

Inflation Report

August 2002

The *Inflation Report* is produced quarterly by Bank staff under the guidance of the members of the Monetary Policy Committee. It serves two purposes. First, its preparation provides a comprehensive and forward-looking framework for discussion among MPC members as an aid 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 on which our projections are based, the fan charts represent the MPC's best collective judgment about the most likely paths 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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The Overview of this *Inflation Report* is available on the Bank's web site at www.bankofengland.co.uk/inflationreport/infrep.htm The entire *Report* is available in PDF format at www.bankofengland.co.uk/inflationrep/index.html

Overview

Output growth in the United Kingdom has picked up. Continuing strength in private and public consumption has kept domestic demand growing at close-to-trend rates, offsetting the weakness in exports and business investment. The world economy has also shown signs of revival, but sharp falls in global equity prices may dampen the recovery at home and abroad. Unemployment has changed little and there are few signs of increased pay pressures. Input and imported goods price inflation also remain subdued. RPIX inflation dipped to 1.5% in June. The Committee's central projection at the current level of official interest rates is for four-quarter GDP growth to return to around-trend rates over the next year, and for inflation to run a little below the 2.5% target through most of the forecast period, before edging up to around target as the two-year horizon approaches.

Recent data suggest that a gradual, albeit patchy, pick-up in economic activity is under way in the major overseas economies. In the United States, output growth fell back to a more moderate rate in Q2 after the temporary first-quarter boost arising from the turnaround in the inventory cycle. The euro area recorded modest growth in Q1, largely on the back of increased net exports, though industrial production data and business and consumer surveys suggest that growth may have tailed off during the second quarter. In Japan, first-quarter growth was strong and business confidence edged up. But stock prices around the world have fallen by around a fifth since the *May Inflation Report*, triggered by a correction to the value of US equities resulting from doubts about the veracity of reported corporate earnings. That could dampen consumer spending and discourage investment, but the effect may be tempered by the impact of lower market interest rates. Overall, the outlook is for continued recovery in world demand, but at a somewhat slower pace than anticipated in the *May Report*.

The dollar has fallen around 10% against the euro since the *May Report*. Against this background, sterling has risen against the dollar and depreciated against the euro so that the profile for the sterling effective exchange rate in the projections is only marginally lower. The outlook for dollar commodity prices has changed little, while traded goods price inflation remains muted.

In the United Kingdom, output stalled around the turn of the year as falling global demand depressed exports and companies cut back investment, offsetting continuing firm growth in domestic consumption. But GDP is provisionally estimated to have increased 0.9% in the second quarter, suggesting that recovery is in train. Manufacturing output edged up in April

and May following the sharp decline over the previous 15 months, while service-sector growth picked up to 0.6% in Q2. Surveys suggest some slackening in the pace of growth in June and July, but the Jubilee holiday and World Cup complicate interpretation of the data.

First-quarter growth in household consumption dipped to 0.5%, but a pick-up is likely in Q2 given a 1.7% surge in retail sales. House prices have continued their rapid rise although there are tentative indications that the pace may soon start to slacken. House prices are high in relation to earnings, but some increase in the ratio may be warranted by changes in the economic environment. Secured and unsecured borrowing continued to grow strongly suggesting that spending is likely to remain firm in the near term. But slowing growth in real disposable incomes and the recent sharp falls in equity wealth should restrain future spending growth. Public consumption is set to continue rising strongly over the medium term.

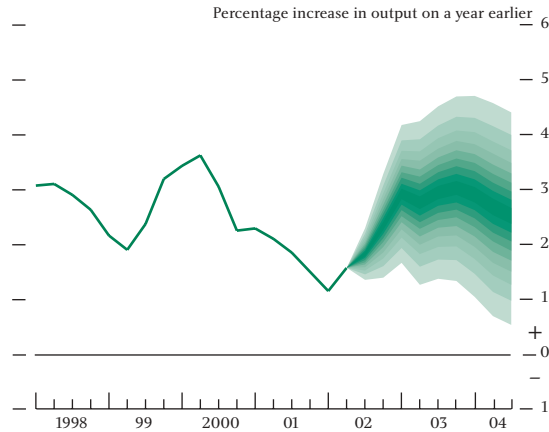
Business fixed investment in Q1 was nearly 9% lower than a year earlier. Investment intentions have risen a little, suggesting some revival in business capital expenditures over the forecast period, although the rise in the cost of equity finance and heightened uncertainty following the recent turbulence in stock markets may retard any pick-up. The more subdued outlook for investment, allied to downward revisions to the past data, imply somewhat lower supply capacity going forward. Capital spending by the public sector is set to grow strongly.

Net exports continued to hold back growth in Q1. Despite the modest recovery in global demand, export volumes continued to contract while imports rose. A beneficial movement in the terms of trade nevertheless ensured a slight narrowing of the current account deficit. Surveys and trade data for April and May point to growth in export volumes and an associated turnaround in the net trade contribution in Q2.

The employment rate has remained stable in spite of the recent slowdown in growth, as increased employment in public services and construction offset falls in manufacturing. Labour productivity growth has dipped more sharply than is usually the case in such a slowdown. That appears to be particularly associated with the contraction in activity over the past year in the ICT sector.

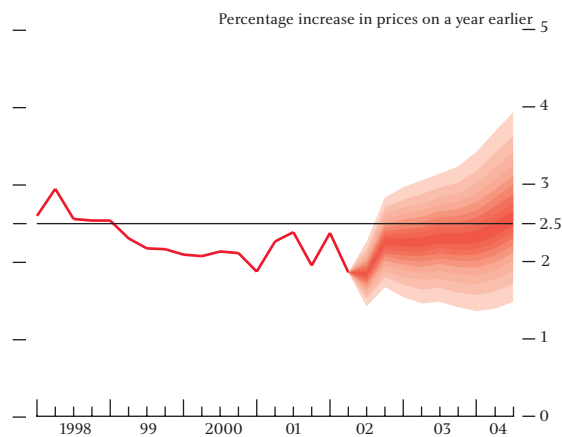
The LFS unemployment rate in the three months to May stood at 5.2%, just 0.3 percentage points higher than a year earlier, and survey-based measures of labour market tightness are little changed. Headline earnings growth has recovered from recent abnormally low levels as the impact of past falls in bonuses dropped out of the calculation of the twelve-month growth rate. Growth in regular pay per hour has moderated slightly and

Chart 1
Current GDP projection based on
constant nominal interest rates at 4%



The fan chart depicts the probability of various outcomes for GDP growth in the future. 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 probability, until 90% of the probability distribution is covered. The bands widen as the time horizon is extended, indicating increasing uncertainty about outcomes. See the box on pages 48–49 of the *May Inflation Report* for a fuller description of the fan chart and what it represents.

Chart 2
Current RPIX inflation projection based
on constant nominal interest rates at 4%



The fan chart depicts the probability of various outcomes for RPIX inflation in the future. 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 probability, until 90% of the probability distribution is covered. The bands widen as the time horizon is extended, indicating increasing uncertainty about outcomes. See the box on pages 48–49 of the *May Inflation Report* for a fuller description of the fan chart and what it represents.

surveys suggest near-term inflation expectations for RPIX remain anchored a little below the target. That indicates little change in underlying wage pressures.

Producers' input costs remain well below levels a year ago and producer output price inflation remains benign. The sterling price of imported goods is little changed. Annual RPIX inflation fell to 1.9% in the second quarter; much of this fall was anticipated. In June it dipped to 1.5%, the lowest for 35 years, mainly reflecting the impact of lower petrol prices and the weather-related rise in seasonal food prices a year earlier.

Chart 1 shows the MPC's assessment of the outlook for GDP growth, on the benchmark assumption that the official interest rate remains at 4%. The central projection is for four-quarter growth to recover gradually to around trend as strengthening global demand and higher public spending offset a deceleration in household expenditure. Output growth is somewhat weaker than in the *May Report*, largely reflecting the impact of lower equity prices on demand at home and abroad.

Chart 2 shows the corresponding outlook for RPIX inflation. The central projection is for inflation to run slightly below target through most of the forecast period, before edging up to around the target as the forecast horizon approaches. The inflation profile is broadly similar to that in the *May Report* during the first year of the projection. Thereafter the profile is markedly flatter, reflecting the weaker projection for output and the associated less rapid build-up of pressure on supply capacity.

Considerable uncertainties surround the projections. In particular asset prices are likely to remain volatile and past experience may prove an unreliable guide to the impact of such a large and protracted fall in equity prices. But the Committee judges the risks associated with asset prices to be evenly balanced. Uncertainty also remains about the response of employees and employers to the planned increase in National Insurance contributions. As in the *May Report*, the Committee judges that, relative to the central projection, the overall risks to growth are weighted marginally to the downside, with those to inflation being slightly on the upside.

At its August meeting, the Committee recognised that the outlook for growth and inflation was somewhat weaker than before. Noting that, on the central projection, inflation returned to target and was edging up only slowly at the forecast horizon, and bearing in mind the many risks, the Committee judged that it was appropriate to leave official interest rates at 4%. The Committee stands ready to take whatever action is necessary to keep prospective inflation in line with the 2.5% target over the medium term.

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International equity prices fell substantially in all major markets in Q2 and into Q3. Interest rate expectations have also fallen since the May Inflation Report, largely as a response to equity price declines and their possible macroeconomic consequences. The dollar depreciated against all major currencies, including sterling, although sterling depreciated against the euro.

In the United Kingdom, house prices continued to rise rapidly, although expectations of future house price inflation eased a little recently. Growth in household borrowing, particularly that secured on property, remained strong in Q2. Robust household deposit growth continued in the second quarter and is likely to provide support for consumption in the near term. In contrast, private non-financial corporations' (PNFCs') bank borrowing growth and capital market finance declined. Aggregate money and credit growth picked up slightly in Q2.

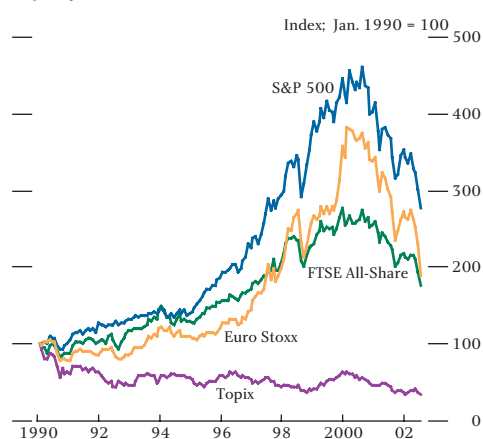
1.1 Asset prices

Equities

International equity prices have fallen substantially since the *May Report* (see Chart 1.1). Corporate accounting irregularities in the United States have become increasingly apparent since the bankruptcy filing of Enron in December 2001 and have raised concerns about the accuracy of reported corporate earnings. This issue clearly was at the forefront of investors' minds in the past few months, and triggered a further questioning of the levels to which equity values had risen in recent years.

Between 8 May and 31 July,⁽¹⁾ the S&P 500 fell by 16.3%. Over the same period, in domestic currency terms the FTSE All-Share index fell by 19.0%, the Euro Stoxx by 23.2% and the Topix, a comparable Japanese index, by 10.8%. But equities are traded internationally, so it is more appropriate to compare price movements in terms of a common currency. Some of the falls in UK equity prices have been offset by the strengthening of sterling against the dollar. In dollar terms, the decline of the FTSE All-Share since the *May Report* (13.3%) was smaller than the fall in the S&P 500 index. By contrast, despite the appreciation of the euro against the dollar, the Euro Stoxx fell by 17.2%—slightly larger than the S&P fall—in common currency terms. It is a puzzle as to why equity price movements have been quite so tightly linked.

Chart 1.1
Equity indices in domestic currencies^(a)

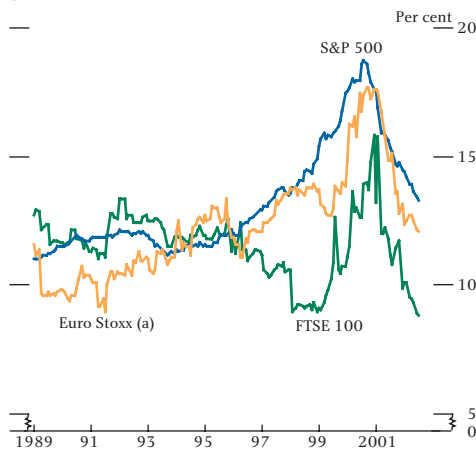


Source: Bloomberg.

(a) End-month data.

(1) The cut-off dates for inclusion of data in the *May* and *August Reports* respectively.

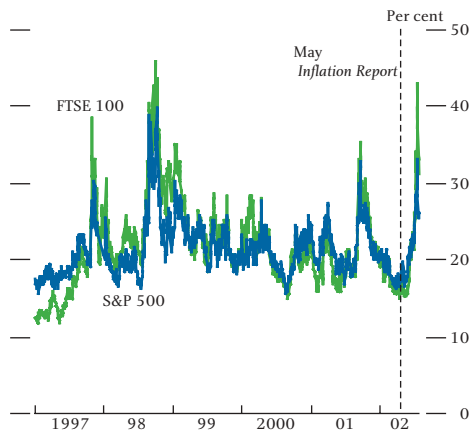
Chart 1.2
IBES medium-term earnings per share growth forecasts



Source: Institutional Brokers' Estimate System.

(a) FTSE Europe excluding UK index before 2000.

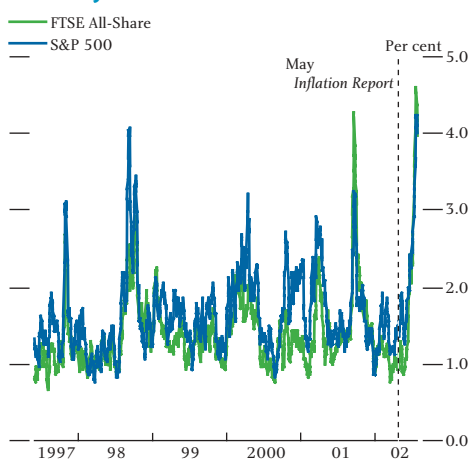
Chart 1.3
FTSE All-Share and S&P 500 implied volatility^(a)



Sources: LIFFE and Chicago Mercantile Exchange.

(a) Annualised implied volatility derived from three-month constant maturity options.

Chart 1.4
FTSE All-Share and S&P 500 intraday volatility^(a)



Sources: Bloomberg and Bank of England.

(a) Average of the difference between daily high and low prices, scaled by the daily closing price, calculated over a two-week rolling window.

UK equity markets fell to six-year lows in July, but they recovered somewhat towards the end of the month. Nonetheless, between its September 2000 peak and 31 July, the FTSE All-Share index fell by 37.2% in domestic currency terms. The previous period of such prolonged falls in prices was between May 1972 and December 1974, when the index fell by 73%.

Equity prices depend, among other things, on expected future corporate earnings. In the United Kingdom, analysts' earnings forecasts for the FTSE 100 index compiled by the Institutional Brokers' Estimate System (IBES) show a fall at both short and longer horizons, with the forecast for 2002 earnings growth falling from 14.8% in May to 3.2% in July. Forecasts for average earnings growth over the next three to five years, more relevant for equity investors' valuations, fell from 9.3% in May to 8.8% in July. Chart 1.2 shows that medium-term forecasts for the United States and the euro area fell in a similar fashion. Nevertheless, it is difficult to establish how representative these forecasts are of equity investors' expectations in general.

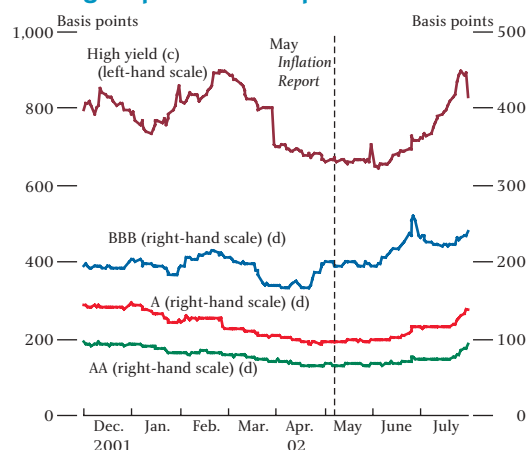
If equity investors are not only more pessimistic, but also more uncertain about current and future earnings, then they may demand a higher equity risk premium, the excess return for holding risky assets. Other things equal, if equity investors require a greater future return from equities, then prices will fall. Uncertainty about the reliability of reported earnings and about future corporate profitability could have contributed to a rise in the equity risk premium in global equity markets.

Implied volatility measures for international equities, derived from options prices, support the view that investors' uncertainty rose in Q2 (see Chart 1.3). Moreover, intraday price volatility in the United States and the United Kingdom has increased markedly since May (see Chart 1.4), suggesting that, as in previous episodes of turbulence, market participants are highly uncertain about equity valuations.

Increased uncertainty about corporate earnings may also have affected US and UK corporate bond spreads. Chart 1.5 and Chart 1.6 show that since the *May Report*, UK and US BBB and high-yield spreads have widened significantly, but spreads on higher-quality bonds have increased by smaller amounts.⁽¹⁾ So, although the market values of many firms have declined, the ability of higher-rated companies to repay debt is not seriously in question. In contrast, for lower-rated firms, the increased uncertainty may have contributed to higher perceived default risk. Spreads on euro corporate bonds widened in a similar fashion.

(1) Charts 1.5 and 1.6 are affected by companies shifting between investment grades. Indeed, the large drop in the US BBB spread at end-May reflects WorldCom's debt being downgraded from BBB to junk status.

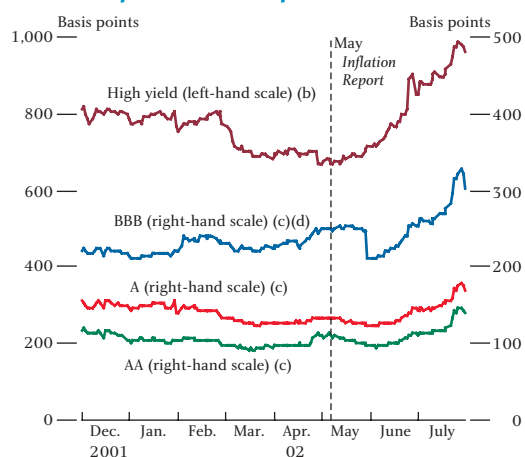
Chart 1.5
Sterling corporate bond spreads^{(a)(b)}



Source: Merrill Lynch.

- (a) Option-adjusted spreads over government bonds.
- (b) Includes sterling bonds issued by non-UK corporations.
- (c) All maturities.
- (d) 7–10 year bonds.

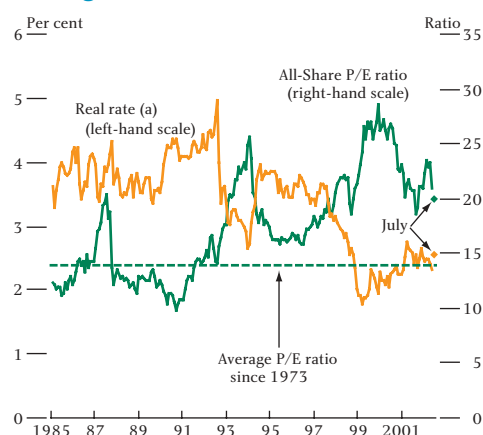
Chart 1.6
Dollar corporate bond spreads^(a)



Source: Merrill Lynch.

- (a) Option-adjusted spreads over government bonds.
- (b) All maturities.
- (c) 7–10 year bonds.
- (d) WorldCom was removed from BBB index end-May.

Chart 1.7
FTSE All-Share price-earnings ratio and sterling real interest rate^(a)



Sources: Thomson Financial Datastream and Bank of England.

- (a) Ten-year spot index-linked gilt rate.

Notwithstanding the recent sharp declines in US and UK equity prices, traditional valuation benchmarks such as price-earnings ratios remain above their long-run averages (see Charts 1.7 and 1.8), and somewhat more so in the United States. For the ratios to return to these levels equity prices would need to fall further or earnings would need to rise substantially. But there is a variety of reasons why the equilibrium level of the price-earnings ratio might be higher than its long-run average. Changes in risk preferences of financial investors and reductions in the cost of portfolio diversification, together with greater stability in the macroeconomic environment could mean that the equity risk premium is now lower than in the 1970s and 1980s, despite rising recently.⁽¹⁾ Chart 1.7 also shows that in the United Kingdom, real interest rates, as measured by the yield on index-linked gilts, are low by recent historical standards. These factors could mean that equity investors demand a lower return from equities than in the past, which in turn would support a higher price-earnings ratio.

