fall for four months, although it was smaller than all but one of the monthly falls during 1997.

37 The data on vacancies were mixed. The stock of vacancies edged up in April by 1,500. Bank analysts had adjusted the back data for an overcount in the stock of vacancies. The corrected series showed that the trend in vacancies continued to rise. But the number of notifications of new vacancies fell by 1,500. The number of notifications remained around the average levels of the second half of 1997.

38 There were few new data on skills shortages. The Reed survey for May suggested that 71% of firms were experiencing shortages of skilled applicants when they recruited. This was in line with February's survey. The Agents suggested that on balance skills shortages had continued to intensify, although at a less rapid pace, with five regions reporting that they had stopped intensifying. One survey pointing in the opposite direction was the construction trends survey, which reported an easing in labour availability in Q1, at odds with the Agents' view of pressures in this sector. The CIPS service sector survey for May indicated that skill shortages in the service sector were pushing up input costs.

39 Headline underlying annual earnings growth increased to 4.9% in February, up from a revised 4.6% in January. Within that, services earnings growth increased from 4.8% in January to 5% in February, and manufacturing earnings rose from 4.7% to 5.3%. The headline numbers are centred moving averages of twelve-month growth rates. In March, those monthly growth rates were 5.4% for the whole economy, 6.1% for manufacturing and 5.4% for services.

40 Bank analysts had tried to identify how far recent earnings data have been affected by bonus payments. The ONS had suggested that bonuses in March 1998 were around 25% larger than a year earlier. But there are a number of problems with using that figure to estimate the contribution of bonuses to earnings growth. Though bonuses may have been particularly concentrated in March this year, these other elements of non-basic pay may well have a continuing effect in the coming months. Second, the ONS had suggested that its method of calculating bonus effects may be biased upwards, for reasons connected with the way firms respond to the earnings questionnaire. Firms ticked a box and gave a figure to indicate 'significant changes' in bonus payments each month. So the answers from those firms that paid bonuses in March each year but considered a payment in one year insignificant and payment in the next significant could result in a spuriously large recorded rise in bonus payments in the twelve months.

41 The Bank's Kalman filter-adjusted earnings index suggested that there had been a pick-up in bonus-smoothed earnings from 4.74% in February to 4.85% in March. But this number could be revised back down if April's figure for average earnings was much lower.

42 If bonus payments were especially high in March, then earnings growth in the twelve months to April and subsequent months would be lower. But this did not mean that bonus payments should be discounted. Though bonuses were a more flexible element of total remuneration, if they were paid to encourage recruitment and retention, they would reflect current labour market pressures as much as normal pay did. However, if bonuses were linked to company profits, they might be a backward-looking indicator of rapid economic growth. Either way, they still reflected a cost to firms and income for workers. Any estimate of overall earnings trends needed to smooth identified bonus payments across the year.

43 Further evidence on the differential between public and private sector pay was presented. According to the ONS, private sector pay had outpaced that in the public sector since 1993. In the year to February 1998, public sector pay grew by 2.6%, while that in the private sector grew by 5.6%. One possibility raised was that special factors were distorting the divergence. DfEE figures suggested that there had been a substantial rise in the number of teachers taking early retirement in the past year, probably linked to early retirement deadlines in 1997/98. If those early-retired teachers had been replaced by 'cheaper' young teachers, then the earnings data could give a misleading impression of the wage rise received by each individual. The staging of many public sector pay awards was also likely to have had a temporary downward influence on public sector earnings. But it was unlikely that those two factors alone could explain the whole of the negative wage drift in the public sector.

44 Staff presented some analysis on whether public sector pay was likely to catch up with that in the private sector. Work by Elliott and Duffus (1996) suggested that public sector earnings had been trending downwards relative to the private sector over the past twenty years. And the relative fall seemed to have been particularly fast in the past five years. Any signs of a catch-up should be reflected either through public sector labour disputes or through recruitment and retention difficulties. But the number of days lost to industrial action was very low by historical standards. And the DfEE survey of 'hard-to-fill vacancies' showed that although such

vacancies were increasing in the public sector, they had risen even more in the private sector. Staff also presented data on schools' teaching vacancies which, although rising, remained much lower than in 1990.

45 The teachers' and nurses' pay review bodies had tended to highlight specific areas of recruitment difficulties, and problems recruiting trainee teachers and nurses, rather than generalised problems. Though these were certainly signs of emerging pressure, most settlements for this year had already been agreed, and so there was little evidence to suggest an imminent bounce-back in public sector pay.

46 On provisional data, the twelve-month employment-weighted mean settlement increased from 3.4% to 3.6%. But the preponderance of public sector settlements led to the three-month mean falling from 3.9% in March to 3.1% in April.

IV Prices

47 The Bank's commodity price index was provisionally estimated to have increased by 0.2% in April. This largely reflected a rise in oil prices. Excluding oil, commodity prices were unchanged. And they were likely to fall once food price data were included, following the sharp reduction in milk prices announced in April (food prices are assumed to be flat in the provisional estimate). On the provisional basis, the annual rate of deflation in commodity prices had fallen to 10.1% in April from 14.2% in March. But there were no clear signs of a change in the recent trend of flat or falling commodity prices: metal prices had fallen for the eighth consecutive month, and cotton and rubber prices were lower, both possibly reflecting the effects of the East Asia situation. However, the recent depreciation of sterling may be an upward influence on some commodity prices in the next few months. The oil price had risen again in May, by 2.5% in dollar terms. But prices were not expected to rise much more, as supply continued to exceed demand.

48 Manufacturers' input prices had fallen sharply in April, by 0.9%, despite the rise in oil prices. This fall had been largely due to lower milk prices following the renegotiation of milk supply contracts. Prices of imported foodstuffs and other imported material had also fallen further. Lower material prices had continued to be a downward influence on manufacturers' output prices. Excluding excise duties, these had fallen by 0.2% in April, taking the annual rate of inflation to -0.2%. Output prices including duties had increased by 0.1% in the month, because of the higher petrol duties announced in the Budget. The CBI Industrial Trends Survey had pointed to continued downward pressure on manufacturers' prices. The May survey recorded a balance of -12 (seasonally adjusted) for price expectations over the next four months. The close correlation between output price inflation and retail goods price inflation in the past suggested continued downward pressure on retail goods price inflation, consistent with the May *Inflation Report* forecast.

49 Trade prices had fallen further in March. In particular, there had been a 0.9% fall in import prices (0.7% excluding oil prices). After showing signs of moderating in recent months, the annual rate of deflation in import prices increased to 5.4%, from 5.0% in February. Export prices had fallen by 0.3% in March, taking the annual rate to -4.8%. Provisional data for April covering non-EU trade had showed a further fall in import prices of 0.3% (0.5% excluding oil). Export prices to non-EU countries were unchanged in April.

50 Annual retail price inflation had risen sharply in April on both the RPIX and RPI measures, to 3.0% and 4.0% respectively. The increases had reflected a series of one-off increases in items such as council tax and rents. The reduction in MIRAS announced in the Budget also contributed to the increase in RPI inflation. But the main contribution had come from the increase in petrol duties

announced in the March Budget. These had previously been increased in July last year. Until those effects dropped out of the twelve-month calculation this July, RPIX inflation would be temporarily higher than would otherwise have been the case. Consequently, changes in annual RPIY inflation were considered to be more relevant to an assessment of the trend in inflation over the current period. RPIY inflation increased by 0.1 pp to 2.2% in April, reflecting a rise in services price inflation. The pattern of falling goods price inflation and high services price inflation continued to be evident: RPIY goods price inflation fell to 0.6% (1.0% in March), compared with RPIY services inflation of 3.5%. The trends evident in goods prices in the first quarter of the year had again been apparent in the April data: leisure goods prices fell, with lower audio-visual goods prices, perhaps reflecting the depreciation of East Asian currencies; and new clothing and footwear lines had been introduced into the shops at lower prices than last year, perhaps reflecting further effects from sterling's appreciation, as demand growth slowed.

51 Consistent with the picture of falling goods price inflation, retailers' margins were estimated to have fallen further in 1998 Q1 (Bank estimates). This had reflected a fall in the level of goods prices during the quarter, alongside a small rise in total costs. Bank estimates suggested retailers had widened their margins in the last two years. But the recent fall meant that margins were now only 0.3 pp above their level in 1997 Q1, and roughly in line with the average level over the last ten years. The rise and subsequent fall in retail margins had been consistent with a lagged response in retail pricing behaviour to sterling's appreciation and lower import prices, particularly as the growth in retail sales had slowed.