Interest rates

The MPC maintained the Bank’s repo rate at 4% at its June, July and August meetings. Over the past three months, official interest rates were also left unchanged in the United States and the euro area. The monetary policy stance in Japan remained the same.⁽²⁾ Official rates were raised by 50 basis points in Canada.

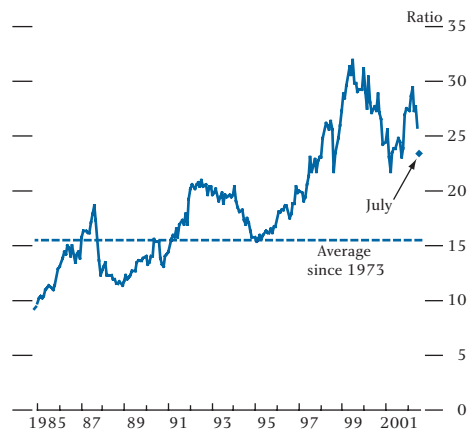
Expectations of future short-term sterling interest rates have fallen at all horizons since the May Report (see Chart 1.9). As of 31 July the implied two-week forward rate two years out was 4.8%, compared with 5.4% on 8 May and 5.1% on 6 February. Indeed on 31 July, the yield curve indicated that market participants accorded some probability to a further cut in rates over the next six months. The upward sloping yield curve thereafter reflects continued expectations that official rates will rise in 2003 and 2004.

Chart 1.10 further shows that three-month interest rates implied by futures contracts fell in the United Kingdom, the United States and the euro area. To a large extent, the recent falls in short-term interest rate expectations reflect market participants’ views on the likely response of policy rates to the weakness in global equity markets.

International long bond spot yields have also fallen (see Chart 1.11). These declines are likely to be related to the

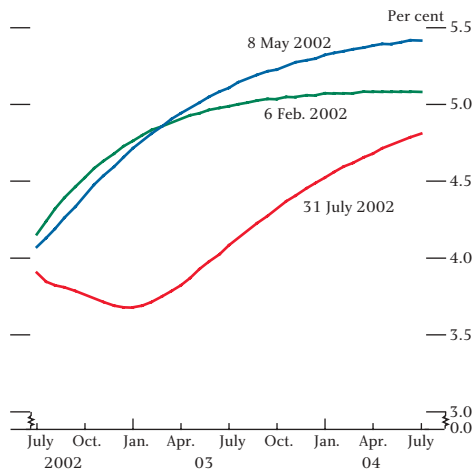
(1) See, for example, Heaton, J and Lucas, D (1999), ‘Stock prices and fundamentals’, *NBER Macroeconomics Annual*, The MIT Press.
(2) The main operating target for the Bank of Japan’s monetary policy is the balance of outstanding current accounts at the central bank.

Chart 1.8
S&P 500 price-earnings ratio



Source: Thomson Financial Datastream.

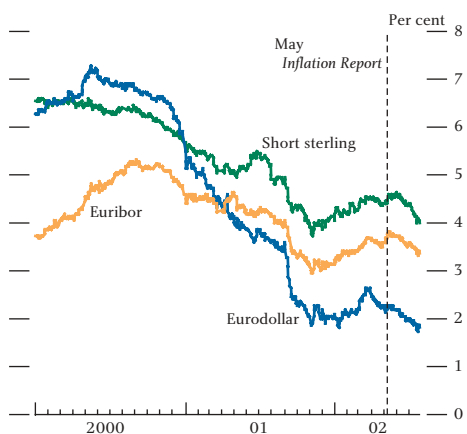
Chart 1.9
GC repo/gilt^(a) two-week forward curve^(b)



Source: Bank of England.

- (a) Generalised collateral (GC) repo rate refers to the rate for sale and repurchase in which any gilt stock may be used as collateral.
- (b) A forward rate is the rate implied for a future period by comparisons of current shorter-term and longer-term rates.

Chart 1.10
Three-month interest rates implied by futures contracts^(a)



Sources: LIFFE and Bank of England.

- (a) Three-month Libor rates implied by the first and second nearby futures contracts.

weakness in equity markets, with investors willing to accept a lower risk premium on bond holdings relative to equities. In the United Kingdom, nominal forward rates have fallen slightly since the *May Report*, but real forward rates have increased marginally (see Chart 1.12). Implied inflation forward rates fell, and are close to the 2.5% inflation target.

Exchange rates

Since the *May Report*, the dollar has depreciated considerably against all major currencies. Comparing 8 May with 31 July, the dollar effective exchange rate (ERI) declined by 5.1%. That mainly reflected a 7.5% depreciation against the euro.⁽¹⁾ But the dollar also fell against the yen and sterling, by 6.9% and 6.6% respectively. Over the same period, sterling depreciated against the euro by 0.8% and the yen by 0.3%. From its value of 106.2 on 8 May, the sterling ERI fell as low as 102.8 in early June. But it subsequently recovered, to 106.9 on 31 July.

In the previous *Report*, the potential unwinding of global imbalances was associated with various risks for future exchange rate paths.⁽²⁾ The risk of downward revisions to prospective US output and productivity growth was cited as a possible contributing factor to a depreciation of the dollar against the euro and sterling, as well as falls in domestic asset prices. To the extent that they would also prompt a re-evaluation of UK prospects, it was argued that such revisions could lead to a fall in UK asset prices and to a depreciation of sterling against the euro.

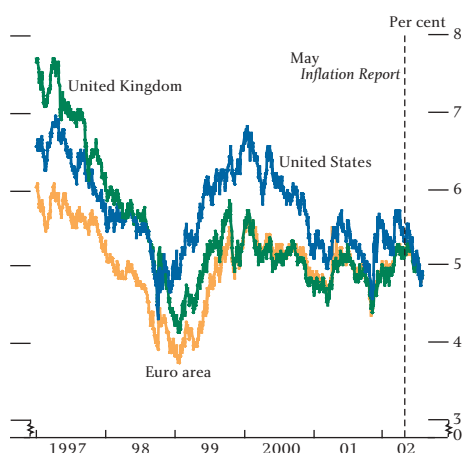
At first sight, the broad pattern of recent equity and exchange rate movements in the United States and the United Kingdom appears consistent with the materialisation of this risk. But, though it is difficult to be sure, it seems likely that global equity price falls have been associated more with equity investors' pessimism and uncertainty over the current and prospective level of corporate profits, and less with any generalised reassessment of US medium-term productivity growth prospects. Yet the increased risk associated with the profitability of US assets, together with questions about the sustainability of the US current account deficit, could have had a dampening effect on direct and portfolio investment flows into the United States, and consequently on the dollar.

Property prices

UK house price inflation has continued to rise since the *May Report*. The Nationwide and Halifax indices registered

(1) In constructing its forecast, the MPC uses averages of 15 working days. Comparing the 15 working days up to 31 July to the 15 working days up to 8 May, the dollar depreciated by 9.5% against the euro.
 (2) See *Bank of England Inflation Report*, May 2002, pages 14–15.

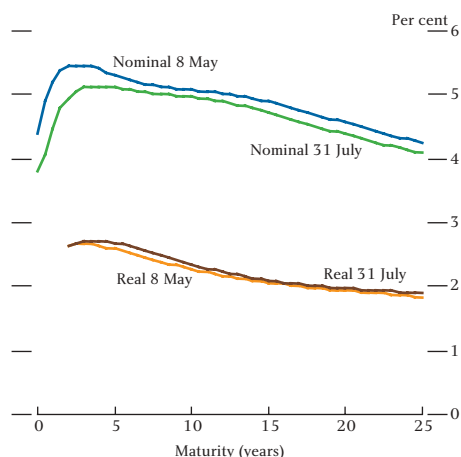
Chart 1.11
International ten-year government bond yields^(a)



Source: Bank of England.

(a) Ten-year spot rates.

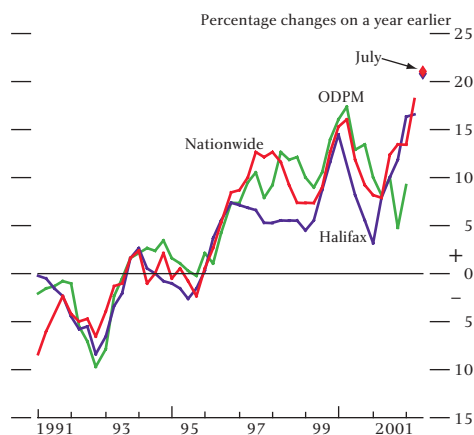
Chart 1.12
Nominal and real forward rate curves^(a)



Source: Bank of England.

(a) A forward rate is the rate implied for a future period by comparisons of current shorter-term and longer-term rates.

Chart 1.13
Annual house price inflation^(a)



Sources: ODPM, Halifax and Nationwide.

(a) Based on quarterly data not seasonally adjusted.

21.0% and 20.8% annual increases respectively in July (see Chart 1.13), surpassing the MPC's expectations. These increases have contributed to a sharp rise in the house price to earnings ratio. Though the cyclically low level of real mortgage rates could explain a part of the recent increase, there are several structural factors which may have accounted for a rise in the ratio in the medium term (see the box on pages 8–9).

The index produced by the Office of the Deputy Prime Minister (ODPM)⁽¹⁾ has recently been rising more slowly than the lenders' indices (see Chart 1.13). In contrast to the lenders' indices, the ODPM index places more weight on expensive houses. Chart 1.14 shows that the inflation rate for expensive houses in the ODPM index has eased since 2000 Q3. By contrast, the rate for less expensive houses increased after that date, and remains high. So the difference between the price trends of expensive and less expensive houses explains some of the recent divergence between the ODPM and the lenders' indices.

There have been some signs that house price inflation may moderate in the coming months. The RICS balance of estate agents expecting price increases over the next three months fell significantly in June, though it remained positive. And in a recent survey of finance providers, estate agents and house builders, the Bank of England's regional Agents reported that respondents expected house price inflation to ease over the next six months.

1.2 Money and credit

Household sector

Households' M4 deposits rose by 8.5% in the year to Q2, slightly higher than the 8.3% annual growth rate of Q1. Households' Divisia money is a measure of the components of M4 weighted by their relative liquidity, and provides an indication of money balances that are most likely to be spent in the near term. This rose by 9.6% in the year to Q2, the highest growth rate seen in over ten years.

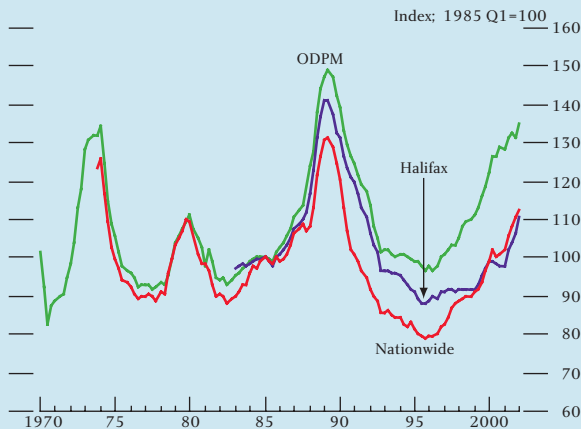
Deposits provide households with a means to consume in the short term and to save for consumption in the longer term. So the recent strength in deposit growth may provide support for near-term consumption. But Chart 1.15 shows that burgeoning deposits in recent years have been accompanied by a relatively stable consumption growth profile. So this could indicate that some households have been increasingly using their bank and building society deposits, even their most

(1) This index was formerly produced by the Department of Transport, Local Government and the Regions.

Structural economic factors affecting house prices

In the past, the ratio of house prices to earnings appears to have varied around a fairly stable long-term average (see Chart A). The current level of the house price to earnings ratio is relatively high. Based on an average of the Halifax and Nationwide house-price indices, the house price to earnings ratio was 12% above its average value of the past 20 years in 2002 Q1, and probably rose by around 5% in 2002 Q2. But that does not mean the ratio has necessarily to fall back. It is possible that the house price to earnings ratio could persist at a higher level than its historic average.

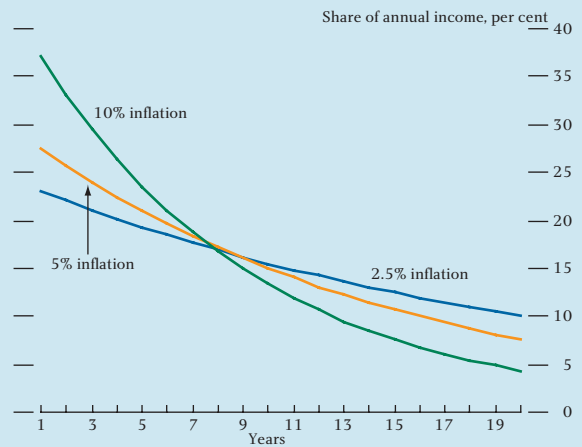
Chart A
Ratio of house prices to average earnings index



Sources: ODPM, Halifax, Nationwide, ONS and Bank of England.

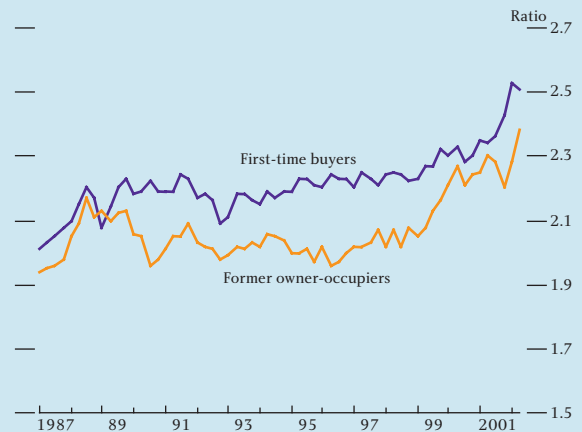
This box outlines some of the more important structural demand and supply factors that might have influenced the house price to earnings ratio. Demand for housing may have increased, because of sustained low inflation. Standard mortgages have constant monthly payments over the length of the mortgage, assuming unchanged mortgage interest rates. Chart B shows the time profile of a household's mortgage payments (expressed as a share of its annual income) at different levels of inflation, for a household taking out a 20-year loan three times its annual income. High inflation and the associated high nominal interest rates tilt the burden of mortgage payments as a share of income towards the early years of a mortgage. This burden falls as inflation erodes the real value of the debt over its lifetime. High nominal payments relative to income at the beginning of a mortgage could cause cash-flow problems for some households, such that they wish to borrow less. Equally, lenders may be more concerned about default in such circumstances and reduce the supply of loans. With low inflation, the initial burden of debt-servicing is reduced and the demand for, and supply of, loans should increase.

Chart B
Mortgage payments as a share of income^(a)



(a) Assuming real interest rate of 2.5% and real income growth of 2% per year. Initial loan is three times annual earnings.

Chart C
Advance to income ratios



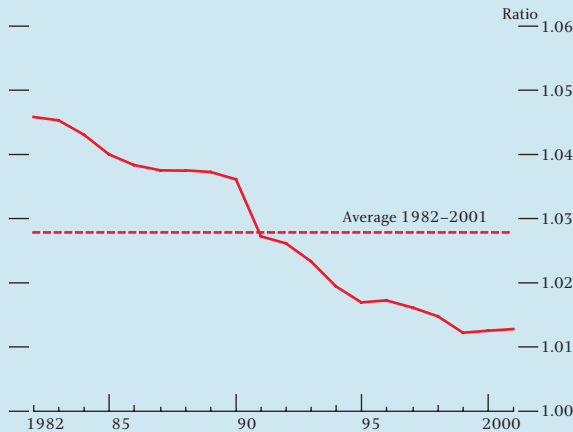
Source: CML.

Indeed, as Chart C shows, advance to income ratios have risen in recent years. Other factors may also have increased the supply of loans, such as increased competition among lenders and better credit-scoring techniques. Larger mortgages have probably increased both the demand for housing and the house price to earnings ratio. However, the effects of low inflation are not all positive for housing demand. In particular, the tax advantages of owning a house relative to other assets are reduced under low inflation. A household's primary residence is not subject to capital gains tax, a benefit that is more valuable when inflation is high. Moreover, general price stability in the economy as a whole reduces the attractiveness of housing as a hedge against high and volatile inflation. So that could be a factor pushing down the house price to earnings ratio in the current low-inflation environment relative to the past.

It is possible that housing supply factors have increased the house price to earnings ratio. The number of dwellings in excess of the number of households is an indicator of the amount of spare capacity in the housing market. Growth in the number of households has consistently exceeded that of the number of dwellings over the past 20 years so that the ratio of dwellings to households has fallen (Chart D), suggesting a tighter housing market. Based on data for the English regions, Chart E shows that a

rise in the number of households relative to the number of dwellings is associated with an increase in the house price to earnings ratio. One interpretation of that correlation is that the slow growth of housing supply, relative to demand, over the past 20 years may be giving some support to the house price to earnings ratio. But if higher prices discourage dwellings from being left unoccupied then it is possible that the causality might in part run in the other direction.

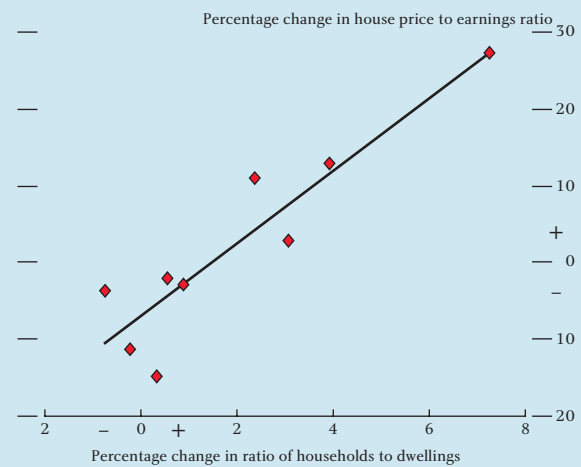
Chart D
Ratio of dwellings to households^(a)



Source: ODPM.

(a) Figures for the stock of dwellings are for 31 December each year prior to 1991 and 31 March from 1991 onwards. This may account for most of the fall in the ratio in 1991.

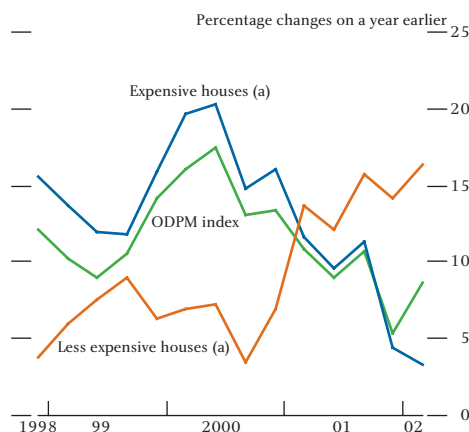
Chart E
Changes in relative housing supply and HPE^(a)
for English regions 1991-2000



Source: ODPM.

(a) House price to earnings ratio.

Chart 1.14
ODPM annual house price inflation



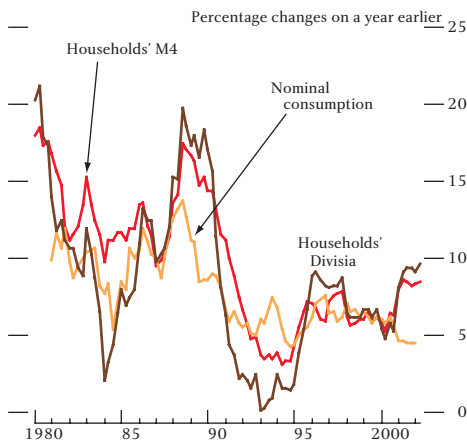
Sources: ODPM and Bank of England.

(a) Constructed from house prices in the upper and lower quartiles of the total sample of prices that constitute the ODPM index.

liquid ones, for longer-term saving purposes. The attractiveness of bank and building society deposits as vehicles for longer-term saving could be related to the level of deposit rates, which remains relatively high compared with other returns (see Chart 1.16). In addition, households could have earmarked these deposits for near-term investment in riskier financial assets, although the recent declines in equity prices might have delayed any move in that direction.

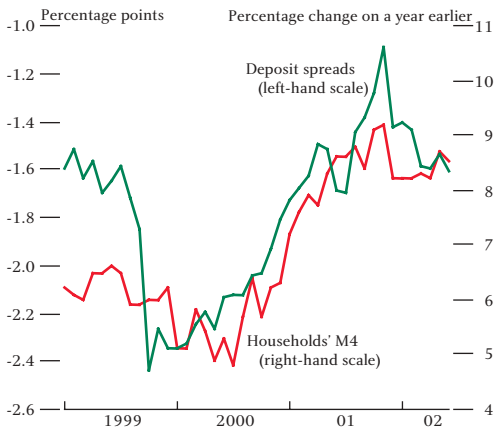
Total credit extended to households rose by 12.5% in the year to Q2, its highest annual growth rate since 1990 Q4. Recent increases in house prices (see Chart 1.13) mean that people will need to take out bigger mortgages than in the past. That may account for much of the strength of secured borrowing, which rose by 11.4% in the year to 2002 Q2, the highest annual growth rate for over ten years. But not all of the money raised in this way is reinvested in the housing stock. Some people may have used secured borrowing as a means to withdraw housing equity. Mortgage equity withdrawal (MEW) was estimated at £8.1 billion for 2002 Q1, compared with £7.5 billion in 2001 Q4. As a proportion of personal disposable income, MEW rose from 4.2% in 2001 Q4 to 4.6% in 2002 Q1, the highest since 1990 Q1. Given recent lending figures, MEW is set to rise further in Q2. While households

Chart 1.15
Households' M4, Divisia and consumption



Sources: ONS and Bank of England.

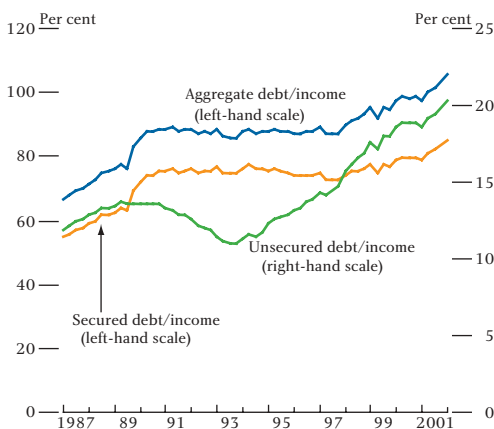
Chart 1.16
Households' M4 and deposit rate spreads^(a)



Source: Bank of England.

(a) The spread is the weighted average of the effective sight and time deposit rates minus the monthly average of three-month Libor (proxying the rate of return on alternative assets).

Chart 1.17
Household sector debt as a proportion of disposable income



Sources: ONS and Bank of England.

may also use these additional funds to purchase financial assets or repay outstanding loans, the relatively high level of MEW is likely to underpin consumption growth in the near term. Individuals' unsecured borrowing rose by 14.7% in the year to Q2, slightly lower than in the year to Q1, but still providing support for near-term consumption.

The sustained increase in household borrowing has raised household debt to income ratios to new heights (see Chart 1.17), despite ongoing growth in household income. Furthermore, the British Household Panel Survey for the year 2000 indicates that the highest and fastest growing debt to income ratios for mortgage-holding households have been among lower-income groups.⁽¹⁾

By committing themselves to higher debt levels, households are at greater risk in the event of sudden increases in interest payments or falls in income. Greater indebtedness could therefore make sharp swings in future consumption more likely. Previous *Reports* have noted that structural changes in UK credit markets have made access to both secured and unsecured lending easier.⁽²⁾ This means that households should be able to borrow more easily to offset any temporary unexpected developments in their budgets, rather than adjust their consumption. But the current high levels of debt could affect future consumption smoothing, as households might not be willing to continue increasing their indebtedness in the face of any unwelcome surprises. The relatively high debt to income ratios of lower-income households represent a further vulnerability for aggregate consumption, as this group is more susceptible to income reductions or interest rate increases.

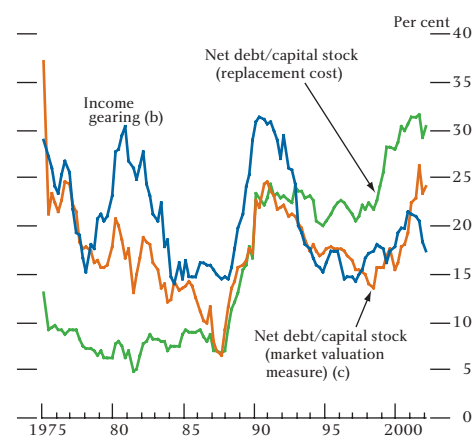
Private non-financial corporations

The twelve-month growth rate of PNFCs' M4 deposits fell from 6.2% in 2002 Q1 to 4.3% in Q2. PNFCs' annual M4 borrowing growth (excluding the effects of securitisations) declined from 5.3% in Q1 to 3.3% in Q2, its lowest twelve-month rate since 1994 Q4. The manufacturing sector repaid bank debt. This overall weakness in corporate bank borrowing is likely to be related to the low levels of business investment (see Section 2), and is in sharp contrast to the strong growth in household borrowing.

Total external finance (excluding the effects of securitisations), which includes capital raised in domestic and foreign capital markets, fell from £10.5 billion in 2002 Q1 to £8.6 billion in Q2. Within that total, sterling bond issuance fell to £2.8 billion, its lowest level since 2000 Q4. Sterling equity issuance fell from £5.1 billion in Q1 to £2.0 billion in Q2, as

(1) See *Financial Stability Review*, June 2002, page 83.
(2) See eg *Bank of England Inflation Report*, February 2001, page 6.

Chart 1.18
PNFCs' gearing^(a)



Sources: ONS and Bank of England.

- (a) Data are seasonally adjusted.
 (b) Interest payments as a percentage of pre-tax profits.
 (c) PNFCs' net debt as a percentage of the sum of net debt and market value of equity.

Table 1.A
Growth rates of notes and coin, M0, M4 and M4 lending

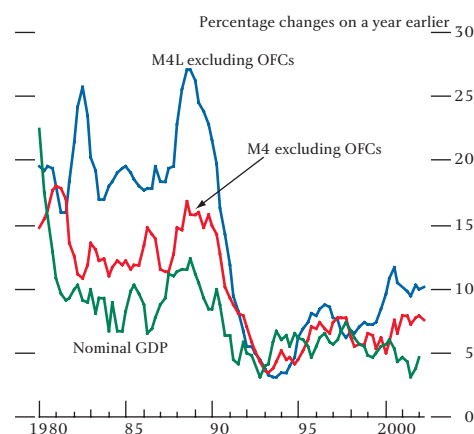
Percentage changes on a year earlier

	2001				2002	
	Q1	Q2	Q3	Q4	Q1	Q2
Notes and coin	8.2	7.0	6.8	8.4	7.6	9.4
M0	8.3	6.6	6.4	8.0	7.2	9.3
M4	8.2	7.5	8.0	6.6	5.7	6.4
M4 lending (a)	11.9	11.3	9.9	8.9	8.0	8.2

Source: Bank of England.

(a) Excluding the effects of securitisations.

Chart 1.19
M4, M4L excluding OFCs, and nominal GDP



Sources: ONS and Bank of England.

equity price falls and volatility contributed to difficult issuing conditions.

Falling profitability and rising gearing may have encouraged many companies to take action to adjust their balance sheets in 2001.⁽¹⁾ Lower dividend payments, lower capital expenditures and reduced M&A activity all contributed to a further improvement in the financial balance of PNFCs in 2002 Q1. Income gearing fell further in 2002 Q1, reflecting the impact of official rate reductions towards the end of 2001, as well as a recovery in pre-tax profits in 2002 Q1. But capital gearing measures remain at historically high levels (see Chart 1.18). Given the recent equity price falls, capital gearing at market value is likely to have risen further in Q2.

Aggregate money and credit

Notes and coin grew by 9.4% in the year to Q2, the highest rate in over 20 years, with the exception of the Millennium period (see Table 1.A). This figure may, however, have been temporarily boosted by the Golden Jubilee Bank Holiday weekend. The annual growth rate of aggregate M4, the sum of cash and sterling deposit holdings by households, PNFCs and other financial corporations (OFCs) at UK banks and building societies, was 6.4% in Q2, higher than the 5.7% growth in Q1. M4 lending (excluding the effects of securitisations) increased by 8.2% in the year to Q2. This was slightly higher than in Q1, but below the stronger annual growth rates of 2000 and 2001 H1. Excluding the volatile OFCs component, growth in both M4 and M4 lending appears broadly unchanged in 2002 Q2 (see Chart 1.19).

(1) See *Financial Stability Review*, June 2002, page 76.

There have been signs that a gradual, albeit patchy, recovery is under way in the major industrialised countries, although the recent fall in equity prices is likely to depress demand somewhat. The trough in UK activity came around the turn of the year, with total output estimated to have grown by just 0.1% in both 2001 Q4 and 2002 Q1. Survey and other indicators suggest that activity rebounded relatively strongly in the second quarter, and the preliminary estimate is that GDP grew by 0.9% in 2002 Q2. Within domestic demand, there has been little change to the recent pattern of buoyant household and public consumption, offset by weakness in business investment. Although the rapid growth of the second quarter is unlikely to be sustained, the Committee expects annual GDP growth over the next twelve months or so to rise gradually to around-trend rates.

2.1 External demand and UK net trade

Growth in the first quarter of 2002 was strong in both the United States and Japan, although more muted in the euro area. Overall, this provides further evidence that the second half of 2001 was the trough in the current global cycle. However, final domestic demand growth lagged behind GDP growth in most of the major economies, and it is unlikely that the rapid pace of world growth in the first quarter will be maintained. Nevertheless, the data released since the May *Report* are broadly consistent with the recovery becoming more firmly established in the major economies through the course of this year.

GDP in the euro area grew by 0.3% in 2002 Q1, reversing the fall in the previous quarter. With little growth in the second and third quarters of 2001, GDP in 2002 Q1 was only 0.3% higher than a year earlier. An unusually strong net trade position boosted quarterly GDP growth by 0.5 percentage points in 2002 Q1 (see Table 2.A). Indeed, net trade more than accounted for GDP growth over the past three quarters. Domestic demand in 2002 Q1 was 0.4% lower than a year earlier. There was a stark divergence between Germany, where domestic demand fell by 1.4% on the previous quarter, and France and Italy where it rose by 0.5% and 0.7% respectively.

All the main components of euro-area domestic demand have been weak. Consumption has grown very little in the latest three quarters, and in 2002 Q1 it was only 0.7% higher than a year earlier. More timely national indicators, such as retail sales and consumer spending, suggest that euro-area

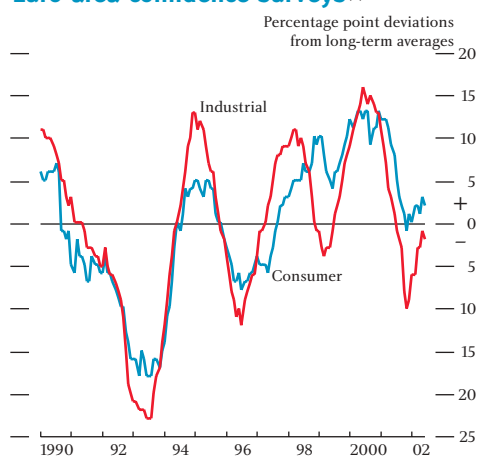
Table 2.A
Contributions to euro-area GDP growth

Percentage point contributions to quarterly growth

	Averages		2001		2002	
	1999	2000	2001	Q3	Q4	Q1
Consumption	0.4	0.3	0.2	0.1	0.1	0.0
Investment	0.3	0.2	-0.1	-0.1	-0.1	0.0
Government	0.1	0.1	0.1	0.1	0.1	0.1
Change in inventories	0.0	0.1	-0.3	-0.3	-0.4	-0.3
Domestic demand	0.9	0.6	-0.1	-0.2	-0.3	-0.2
Net trade	0.0	0.1	0.2	0.4	0.0	0.5
GDP	0.9	0.7	0.1	0.2	-0.3	0.3

Source: Eurostat.

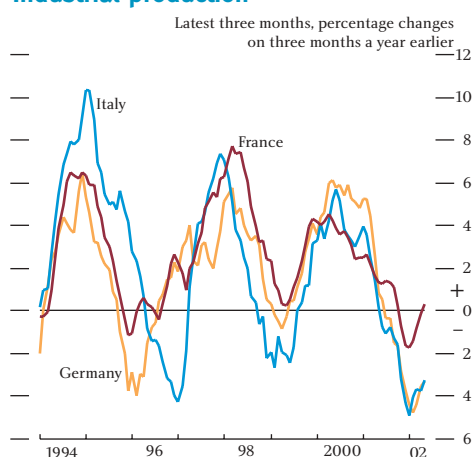
Chart 2.1
Euro-area confidence surveys^(a)



Source: European Commission.

(a) Each survey reports the average balance of a number of questions covering different aspects of consumer and industrial confidence.

Chart 2.2
Industrial production



Source: Thomson Financial Datastream.

Table 2.B
GDP growth in the major industrialised countries

Percentage changes on a quarter earlier

	2001				2002	
	Q1	Q2	Q3	Q4	Q1	Q2
United States	-0.2	-0.4	-0.1	0.7	1.2	0.3
Japan	1.0	-1.2	-0.6	-1.2	1.4	n.a.
Euro area	0.4	0.0	0.2	-0.3	0.3	n.a.
Major six (a)	0.2	-0.4	-0.1	0.1	1.0	n.a.

Sources: Thomson Financial Datastream and Bank of England.

(a) United States, Japan, Germany, France, Italy and Canada, weighted by 2000 purchasing power parity GDP shares.

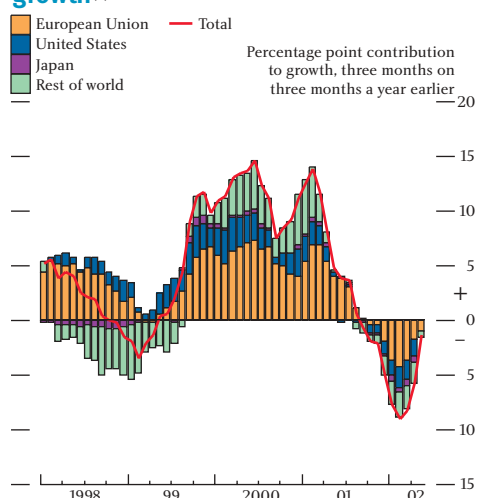
consumption remained subdued in the second quarter of 2002. Investment in 2002 Q1 was 1.6% lower than a year earlier, having fallen for five consecutive quarters. And inventories made a further significant negative contribution to growth. Forward-looking surveys (see Chart 2.1) suggest that confidence had started to improve this year, albeit somewhat patchily, with the industrial balance returning close to its long-term average level following a sustained period of decline from early 2000. And industrial production in the major euro-area countries showed some signs of recovery (see Chart 2.2) in the first few months of the year. But French and German industrial production both fell back in May, and recent national surveys have shown some waning of both business and consumer confidence.

A weaker international outlook combined with the recent appreciation of the euro, should it be sustained, is likely to reduce the support from net trade in future quarters. And the fall in equity prices is likely to depress demand to some extent too. However, the rise in the euro should increase export prices relative to import prices, which will boost real incomes and so provide some support to consumption. And market participants have responded to lower prospective inflationary pressures, especially in the light of lower equity prices, by reducing interest rates for a range of short-term maturities compared with the time of the *May Report*. Balancing these factors, the Committee expects the improvement in euro-area growth over the course of this year to be more subdued than at the time of the *May Report*, largely reflecting a lower net trade contribution and the effect of lower equity prices. The recovery is expected to gain strength only towards the end of this year and into the next.

Strong first quarter GDP growth in the United States (see Table 2.B) in part reflected a temporary boost from the turnaround in the inventory cycle, contributing 0.6 percentage points to quarterly GDP growth. The advance estimate for GDP growth in 2002 Q2 was 0.3%. The slowdown from the previous quarter reflected lower contributions from consumption, government spending, inventories and net trade.

The US Bureau of Economic Analysis' regular annual revisions to US GDP data, published with the advance estimate on 31 July, showed significant changes going back to 1999, and the level of GDP in 2002 Q1 was revised down by 1.3%. This mainly reflected lower growth in 2001, with annual growth down to 0.3% from 1.2%. Productivity growth is likely to be revised down by a broadly similar amount to GDP. Nevertheless, the revisions do not change the broad picture of strong underlying productivity growth over the late 1990s.

Chart 2.3
Contributions to UK goods export volume growth^(a)



(a) Bank estimates derived from ONS data. Volume data are not available on an individual country basis, so US and Japan values have been deflated by non-EU export prices. Rest of the world is a residual category.

Chart 2.4
Trade in goods

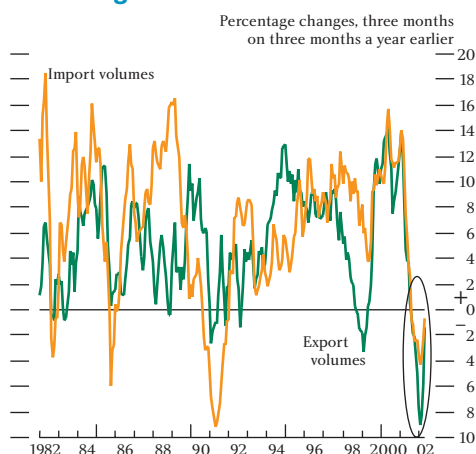


Table 2.C
UK export outlook^(a)

Series	average (b)	2001		2002		
		Q3	Q4	Q1	Q2	Q3 (c)
BCC export orders						
Manufacturing	7	-21	-20	1	5	n.a.
Services	11	1	-8	-1	8	n.a.
CIPS export orders (d)						
Manufacturing	49.3	45.7	45.5	49.5	53.4	48.6
CBI industrial trends						
Export orders	-9	-32	-36	-18	-14	n.a.
EEF						
Export orders	-3	-19	-31	-24	-6	n.a.

Sources: BCC, CIPS, CBI, and EEF.

- (a) Unless otherwise stated, numbers reported are percentage balances of respondents reporting 'higher' relative to 'lower'. Responses are attributed to the quarter that is most closely associated with the reference period of each survey. For example, the July CBI *Quarterly Industrial Trends* survey is shown as Q2 because respondents are asked about orders in the four months to July.
- (b) BCC since 1989; CIPS since 1996; CBI since 1975; EEF since 1994.
- (c) CIPS figure is July only.
- (d) Average of seasonally adjusted monthly indices. A reading above 50 suggests expansion; below 50 suggests contraction.

Growth over the forecast period is likely to be slower than expected in May, reflecting the effect of lower equity prices. But this will be offset to some extent by the impact on the net trade outlook of the recent marked depreciation of the dollar. And market perceptions of the prospective level of US interest rates over the next two years have fallen substantially in recent months (see Section 1), which will also help to underpin activity. Overall, the underlying conditions appear to remain in place for a continuing moderate recovery, albeit shallower than previously expected, helped by stimulative policy.

The preliminary estimate suggests that Japanese GDP rose by 1.4% in 2002 Q1, rather more strongly than expected. Notwithstanding the first-quarter increase, GDP was 1.6% lower than a year earlier, and 0.2% lower than five years earlier. But Japanese quarterly GDP data tend to be relatively volatile and there is little change to the Committee's judgment that the short-term prospects for Japan remain subdued.

Recovery is under way in the emerging Asian economies, helped by the turnaround in global demand for information, communications and technology (ICT) products. Severe economic difficulties in Argentina have been followed more recently by growing financial pressures in Brazil and Uruguay. But encouragingly, there has been little sign so far of these pressures spilling over to the prospects for non-Latin American emerging market countries.

The current projections incorporate a reduction in world growth in the second quarter followed by gradual strengthening. Overall, however, the Committee judges that the prospective recovery in the world economy is likely to be rather weaker than that expected in the *May Report*. This reflects the impact of sharply lower global equity prices, offset in part by a slightly looser prospective policy stance given the weaker outlook for demand pressures.

UK export volumes have fallen by more than import volumes, so that net trade has continued to make a substantial negative contribution to GDP growth. Chart 2.3 shows that lower sales to other European Union countries accounted for a large proportion of the fall in UK visible exports after early 2001, with the US market accounting for around a further quarter.