52 A further fall in inflation in the M6 economies had been evident in 1998 Q1. This had been larger than most forecasters had expected, and inflation forecasts for 1998 had subsequently been revised down. But in contrast with the M6 economies, UK inflation had not fallen sharply over this period. The reason for the common fall in inflation across the M6 economies appeared to be related to falling commodity prices, and particularly energy prices.

53 In the United States, energy and petrol prices had accounted for all the fall in CPI inflation in the recent period, while in the United Kingdom there had only been a small negative contribution to inflation from lower energy prices (fuel and light, petrol). It appeared that UK petrol retailers had not yet passed on all the fall in oil prices to consumers. Petrol prices net of duties (RPIY), which were closely correlated with oil prices, had fallen by much less than the oil price in recent months. Retailers may have widened their margins, perhaps as a result of the earlier petrol price-war. Alternatively, because the oil price is a relatively small proportion of the final retail price in the United Kingdom, retailers may allow margins to fluctuate in the short term in response to movements in oil prices, particularly if these movements are expected to be reversed. If oil prices remained lower, there could be some downward pressure on petrol prices this year, though this was unlikely to influence overall inflation prospects in the medium term.

V Financial markets

Foreign exchange

54 There were three main developments over the month: the fall in sterling; yen weakness; and a strengthening of euro currencies following the 'euro weekend' at the beginning of May, though the Deutsche Mark had lost ground towards the end of the month.

55 The sterling effective exchange rate had fallen by 2.6% since the end of April. Much of this was in the first few days of May, before the May MPC meeting. The fall seemed to be due partly to EMU-related factors, including a move by trading houses to cover

short positions in euros now that uncertainty about the start date and membership of EMU and the ECB Executive Board had been resolved. This was consistent with the analysis of excess returns based on Consensus surveys of forecasts reported in 'Monetary conditions' above.

56 Uncertainty about the pound/Deutsche Mark exchange rate, measured by implied volatility on currency options, increased at the one-month horizon around the time of the euro weekend. But longer horizon pound/Deutsche Mark uncertainty had changed little. Implied correlations between the pound and Deutsche Mark showed a fall at the one-month horizon, whereas the implied correlation between the pound and dollar was little changed. An increased prospect of EMU-related news in the short term was consistent with this behaviour, but the lack of a longer-term response did not support the explanation for sterling's fall being a fundamental reassessment of its 'safe-haven' status.

57 The international foreign exchange background was dominated by yen weakness. The yen had fallen by 4.6% during the month, reaching a seven-year low against the dollar, of 139, on May 29. Yen depreciation reflected the weakness of the domestic economy, and concerns about Indonesia and other parts of Asia. The FOMC's move to a tightening monetary policy bias, announced on May 21, came as no surprise to the exchange markets. The Deutsche Mark appreciated modestly during the month, its moves moderated by the fact that euro currencies account for 57% of its effective index, but moved down on concerns about Russia later in the month.

Bond and money markets

58 The main feature of the month was a reappraisal of the market's previous optimism about the prospects for cuts in official UK interest rates next year. Gilt-edged yields were broadly unchanged since the previous MPC, in common with most international markets.

59 Short-term interest rate expectations drifted up following the euro weekend, accompanying the fall in sterling. Domestically, the most significant impact on short sterling came on May 13. The release of higher-than-expected average earnings data initially had a material impact, while the May *Inflation Report* seemed to have little effect. Short rate expectations rose further as market participants and the press digested the new information and analysis in detail. Later, the retail sales data were seen as soft and some of the rise in expectations was reversed. Despite these movements in short sterling, market participants did not expect a move in the Bank's repo rate for some months. The gap between interbank rates implied by short sterling futures and the repo rate had widened since last summer to around 30 basis points (from 20–25 basis points). So the June 1998 contract, pricing in three-month interbank rates of 7.50%, discounted official rates close to the current 7¼% level.

60 Gilt yields were stable over the month as a whole. They rose at the beginning of May, influenced by weak sterling and then the earnings data and *Inflation Report*. They fell later in the month, supported by the well-covered 30-year gilt auction, the possibility of lower supply after the latest PSBR data and, later, a 'flight to quality' as there were further concerns about Asia and then Russia. Real yields on index-linked bonds fell at the longer end and rose at the short end. But real yields were particularly difficult to interpret this month, because they were affected by the release of the RPI for April. Although the April RPI was broadly in line with market expectations, so that bond prices were little changed on the news, the increase in RPI was much higher than the market's conventional assumption embodied in the calculation of real yields. Real spot yields jumped up on the day of the news and the derived inflation expectation curve jumped down. The movement was particularly sharp at the short end.

Equities

61 UK and US equity markets had fallen slightly since the last MPC. In the United Kingdom, the FT-SE 250 and small capitalisation indices had risen, in contrast with the FT-SE 100. It had been suggested that renewed concerns about Asia lay behind the recent weakening of the FT-SE 100, though evidence on the stocks with the most direct exposure to Asia did not support this.

62 Implied volatility of the UK and US equity markets had fallen to levels before the Asian crisis in the fourth quarter of last year. The negative skew in the probabilities attached to future levels of the FT-SE 100 (measured by the gap between mean and mode as a percentage of mode), which had increased after the Asian crisis, had returned to its five-year average.

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London EC2R 8AH**

REMIT FOR THE MONETARY POLICY COMMITTEE

The Bank of England Act came into effect on June 1. The Act states that in relation to monetary policy, the objectives of the Bank of England shall be

- (a) to maintain price stability, and
- (b) subject to that, to support the economic policy of Her Majesty's Government, including its objectives for growth and employment.

In order to comply with the Act, this remit sets out what price stability should be taken to consist of and what the economic policy of the Government should be taken to be.

Price stability

I confirm that the operational target for monetary policy remains an underlying inflation rate (measured by the 12-month increase in the RPI excluding mortgage interest payments) of 2½ per cent. The inflation target is 2½ per cent at all times: that is the rate which the MPC is required to achieve and for which it is accountable.

My intention is to lock into our policy making system a commitment to consistently low inflation in the long term. The real stability that we need will be achieved not when we meet the inflation target one or two months in succession but when we can confidently expect inflation to remain low and stable for a long period of time.

The framework takes into account that any economy at some point can suffer from external events or temporary difficulties, often beyond its control. The framework is based on the recognition that the actual inflation rate will on occasions depart from its target as a result of shocks and disturbances. Attempts to keep inflation at the inflation target in these circumstances may cause undesirable volatility in output.

But if inflation moves away from the target by more than 1 percentage point in either direction I shall expect you to send an open letter to me, following the meeting of the Monetary Policy Committee and referring as necessary to the Bank's Inflation Report, setting out:

- the reasons why inflation has moved away from the target by more than 1 percentage point;
- the policy action which you are taking to deal with it;
- the period within which you expect inflation to return to the target;
- how this approach meets the Government's monetary policy objectives.

You would send a further letter after three months if inflation remained more than 1 percentage point above or below the target. In responding to your letter. I shall, of course, have regard to the circumstances prevailing at the time.

The thresholds *do not* define a target range. Their function is to define the points at which I shall expect an explanatory letter from you because the actual inflation rate is appreciably away from its target.

Government's economic policy objectives

The Government's central economic objective is to achieve high and stable levels of growth and employment. Price stability is a precondition for these high and stable levels of growth and employment, which in turn will help to create the conditions for price stability on a sustainable basis. In the recent past, instability has contributed to the UK's poor growth performance, not least by holding back the long-term investment that is the foundation for a successful economy.

The monetary policy objective of the Bank of England is to maintain price stability and subject to that, to support the Government's economic policy, including its objectives for growth and employment.

Accountability

The Monetary Policy Committee is accountable to the Government for the remit set out in this letter. The Committee's performance and procedures will be reviewed by the Court on an ongoing basis (with particular regard to ensuring the Bank is collecting proper regional and sectoral information). The Bank will be accountable to Parliament through regular reports and evidence given to the Treasury Select Committee. Finally, through the publication of the minutes of the Monetary Policy Committee meetings and the Inflation Report, the Bank will be accountable to the public at large.