Chart 2.4 shows that the sharp slowdown in goods import and export volumes (which account for around three quarters of total volumes) has been followed by some recovery in recent months. The strong co-movement of export and import volumes over the past few years is relatively unusual and in part reflects the exceptional cycle in global demand for ICT goods. ICT goods typically account for around one fifth of UK

Chart 2.5
GDP growth

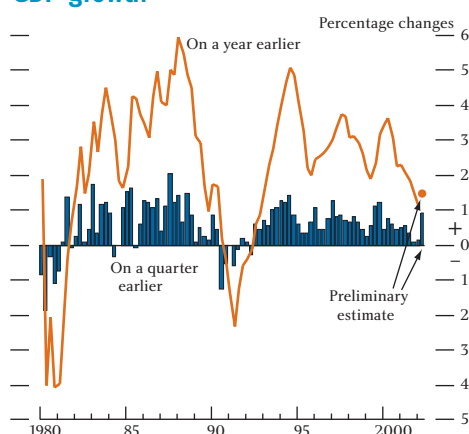


Table 2.D
GDP and expenditure components^(a)

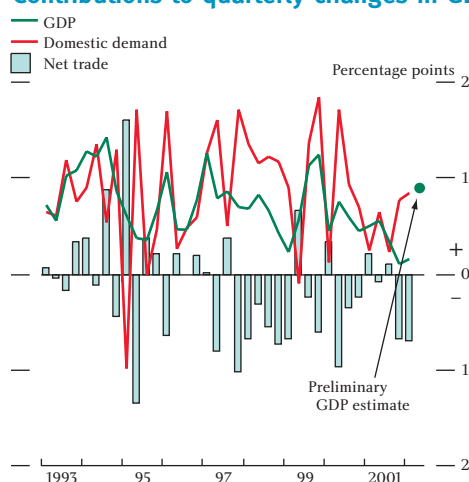
Percentage changes on a quarter earlier

	Average 2000	Average 2001	2001 Q2	Q3	Q4	2002 Q1
Consumption:						
Household	1.2	1.0	0.7	1.1	1.1	0.5
Government	0.3	1.0	-0.9	1.2	1.9	2.0
Investment:	1.1	-1.6	0.5	-3.6	-0.3	-1.4
of which, business investment	1.4	-2.5	-0.4	-5.2	-0.5	-3.1
Final domestic demand	1.0	0.6	0.4	0.3	1.0	0.4
Change in inventories (b)	-0.2	-0.1	0.2	-0.1	-0.3	0.4
Excluding alignment adjustment (b)	-0.2	-0.2	-0.1	-0.1	-0.5	0.7
Domestic demand	0.8	0.4	0.6	0.2	0.7	0.8
Exports	2.1	-1.2	-1.8	-3.0	-1.6	-1.0
Imports	2.6	-0.7	-1.3	-2.8	0.3	0.9
Net trade (b)	-0.3	-0.1	-0.1	0.1	-0.7	-0.7
GDP at market prices	0.6	0.4	0.6	0.3	0.1	0.1

(a) At constant 1995 market prices.

(b) Percentage point contribution to quarterly growth of GDP.

Chart 2.6
Contributions to quarterly changes in GDP



goods exports and one quarter of goods imports, but their movements explain a much higher proportion of the recent variation in trade volumes. ICT trade accounted for over half of the rise in exports and imports in 2000 and also of the fall in exports in 2001. The fall in imports in 2001 was entirely due to ICT goods, with imports excluding ICT products showing positive annual growth rates much more in line with what has happened to UK domestic demand (see Section 2.3).

Table 2.C shows that a range of survey measures of exporters' confidence strengthened during the first half of the year. However, most surveys remained below their long-term averages, and the July CIPS survey was rather weaker than in Q2. A survey by the Bank's regional Agents conducted in June reported a slight improvement in exports between the first and second quarters of 2002. And strong monthly data for exports in April and May suggest that net trade is likely to make a positive contribution to GDP growth in the second quarter. Nevertheless, the MPC expects relatively weak euro-area domestic demand in the near term to act as a restraint on UK export prospects. Net trade is therefore expected to make a further negative contribution to GDP growth in the second half of the year, although this should become less negative as world activity gradually recovers.

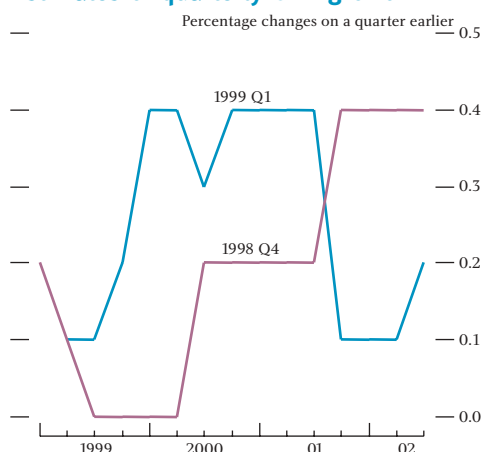
2.2 Gross domestic product

Quarterly GDP data place the slowdown in UK growth in the second half of 2001 (see Chart 2.5), with the economy growing at close to trend rate in the first half of 2001. Table 2.D shows that the slowdown was driven by weakness in net trade, stockbuilding and investment. Revised National Accounts data, published in the ONS *Blue Book*, suggest that GDP at market prices grew by just 0.1% in both 2001 Q4 and 2002 Q1, slightly stronger than the estimates at the time of the *May Report*. Chart 2.6 shows how growth of domestic demand in recent quarters has outstripped that of GDP, as it has done on average over each of the past six years.

The preliminary estimate suggests that GDP grew by 0.9% in 2002 Q2 and that the annual growth rate picked up to 1.5%. This marked 40 consecutive quarters of positive growth.

Even though the revisions to the quarterly growth estimates for 2001 Q4 and 2002 Q1 were not large, there may of course be further revisions as new information becomes available. Chart 2.7 shows estimates from successive preliminary GDP first release publications of quarterly GDP growth during the previous growth slowdown in late 1998 and early 1999. As well as an upward revision to growth overall, there have also been

Chart 2.7
Estimates of quarterly GDP growth



Note: Data to one decimal place taken from ONS Press Releases for preliminary estimates of GDP at constant market prices, published in the first month of each quarter.

Chart 2.8
Contributions to quarterly consumption growth

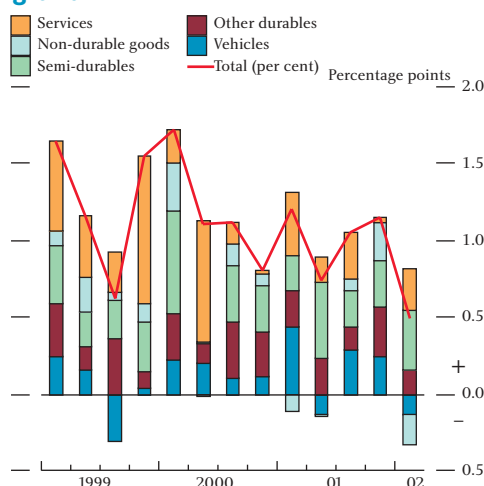
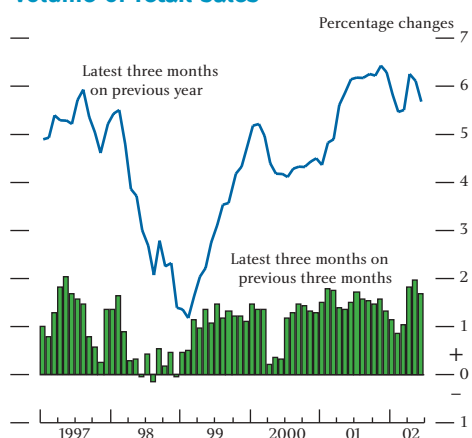


Chart 2.9
Volume of retail sales



changes to the distribution of growth between quarters. Recent Bank analysis has suggested that on average revisions have raised estimated growth rates,⁽¹⁾ except during recessions (defined as at least two consecutive quarterly falls in GDP) when there has been no bias to revisions. Estimates of quarterly growth in 2002 may also be affected by the timing of Easter at the very end of the first quarter, which makes it more difficult than usual to allocate seasonally adjusted output between the first and second quarter.

2.3 Domestic demand

Final domestic demand growth slowed to 0.4% in 2002 Q1, reflecting some slowdown in household consumption and a marked fall in business investment. A strong contribution of 0.4 percentage points from inventories (even stronger if the statistical alignment adjustment is excluded) meant that domestic demand grew by 0.8%. The annual growth rate of domestic demand picked up a little to 2.4%, but was still rather slower than over most of the past five years.

Consumption

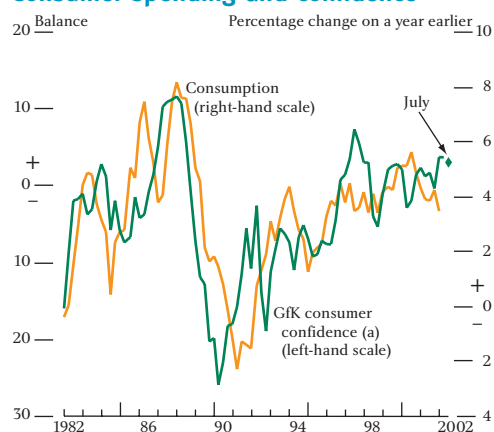
Consumer spending grew by 0.5% in 2002 Q1, which was the slowest rate for over four years. Spending on vehicles fell back after very strong growth in 2001 H2 (see Chart 2.8). Annual growth in total consumption of durable goods fell to 7.7%, the slowest rate since 1998.

Indicators of consumer spending point to a rebound in growth in the second quarter. Retail sales picked up strongly after slowing during 2002 Q1 (see Chart 2.9). However, very strong sales in April were followed by two successive monthly falls in retail sales in May and June, although the monthly profile is likely to have been affected by the timing of Easter and also the two Bank Holidays in early June. Private vehicle registrations in 2002 Q2 were 10.4% higher than a year earlier, over twice the growth rate in the first quarter although still slower than in 2001. And a rise in consumer confidence (see Chart 2.10) also suggests that consumption growth strengthened in the second quarter. Though the published GfK measure of consumer confidence fell in July, previous monthly patterns suggest that this fall may have been largely seasonal.

Chart 2.11 shows that strong consumption growth since the mid-1990s has been sustained for an unusually long period in

(1) Castle, J and Ellis, C (2002), 'Building a real-time database for GDP(E)', *Bank of England Quarterly Bulletin*, Spring, pages 42–49 sets out the Bank estimates. More recently, Richardson, C (2002), 'Revisions to GDP: a time profile', *Economic Trends*, July suggested that, at least for 1993 to 1998, much of the apparent bias comes from methodological changes in the years following publication, rather than revisions for the first one to two years.

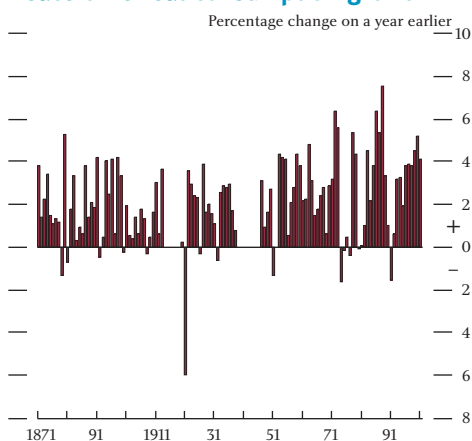
Chart 2.10
Consumer spending and confidence



Sources: GfK, ONS and Bank of England.

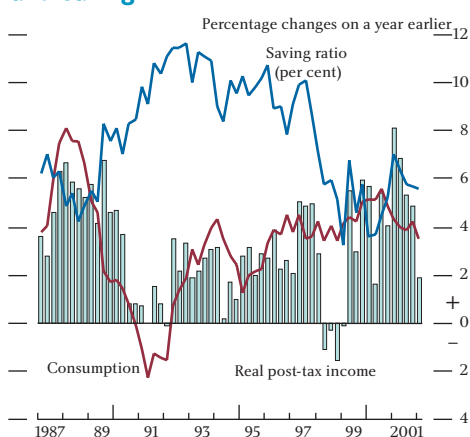
(a) Consumer confidence is the average of balances relating to financial situation of households, general economic situation and attitude to major purchases. Quarterly average of monthly balances, seasonally adjusted by the Bank of England.

Chart 2.11
Peace-time real consumption growth



Sources: ONS and Feinstein, C (1976), *Statistical Tables of National Income Expenditure and Output of the UK 1855–1965*.

Chart 2.12
Household post-tax income,^(a) consumption and saving



(a) Deflated by the household consumption deflator. Income refers to household disposable income before payments to, or receipts from, pension funds.

historical terms: no other six-year period had consumption growth above 3% in every year. The *Blue Book* included significant upward revisions to the estimated level of consumption from 1999 onwards. But there were even larger upward revisions to household income, which now explains better the robust consumption growth seen over the past few years (see Chart 2.12). Nevertheless, consumption growth since 1996 has been rather more stable than income growth. Households responded to weak growth in real incomes in 1998, and strong growth in 2001, by varying their saving rather than spending. Where households have ready access to credit, such smoothing of consumption would be expected when changes in income are perceived as temporary.

Consumer spending is influenced by changes in asset prices, as well as by current and expected income. Section 1 described how house prices have been rising rapidly, while equity prices have fallen sharply since the *May Report*. Housing differs from equities and other financial assets in that it provides a flow of housing services to occupiers, rather than a stream of income. Unless homeowners can reduce their consumption of such housing services, perhaps by trading down to a smaller home, it is difficult for them to realise the gain in their housing wealth. With few people willing or able to make such a move, increases in house prices are unlikely to have a significant *direct* impact on consumption through this route.

Nevertheless, changes in house prices may influence consumption by affecting households' borrowing. Secured loans tend to be cheaper than unsecured ones. So, other things being equal, house price increases may encourage current consumption by reducing the cost of borrowing. Section 1 discussed how households are engaging in mortgage equity withdrawal through rising levels of secured debt.

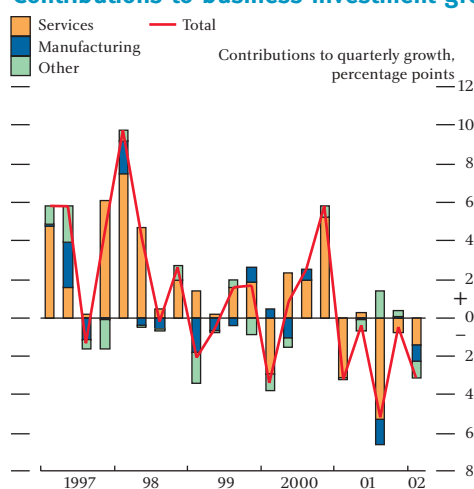
It is easier to convert equity holdings into cash or other liquid assets than it is a home. However, most households own shares only indirectly, for instance through life assurance and pension funds. If consumers care about total financial wealth, then the effect of equity price movements on consumption should not depend on whether shares are held directly or indirectly. But indirect equity holdings are typically less liquid than direct holdings, and changes in the value of indirect holdings may be less visible. Furthermore, the existence of defined benefit schemes, where prospective income does not follow equity prices, could also diffuse the potential impact of indirectly-held equities on consumption.

So there are some reasons why households might not react identically to changes in the value of direct and indirect equity

holdings,⁽¹⁾ although the empirical evidence is not clear cut. However, as well as the fall in equity prices there is also a range of longer-term concerns over factors such as future pension provision and the value of endowment mortgages, which could make households more cautious over time, or lead to some adjustment in the pattern of households' asset holdings.

On balance, the Committee judges that the additional stimulus to consumption from rising house prices since the *May Report* may help to offset the effects of lower equity prices. But following strong growth in the second quarter, the pace of consumption growth is expected to moderate over the remainder of the year, reflecting some slowing in real income growth and the effect of lower equity prices.

Chart 2.13
Contributions to business investment growth

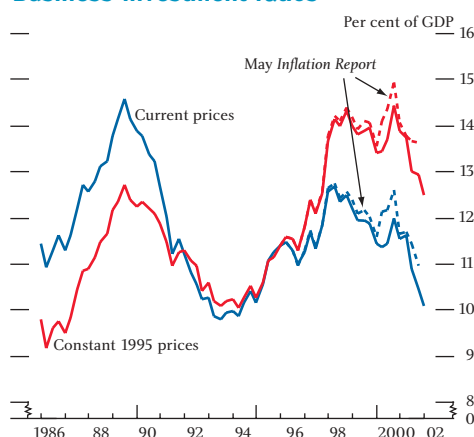


Investment

Business investment fell by 3.1% in 2002 Q1, and was 8.9% lower than a year earlier. The service sector accounts for around three-quarters of business investment, and has had the most significant influence on its recent performance (see Chart 2.13). The recent weakness in part reflects the slowdown in demand and growing corporate sector financial pressures. But it is also possible that some investment plans were put on hold around the turn of the year, reflecting increased uncertainty in the aftermath of the events of 11 September.

Revisions to the National Accounts have significantly reduced the estimated levels of business investment over the recent past. The February 2002 *Inflation Report* explained how falls in the relative price of investment goods over the past 20 years had resulted in diverging trends in the ratio of business investment to GDP at current and at constant prices. Chart 2.14 shows that the ratio of business investment to GDP in real terms fell to its lowest level since 1997 Q3, while the ratio in current prices was very close to the low points reached following the recession of the early 1990s. The lower level of investment also has implications for the MPC's assessment of supply capacity, which is discussed in Section 6.

Chart 2.14
Business investment ratios



Section 1 analysed the recent global falls in equity prices, which appear to reflect both a reduction in expected earnings growth and a higher risk premium. If firms share financial market participants' uncertainty and their views about earnings, then some may have delayed investment plans or revised them down accordingly. But equity price falls will also have made it more difficult or more costly for firms to raise

(1) Davey, M (2001). 'Saving, wealth and consumption', *Bank of England Quarterly Bulletin*, Spring, pages 91–99 discusses in more detail a number of reasons why households might potentially differentiate between direct and indirect equity holdings.

Table 2.E
Measures of investment intentions

	Series average (a)	2001		2002	
		Q3	Q4	Q1	Q2
CBI industrial trends (b)					
Plant and machinery	0	-28	-28	-25	-13
Buildings	-17	-29	-29	-30	-18
BCC survey (c)					
Manufacturing	10	0	-5	-3	7
Services	15	11	8	15	16

Sources: BCC and CBI.

- (a) Average balance since 1972 for CBI and 1989 for BCC.
 (b) Percentage balance of respondents who expected to authorise more capital spending in the next twelve months than in the past twelve months.
 (c) Percentage balance of respondents who had revised up their plans for investment in plant and machinery during the past three months.

new finance, which could lead them to abandon or postpone some of their more marginal investment plans.

The Committee considers that the outlook is for private investment to remain around current levels for most of the year and then to strengthen gradually as demand prospects improve. While investment intention surveys (see Table 2.E) showed a pick-up in the first half of the year, most remained below their long-term averages. Moreover, there may be some lag between a firm reporting higher intentions and actually undertaking that investment, so that higher intentions in the first half might affect investment only towards the end of the year. And recent developments in equity markets and lack of pressure from capacity utilisation in some sectors suggest that business investment may remain subdued until the economic recovery becomes more firmly entrenched.

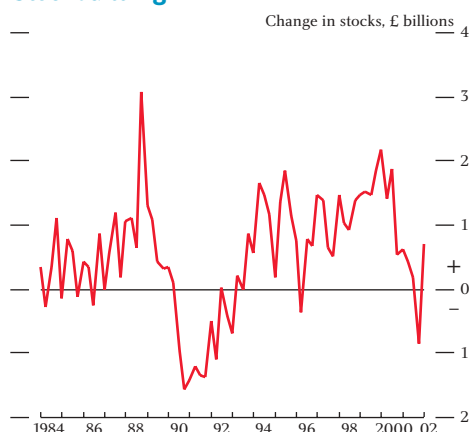
Government spending

General government consumption rose by 2.0% in 2002 Q1, contributing 0.4 percentage points to quarterly GDP growth. This has been the fastest growing of the major components of final demand over the past year, with spending in 2002 Q1 4.2% higher than a year earlier. And government investment has been rising strongly too, with quarterly growth of 9.2% in 2002 Q1. The Government's spending plans, originally set out in the April Budget, were further elaborated in the Chancellor's July 2002 Spending Review. These suggest that government consumption and investment will continue to bolster domestic demand growth over the forecast period.

Nominal government consumption rose by 11.0% in the year to 2002 Q1, but the increase in real terms was 4.2%, implying that the government consumption deflator rose by 6.5% over the year. While most of the data for nominal government spending are available from government accounts, it is more difficult to estimate real government consumption, and therefore the implied expenditure deflator. Very few services provided by government have observable prices, and in many cases output is measured through indirect proxies. Some components of the National Accounts estimates of real government consumption are built up using indicators of output, such as numbers of school pupils or operations performed; others are derived from nominal expenditure deflated by specially constructed price indices. Although there are similar problems affecting some parts of the service sector, for instance measuring the output of financial services, the difficulties are more prevalent in the government sector.

Since 1998, the ONS has extended the use of direct measures of real government output and consumption, and has also

Chart 2.15
Stockbuilding^(a)



(a) Excluding statistical alignment adjustment.

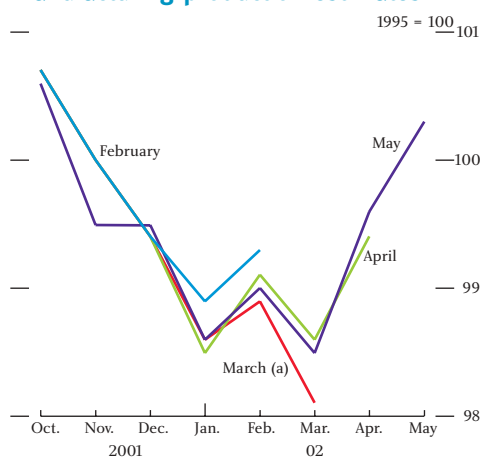
Table 2.F
Service sector output prospects^(a)

Series	average (b)	2001		2002		
		Q3	Q4	Q1	Q2	Q3 (c)
CIPS (d)						
Expectations, next twelve months	76.1	67.9	66.2	74.5	75.9	73.1
Incoming business	55.4	49.3	48.3	52.9	55.5	53.6
BCC						
Business confidence, next twelve months	48	44	44	57	55	n.a.
Home orders, past three months	17	14	10	20	19	n.a.
CBI/Grant Thornton (e)						
Business optimism	-1	-43	-58	20	23	n.a.
Volume of business, next three months	17	-13	-30	13	21	n.a.

Sources: BCC, CBI and CIPS.

- (a) Unless otherwise stated, numbers reported are survey balances, with positive figures denoting more respondents reporting 'higher' than 'lower'.
- (b) Since 1989 for BCC, 1996 for CIPS and 1998 for CBI.
- (c) CIPS figures are July only.
- (d) Average of seasonally adjusted monthly indices. A reading above 50 indicates expansion; a reading below 50 suggests contraction.
- (e) Weighted average of responses for consumer, business and professional services.

Chart 2.16
Manufacturing production estimates



(a) March data were the latest available at the time of the May Report.

made greater allowance for productivity increases in public services. Around 60% of real government consumption is now estimated from output measures. However, these are still only broad proxy measures and may not pick up other changes, especially quality improvements. Despite ONS statisticians' attempts to allow for such improvements, it is likely that they have not been able to account for them fully. So there remain considerable difficulties in estimating real government spending and the implied deflator, which need to be taken into account when interpreting the data.

Inventories

Inventories gave a stronger than expected fillip to GDP in 2002 Q1, contributing 0.7 percentage points to GDP growth once the statistical alignment adjustment is excluded. In the May Report projections, and consistent with survey evidence, destocking had been expected to continue in the first quarter at around the same rate as in the fourth quarter. But manufacturers increased their inventories in 2002 Q1 following three consecutive quarters of destocking, and there was a small increase in distributors' stocks following a sharp fall in 2001 Q4 (see Chart 2.15).

The Bank's regional Agents undertook a survey of nearly 200 firms in May, asking about recent, current and expected levels of stocks. Over half of the sample, weighted by turnover, had reduced stocks over the past six months. Only 10% of firms reported that stocks were below desired levels, and over 60% intended to reduce stocks over the remainder of the year. Recent surveys also suggest some rundown in stocks in the second quarter.

Nevertheless, the current strength of the economy suggests that prolonged weakness in stocks is unlikely. Although there may have been some short-term fallback in stocks, they are likely to make a small positive contribution to demand growth in the second half of the year as the inventory correction comes to an end.

2.4 Output

The preliminary GDP estimate suggests that output rebounded in 2002 Q2. Service sector output grew by 0.6%, after having grown by just 0.2% in 2002 Q1. Survey indicators of the service sector (see Table 2.F) point to robust prospects, with the Q2 responses around or above their average readings, although the July CIPS survey balances fell back a little.

Industrial production rose sharply in April and May, up 1.4% and 0.9% respectively on the previous month. This was in large part due to a rise in manufacturing output, which

Table 2.G
Measures of manufacturing confidence^(a)

Series	2001			2002		
	average (b)	Q3	Q4	Q1	Q2	Q3 (c)
CBI industrial trends						
General optimism	-5	-22	-54	-31	21	4
Expected orders (next four months)	9	1	-25	-12	9	7
BCC						
Turnover confidence (next twelve months)	43	28	26	47	46	n.a.
CIPS manufacturing (d)						
Total new orders	52.4	46.0	46.8	51.3	55.2	48.8

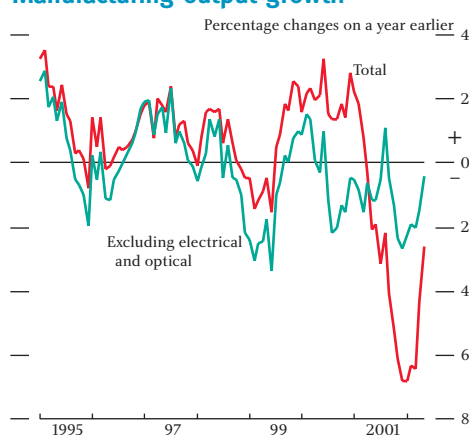
Sources: BCC, CBI and CIPS.

- (a) Numbers reported are percentage balances of respondents reporting 'higher' relative to 'lower' unless otherwise stated. Responses are attributed to the quarter that is most closely associated with the reference period of each survey. In this case, the July CBI *Quarterly Industrial Trends* survey is shown as Q3 because the indicators are forward-looking.
 (b) CBI since 1972, BCC since 1989, CIPS since 1992.
 (c) CIPS figure is July only.
 (d) A reading above 50 indicates expansion; a reading below 50 suggests contraction.

Chart 2.17
Output of electrical and optical goods



Chart 2.18
Manufacturing output growth



accounts for over 80% of industrial production.

Manufacturing output in the three months to May was 0.5% higher than the previous three months, the first positive growth on such a comparison since February 2001. Moreover, the level of manufacturing production in March has been revised up (see Chart 2.16) since the *May Report*, and now looks more in line with survey data.

The two Bank Holidays in June, one of them moved from May, could affect the monthly data in May, June and July, with the June figure potentially being depressed because of fewer working days. Table 2.G shows that the balances for survey indicators of manufacturing confidence are higher than in the second half of 2001, despite falling back a little from their second quarter levels.

The sharp slowdown in manufacturing production through 2001 was primarily due to the very weak state of the ICT sector, proxied in Charts 2.17 and 2.18 by the output of electrical and optical engineering (E&O) goods. Although activity in May was well down on a year earlier, there are signs that output may be stabilising. In the year to January 2002, E&O output fell by 27%, but it rose by 5% in the following four months, in part reflecting increasing output of computers and electronic components. The latest four months have seen stable output of telecommunications goods, which account for around one-eighth of E&O and had been particularly weak, with output halving during 2001.

Over the forecast period, the Committee expects GDP growth to continue to recover, reflecting the turnaround in global activity. And domestic demand is likely to be bolstered by the continuing support from monetary and fiscal policy. However, growth prospects are somewhat weaker than at the time of the *May Report*, primarily because of the effect of lower equity prices.

Despite the slowdown in output growth, aggregate rates of employment and unemployment have changed little during the past year. Whole-economy productivity growth has slowed. But large swings in the fortunes of the information, communications and technology (ICT) sector have amplified the impact of the slowdown on productivity. Estimated hourly regular pay growth is little changed compared with a year ago. Lower bonuses and average hours have reduced average earnings growth per person. The MPC expects the labour market to show little change during the second half of this year, with only a modest increase in average earnings growth. However, given the overall tightness in the labour market, the rise in National Insurance contributions in 2003, and the prospective recovery in demand, labour cost developments are likely to place modest upward pressure on inflation further out.

Chart 3.1
LFS employment rate

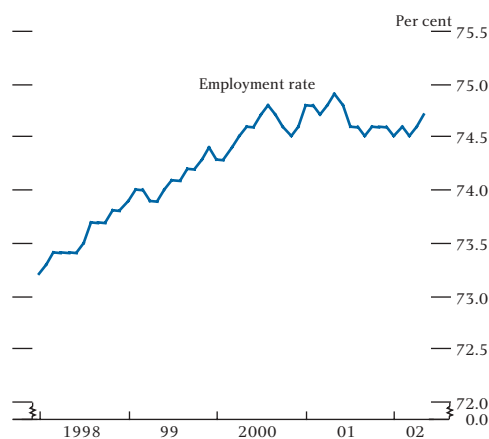
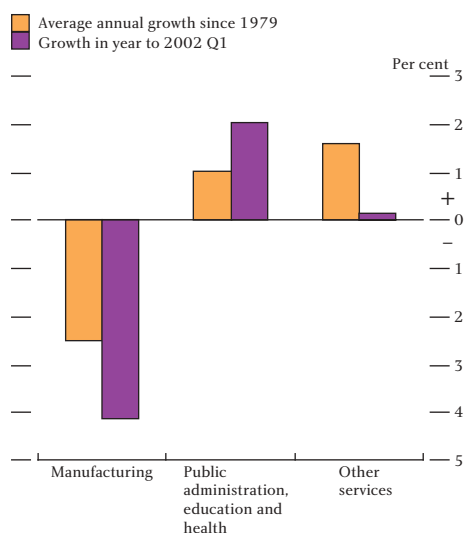


Chart 3.2
Workforce jobs growth by sector



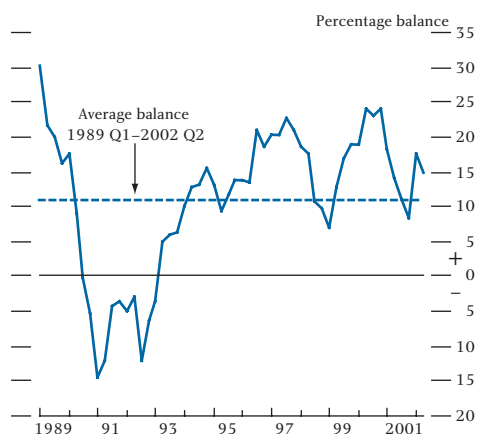
3.1 Employment

The employment rate as measured by the household-based Labour Force Survey (LFS) has risen slightly in 2002 (see Chart 3.1). Notwithstanding that, the employment rate has been broadly flat since the middle of 2001. Indeed, despite the slowdown in output growth, the employment rate in the twelve months to May was more stable than in any other twelve-month period since February 1994.

Employment as measured by the employer-based quarterly Workforce Jobs survey increased by 0.1% in 2002 Q1, following a similar increase in the previous quarter. Jobs in finance and business services increased sharply in Q1, offsetting the declines in the previous two quarters. Employment in public administration, education and health continued to increase and has accounted for most of the net growth in jobs in the services sector during the past year. The decline in manufacturing employment has been around 4% in the year to 2002 Q1, somewhat more than its average since the late 1970s (see Chart 3.2).

The number of jobs, on the Workforce measure, increased by nearly 70,000 in the year to 2002 Q1. Jobs held by men fell by around 150,000 while jobs held by women rose by nearly 220,000, increasing the female share of Workforce jobs to nearly 47% (a record since the series began in 1959). An increased female share, in part, reflects the industrial composition of employment. Jobs in public administration, education and health (where women currently account for 70% of employment) increased by around 140,000 in the year to 2002 Q1 while jobs in manufacturing (where the female

Chart 3.3
BCC employment intentions



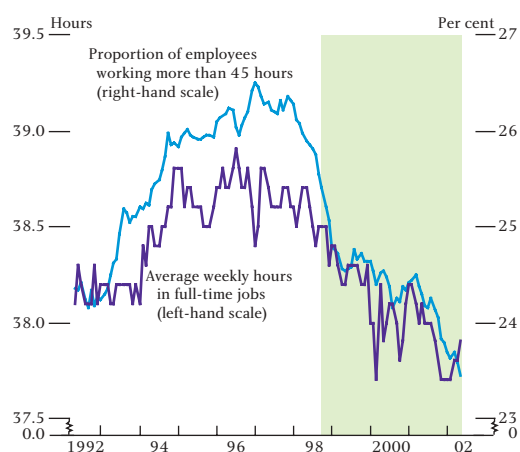
Source: BCC.

(a) Data are a weighted average of manufacturing and services, weighted by workforce jobs in 1995.

employment share is 27%) declined by 170,000. But changes in the industrial composition explain less than one quarter of the increase in the female share during this period. Nor was there an increased share of part-time jobs (of which women hold nearly 80%).

Looking forward, surveys of employment intentions have mostly edged up from their lows around the turn of the year. The manufacturing surveys generally remain below their long-term averages, suggesting further shedding of jobs. The picture for services, including the public sector, looks more positive. Chart 3.3 weights together the balance of firms that are planning to increase employment in the BCC manufacturing and services surveys. This balance fell through 2001, but has picked up this year and was above its long-term average in 2002 Q2.

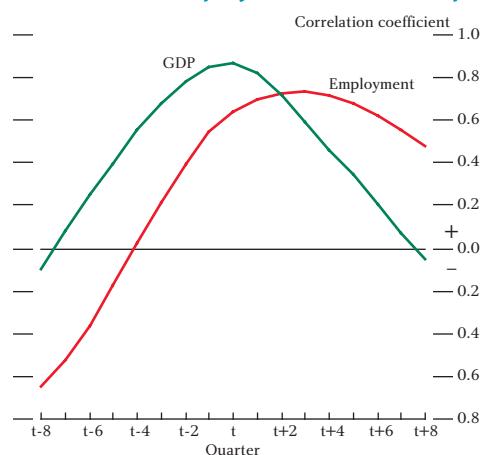
Chart 3.4
Average working hours and the Working Time Directive



Note: Shaded area indicates when the Working Time Directive has been in effect.

While total employment has risen over the past year, average hours have fallen. Average weekly hours of those working both full-time and part-time declined by around 1% during the second half of 2001, but recovered slightly during 2002. Although the recent fall in part reflects cyclical factors, looking further back, average hours have been declining since 1997. This largely reflects the declining average hours of full-time employees, and especially those working over 45 hours a week following the introduction of the Working Time Directive in October 1998⁽¹⁾ (see Chart 3.4). Structural changes in the industrial composition of employment have also contributed to the trend decline in average hours. For example the employment share of the agricultural sector, where average hours are relatively high, has declined steadily for some time. But average hours even in agriculture have fallen sharply since 1997 (in part reflecting the Working Time Directive). The effect on actual labour supply of the 2% decline in average hours since 1997 Q1 has been more than offset by an increase in the population of working age of nearly 3% during this period, together with a small increase in the participation rate.

Chart 3.5
Correlation between usual paid overtime at t and GDP and employment at different periods



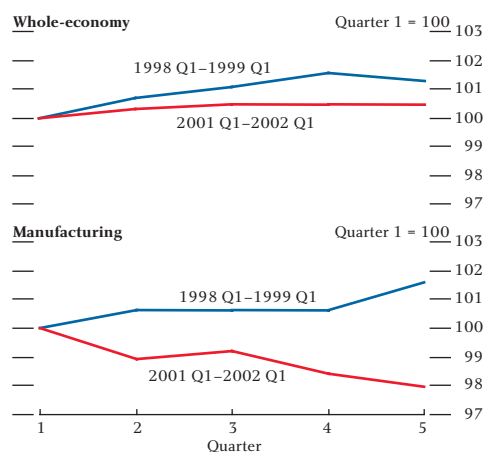
Average hours include paid and unpaid overtime, in addition to 'basic' hours worked. The *May Report* explained that the most cyclically responsive component of average hours is paid overtime. Chart 3.5 shows the correlation at different time periods between paid overtime hours and detrended levels of GDP and employment.⁽²⁾ Paid overtime is a contemporaneous indicator of the output cycle, and leads employment by several quarters. Paid overtime hours fell steadily during 2001, but stabilised in the three-month period, March to May 2002.

(1) The Working Time Directive set a limit of an average of 48 hours a week that an employee can be required to work (though employees can choose to work longer).
(2) See Shortall, F (2002), 'Working time in the United Kingdom: evidence from the Labour Force Survey', *Bank of England Quarterly Bulletin*, Summer, pages 192-202.

3.2 Productivity

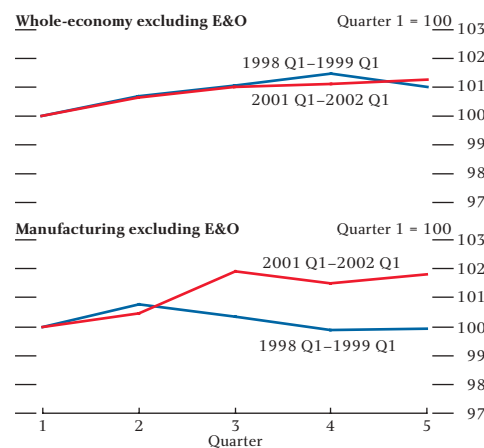
The economy's potential growth is the rate that can be sustained in the long run without putting upward or downward pressure on inflation. One of the factors that determines the economy's potential growth rate is the sustainable rate of productivity growth. With the level of employment fairly stable, the decline in quarterly output growth in the year to 2002 Q1 has resulted in broadly stagnant whole-economy productivity measured in terms of output per person, and a fall in manufacturing productivity. Chart 3.6 compares the levels of whole-economy and manufacturing productivity since 2001 Q1 with the period 1998 Q1 to 1999 Q1, when there was also a slowdown in output growth. Relatively low productivity recently has been mostly in manufacturing. Does the recent more acute slowdown in that sector's productivity growth indicate a structural change, with implications for potential output?

Chart 3.6
Productivity, 1998–99 and 2001–02



It is usual for manufacturing productivity growth to decline in a slowdown. But the sharpness of the fall can largely be explained by the concentration of the downturn in the information, communications and technology sector. Indeed, most of the decline in GDP growth since 2001 Q1 reflects the severe contraction in the ICT sector. A proxy for ICT production is the electrical and optical engineering (E&O) industry, of which ICT is a subset and the main driver. Annual growth of GDP measured by gross value added at basic prices fell from 2.4% to 0.6% between 2001 Q1 and 2002 Q1. Excluding the E&O industry, however, GDP growth slowed by only 0.3 percentage points, from 1.9% to 1.6% over this period. It is unusual for such a small sector to make such a large contribution to the change in GDP growth, the previous comparable period being in the late 1980s when output of the oil and gas extraction industry fell sharply.

Chart 3.7
Productivity excluding E&O, 1998–99 and 2001–02



The E&O industry is relatively capital intensive—for example, it accounted for 3.1% of GDP in 2001 (at 1995 prices) but only 1.8% of employee jobs. Although the industry has reduced employment sharply since early 2001, this has had little impact on whole-economy employment. Chart 3.7 shows that, excluding the E&O industry, recent trends in whole-economy productivity are more consistent with the growth slowdown of 1998–99. Furthermore, on this measure, manufacturing productivity growth has been relatively high recently compared with the late 1990s, reflecting the steep decline in employment over the more recent period.

The sharp fall in output and productivity in the E&O industry helps to explain the discrepancy between surveys of manufacturing productivity and ONS figures. The IMS/Lloyds

Chart 3.8
Productivity growth in manufacturing

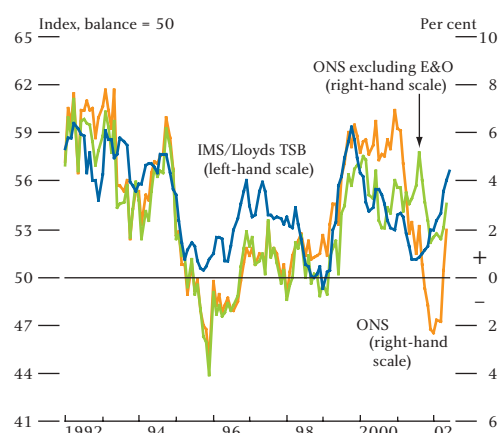


Chart 3.9
LFS unemployment shares and the unemployment rate

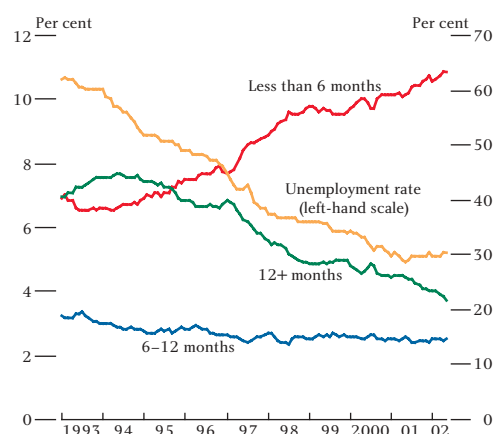


Chart 3.10
Short-term unemployment rate^(a)



(a) Short-term unemployment defined as spells of less than six months. Rates are calculated as a percentage of the economically active population.

TSB survey of manufacturing productivity is based on the CIPS surveys of manufacturing output and employment. These are balance surveys—recording, for example, the balance of firms reporting higher or lower output—and do not reflect differences between firms in the scale of these changes. So exceptional falls in E&O productivity would have no more effect than falls in sectors where productivity was declining only moderately. Once the exceptional developments in the E&O sector are excluded from the ONS figures, they are more closely correlated with the survey (see Chart 3.8).