Restatement of the Remit

The inflation target will be confirmed in each Budget. There is a value in continuity and I will have proper regard to that. But I will also need to consider the case for a revised target at these times on its merits. Any changes to this remit will be set out in the Budget. The Budget will also contain a statement of the Government's economic policy objectives.

GORDON BROWN

Text of Bank of England press notice of 4 June 1998

Bank of England raises interest rates by 0.25% to 7.50%

The Bank of England's Monetary Policy Committee has today voted to raise the Bank's repo rate by 0.25% to 7.50%. The increase takes immediate effect.

In the *May Inflation Report*, the Committee said that: 'In the central projection, inflation is expected to remain close to its target throughout the forecast period after the temporary increase in the second quarter of this year. But there are major uncertainties which mean that the outlook for monetary policy remains finely balanced.'

The central issue for monetary policy remains whether aggregate demand will slow sufficiently quickly to bring down domestically generated inflation before the restraining price effects of the earlier increase in the exchange rate and falls in commodity prices wear off. As the *May Inflation Report* made clear, developments in the labour market are a key determinant of domestically generated inflation. Evidence has emerged over the past month that the cumulative tightening of the labour market has resulted in a rate of private sector earnings growth that jeopardises achievement of the inflation target over the medium run. Moreover the sterling exchange rate has remained about 3% lower than in the central projection of the *May Inflation Report*. While there are increased uncertainties in the external environment, inflationary pressures appear greater than in the May projection, and the need for a slowdown in domestic demand growth has become more pressing. In these circumstances, the Committee voted to raise interest rates by 0.25%.

The last change in interest rates was a rise of 0.25% on 6 November 1997.

The minutes of today's Monetary Policy Committee meeting will be published on Wednesday 15 July. Minutes of the meeting held in May will be published on Wednesday 10 June.

Minutes of the Monetary Policy Committee meeting on 8–9 July 1998

1 The Committee discussed recent developments with particular emphasis on the external environment; the Chancellor's announcement on the Economic and Fiscal Strategy Report; domestic demand; output and unemployment; and nominal variables, particularly prices and earnings.

The world economy

2 The Committee began by examining recent developments in the world economy. On balance, the news in the UK's major export markets had been adverse, and the picture for external demand was at least as weak as envisaged at the time of the *May Inflation Report*.

3 On Japan there was great uncertainty about the likely path of real activity given the fall in output in 1998 Q1, and other forecasters were still revising down their projections for 1998. There was uncertainty about the likely policy response of the authorities, especially in the context of the elections to the upper house due on 12 July. The MPC also discussed the possibility that prospects for a recovery in output hinged on corporate as well as financial sector structural adjustment and how long the recovery in activity would take. The Committee agreed that prospects for the Japanese economy had deteriorated over the past month.

4 The world economy projections used as an input to the *May Inflation Report* incorporated a deceleration of activity in the United States. In the light of the strong 1998 Q1 GDP data, the Committee discussed whether such a deceleration was still the most likely outcome. In particular, the lags between developments in Asia and their impact on US activity were highly uncertain. But a further rise in the US trade deficit seemed likely, which would restrain output growth. The recovery in continental Europe was continuing broadly as expected, but recent data in Germany had been weaker than in France.

5 There was now clear evidence of falling output in a number of Asian economies. Developments in the real economy in, for example, Indonesia were at least as serious as in the financial sectors of the economy. There had been speculation about the possible impact on the world economy if China were to devalue and whether this would have implications for other countries beyond the direct trade effects, particularly through its impact on Hong Kong. The immediate prospects in several countries outside Asia, for example South Africa and Russia, had worsened over the past month. Recent developments in the world economy would be taken into account in the context of the August *Inflation Report*.

The fiscal position

6 The Committee discussed the briefing previously received from Treasury officials on the Economic and Fiscal Strategy Report (EFSR). On the expenditure side, the new fiscal plans were for somewhat higher expenditure by the third fiscal year than had been incorporated in the *May Inflation Report* projections, although a lower starting point in the first year and slightly higher revenue were offsetting factors.

7 The Committee thought there was a degree of uncertainty about the revenue projections, which now assumed that more of the recent buoyancy in revenue associated with the move to self-assessment would be permanent. Overall, the Committee agreed that there seemed to be little news in terms of the impact on inflation over the next two years or so from the aggregate expenditure projections. The impact of the latest plans would be incorporated into the Committee's August *Inflation Report* projections.

8 The Committee discussed the possible implications of the expenditure plans for public sector pay. Public sector settlements had for some time been below those in the private sector, but the gap between public and private sector earnings growth was much larger—there was negative wage drift in the public sector. Restructuring in the public sector explained some of this recent trend in wage drift, as some higher paid staff were replaced by lower paid staff. There was a question of how long these structural changes could be maintained. Since the fiscal plans entailed binding nominal expenditure limits on departments, any reduction in negative wage drift (and hence relatively higher public sector earnings growth) would have to be offset by lower spending elsewhere. But it might imply a change in the price/output split, which would affect the Committee's inflation projection.

9 There was some discussion of whether financial markets had reacted to the prospect of higher future government spending. But there had been little change in either bond yields or market implied forward interest rates immediately following the announcement of the EFSR.

Domestic demand, output and unemployment

10 The Committee then discussed output and domestic demand. There had been a small upward revision to 1998 Q1 domestic demand growth in the National Accounts release, offset by a small downward revision to net trade. GDP growth remained at 0.5% in Q1. Investment growth in Q1 was now estimated to be slightly stronger than assumed in the *May* forecast, rather than weaker. Notwithstanding the revisions to the expenditure components of GDP, the overall pace of output growth was broadly as expected at the time of the *May Inflation Report*.

11 Estimate of GDP growth in Q2, based on a range of monthly indicators and survey evidence, were a little stronger than in the central projection in the *May Inflation Report*. But this was a preliminary estimate, on which the Committee did not place much weight, though it provided a useful benchmark against which the official figures could be judged when published on 24 July. More recently, there were signs in the surveys that service sector output growth might be slowing, for example in the Chartered Institute of Purchasing and Supply survey, but this was from an above-trend growth rate. Construction growth still appeared to be increasing.

12 The expenditure data for Q2 indicated a slightly weaker picture than that coming from the output indicators. Consumer confidence had fallen, but retail sales had been strong in May. Retail sales may have been affected by poor weather in April and June and, given the survey and anecdotal evidence for June, the Committee thought that it would be best to look at the May figures in the context of a run of data.

13 As regards the labour market, the rate of decline of LFS unemployment was broadly in line with the *May Inflation Report* projection. The central projection in the *May Inflation Report* had envisaged that the fall in unemployment would soon cease, and that there would be little change over the next two years given the projection for GDP growth. A rise in unemployment would be needed, in order to check earnings growth and return inflation to target, but how much and how fast? One view was that the recent rise in earnings growth contained some news on the natural rate of unemployment, and that the labour market was now more clearly below it. Hence a more substantial rise in unemployment than in the *May Report* projections would be needed. On another view, the rise in earnings, though somewhat surprising, largely reflected past movements in profitability, and was therefore a backward looking

indicator. In that case, it provided new information about lags in the economy, but not much about medium-term prospects for inflation.

14 Recruitment difficulties and skill shortages were even more acute in the latest surveys, and seemed to be prevalent across all sectors and regions of the economy. Changes in employment and unemployment lag changes in output, and although the lag appeared to have shortened in the recovery in the early 1990s, it was still evident. So the slowing of output growth may not yet be feeding through to the recruitment surveys. This might be rationalised at the firm level if there were lags between the level of activity in sales and marketing departments and changes in personnel department's recruitment plans. But how could the recruitment surveys be reconciled with the slower rate of decline in unemployment? One possible explanation was an increase in job turnover, which would lead survey respondents to report increased difficulty in recruiting and retaining staff, even when the same number were employed. Another possibility was that recruitment difficulties were related to the level of unemployment rather than to its rate of change.