3.3 Labour availability

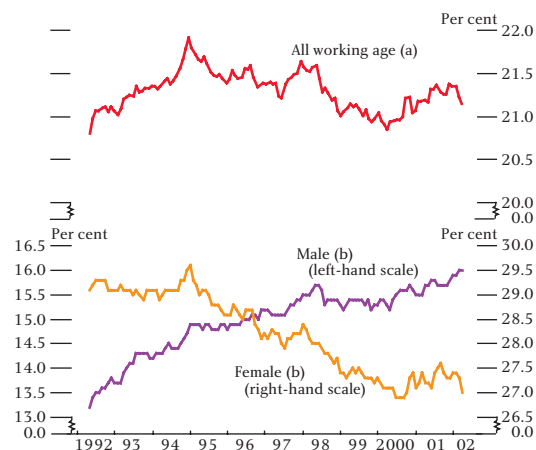
Consistent with recent employment trends, both the claimant count and the International Labour Organisation (ILO) definition of unemployment used by the LFS have changed little in the past twelve months. The claimant count unemployment rate was 3.2% in June and was unchanged for most of the previous year. The ILO unemployment rate edged up to 5.2% in the three months to May compared with 4.9% in the same period a year earlier.

Slightly higher ILO unemployment than a year earlier more than fully reflected higher short-term (largely male) unemployment. Long-term unemployment (more than twelve months) has continued to fall. The proportion of the unemployed who have been jobless for over twelve months has fallen steadily since the unemployment rate began to decline in 1993 (see Chart 3.9). In part, this reflects the Government's New Deal, extended to cover the long-term unemployed from late 1998. The long-term unemployed often find it difficult to re-enter employment. This may be because skills atrophy during spells of unemployment, long-term unemployment stigmatises people or because the long-term unemployed lose contact with social networks that assist with discovering job opportunities. Hence, their labour market participation may exert relatively little downward pressure on wage rates. In contrast, the unemployment rate of those unemployed for less than six months—and who will exert more pressure on wage rates—has been rising over the past year (see Chart 3.10). These developments may, therefore, partly explain the muted response of wages to the apparent tightening of the labour market in recent years.

The inactivity rate⁽¹⁾ has changed little during the past year. But the trends for men and women have been different (see Chart 3.11). The main counterparts to a rising male population of working age during the past year have been increased unemployment and inactivity. For women, the increase in the population of working age has been reflected

(1) The LFS classifies as 'inactive' those people without a job, who do not meet the ILO definition of unemployment.

Chart 3.11
Inactivity rates^(a)



(a) Percentage of population of working age.
(b) Percentage of the respective populations of working age.

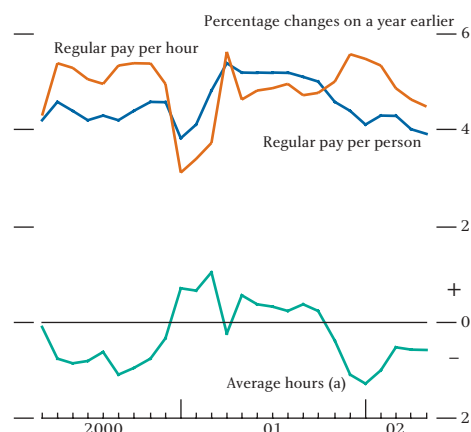
Table 3.A
Average earnings

Percentage changes on a year earlier

	2001 Aug.	2002 Jan.	Feb.	Mar.	Apr.	May
Headline rate (a)						
Whole-economy	4.5	2.9	2.5	2.9	3.3	3.8
Public	5.7	4.9	4.7	4.5	4.1	3.8
Private services	3.8	2.2	1.5	2.2	2.9	3.8
Manufacturing	4.8	2.8	2.7	2.9	3.0	3.3
Average earnings (b)						
Whole-economy	4.3	2.9	2.5	3.5	3.9	4.0
Public	5.9	4.7	4.4	4.4	3.5	3.4
Private services	3.3	2.1	1.6	2.9	4.2	4.4
Manufacturing	4.7	3.1	2.6	3.0	3.3	3.5
Regular pay (c)						
Whole-economy	5.2	4.1	4.3	4.3	4.0	3.9
Public	6.2	4.7	4.2	3.8	3.4	3.3
Private services	4.9	4.1	4.3	4.7	4.2	4.1
Manufacturing	4.9	3.7	3.7	3.5	3.8	4.0

(a) Seasonally adjusted, three-month average.
(b) Seasonally adjusted.
(c) Not seasonally adjusted.

Chart 3.12
Regular pay and average hours



Sources: ONS and Bank of England calculations.

(a) Average hours are for the three months ending in the period shown. Percentage changes are on the three months a year earlier.

mostly in higher employment, together with a small decline in inactivity. The net effect has been a slightly larger increase in overall labour supply than in labour demand, such that the ILO measure of the unemployment rate has edged up during the past year.

Surveys indicate little change in either labour shortages or recruitment difficulties recently. Labour shortages in financial services have been easing, consistent with the weak employment growth seen over the past year. Reports by the Bank's regional Agents continue to suggest persistent skill shortages in particular areas and occupations.

3.4 Earnings and unit wage costs

Earnings growth has started to recover, after several months in which growth was depressed by falling bonuses (see Table 3.A). Average earnings increased by 4.0% in the twelve months to May. Changes in bonuses had only a negligible effect on average earnings growth in April and May, following four months in which declining bonuses reduced annual earnings growth by between 1.0 and 2.3 percentage points. The headline rate of average earnings growth, which is a three-month average, increased to 3.8% in May from 2.5% in February.

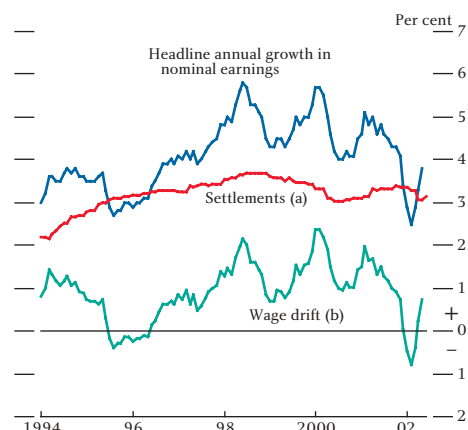
Regular pay growth excludes bonuses and may therefore give a better guide to underlying trends in average earnings. Regular pay growth has been stable so far in 2002, after a sharp fall during the second half of 2001 (see Table 3.A). That decline occurred in all sectors, though it was especially rapid in the public sector. Recent falls in public sector pay in part reflect the temporary boost given in 2001 by large overtime and arrears payments in the education sector.⁽¹⁾

The figures for regular pay in Table 3.A are an average per person employed. About 40% of employees in the economy are paid by the hour, although only about one third of the wage bill is accounted for by hourly-paid employees, reflecting their lower-than-average pay. Average hours in the whole economy declined by around 1% between August and December 2001, suggesting that falling regular pay growth during this period mostly reflected reduced hours. Chart 3.12 shows that, although estimated regular pay growth per hour has declined in 2002, it has changed little compared with a year earlier.

Table 3.A shows that regular pay growth declined more sharply in manufacturing than in private services from August 2001 to January 2002. In the long run, earnings growth in different

(1) See the November 2001 *Inflation Report*, page 30.

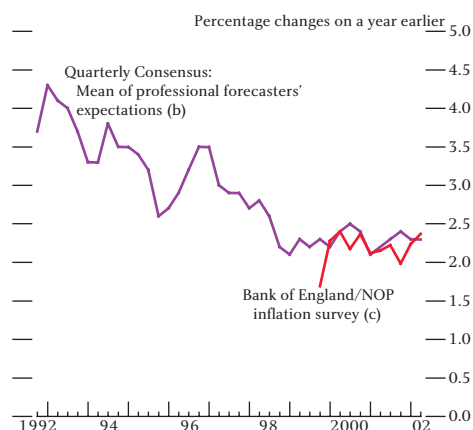
Chart 3.13
Settlements, nominal earnings growth and wage drift



Sources: Industrial Relations Services (IRS), ONS and Bank of England.

- (a) The Bank of England draws on information from the CBI, Incomes Data Services, IRS, Labour Research Department and the Bank's regional Agents.
(b) Difference between earnings growth and settlements.

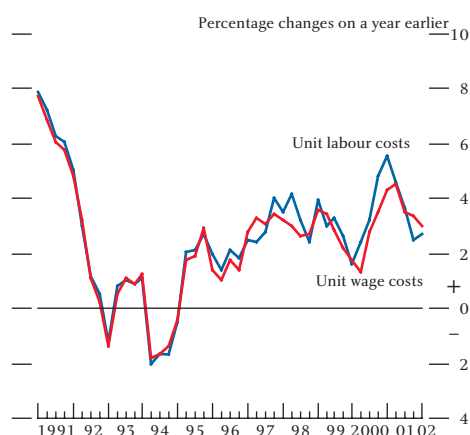
Chart 3.14
Inflation expectations^(a)



Sources: Consensus Economics and Bank/NOP survey.

- (a) Inflation rate expected one year ahead.
(b) The Consensus Survey was based on RPI forecasts before 1997 Q3 and RPIX thereafter.
(c) Mean of the general public's expected inflation rate. Conducted by NOP who ask for forecasts of general price increases in the shops.

Chart 3.15
Whole-economy unit wage and labour costs



industries for individuals with the same skills and work-leisure preferences should be the same. But in the short run, earnings growth will be affected by sector-specific economic conditions. For example, manufacturers contained wage costs in 2001 in part by reducing average hours, including paid overtime. Nearly half of the manufacturing wage bill is paid at hourly rates—a higher proportion than in the rest of the economy. Hence, the same reduction in average hours across sectors would have a larger effect on regular pay growth per person in manufacturing. Manufacturing output picked up in April and May. That is consistent with the recent increase in average hours in manufacturing, which in part explains the pick-up in that sector's regular pay growth since March (see Table 3.A).

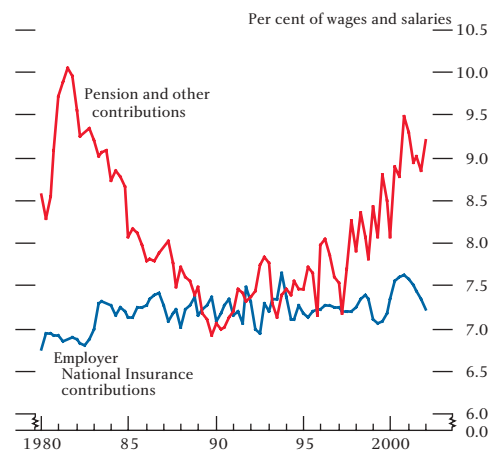
Bonuses and average hours have been the main factors affecting wage drift, defined here as the difference between average earnings growth and wage settlements. Chart 3.13 shows that wage drift fell sharply in the second half of 2001, but has picked up somewhat since March.

Wage settlements have fallen slightly in the recent pay round. Settlements and other wage bargains will be affected both by current, and expectations of future, inflation. Employees are interested in the real purchasing power of their earnings and, because settlements are often made for a year or more, that means bargainers have to form a view of future inflation. Chart 3.14 shows the twelve-month inflation expectations of professional forecasters, together with the mean inflation expectations from the Bank of England/NOP quarterly survey of public attitudes to inflation (which began in 1999). Inflation expectations of both groups remain anchored a little below the target.

Employees care, in particular, about the purchasing power of their post-tax income. The tax and price index (TPI) measures by how much income must rise to maintain its purchasing power after allowing for changes in prices and direct taxes. Unfortunately, there is no measure of TPI inflation expectations. Nevertheless, the TPI inflation rate was negative in the months leading up to the recent wage bargaining period, which would have helped to boost real take-home pay and could have reduced bargaining pressures. But looking forward, next year's increase in employee National Insurance contributions will tend to raise TPI inflation and may raise wage pressure as a consequence.

Unit wage costs increased by 3.0% in the year to 2002 Q1, compared with growth of 3.4% in the previous quarter. The growth of unit wage costs has declined steadily since 2001 Q2 (see Chart 3.15). This largely reflects slower growth of average

Chart 3.16
Employer National Insurance contributions
and pension contributions

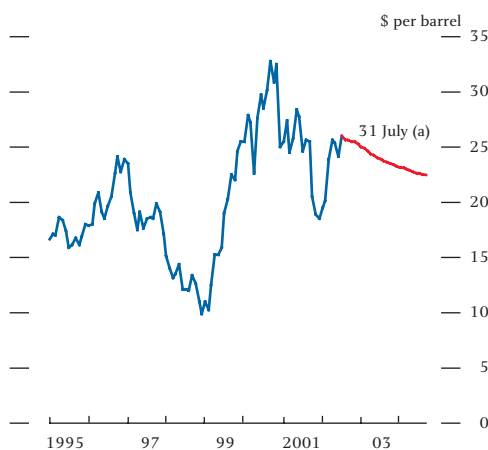


earnings over this period, which in turn mostly reflects lower bonuses. Unlike wage costs, unit labour costs include various non-wage costs of employment, such as employer National Insurance contributions and other employer social contributions (largely to company-sponsored pension schemes). In 2002 Q1, these were respectively 7.2% and 9.2% of wages and salaries (see Chart 3.16). Although total non-wage labour costs have fallen slightly as a share of wages and salaries in recent quarters, they have generally been rising since 1990. This reflects a significant increase in employer pension contributions. The growth of unit labour costs has slowed more sharply than unit wages since 2001 Q1 (see Chart 3.15). This is consistent with the recent decline in the ratio of employers' social contributions to wages and salaries.

The MPC expects the labour market to show little change during the second half of 2002. With output growth in the second half of this year expected to be below its rate in 2002 Q2, employment is expected to be flat, in part because there may have been some labour hoarding during the slowdown. Average earnings growth may edge up a little during the second half of 2002. However, given the overall tightness in the labour market, the rise in National Insurance contributions in 2003, and the prospective recovery in demand, labour cost developments are likely to place modest upward pressure on inflation further out.

Oil prices have fallen slightly (in dollar terms) since the May Report. Non-oil commodity prices have risen further from their 2001 Q4 troughs. Sterling import prices fell in Q1, but have picked up since then. The costs of manufacturers' raw materials and fuels edged up in Q2, but were well below levels a year ago. Manufacturing output price inflation remained benign. Service sector output price inflation fell in Q1. In June, annual RPIX inflation fell to its lowest rate since 1967. During Q2 as a whole, it was slightly lower than anticipated by the MPC at the time of the May Report, largely reflecting lower-than-expected contributions from goods prices. Retail goods price inflation in that quarter was the lowest since the series began in 1975. The MPC expects that RPIX inflation will rise to the 2%–2¹/₄% range by the end of this year and will edge up very gradually thereafter.

Chart 4.1
Brent oil futures



Source: Thomson Financial Datastream.

(a) Average during the 15 working days up to the time at which the MPC finalised its projections.

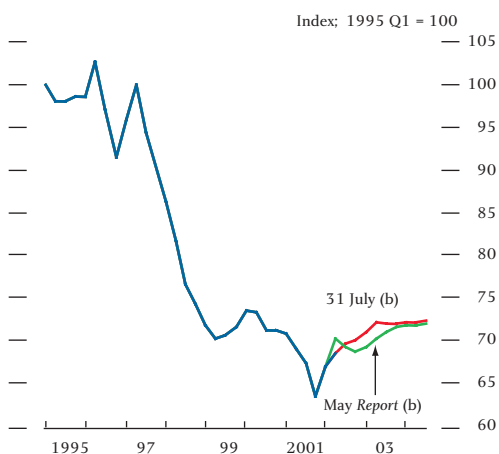
4.1 Commodity prices

The spot price of Brent crude oil (in dollar terms) fell by over 10% between mid-May and mid-June, but rose gradually thereafter, so that by 31 July it was around 1% lower than on 8 May (the day the MPC finalised its May projections). The dollar's depreciation against sterling meant that oil prices in sterling terms fell by almost 8% over this period. Some of the decline in the dollar price may have been associated with expectations of a more subdued global recovery than previously thought, which were reflected in a downward revision of International Energy Agency estimates of oil demand for Q3. On the supply side, Russia's decision to raise its output to full capacity may have been offset by OPEC's continuation of its reduced production quota into Q3.

Notwithstanding spot market developments, the oil futures curve has shifted up slightly since May, but it continues to signal a further fall in prices (see Chart 4.1).⁽¹⁾ Given the low prices in 2001 Q4, this profile implies that annual oil price inflation will turn strongly positive in the final quarter of this year, before returning to negative territory from 2003 Q2 onwards. So although crude oil prices edged down recently, their impact on annual inflation further up the supply chain is likely to increase in the near term, directly through higher petrol price inflation, but also indirectly via the pass-through of higher costs of production.

(1) The MPC used a 15 working day average of the Brent oil futures curve up to 31 July to derive the oil price assumption in its projections.

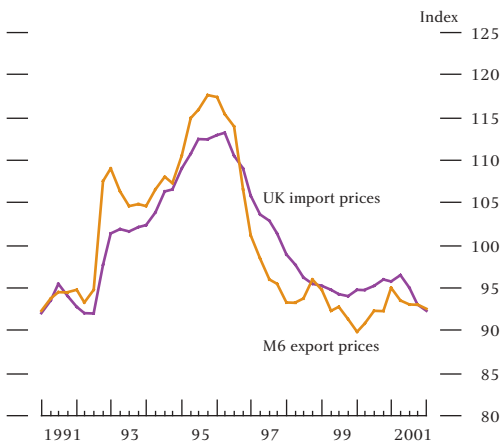
Chart 4.2
Non-oil commodity prices^(a)



Sources: *The Economist*, Thomson Financial Datastream and Bank of England.

- (a) *The Economist* all-items index in dollars.
- (b) Average during the 15 working days up to the time at which the MPC finalised its projections. Based on futures prices for around 80% of the all-items index.

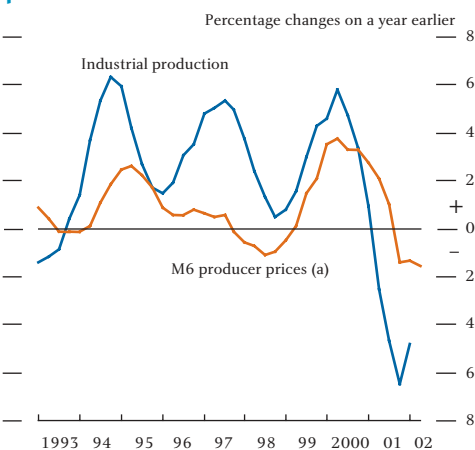
Chart 4.3
M6 export prices and UK import prices^{(a)(b)}



Sources: ONS and Thomson Financial Datastream.

- (a) Each series is presented as an index that averages 100 during the period 1991 Q1 to 2002 Q1.
- (b) The M6, or major six economies, are Canada, France, Germany, Italy, Japan and the United States. Export prices are weighted according to each country's share in UK imports and converted into sterling terms using the effective exchange rate.

Chart 4.4
M6 producer prices and OECD industrial production



Sources: IMF, OECD, Thomson Financial Datastream.

- (a) In dollar terms, weighted using GDP shares, based on purchasing power parity exchange rates.

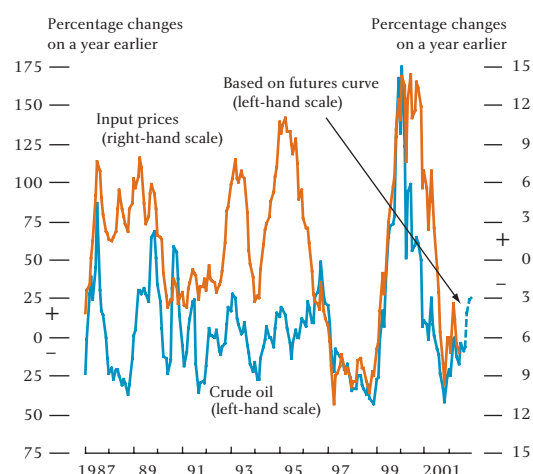
The prices of commodities other than oil (for which *The Economist* all-items index provides a weighted average) reached a trough in 2001 Q4, when industrial production in the OECD economies was falling at the fastest rate in over 25 years. But prices picked up subsequently and by July the annual inflation rate in this index rose to 5.4% (in dollar terms), the highest since May 1996. The recovery in non-oil commodity prices was accounted for mainly by price increases for agricultural products, which represent over 75% of the all-items index and whose prices rose by about 10% (in dollar terms), since the May Report. Futures prices suggest a small and steady rise in non-oil commodity prices, in particular for non-food agricultural products, as global demand is expected to strengthen somewhat over the forecast horizon (see Chart 4.2).

4.2 Import prices

Although the United Kingdom imports goods and services from many different countries across the world, a large proportion originates from the other major six (M6) economies. So developments in M6 export prices are likely to be an important influence on UK import prices, even though they do not represent the average price of all UK imports. The average price of M6 exports rose by 0.1% in local currency terms in Q1. But sterling appreciated by 0.8% on an effective basis, which would have put downward pressure on UK import prices. The average sterling price of UK imports fell by 1.0% (see Chart 4.3), broadly in line with the May central projection and more than accounted for by lower goods import prices. Goods import prices were on average 0.6% higher during April and May than in Q1, however, partly reflecting higher oil and commodity prices.

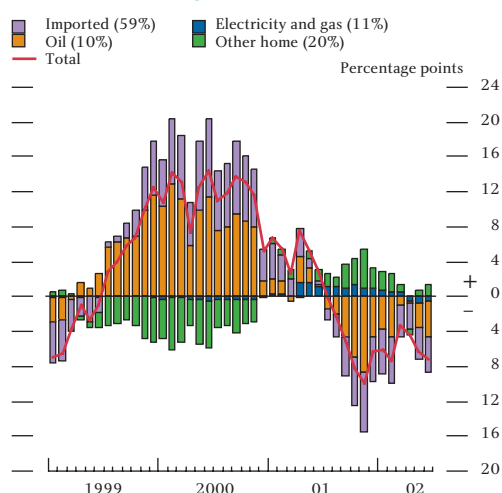
As the majority of international trade consists of trade in goods, producer prices in the M6 economies are an important influence on UK import prices. Chart 4.4 shows that M6 producer prices tend to move procyclically with industrial production in the OECD economies, though they are less volatile. The slowdown in M6 producer price inflation towards the end of 2001 reflected the worldwide drop in industrial demand. So if, as expected, the global recovery continues in the second half of the year, M6 producer prices may also be expected to pick up. But the current underutilisation of capacity and strong competition will limit the upward momentum and the impact on sterling import prices in the course of next year.

Chart 4.5
Oil price and manufacturers' input prices



Sources: ONS and Thomson Financial Datastream.

Chart 4.6
Contributions to annual input price inflation in manufacturing^{(a)(b)}



(a) Not seasonally adjusted.
(b) Figures in parentheses represent the weights in the manufacturing input price index.

4.3 Costs and prices in manufacturing

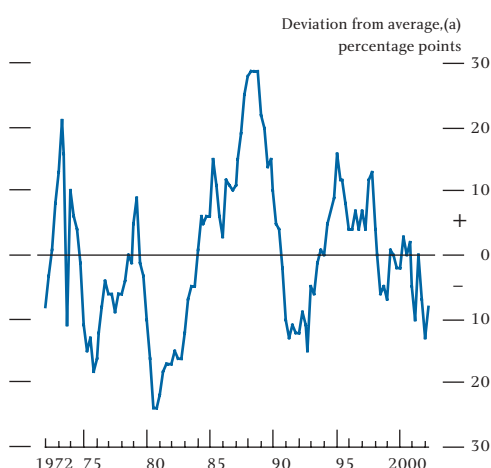
The costs of manufacturers' materials and fuels rose by 0.3% in Q2, largely accounted for by higher average crude oil prices than in Q1. But prices were still 6.1% down on levels a year ago, compared with a drop of 5.5% in the year to Q1, as the sharp increase in input prices in Q2 last year began to affect the twelve-month inflation rate. The effects of the Aggregates Levy (on the extraction of sand, gravel and rock), introduced on 1 April, were included in the data, adding around 0.2% to the total input price index.

Although crude oil has a weight of only around 10% in manufacturing input prices, annual input price inflation has tracked that of oil prices closely since the mid-1990s, albeit with a lower amplitude (see Chart 4.5). The weakness in import prices also had an important impact on input prices recently. Chart 4.6 shows that the annual decline in input prices over the past year was mostly accounted for by falling prices of imported materials and domestic oil. But the futures curve continues to imply a sharp rise in the annual rate of oil price inflation in the near term (given the sharp falls in prices in Q4 last year); and the impending upturn in global demand may reverse recent patterns in the prices of imported materials. These developments suggest that annual input price inflation is likely to pick up in the near term. Indeed, the CIPS survey reported a sharp rise in average input costs for manufacturers in July.

Manufacturers' other costs rose in the year to 2002 Q1. The Bank's estimate of unit labour costs (an important component in total costs) rose by 4.6% in the year to Q1, compared with 3.6% in the year to 2001 Q4. Productivity fell sharply, largely accounted for by the electrical and optical engineering (E&O) sector (see Section 3), and average earnings rose by 3.0% in the year to Q1. The costs of bought-in services, such as transport and the rental of buildings, are estimated to have risen by around 3% over the past year (see below for a discussion of service prices). Looking ahead, July's CBI *Quarterly Industrial Trends* survey showed little change in the net balance of respondents expecting an increase in average unit costs over the next four months to -6, from -5 in April.

Manufacturers' output prices (excluding the effects of excise duties) rose by 0.2% in the year to Q2. Annual changes in the prices of petroleum products continued to be a factor behind this benign inflationary profile. Nevertheless, output prices excluding the volatile components food, beverages, tobacco and petroleum were only 0.4% higher in Q2 than a year ago. The July CBI survey showed that the majority of companies

Chart 4.7
CBI survey of manufacturing capacity utilisation



Source: CBI.

(a) Since 1972.

Table 4.A
Measures of service sector costs and prices^(a)

Series average (b)	2001			2002		
	Q2	Q3	Q4	Q1	Q2	Q3 (c)
Backward-looking						
CIPS average costs index (d)	56.9	56.2	54.7	51.8	53.1	53.9
CIPS average prices charged index (d)	51.5	51.5	51.4	49.6	50.6	51.6
CSPI (e)		5.0	4.4	3.8	2.8	n.a.
Forward-looking						
BCC prices balance (f)	21.9	32	18	16	20	24
CBI/Grant Thornton selling prices (g)						
Consumer services	8.7	15	4	23	-34	0
Business and professional services	-1.4	-3	17	-13	-16	-1

Sources: CIPS, ONS, BCC and CBI.

- (a) Responses are attributed to the quarter that is most closely associated with the reference period of each survey. For example, the Q2 BCC survey is shown as Q3 because respondents are asked about prices over the next three months.
- (b) Averages since 1996 for CIPS; 1997 for BCC; and 1998 for CBI/Grant Thornton.
- (c) CIPS figures are for July only.
- (d) A reading above 50 suggests rising prices, a reading below 50 suggests falling prices. The CIPS survey is monthly, and the quarterly values shown are averages over the relevant three months.
- (e) Corporate services price index (experimental index, including rent). Percentage change on a year earlier.
- (f) Percentage balance of responses to the question: 'Over the next three months, do you expect the price of your services to increase/remain the same/decrease?'
- (g) Percentage balance of responses to the question: 'Excluding seasonal variations, what are the expected trends for the next three months with regard to average selling prices?'

continued to expect a fall in output prices over the next four months, although the balance was less negative than a year ago. The equivalent BCC balance for expected output prices over the next three months fell, and remained lower than a year ago. Little or no manufacturing output price inflation is entirely consistent with RPIX inflation close to the target of 2.5%. Typically, low inflation in the manufacturing sector is offset by higher rates of increase in services prices because of the differential in productivity growth between the two sectors (Section 4.6 on page 33 explains this more fully).

There has been scant evidence of upward price pressures arising from supply constraints. The July CBI survey suggested that capacity in the manufacturing sector remained more than adequate to meet demand. The balance of firms operating at full capacity remained below the long-term average, despite a reported rise in the July survey (see Chart 4.7). Reports from the Bank's Agents also indicated that manufacturing companies in most sectors were operating below capacity, except those producing consumer goods.

4.4 Costs and prices in the service sector

Wages account for the majority of costs in the service sector. Unit wage costs are estimated to have risen by 0.9% in the year to Q1, unchanged from the rate in the year to 2001 Q4. This is significantly less than unit labour cost growth in manufacturing, and can largely be explained by lower bonuses in private services than a year earlier, as well as by productivity growth having slowed less than in manufacturing. However, the CIPS services survey suggested that higher wage costs were the main factor behind the rise in average costs in Q2 (see Table 4.A). Higher insurance premia and costs of materials also contributed to the pick-up in this survey measure.

Output price inflation in the service sector, as measured by the ONS' experimental corporate services price index (CSPI), continued to fall, to 2.8% in the year to Q1. This was the weakest since 1999 Q2. The CIPS survey suggested that output prices rose at a slightly faster rate in Q2 and beyond than in Q1.

Forward-looking surveys provide a mixed outlook on output price inflation. The BCC survey showed a fall in the balance of respondents expecting to raise their prices over the next three months, to below its long-term average. The CBI/Grant Thornton survey suggested a sharp divergence between expected output price inflation in consumer services and business and professional services. The balance of providers of consumer services expecting higher selling prices in Q3

Chart 4.8
Expenditure deflators

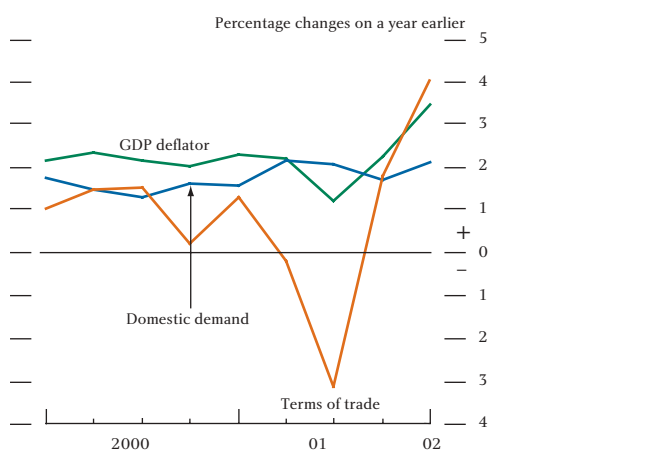


Chart 4.9
Retail prices

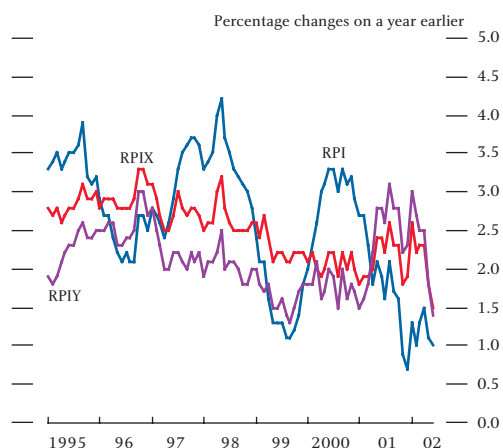
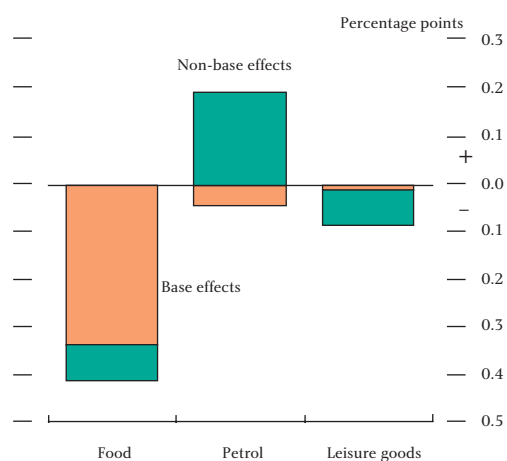


Chart 4.10
Major changes in contributions to change in annual RPIX inflation between Q1 and Q2



became negative again (see Table 4.A), but that for business service providers rose to above its long-term average.

4.5 Expenditure deflators

Although the target for the MPC's monetary policy is set in terms of annual RPIX inflation, information on price changes outside the retail sector may help to shed light on current and future trends in retail prices. The broadest measure of prices in the United Kingdom is the GDP deflator. The deflators for GDP and its expenditure components are calculated as the respective ratios of nominal to real spending. The annual inflation rate of the GDP deflator has risen sharply since 2001 Q3 and was 3.4% in Q1 (see Chart 4.8). Following the steep fall in 2001 Q3, the terms of trade (ie the ratio of export to import prices) improved significantly in Q4 and in 2002 Q1, as UK export prices rose compared with a year ago and import prices fell. Annual inflation in the domestic demand deflator rose to 2.1% in Q1, from 1.7% in 2001 Q4.

4.6 Retail prices

Annual RPIX inflation fell from 2.4% in Q1 to 1.9% in Q2, slightly below the *May Inflation Report* central projection. The majority of this decrease occurred in May, when RPIX inflation dropped to 1.8%, from 2.3% in April (see Chart 4.9). Annual RPIX inflation continued to fall in June, to 1.5%, the lowest since September 1967.⁽¹⁾ RPI inflation, which also includes the effects of mortgage interest payments, was unchanged at 1.2% in Q2. Annual inflation in the RPIY index, which excludes indirect taxes from the RPIX measure, dropped from 2.7% in Q1 to 1.8% in Q2. HICP inflation fell from 1.6% in the year to Q1 to 0.9% in the year to Q2 and has been lower than in any other EU country since January this year.

Annual RPIX inflation is calculated by comparing the level of retail prices in a particular month or quarter with the level twelve months or four quarters earlier (the base period). This means that the inflation rate depends on the price level in each of the two periods that are being compared. Chart 4.10 shows which components of the RPIX index made the biggest contributions to the fall in annual inflation between Q1 and Q2. The majority of the fall in annual RPIX inflation in Q2 reflected a lower contribution from food prices. Nearly all of this was due to base effects, as the flood-related price increases in 2001 Q2 depressed the annual inflation rate (see Chart 4.11). Though the base effect was clearly foreseen, food prices were also weaker in 2002 Q2 than had been expected at the time of the *May Report*. Similarly, base effects, arising

(1) Although RPIX has only been recorded since 1974, the RPI index did not include mortgage interest payments until then.

Households' inflation experiences

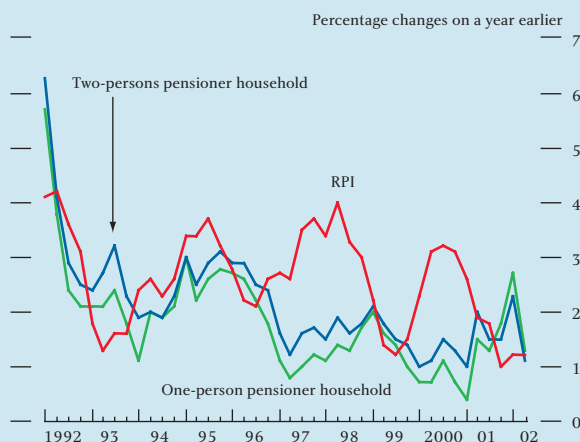
The inflation target set for the MPC is expressed in terms of the twelve-month change in the retail prices index excluding mortgage interest payments (RPIX). Outside commentators focus on small changes in annual RPIX inflation from month to month. But that may not mean much to some members of the public, as it is not necessarily the inflation rate they experience. This box examines the variation in inflation experience across different types of households.

The RPI provides a weighted average of the prices of a basket of goods and services bought for consumption by the vast majority of households in the United Kingdom, including mortgage interest payments. The component weights are based mainly on an ONS survey of expenditure patterns of around 7,000 private households—the Family Expenditure Survey (FES) and its successor, the Expenditure and Food Survey (EFS), introduced in April 2001.

But the RPI does not cover expenditure patterns of all households in the country. It excludes those pensioner households who derive at least three quarters of their total income from state pensions and benefits, and households whose total income is within the top 4% of all households, as measured by the FES/EFS. The RPI basket of goods and services may not be representative of the excluded households' consumption behaviour. Likewise, spending by people who are not covered by the FES/EFS, such as those living in institutions, has no impact on the RPI.

A recent survey by the Bank of England asked a random sample of 2,000 people aged 15 and over how much prices had changed in the previous twelve months.⁽¹⁾ Though the median response was 2.3%, there was a wide variation in answers: ranging from 19% who thought that prices had fallen or not changed at all, to 30% who said that annual inflation had been more than 3%. This does not imply that people have no idea about the true rate of inflation. Rather, it could suggest that people simply have different experiences of inflation, related to their expenditure patterns.

Chart A
Pensioner price indices and RPI



Source: ONS.

Official data add weight to such an argument. For example, Chart A shows that annual inflation experienced by pensioners has differed significantly from annual RPI inflation during the past decade.

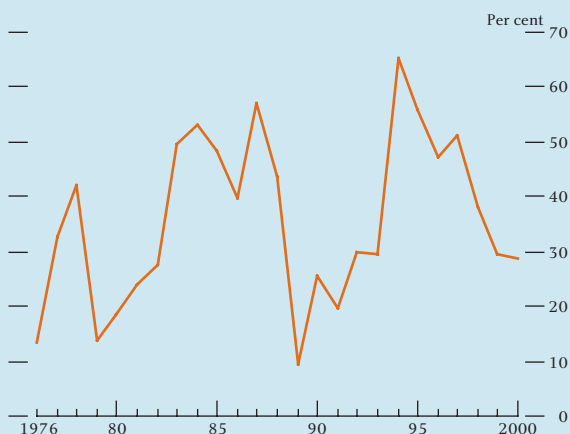
A recent study by the Institute for Fiscal Studies⁽²⁾ uses data from the ONS' annual FES for the period 1976–2000, together with RPI component indices, and provides further evidence on the variation of inflation among households.

Chart B shows that it is quite common for large proportions of households to experience inflation rates of their consumption basket that are more than 1 percentage point away from the average. Over the period analysed, the variation of inflation has typically been higher at high rates of inflation (see Chart C). But the proportion of households affected by inflation rates close to the sample average has fallen since the mid-1990s and in 2000 less than a third of households in the sample experienced around-average inflation. This finding does not indicate any deficiency in RPIX as a useful target measure or in RPI as an average measure of inflation. All aggregate measures of inflation inevitably reflect an average experience across the population and individual inflation experiences in the economy are bound to be diverse.

(1) For more details, see *Bank of England/NOP Inflation Attitudes Survey*, May 2002, available on the Bank's web site at www.bankofengland.co.uk/statistics/infurvey.htm and 'Public attitudes to inflation', *Bank of England Quarterly Bulletin*, Summer 2002, pages 147–52.

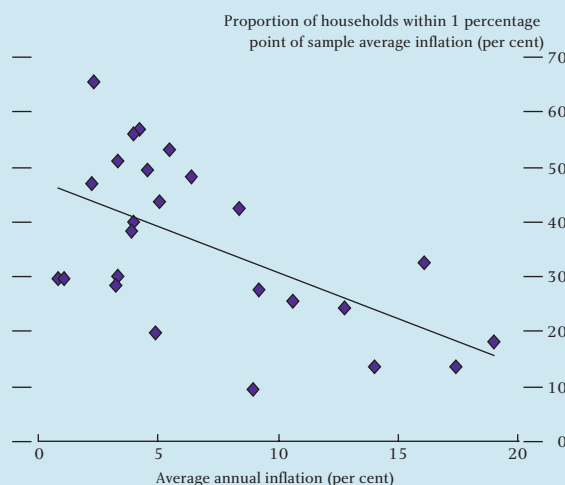
(2) Crawford, I and Smith, Z (2002), 'Distributional aspects of inflation', *The Institute for Fiscal Studies Commentary 90*.

Chart B
Proportion of households within 1 percentage point of sample average inflation rate



Source: Institute for Fiscal Studies.

Chart C
Variation of inflation among households and sample average inflation rate



Source: Institute for Fiscal Studies.

Chart 4.11
Food and petrol prices

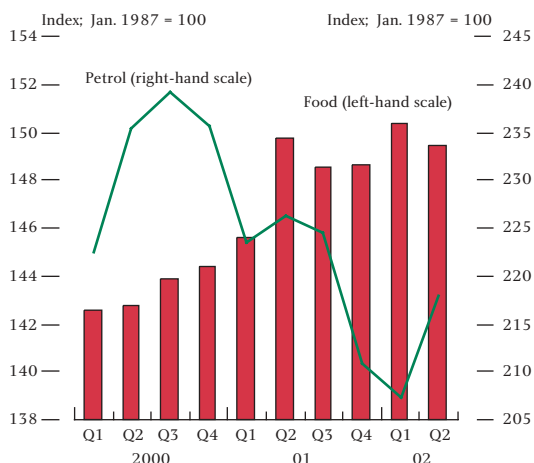
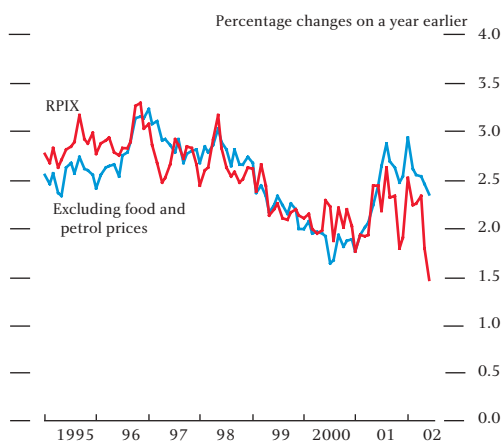


Chart 4.12
RPIX and RPIX excluding food and petrol prices

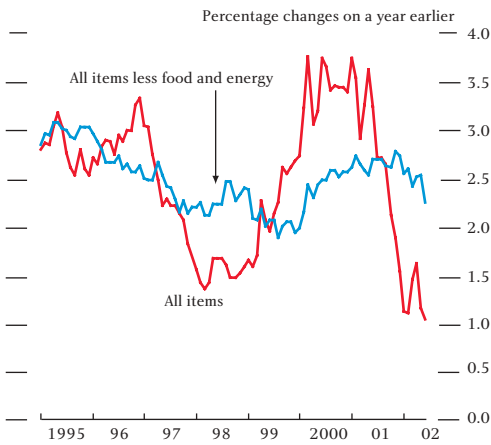


from the high level of petrol prices in Q2 last year affected the annual inflation rate. But this downward impact on inflation was more than offset by the rise in crude oil prices in the spring. The unexpected sharp fall in leisure goods prices—which took place mainly in May, as a result of a tabloid newspaper price war and price reductions for wide-screen televisions ahead of the World Cup—accounted for a decrease in the contribution of leisure goods to the annual inflation rate. Goods prices in general turned out weaker than expected in Q2.