15 The Committee discussed how the surveys could shed light on the level of tightness in the labour market. This was particularly difficult as the various surveys pointed to different degrees of tightness. In particular, the Confederation of British Industry (CBI) Industrial Trends Survey pointed to less severe labour shortages than in the late 1980s, whereas the British Chambers of Commerce survey indicated that recruitment difficulties in both manufacturing and service industries were at least as great. Given that service and manufacturing firms were often competing for the same labour, how could these surveys be reconciled? The Committee thought that the difference possibly reflected the nature of the questions asked in the surveys. For example, the CBI survey asked whether shortages of labour were a constraint on output. Given the recent path of output and orders it was not surprising that this was not reported as a serious constraint in manufacturing. In understanding the path of earnings growth it was unclear how much explanatory power the relevant questions in these surveys added to the information already contained in unemployment figures, particularly given the short run of data for most of the series.

Prices and earnings

16 The Committee then turned to developments in nominal variables, and particularly prices and earnings. The focus of the labour market discussion was on the increase in earnings growth and the extent to which it was accounted for by bonus payments. The importance of bonuses in the twelve-month rate of increase of earnings was likely to diminish over the next few months, but the precise time path was unclear. Bonus payments should anyway not be ignored because they are a real cost to employers, though it was natural to smooth the effects over the course of a year. Unfortunately, the ONS monthly earnings survey did not precisely identify the bonus component of pay, so identifying the contribution to earnings growth from this source was still rather uncertain.

17 Comparing earnings growth with pay settlements suggested a contribution from wage drift of 1½ percentage points or so, which did not seem abnormal given previous experience and the stage in the cycle. A question remained concerning the size of the gap between private and public sector earnings growth, which had been large over the past few years according to the ONS average earnings figures.

18 Retail price inflation had turned out significantly higher than expected in May, but it was not obvious how to choose between various competing explanations. One possible explanation was that unexpectedly strong earnings growth was feeding through to inflation, but this did not seem to explain all of the rise. A second explanation was that there was less pass-through from the exchange

rate appreciation than had been expected. A third explanation was that the rise was due to erratic factors, which had no obvious implications for the medium-term inflation projection. Evidence for this could be gauged by looking at the unexpected rise in seasonal food prices. A fourth explanation might be the raising of prices ahead of summer sales, which again might be only a temporary timing effect. The rise in clothing and footwear prices could reflect this factor. Or it could reflect the strong rise in retail sales volumes for these goods, which may have indicated stronger demand. Finally, taking the past few months as a whole, the rise in the housing depreciation component of RPIX had been unexpectedly strong. In sum, it was difficult to draw firm conclusions about the significance of the higher-than-expected May retail prices figures for future inflation.

19 From a longer perspective it was worth noting that since the introduction of the MPC arrangements in May 1997, inflation had been at or above the target, and month-by-month inflation had tended to turn out slightly higher than the Committee had expected. Looking back just over a year, the central projection published in the May 1997 *Inflation Report* was for inflation in 1998 at or below 2½%. That projection was made at a lower nominal interest rate, a lower exchange rate, and before the various budget announcements.

The National Minimum Wage and other policy changes affecting the labour market

20 The Government had announced the details of the National Minimum Wage, and members and staff of the Low Pay Commission (LPC) had briefed the MPC on the details of their report. The LPC's estimate of the direct effect of the NMW on the wage bill was 0.6%. The LPC had assumed full compliance with the minimum wage and that the restoration of wage differentials would not be a significant factor. The Committee discussed factors affecting the size of the impact on the price level, and on inflation over the next few years. A plausible starting point might be a proportionate rise in prices of two thirds of the percentage increase in the wage bill. But the timing of this was uncertain: the rise in prices might come through quite quickly or be spread over a number of years. The fact that the details of the NMW were known well before its implementation was a reason for assuming a more rapid effect. Although it was of primary importance to estimate the impact on wage costs and inflation, the Committee thought that the minimum wage would also raise the natural rate of unemployment.

21 The Committee agreed it was important to assess the impact of the minimum wage alongside an analysis of the other Government measures affecting the labour market. It discussed the potential size of any effects of the Welfare-to-Work and tax/benefit measures (such as the Working Families Tax Credit and childcare subsidies) on the natural rate of unemployment. Estimates of both the timing and magnitude were necessarily highly uncertain. There could be quite rapid effects if, for example, the New Deal had a significant impact on the initial stock of young and long-term unemployed. It was possible that the effects from the tax/benefit changes could be significant in increasing activity rates, given the evidence on the labour supply elasticities of those most likely to be affected by these changes.

22 Looking forward, it would be important to be able to distinguish between changes in unemployment that reflected changes in labour market tightness, and any changes which came about because of the introduction of the Government's NMW, the tax/benefits reforms and the Welfare-to-Work initiatives. The New Deal programme started nationally in April, so there were no effects yet in the unemployment statistics. But monitoring processes had been set up which would identify the effect of the New Deal on unemployment. The Committee's assessment of the impact of the Government's labour market policies on inflation would be incorporated into the August *Inflation Report* projections.

Monetary conditions

23 Money growth had slowed in June, and the twelve-month rate of growth of M4 was now back below 10%. The Committee considered that the slow decline in the annual growth rate over recent months was probably consistent with a slowdown in demand and somewhat higher inflation, and that it would be worrying if monetary growth were not slowing by now.

24 The Committee discussed the market reaction to the interest rate increase on 4 June. The announcement had come as a surprise to the markets and, coupled with data releases later in the month, had pushed short sterling implied forward interest rates up by more than 25 basis points some two years ahead. Since the path implied for interest rates had previously been downward sloping, the effect was to push further into the future the time when markets expected interest rate cuts. The sterling effective exchange rate had risen slightly since the June meeting, and a large part of this could be accounted for by changes in market expectations of UK relative to overseas interest rates.

The immediate policy decision

25 The Committee agreed that there had been a further deterioration in the prospects for the world economy. In the case of Japan the question was how bad things would get, given the current stance of policy. News on Japan continued to be offset to some extent by the strength of the United States. Growth in the EU was holding up, although there were differences across the major EU countries. The exchange rate had risen slightly over the past month, and the deterioration in UK net exports was coming through in the first quarter. The monthly trade figures pointed to further deterioration in net exports in 1998 Q2. So overall the net trade picture was, if anything, a little weaker than expected at the time of the *Inflation Report*, with further risks on the downside.

26 Despite the upward revision to 1998 Q1, the Committee was more confident that domestic demand was slowing. And the slowdown appeared to be spreading to the service sector, although much of the evidence of slower growth in the service sectors came from surveys. Taking external and domestic demand together, the real side of the economy looked to be broadly on the track expected at the time of the *Inflation Report*. Evidence from the demand side in Q2 might be slightly weaker than on the output side, but this was still highly uncertain.

27 The slowing in the rate of decline in unemployment looked consistent with developments in demand and output, and was also broadly consistent with the May *Inflation Report* projection. The level of pressure in the labour market was less clear, but was probably still high given the recent evidence on recruitment difficulties. Looking ahead, some rise in unemployment was likely later in the year, and was probably necessary to contain pressure on wages and earnings. Both inflation and earnings growth had risen on the month. The Committee felt that some of the rise in retail prices was erratic, and could therefore be discounted, but noted that inflation had turned out to be a little higher over most of the previous year than had been anticipated. Despite the real economy developing broadly as expected, there were signs that nominal variables were turning out worse than expected. This could be because the lags between output growth and its effect on inflation were longer than expected, or it could be because the short-run trade-off between the two was less favourable than predicted.

28 The Committee had considered the announcements on fiscal policy and the National Minimum Wage. The fiscal announcements appeared not to contain much news for inflation up to two years ahead. But more work needed to be done to quantify the effect of the EFSR and the aggregate effect on the labour market from the NMW, Welfare-to-Work and the tax/benefit changes.

Further analysis would take place in the context of the August *Inflation Report* projections.

29 There was an argument for a further immediate rise in interest rates. Even if unemployment stabilised at its current level there would be further pressure on earnings growth if unemployment were below the natural rate. A similar argument could be made in respect of capacity output, if the level of output was above potential. Therefore, a rise in unemployment back towards its natural rate—and a period of below trend output growth—would be required to return earnings growth to a rate that was consistent with meeting the inflation target in the medium term. But this could be achieved either through a sharp correction, or a more protracted adjustment.

30 Even if it was more likely than not that official interest rates would have to rise again, there were two reasons for waiting another month. First, there had been a lot of news over the period since the June MPC meeting. And the news was such that it was difficult to form a quantitative assessment of the overall impact on the medium-term inflation projection and of the size of any interest rate increase that might be required. In these circumstances it made sense to wait for an assessment in the quarterly *Inflation Report* forecast round, which was an important part of the monetary policy process. Second, although demand was slowing broadly as expected the economy had only just passed the turning point and there were risks that activity could slow more quickly than expected—so that there was more to be learned over the next month.

31 It was also argued that there was no need for a further rise in interest rates, and indeed on one view there was a case for an immediate reduction in interest rates. The impact of the June rise in official interest rates had been amplified in financial markets by expectations of further rises, which could be seen as an extra degree of tightening. The exchange rate had strengthened slightly on the month and was close to the level at the time of the May *Report*. Past interest rate increases were still feeding through. The greatest challenge at this point, given the lags in the operation of policy, was to judge when to stop raising rates and allow the cumulative tightening already in place to have its effects. There were already clear signs of a slowdown in domestic demand as well as a sharp weakening in exports. It was possible that the prospective slowdown in aggregate demand was already sufficient to produce an easing in the labour market consistent with meeting the inflation target in the medium-term.

32 The case for a reduction in interest rates had become less clear in the light of the Government's recent announcements on fiscal strategy, which raised new concerns about the medium-term inflation outlook. On this view it would be prudent to delay a cut in interest rates until these policies could be examined fully in the August *Inflation Report* round.

33 The Committee then voted unanimously in favour of leaving the Bank's repo rate unchanged.

34 The following members of the Committee were present:

Eddie George, Governor
 Mervyn King, Deputy Governor responsible for monetary policy
 David Clementi, Deputy Governor responsible for financial stability
 Alan Budd
 Willem Buiter
 Charles Goodhart
 DeAnne Julius
 Ian Plenderleith
 John Vickers

35 Gus O'Donnell was also present as the Treasury representative.

Annex: Summary of data presented by Bank staff

1 This Annex summarises the analysis presented by Bank staff to the Monetary Policy Committee on 3 July 1998, in advance of its meeting. At the start of the Committee meeting itself, members were made aware of information that had subsequently become available, and that information is included in the Annex.

I Monetary conditions

2 Broad and narrow measures of money had shown signs of slowing on the most recent data. The annual growth rate of notes and coin had slowed to 5.5% in June, after adjusting for the effects of the introduction of the new 50p and £2 coins. The latter had little effect on monthly growth in June.

3 The growth of personal sector M4 had slowed in May. The twelve-month growth rate had fallen to 6.9% from 7.2% in April, while the three-month and six-month annualised rates were lower still at 5.9% and 6.2% respectively. Retail inflows to building societies had remained strong, possibly on a view that there might be more demutualisations. Inflows to unit trusts had also been buoyant in May.

4 ICCs' M4 had grown by 0.6% in May, slightly faster than the average one-month growth rate for the previous six months. The shorter-run growth rates had also been higher than the twelve-month growth rate, which had fallen to 5.1% from 5.6% in April.

5 The twelve-month growth rate of OFIs' M4 had fallen to 19% in May, the first time the growth rate had been below 20% since 1995 Q2. Staff estimates suggested that LAPFs' money holdings were still above long-run equilibrium in Q1, but the Merrill Lynch survey of fund managers' portfolios had suggested that LAPFs' cash ratios had fallen back again in Q2.

6 Aggregate M4 growth had fallen in May. The twelve-month growth rate had come down to 9.2%, from 10.2% in April. The one-, three- and six-month growth rates had all also fallen. However, given that these growth rates had all risen in April, it was too soon to conclude that the growth rate of M4 had begun a sustained fall.

7 M4 lending had risen 0.5% in May on the previous month and by 8.1% on a year earlier, compared with 0.9% and 8.8% respectively in April. Within the total, lending to persons remained steady at a twelve-month growth rate of 7.1%.

8 Growth in net secured lending to individuals had been weaker in May. The gap between gross and net lending remained strong, possibly caused by high levels of remortgaging activity given that housing market activity itself did not seem to be strengthening. The growth of total unsecured lending to individuals had risen in May, largely driven by non-credit card borrowing.

9 Although the twelve-month growth rate of M4 lending to ICCs had fallen in May, the one-, three- and six-month growth rates pointed to stronger corporate borrowing in recent months. An industrial breakdown of lending by the major British banking groups suggested that manufacturing companies had repaid debt in May. Lending to OFIs had been weak in May—the one-month growth rate of 0.3% was the weakest for some time. Some of the weakness related to reverse repo activity.

10 Turning to financial prices, the majority of banks had announced that they would be passing on the 25 basis point rise in the repo rate in July. By contrast, several remaining mutual

institutions had announced a delay. Personal loan rates had risen sharply during May, partly due to the expiry of some special deals.

11 Short-term inflation expectations on a rolling horizon, as measured by surveys conducted by Consensus Forecasts, Barclays Basix and GFK, changed little in June. RPIX expectations with respect to a fixed end-point, as surveyed by Consensus Forecasts and HM Treasury, also showed little change on the month, though RPI expectations had generally edged up a little.

12 The distribution of inflation expectations of members of the general public collected by the Barclays Basix was typically asymmetric and positively skewed. The mode of the distributions of surveyed expectations of inflation at 12 and 24 months ahead were both 4%, and in both cases below the mean. The mode had generally been below the mean since 1992.

13 In wholesale markets, short sterling interest rates had moved up following the previous repo rate increase and now reflected an expectation of a further repo rate rise within three months. Two year spot short-term real rates, based on the Consensus Forecasts and Basix surveys of inflation expectations had risen slightly in June compared with March. These measures had indicated a similar fall in short-real rates between December 1997 and March, and now suggested that real rates had returned to end 1997 levels. Short real forward rates, as derived from index-linked gilt, had risen, while longer-term real rates had fallen since the previous MPC meeting.

14 Both the sterling ERI and the broader measure had risen since the June MPC meeting, and the forward path of the ERI implied by uncovered interest parity indicated a steeper depreciation path than that incorporated in the May *Inflation Report*, though starting from a higher level. The sterling ERI was 105.7 at close of business on 8 July (the first day of the MPC meeting).

15 UK forward interest rates derived from Government bond yield curves had moved by much more than overseas rates during June. This cumulative 'monetary news' seemed to explain a material part of the appreciation of the sterling ERI during the month.

II Demand and output

16 The National Accounts had shown that GDP at factor cost grew by 0.5% in 1998 Q1, unchanged from the previous GDP release; annual growth had been revised up from 2.9% to 3.0%. Within the quarterly figure, upward revisions to investment growth had been offset by downward revisions to growth in net trade, consumption and stockbuilding, and a revision to the factor cost adjustment, reflecting new information on hydrocarbon oil and VAT receipts. GDP growth of 0.5% was in line with the May *Inflation Report* forecast, but growth in domestic demand had been a little stronger than expected, and net trade a little weaker. Excluding the factor cost adjustment, GDP at market prices grew by 0.8% in Q1. This would become the new headline measure from September, when the ONS moved to the new European System of Accounts.

17 More recent data had suggested that underlying demand had continued to slow in Q2, but that GDP growth in the quarter might be temporarily boosted by unexpectedly high energy and utilities output, related to the colder weather in April.

18 Consumption had grown by 0.9% in Q1, revised down from 1.0%. Within this, services consumption had grown by 1.4%, partly reflecting strong overseas spending by UK residents. Goods consumption had been dominated by 3.5% growth in consumption of durable goods; consumption of non-durables had fallen by 0.4%. The retail sales data suggested rather stronger growth in goods consumption in Q1 than the National Accounts data.

19 Retail sales had risen sharply in May, by 1.7%. However, this appeared to be at least partly a bounce-back from weak sales in February to April. Sales in April appeared to have been affected by bad weather. Much of the growth in May had been accounted for by sales of clothing and footwear, which tended to be sensitive to weather patterns, and the growth in this component over three months was very weak. Although annual growth in retail sales had remained strong at 4.3% in the three months to April, several indicators had suggested that underlying consumption growth was gradually slowing. Household goods sales had continued to moderate, and private car registrations had fallen sharply. The GFK survey of consumer confidence and the CBI survey of retailers had both fallen in June. Activity in the housing market continued to weaken in May, with particulars delivered falling by a further 3,000. However, annual house price inflation had risen in June.

20 The share of durables in real total expenditure was a potentially useful indicator of domestic demand pressures. There had been a trend rise in the share since the late 1960s, as the wealth/income ratio had grown and the relative price of durables had fallen. But the nature of durables consumption meant that changes in the durables share tended to be positively correlated with changes in domestic demand over the cycle. On this basis, the rise in the durables share during 1997 was consistent with strong domestic demand growth. But the share could also have risen because of one-off factors, such as building society windfalls and appreciation effects. Econometric work suggested that windfall-related spending would explain only a small part of the rising share during 1997, and perhaps some of the unexpectedly large increase in 1998 Q1. More recently, however, slower growth in monthly sales of household goods and cars had been consistent with a flat or falling durables share, providing some support for a slowing of underlying demand growth.

21 Real personal disposable income had fallen by 0.2% in 1998 Q1, but this was depressed by higher income tax payments under the new self-assessment arrangements. Underlying growth in incomes and wealth remained strong: real labour income had grown by 1.8%, and personal sector net financial wealth had grown by 7.2%, mostly reflecting higher equity values.

22 Investment growth in 1998 Q1 had been revised up from 1.3% to 3.8%. Much of the revision had been accounted for by unusually large one-off items in the public corporations and energy/utilities sectors, including a reclassification of tube trains from stocks to investment. Excluding these factors, investment in both the services and manufacturing sectors had fallen during the quarter. And industrial and commercial companies' cashflow position might have worsened. Although the £3.4 billion financial deficit in 1998 Q1 was similar to that in 1997 Q4, the previous quarter's income had been depressed by windfall tax payments. Stockbuilding in Q1 had been revised down from £1.4 billion to £0.9 billion. There was little sign yet of an unusually large build-up of stocks at an aggregate level: the economy-wide stock/output ratio fell in Q1. The manufacturing stock/output ratio had risen slightly, however.

23 The outlook for investment remained mixed. The CBI and BCC surveys had both shown falling manufacturing investment intentions for Q2. But forward-looking indicators for construction investment were reasonably robust: although construction orders had fallen by 5% in the three months to May, they remained higher than in much of the previous year.

24 The current account balance was -£3.2 billion in 1998 Q1, the first quarterly deficit since 1996 Q3 and the largest since 1992 Q4. Part of the deficit was accounted for by erratically high transfers to the European Union, but the trade balance and investment income had also fallen. In particular, trade in services declined by a record £0.6 billion, accounting for much of the -0.7 percentage points net trade contribution to GDP growth over the quarter.

25 The underlying trade position had continued to become more negative. Although the headline deficit on goods fell in April, this was entirely because of trade in oil and erratic items with non-EU countries. Excluding these factors, the deficit increased. The total goods deficit was £5.1 billion in the three months to April, compared with £3.9 billion in the previous three months. Excluding oil and erratics, both export and import volumes had fallen in April. Export volumes to the non-EU countries had shown the biggest falls, perhaps reflecting the continuing impact of the downturn in East Asia. Falling imports had been particularly marked in intermediate goods and cars. Surveys indicated a continued weakening in export orders for both services and manufactured goods.

26 Government expenditure had been revised up in both 1997 Q4 and 1998 Q1 in the National Accounts, leaving growth between the quarters unchanged at -0.4%.

27 The Chancellor had set out the foundations for the forthcoming Comprehensive Spending Review in the Economic and Fiscal Strategy Report. Departmental spending limits would be set on a three year basis: the remainder (around half the total) would continue to be managed on an annual cycle. Limits would be based on the assumption of real growth in current spending averaging 2¹/₄% per annum over the next three fiscal years, while net public investment growth would almost double as a share of GDP over this period.

28 The government's new preferred indicator for monitoring the fiscal deficit was public sector net borrowing (previously termed the public sector financial deficit). This was not yet available on a monthly basis. The latest monthly fiscal release consequently continued to focus on the public sector net cash requirement (PSCNR), the new name for the PSBR. The PSCNR was £2.5 billion in May.

29 Industrial production had risen by 1% in April, but was almost entirely accounted for by higher levels of energy extraction and supply, largely as a result of cold weather. Manufacturing output had risen by only 0.1% on the month, and annual growth was flat. The CIPS and CBI manufacturing output surveys were both consistent with negative growth, suggesting a weaker position than the official data, having previously pointed to rather stronger growth. The CIPS services survey balance had fallen again, but was still positive, suggesting moderating, but still strong, services output growth. The scope of this survey was limited, however—it did not cover retailing or financial services. The CIPS construction survey balance had turned up, indicating continuing strong output growth in that sector.

30 UK trade-weighted GDP in the major six overseas economies had grown by 0.5% in 1998 Q1. Within this, US growth had been a little stronger than expected at the time of the May *Inflation Report* largely because of upward revisions to stocks, but Japanese growth had been significantly weaker, with GDP falling by 1.3% in Q1. Japan was in recession: both domestic demand and net trade had made negative contributions to Q1 GDP growth, and a significant stock overhang was expected to act as a drag on future growth. More recent data on Japanese industrial production, household confidence and the Tankan survey had pointed to continued domestic weakness. Subdued domestic demand had depressed imports, and the current account surplus had risen to around 3% of GDP.

31 Q1 GDP growth in the United States, France and Germany had been characterised by strong domestic demand growth, offset by large negative net trade contributions. This appeared to have continued into Q2, but with some country-specific developments. In the United States, industrial production, retail sales and consumer confidence measures had all pointed to robust growth during the quarter, but there was some evidence from the National Association of Purchasing Manager's (NAPM) survey of a slowdown in manufacturing output. Industrial production was growing rapidly in France and Germany, at around 5%. The underlying picture appeared rather stronger in France than Germany, however: France was now enjoying strong employment growth, but this was not the case in Germany. Apart from Italy, other countries in the euro area were typically experiencing relatively rapid rates of growth.

32 The effects of the Asian crisis were now apparent in international trade flows. Most G7 countries had seen falling exports to the region, although there was less evidence of a significant rise in imports. The change in the trade balance with Asia (excluding Japan), in 1997 Q4 and 1998 Q1 compared with the previous two quarters had amounted to -0.5% of nominal GDP in Germany, -0.4% in France and -0.2% in the United States. The US figure was lower partly because of recent volatility in the trade data, and because trade accounted for a relatively small proportion of US GDP. Simple accounting suggested that a rise in the Asian trade surplus (including Japan) equivalent to 1% of regional GDP might reduce EU and US GDP by around 0.3%. The latest Consensus Forecast suggested that market commentators now expected little or no growth during 1998 in the Asia-Pacific region (which accounted for 11% of UK exports). And forecasts were still being revised downwards.

33 There was some evidence that global financial risks had increased. Investor nervousness had contributed to pressures in Russia, South Africa, Chile and Mexico during the previous month. And there had been some speculation about a possible Chinese devaluation, before the intervention to support the yen.

III Labour market

34 LFS employment had risen by 61,000 (0.2%) in the three months to April 1998 over the previous three months. This was faster than the rise in the three months to January (48,000), and the rise in the three months to March reported a month ago, but slower than the average quarterly growth over the past year (0.3%). Almost all of the rise in the three months to April was in part-time workers. The Workforce Jobs measure showed stronger growth, rising by 116,000 (0.4%) in 1998 Q1 and by 429,000 on the same quarter a year earlier. Since the latter survey has a slightly higher sampling variability, the former may be a more reliable guide. LFS total hours worked had risen by 0.6% in the three months to April, and were 0.8% higher than a year earlier. This suggested that hours worked per person rose in the three months to April, but were lower than a year earlier. But the hours worked series is volatile, and so single comparisons may be misleading. The trend in total hours worked still seemed to be upwards, though it may have flattened somewhat.

35 A new weighted aggregate CIPS survey (latest month June) suggested that employment growth in 1998 was slower than in 1997, though the pace of growth had increased moderately in recent months. But it was still consistent with employment growth of more than 1% a year, substantially higher than the growth of the working-age population. The individual CIPS surveys indicated continued strong growth in services and construction employment in June, though the rate of increase implied by the construction indicator fell. But there had been a marked deterioration in manufacturing employment in June. This sectoral picture was supported by reports from the Bank of England's regional Agents.

36 The most recent Manpower survey, referring to employment intentions in Q3, showed a slowdown compared with the previous quarter, with the balances around the same level as a year earlier. A new monthly survey by the Federation of Recruitment and Employment Services (FRES) and NTC Research provided more information about the labour market. The FRES Job Market Index combined newspaper recruitment advertising with recorded vacancies to produce a leading indicator of employment growth. The index had peaked in around mid 1997, and now suggested continued employment growth, but at a slower pace. Other indicators derived from the FRES survey seemed to indicate continued labour market tightness, though they had a small back run, and it was as yet hard to interpret the level of balances in the indicators. Permanent and temporary placements through recruitment agencies continued to rise in June, and the demand for staff across all occupational categories was still increasing. This led to increasing unavailability of staff and further upward pressure on agencies' pay rates.

37 The stock of recorded vacancies (adjusted for overcount) had risen by 10,000 in May, with the trend continuing upwards. But notifications of new vacancies fell, and the level of job advertising in the national press seemed to be levelling off. This might imply that demand was beginning to slow, but also that vacancies were becoming harder to fill.

38 LFS unemployment in the three months to April had fallen by 35,000 over the previous three months, the rate falling by 0.1 percentage points to 6.4%. This was similar to the fall in the three months to March, though lower than in the three months to January, suggesting again that the labour market was still tightening, but at a slower pace. But employment growth in the three months to April had been slightly stronger than in the three months to January, as the rise of inactivity slowed. Claimant count unemployment had risen slightly in May by 1,700, though the rate remained unchanged at 4.8%.

39 The twelve-month average of wage settlements in the whole economy in May was 3.5%. This was unchanged from the (downwardly revised) provisional April figure, though the general movement in the twelve-month averages appeared to be upwards, driven by higher private sector settlements, which increased to 4% in May.

40 Headline annual earnings growth rose to 5.2% in March from 4.9% in February, with services and manufacturing earnings growth both increasing by 0.3 percentage points. But provisional monthly changes were lower in April, the whole-economy twelve-month rate falling from a revised 5.6% in March to 5.1% in April. Headline private sector earnings growth rose to 5.9% in March from 5.6% in February, with the public sector measure unchanged from a downwardly revised 2.5%.

41 Whole-economy productivity rose by 1.4% in the year to 1998 Q1, unchanged from the rate of growth in Q4. But annual growth in unit wage costs slowed to 3.2% from 3.6%, implying a slowdown of wage growth per head—contrary to the Average Earnings Index. This was probably because the wage data for Q1 used in the unit wage cost calculations were provisional and because the 1997 Q1 data used in the annual calculation would not be revised until later in the year. When revisions were made, unit wage cost growth would quite possibly turn out to be higher.

42 Some analysis was presented on the influence of bonuses and profit-related pay (PRP) on earnings growth. It was possible to analyse changes in average earnings growth by taking a moving average of yearly pay—ie the past twelve months on the previous twelve months—which should not be distorted by the timing of one-off payments. On this measure, average earnings growth was drifting steadily upwards, particularly in the private sector. But that was a backward-looking indicator, and would always be slow to show a changing trend.

43 The ONS had attempted to identify irregular bonuses and PRP payments from survey returns, in which firms ticked a box if there had been a significant change in bonuses paid. Though the data were less reliable and surrounded by more uncertainty than the average earnings index itself, their results suggested that such payments had a seasonal pattern and had been growing in recent years. This growth could be biased upwards if some firms paid irregular bonuses in two successive years but only ticked a box in the second one, not considering their first year bonuses significant. But as the proportion of firms ticking boxes in 1997 and 1998 had risen only a little, ONS estimates were consistent with limited bias from this source. The estimates showed a pick-up in the growth of the regular component of pay in April. And looking forward, though the estimates showed that the contribution of irregular bonuses typically became smaller over the summer, past evidence suggested that they would continue to have an effect on earnings growth.

44 Some analysis was presented on why firms might choose to pay larger bonuses and PRP rather than fixed salaries, and what such payments implied about labour market tightness. There were several motives for increasing the proportion of pay accounted for by bonuses or other irregular payments. Firms might use such payments to motivate existing workers by increasing work effort or incentives, to recruit good workers by helping selection, to retain good workers more cheaply by allowing flexibility under changing conditions, or for institutional reasons such as the tax relief available on PRP schemes. So the rise in bonuses might have several causes, including a structural trend towards more merit-based pay systems (perhaps linked to less trade union power and more pay decentralisation), a tightening labour market making recruitment and retention more difficult, or higher productivity or profitability increasing the bonus pot available. It was difficult to identify these elements separately, especially since corporate profitability was high, but recorded productivity growth was low.

45 There would be several influences on the direction of bonuses and merit-based pay. These would include a long-term structural trend towards higher merit pay, possibly offset by a slowing in profit growth, reducing profit-related payments. The outlook for unemployment and skill shortages would affect the use of bonuses to retain and recruit, while the phasing-out of PRP tax benefits might lead to a decrease in the use of PRP schemes. At the very least, the elimination of PRP tax benefits should lead to some pressure for firms to compensate workers to maintain their take-home pay, though this had probably not yet been a very large influence on aggregate pay settlements.

46 The Bank's regional Agents had conducted a small survey of their contacts on the use of bonus payments. Use of bonuses was widespread: around two thirds of companies made irregular payments and around half made regular payments. Only around 14% of their sample paid no bonuses at all—though the sample had been selected with likely bonus payers in mind—and of the financial services companies interviewed, almost all paid bonuses.

47 Of those who made one-off (ie annual) bonus payments, more than 60% of service companies but only 40% of manufacturers had recently increased them at a faster rate than basic pay. Financial services companies were particularly likely to have increased bonus payments relatively fast. For those making regular (eg monthly) payments, rather fewer had increased them relative to basic pay.

48 The survey asked firms what factors motivated bonus payments, and of these, which was the most important, though it did not distinguish between how such payments were calculated and the original aim of paying them. Of those who paid bonuses, the largest group cited profits and profitability as the most important factor. Companies tended to look to past rather than current profits, in a ratio around 2:1. Stronger 1997 profits would in many cases be reflected in January-April bonuses in 1998. The

second largest group cited targets such as productivity and sales as the most important factor, and the third (mainly service sector companies) retention and recruitment.

49 Respondents' attitudes to bonuses were that the emphasis on such payments was increasing as managers look to motivate workforces and to make remuneration more flexible. Some managers, particularly in service sector companies, considered that their employees had come to expect minimum bonuses. But still slightly less than half of firms overall regarded such payments as part of normal labour costs, rather than an extra award.

IV Prices

50 The Bank's sterling commodity price index had risen by 1.3% in May, bringing its annual inflation rate to -10.6%. Excluding oil prices, the index rose by 0.6% on the month to a level 7.0% lower than in May 1997. A fall in metals prices had been more than offset by rises in food and oil prices in May. But oil prices had fallen again in June—despite OPEC's agreement on 24 June to make further supply cuts—by 7.3% compared with May, as supply remained above demand. The oil price remained erratic, but the trend was probably flat.

51 Annual input price deflation had persisted—input prices were last as low in 1988 (excluding April), and they fell by 17.4% in the two years to May—and the June CIPS survey had suggested further falls, although the ONS data showed a 0.3% rise in input prices in May, bringing the annual inflation rate to -8.9%. Output prices were also falling. Excluding taxes and excise duties they had fallen in the first four months of 1998 and were flat in May; the annual rate of inflation of PPIY had fallen to -0.4% in May, the lowest since 1974 (when the series begins). The June CBI survey had suggested further output price falls—the balance of expected prices (seasonally adjusted) had reached another all-time low in June of -19. The breakdown of the Bank's manufacturing margins data had suggested that unit labour costs were still rising quickly—by 5% in the year to May—but evidence from the Bank's Agents suggested that manufacturers found it difficult to pass higher labour costs on to their customers. RPIX goods inflation and producer output-price inflation had been closely correlated in the past.

52 Trade prices had fallen again in April: import prices excluding oil by 0.4%, and export prices by 0.2%. But non-EU foreign trade prices had both risen in May: by 1.3% and 0.7% respectively. The picture had not changed appreciably in 1998, with annual inflation of both import and export prices close to -4%. Retailers' margins were estimated to have narrowed further in Q1. Estimated retail margins were close to their long-run average.

53 The annual rate of both GDP (at factor cost) and retail sales deflator inflation, at 1.6% and 1.1% respectively, remained below all headline measures of RPI inflation in the first quarter. This was principally accounted for by the investment and government consumption deflators. But the annual inflation rate of the consumers' expenditure deflator at market prices was also lower than RPIX inflation in the first quarter: the two measures differ in both construction and coverage.

54 The annual rate of HICP inflation had increased by 0.1 percentage point in May, to 2.0%. The difference between the two measures had increased to 1.2 percentage points, the biggest yet recorded. This seemed to be largely because of two factors: the difference made by the use of the geometric mean in the calculation of the HICP, compared with the arithmetic mean in the calculation of RPIX, increased by 0.05 percentage points; and housing depreciation, which was included in RPIX but not in the HICP, had contributed a further 0.1 percentage point to the increase in the difference. The recent profile of the UK's HICP inflation rate had been very similar to that of the European Union as a whole, but remained about 1 percentage point above the HICP inflation rates in

Germany and France. Part of the recent rise in inflation in the United Kingdom—fresh food prices—had also occurred in these countries.

55 Against expectations, all the main RPI inflation measures had risen in May: RPIX to 3.2%; RPI to 4.2%; and RPIY to 2.5%. The surprise had come almost exclusively from goods prices, although housing depreciation had also been higher than expected. The main contributors to the surprise in goods prices inflation were seasonal food, clothing and footwear, and household goods.

56 Seasonal food prices had risen by 8.3% in May, as bad weather in April destroyed crops. This shock may not have been fully unwound in June, but is unlikely to have any medium-term implications. Both clothing and footwear and household goods prices are highly seasonal. In both sectors, discounting at sales appeared to be increasing, and discounting at mid-season furniture sales in April was greater than in previous years. It might be that the price rises, particularly in household goods, were partly to enable greater discounting in the July sales. And evidence from the Agents and the ONS suggests that the fine weather in early May, following the wet weather in April, might have stimulated demand for clothing. Prices could therefore fall in June, and fall by more than is usual in July, and have little medium-term implication. But the price rises may signal a smaller appreciation effect, or stronger domestic demand, than had been previously been expected, so there were clear upside risks.

57 Housing depreciation was a relatively new component of the RPI, having been introduced in 1995. It was based on the DETR and Halifax house price measures. The DETR measure of house-price inflation had shown a sharp increase in March and April, at a time when both the Halifax and Nationwide measures were roughly stable, so the sharp increase in housing depreciation inflation might prove temporary.

V Financial markets

Foreign exchange

58 Yen volatility was a key feature of the month. On a longer time-horizon, there had been a general weakening of the yen against other major currencies, but a strengthening against East Asian currencies (which together are as important to Japanese exporters as the European Union). The yen had moved less against an intermediate group of currencies, including the Canadian dollar, the Australian dollar and the rand, which had tended to weaken in the face of lower commodity prices. For much of June the yen had been weak, reflecting the weakness of the economy, problems in the banking sector and uncertainties over fiscal policy. On 17 June, there was a well-timed intervention by the Bank of Japan and the US Federal Reserve, and the yen initially rose sharply against the dollar, from ¥142 to ¥137. But when no new policy announcements were made following the G7 meeting in Tokyo, the yen drifted back towards pre-intervention levels.

59 Information from options markets had shown that the one-month implied volatility for \$/yen was typically higher than for \$/Mark. However, the differential was greater than at any time in the previous ten years. Uncertainty about the \$/yen exchange rate, as measured by the width of the 70% confidence band from the implied probability distribution for the exchange rate level three months ahead, had risen sharply over the month. At the same time, the distribution had become more skewed in favour of yen weakness. The BoJ/Fed intervention had had no lasting impact on either of these measures. The implied twelve-month implied correlation between the dollar and yen (using the Swiss franc as numeraire) had fallen sharply over the month, from 0.39 to 0.27, and the effect of the intervention was again temporary.

60 The DM had weakened to DM 1.82 against the dollar—the lowest level since Easter. Events in Russia, and perhaps reduced

expectations of interest rate increases in Europe, had been dominant factors. Meanwhile sterling had appreciated steadily during the month by 3% in effective terms. The rise in interest rates on 4 June had taken the market completely by surprise with sterling rising by more than a cent to \$1.65 and by more than three pfennigs to DM 2.93. But by the end of the day, sterling was back at its starting levels. Since domestic interest rates were up across the board, the fall had not been because the market thought interest rates had peaked, and changes in volatility measures suggest that it was not entirely consistent with a view that MPC would be more likely to move rates either up or down. Alternatively, the answer might have been sterling's failure to break a technical resistance point at DM 2.93. Following 4 June, there had been a two-week period in which sterling was relatively flat against the dollar, as the dollar appreciated against the yen, and rose against the Mark. So Asia and Russia-related 'safe-haven' flows may have been a factor. The following week, stronger-than-expected data had led to a rise in sterling. Since then, there had been a slow and steady appreciation of sterling against the Mark, but a stable period against the dollar.

Bond and money markets

61 The MPC's decision to raise interest rates on 4 June had surprised the markets. Implied future three-month interest rates had risen by just over 0.25% at the short end (September and December 1998 short sterling contracts), and by 15 basis points at the two year maturity—the biggest one-day movement for several years. As well as being surprised by the rise, some contacts had said that they were now more uncertain about the path of official rates and about the MPC process itself. The other main influence on the money market was UK data, particularly RPIX, retail sales and the labour market data. The market had interpreted the data as something that the MPC may react to in the future, and in total the short sterling curve had moved up by 70 basis points in the period since the previous MPC meeting. The probability distribution for short-term interest rates in March 1999 derived from options prices had shifted to the right during the month, reflecting the increase in the mean rate. And there had also been an increase in uncertainty (as measured by the standard deviation). However, the rise in uncertainty did not occur on the day of the interest rate change, but appears to have happened later in the month as data were published. One interpretation is that the increase in market uncertainty mainly reflected the new data, rather than questions about how MPC was likely to react to any given set of data.

62 In the bond market there had been a further inversion of the yield curve. At two years ahead, the forward rate had risen about 35 basis points, whereas at 20 years they had fallen around 40 basis points. In the part of the month when UK yields were falling most clearly, so too were yields in major overseas markets. Deflationary potential from Asia seemed likely to have been a factor in lower world yields, although the direct impact of Japanese and other Asian news on UK gilt yields had not been great. This period also included the Chancellor's fiscal statement.

Equity markets

63 The FT-SE All-Share index was unchanged over the month whereas equity markets in other major economies had risen in local currency terms. This relative underperformance in the FT-SE All-Share index had reflected in particular a fall in the value of smaller stocks and in the General Industrials sector of the index.

64 A survey conducted roughly every six months provided evidence on the expectations of academic and city forecasters for nominal corporate profit growth up to six years ahead. The six year ahead forecast had fallen from around 11% per annum in 1993 to about 6% per annum in late 1995, since when it had been roughly constant. But inflation expectations derived from the gilts market had been falling during this period. This implies that expected profits growth for six years ahead had risen from around 3.5% per annum in later 1995 to about 3.9% per annum in May 1998.

Making a number of very strict assumptions, it was also possible to derive an indicative estimate of the equity risk premium that these forecasts for profits growth might imply. The implied equity risk premium derived in this way had fallen from around 7% in June 1993 to about 4% in May 1998. Taken together, these estimates provided a sense of the market views that might underlie the level of the UK equity market.

Text of Bank of England press notice of 9 July 1998

Bank of England leaves interest rates unchanged

The Bank of England's Monetary Policy Committee today voted to leave the Bank's repo rate unchanged at 7.50%.

Minutes of today's Monetary Policy Committee meeting will be published on Wednesday 12 August. Minutes of the meeting held in June will be published on Wednesday 15 July.

Text of Bank of England press notice of 6 August 1998

Bank of England leaves interest rates unchanged

The Bank of England's Monetary Policy Committee today voted to leave the Bank's repo rate unchanged at 7.50%.

The *Inflation Report* will be published next Wednesday (12 August).

The minutes of today's Monetary Policy Committee meeting will be published on Wednesday 16 September. The minutes of the meeting held in July will be published on Wednesday 12 August.

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