Since its peak in January this year, annual RPIX inflation has remained below the 2½% target. But Chart 4.12 shows that this was due mainly to subdued inflation in food and petrol prices, which together have a weight of around 15% in the RPIX index. Retail price inflation excluding these volatile components was significantly higher recently than for RPIX as a whole. Moreover, this was not exclusively a UK phenomenon. A similarly adjusted measure of inflation in the United States was also well above the official headline consumer price inflation rate (see Chart 4.13).

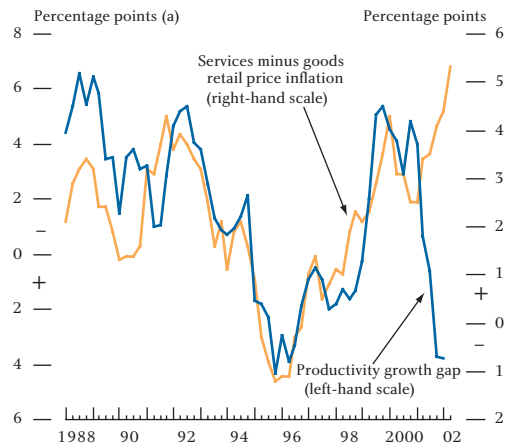
Annual goods price inflation fell to -0.8% in Q2, the lowest since the series began in 1975. Annual services price inflation was virtually unchanged at 4.5% in Q2. The gap between annual retail price inflation in services and goods has increased gradually since the second half of the 1990s. Chart 4.14 shows that, in the past, this gap has been closely related to the difference in productivity growth between the service and the manufacturing sector. Production in the manufacturing sector tends to be more capital intensive, so that technological progress typically leads to faster

Chart 4.13
US consumer prices



Source: US Bureau of Labor Statistics.

Chart 4.14
Productivity growth gap between services and manufacturing and retail price inflation



(a) Inverted scale.

productivity growth than in the service sector. But in order to avoid labour shortages in either sector, wages have to grow at similar rates over time. This implies that unit labour costs increase more rapidly in the service sector than in manufacturing, and partly explains the faster rise in services prices than in goods prices. But recently the relationship between the inflation gap and the productivity differential seems to have broken down. Narrowing manufacturers' margins and negative inflation rates in manufacturing input prices, which have been a feature of the cyclical slowdown over the past year, probably account for most of the breakdown.

Looking forward, changes to the near-term forecast for annual RPIX inflation are dominated by developments in goods prices, whereas retail services price inflation is expected to remain broadly unchanged. Price developments further down the supply chain may start to put upward pressure on retail goods price inflation over the coming quarter. The contribution from petrol prices to annual RPIX inflation is expected to rise, as the oil futures curve implies a rise in annual inflation rates in the second half of the year. Food prices are also expected to continue to be dominated by base effects, as last July's 10% fall in seasonal food prices will boost the annual inflation rate. But overall, inflationary pressure on goods prices is likely to remain relatively subdued. Inflation is expected to rise again towards the end of the year, but remain below the 2.5% target over the first year of the forecast.

This section summarises the economic developments and monetary policy decisions taken by the MPC since the May Report.⁽¹⁾ The Bank's repo rate was maintained at 4% in June, July and August.

In the *May Report*, the MPC's central projection for RPIX inflation was somewhat higher than in the *February Report*. Inflation was expected to remain close to, but a little below, the target during most of the forecast period, before rising above target at the forecast horizon. Output growth over the two-year period was projected to be stronger than in the *February Report*, rising to above-trend rates, with strong world demand and higher public spending outweighing a modest easing in household spending growth. Risks to growth were considered to be slightly on the downside, while the overall risks to inflation were moderately on the upside.

At its meeting on 5–6 June, the Committee began by discussing the world economy. Recent data suggested that the US recovery was developing broadly as had been envisaged in the *May Report*. The euro area and Japan had shown signs of modest improvement, although domestic demand in the euro area had been weak and the Japanese economy still faced major structural problems going forward.

Turning to the United Kingdom, the sterling effective exchange rate index (ERI) had fallen around 3% since the May meeting, reflecting a fall against the euro. Although the size of the impact on activity and inflation was debatable, the direction was clear. Both the Halifax and Nationwide indices had recorded house price rises of some 5% in the past two months. The present rate of increase was unsustainable. Although the Committee did not target them, house prices developments were relevant insofar as they affected prospects for demand and inflation.

GDP output growth in Q1 had been unexpectedly revised down by 0.1 percentage points to 0.0% and it remained difficult to reconcile these data with other information about the economy for the same period. In the Committee's judgment, the balance of probability was that GDP data for

(1) The minutes of the May, June and July meetings are reproduced under a separate cover, published alongside this *Report*.

Q1 would be revised up somewhat, although this would have little impact on the Committee's central projection for inflation.

Looking ahead, survey data suggested that business activity was improving. Consumer confidence remained strong and prospects for households' spending in Q2 were robust, supported by the continued strength in households' borrowing and house prices. The levels of employment and hours worked had increased. But claimant count unemployment had risen slightly in March and April. Annual RPIX inflation was 2.3% in April, broadly as expected.

Discussing the immediate policy decision, most members thought that, on balance, developments over the past month had brought forward the need for an increase in rates. The key issue was how pre-emptive that increase needed to be. The Committee identified a number of arguments for leaving the repo rate unchanged: uncertainties over the economic outlook; the weak estimate of GDP for the first quarter; sterling's fall might not persist; equity and oil prices had fallen in the past month, while domestic cost pressures were currently low; and inflation was forecast to be below target for most of the two-year horizon. The Committee also identified a number of reasons for increasing the repo rate, in either June or the following months: inflation would be higher if the lower exchange rate persisted; real short-term interest rates were below their likely long-run equilibrium, while output was close to potential; the increase in inflation at the two-year horizon was quite steep and delay could mean a larger rate rise would be required eventually; and a range of factors pointed to a strong rebound in UK activity in the second quarter. Members agreed that the position was finely balanced. Raising rates too soon risked stifling the recovery, while raising rates too late risked allowing demand growth to put undue pressure on the supply capacity of the economy.

The Committee voted by 7 to 1 to maintain the Bank's repo rate at 4%.

At its meeting on 3–4 July, the Committee first discussed the world economy. The US economy had continued to recover broadly in line with the May *Inflation Report* projections. The euro area was showing signs of improvement in economic activity, albeit gradually, and Japan was benefiting from a more general recovery in the information, communications and technology sectors across Asia. But there were increasing concerns about some Latin-American economies.

Major international equity markets had fallen since the June meeting, and the decline in the dollar meant that the fall in US markets was relatively greater when expressed in a common

currency. Much of the weakness in equity prices had been triggered by news of accounting irregularities at WorldCom, and might therefore reflect a rise in the equity risk premium rather than a more generalised fall in expectations of corporate earnings.

The MPC considered a range of possible explanations offered by market commentators for the further fall in the dollar during June. These were: concerns about the veracity of US corporate accounts had damaged investors' confidence in dollar assets; doubts about the sustainability of capital inflows to the United States at the current level of the dollar; weaker-than-expected economic data releases; and US market interest rates had fallen relative to those in other major industrial countries. While the previous strength of the dollar had been a puzzle, the timing of the recent depreciation was also difficult to explain. Risks of further falls remained.

Sterling's effective exchange rate index had risen by around 1% since the June MPC meeting. UK market interest rates had fallen at all maturities and this appeared to be associated in part with the weakness in equity prices. The FTSE All-Share index had fallen by about 12% since the June MPC meeting. GDP growth in Q1 had been revised up slightly, while consumption growth in Q1 had been revised down. But upward revisions to 1999 and 2000 data meant that the estimated level of consumption for Q1 was now 1.3% higher than previously thought, but the level of business investment was much lower than formerly believed. The latest surveys and data releases continued to suggest a robust recovery of economic activity in the second quarter.

Annual house price inflation was running at close to 20%, implying a greater stimulus to demand than had been implied in the May *Inflation Report* projections. However, this effect would be broadly offset over the forecast period by the recent fall in equity prices. Employment continued to grow steadily and LFS unemployment had been stable for ten months. RPIX inflation had fallen to 1.8% in May, lower than had been expected, although that low outturn was unlikely to have implications for inflation prospects beyond the very short term.

In discussing the immediate policy decision, the Committee identified a number of arguments for leaving the repo rate unchanged. These were qualitatively similar to those identified in the previous meeting, although their quantitative importance had been affected by recent developments. Equity prices had fallen substantially and downside risks to the world economic recovery might have increased. The arguments identified by the Committee in the previous meeting for

raising rates immediately or in the near future also remained relevant. Members agreed that the arguments remained finely balanced. Most members concluded that the latest economic news had left the most likely outlook for inflation little changed, although some believed that the arguments for not raising rates were stronger than at the previous meeting.

The Committee voted by 8 to 1 to maintain the Bank's repo rate at 4%.

At its meeting on 31 July–1 August, the Committee voted to maintain the Bank's repo rate at 4%.

Output growth in the United Kingdom picked up in the second quarter, but prospects for UK GDP growth and RPIX inflation have weakened since May, largely reflecting the steep decline in global equity prices which is likely to dampen the prospective recovery in demand at home and abroad. Uncertainty both about the assumptions for asset prices underpinning the Committee's latest projections, and about the impact of the recent sharp movements, pervades the current outlook.

According to the Committee's current projection, conditioned on unchanged official interest rates (see Chart 6.1), the most likely outcome is that four-quarter GDP growth will strengthen further to around trend over the coming year, prompted by a gradual improvement in global demand and by the supportive domestic monetary and fiscal policy stance. Growth is likely to settle around that rate thereafter. RPIX inflation has fallen in recent months, in large part due to temporary factors. As these influences unwind, the central projection is that inflation will move up to a little below target by the end of this year. Inflation is then expected to rise very gradually to around the target by the two-year horizon, as domestic cost pressures slowly build (see Chart 6.2). Risks to the central projection for RPIX inflation are weighted slightly to the upside.

6.1 The inflation projection assumptions

The latest economic data are broadly in line with previous expectations of a gradual, though patchy, strengthening in global activity through this year and beyond, supported by an accommodative macroeconomic policy stance. Uncertainty over the pace and resilience of the nascent recovery in the world economy has increased in recent months, however, as a result of the sharp fall in equity prices, and the volatility in financial markets more generally.

Previous *Reports* have noted the risk of a pronounced fall in equity prices in the United States in the event of a weakening in sentiment about the outlook for productivity growth and corporate profits. Although prospects for medium-term output growth in the United States remain favourable, equity prices have dropped by around 20% over the past three months. Prices have also fallen sharply in continental Europe and the United Kingdom. But the decline elsewhere has been less than in the United States in common currency terms, and US developments appear to have provided both the spark and the fuel for the slide in global equity prices. The particular catalyst for the deterioration in equity market sentiment seems to have been increased uncertainty over the financial performance of the US corporate sector, given reports of

accounting distortions and corporate malfeasance. It is likely that investors have revised down their expectations of the prospective stream of corporate earnings, and may be discounting those earnings at higher rates because of increased uncertainty surrounding the outlook for profitability.

The decline in global equity prices is likely to dampen the anticipated recovery in private final demand in the major economies. Lower household wealth will lessen the incentive for consumers to spend, while the heightening of uncertainty and a rise in the cost of capital will lead some companies to postpone and perhaps cancel marginal investment programmes. But the impact on overall global demand prospects will be tempered by the macroeconomic policy response. Financial market expectations of the likely levels of official interest rates over the next two years in the United States and the euro area have declined significantly since the *May Report*, and government bond yields have fallen markedly. The stimulatory policy stance should mitigate the impact on activity, and promote a gradual strengthening of growth.

The direct impact of the drop in equity prices on demand prospects is likely to be particularly pronounced in the United States, reflecting the relative importance of the stock market as a source of corporate finance and the widespread direct ownership of equities by US households. But the sharp fall in the dollar exchange rate in recent months, perhaps reflecting concerns about prospective returns on dollar asset holdings, should provide some offsetting boost to the US net trade position. By contrast, in the euro area, the recovery in the exchange rate will reinforce the brake from lower equity prices, although the associated gain in the terms of trade should help to underpin real disposable incomes and consumer spending.

The Committee judges that the outlook for global activity is likely to be weaker than in the *May Report*, reflecting the steep decline in equity prices. Nevertheless, the broad picture in the central projection remains one of a gradual increase in global GDP growth over the next two years, given the continued stimulus from macroeconomic policy, and signs of some underlying improvement in the world economy in the first half of this year. But the pace of recovery is likely to be more sluggish than previously envisaged, with the return to trend rates of growth delayed until the second year of the forecast period.

Global inflationary pressures are likely to remain muted. Spot oil prices in dollar terms are close to their levels in early May,

and the futures curve continues to point to a decline in prices over the next two years, broadly in line with the May central projection. There is also little change to the outlook for non-oil commodity prices, where a gentle rise in dollar terms is factored into the futures curves. Furthermore, strong competition should continue to restrain traded goods and services prices more generally, given the current under-utilisation of industrial supply capacity, and prospects of only a relatively moderate rebound in global demand growth. Local currency prices of goods and services exported to the United Kingdom from the major overseas economies are likely to rise by around $1/2\%$ per annum over the forecast period, somewhat below the central expectation in May.

The outlook for sterling import prices also depends on the prospects for exchange rates. There have been sizable moves in exchange rates over the past three months. Sterling has risen substantially against the dollar and fallen against the euro, during a period when the euro has appreciated by some 10% against the dollar. The movements will tend to weaken sterling import prices from the United States and those set in dollars from other countries, and to raise those from the euro area. In trade-weighted terms, however, the bilateral movements in sterling have largely cancelled out. Although the effective exchange rate index (ERI) fell during May, it subsequently recovered. The 15 working day average to 31 July—which forms the starting point of the current projection—was around 1% below the implied level in the May central projection. During the 15 working days to 31 July, the ERI averaged 105.7, consistent with bilateral sterling exchange rates of \$1.57 and 64 pence against the euro. The sterling ERI is assumed to depreciate slightly to 103.5 by 2004 Q3 on the central projection.

UK equity prices fell sharply during the past three months, in line with global developments. In the 15 working days to 31 July, the FTSE All-Share index was some 22% below the level assumed in the *May Report*. UK equity prices are now back to the levels of the end of 1996. The central projection is based on the conventional assumption, that equity wealth increases in line with nominal GDP growth over the forecast period from its current level. But the outlook for equity prices at home and abroad is especially uncertain. Further sharp changes in either direction would have a significant impact on the unfolding economic landscape.

House prices have continued to rise swiftly. The increase in recent months has again outstripped earlier expectations, with the Halifax and Nationwide indices up by more than 20% over the past year. The ratio of house prices to earnings is considerably above its long-run average. As the box on

pages 8–9 explains, a number of structural factors may have put upward pressure on the level of the house price to earnings ratio in recent years, including: sustained low inflation; demographic changes increasing household formation; and slow growth in the supply of new houses. While there is considerable uncertainty, it is possible that these persistent factors may support a higher medium-term level of house prices to earnings than in the past. Nevertheless, the ratio varies considerably around its medium-term level given cyclical swings in the market, and any further structural changes would affect the average medium-term ratio. The additional increases in prices since May will have stretched affordability further, which should gradually curb demand. A recent survey by the Bank's regional Agents and reports from RICS also point to some moderation in house price growth in the coming months. Over the forecast period, house price inflation is assumed to decline markedly from its current unsustainable rate to a little below the rate of nominal earnings growth in two years' time.

The MPC's projections continue to be based on the Government's nominal public spending plans and on Treasury estimates of effective tax rates on different components of income and expenditure. The July 2002 Spending Review supplied new information on the allocation of expenditure, but within the overall envelope for public spending outlined earlier in the Budget. Although there remains considerable uncertainty surrounding the economic impact of the tax and spending measures announced in the Budget, the Committee has made no change to the fiscal policy assumptions set out in the *May Report*. Robust growth in public spending will bolster domestic demand over the forecast period.

6.2 The output and inflation projections

There have been signs of a recovery in output growth in the United Kingdom in recent months. GDP rose by 0.9% in 2002 Q2 according to the ONS preliminary estimate, well up on the negligible rate of growth over the previous six months, and broadly in line with expectations. Service sector growth has picked up from the low point in the winter. And manufacturing output edged up in April and May following the steep decline in activity over the previous fifteen months. Business surveys and reports from the Bank's regional Agents point to a further strengthening in whole-economy output in the coming months, albeit at a more subdued pace than indicated three months ago. But it is too soon to judge whether the recent decline in equity prices has dented business and consumer confidence significantly.

Robust growth in consumer spending has provided the mainstay of aggregate demand in the United Kingdom over the past few years. That has helped to soften the impact of the high level of sterling and the sharp slowdown in the world economy through last year. Household spending now appears to have provided a rather stronger buttress than previously judged. Although the ONS made little modification to estimates of GDP in the recent *Blue Book* National Accounts release, the volume of consumer spending was revised up substantially, with a corresponding downward adjustment to the estimate of business investment. At the same time, however, there was an even larger upward revision to estimates of real household income, and the ONS also adjusted upwards its measure of household financial wealth. As a result of the various amendments, it is now much easier to relate the recent strength of consumer spending to developments in its underlying determinants such as disposable income, wealth, interest rates and unemployment. For example, real household disposable income is now estimated to have risen by some 6½% in 2001, which has helped to fuel buoyant consumption in recent quarters.

Consumer spending growth has remained brisk more recently. Although quarterly growth dipped to 0.5% in 2002 Q1, a wide range of indicators point to a bounceback in growth in the second quarter. Retail sales volumes rose by 1.7% in Q2. Private vehicle registrations increased more rapidly. Household money and credit growth strengthened further. Consumer confidence still remains relatively high.

Notwithstanding the recent buoyancy, the Committee continues to expect some slackening in consumer spending growth in the coming quarters. Retail sales growth eased during the course of the second quarter, although a number of special factors, such as the Jubilee Bank Holidays and the World Cup, may have affected the recent monthly data. Forward-looking surveys of retail demand point to some underlying moderation. More significantly, real income growth has slowed from the exceptional pace of recent years. The pre-announced increase in National Insurance contributions in April 2003 may also depress income expectations looking further ahead. In addition, the large fall in equity prices has reduced household financial wealth and is likely to promote additional saving to rebuild balance sheets. Against that, the unexpected recent strength of house prices has increased the opportunity for consumers to borrow against housing collateral and support their spending, although this influence is likely to offset only part of the impact of lower equity prices, and, moreover, the sharp slowdown in house price inflation anticipated over the forecast period may be associated with some moderation in consumer confidence and

spending growth. The central projection is that household spending growth will weaken over the next twelve to eighteen months, dipping below its long-run trend rate. The deceleration is likely to be sharper than estimated in May. Expenditure growth may, however, turn up again towards the end of the forecast period, as income growth increases in response to a pick-up in labour demand. Reflecting the upward revision to past data, the level of spending is likely to be higher than in the May central projection over the forecast period.

The recent profile for whole-economy investment is much weaker than expected three months ago. As noted above, the 2002 *Blue Book* introduced substantial downward revisions to the estimated level of investment. Taken in combination with a larger-than-expected fall in capital spending in recent months, the volume of investment was over 7% below the central projection in the May *Inflation Report* in 2002 Q1. Capital spending has been cut back sharply over the past year, reflecting the slowdown in demand and growing financial pressures on the corporate sector. It is also possible that some investment plans were put on hold around the turn of the year as uncertainty rose in the aftermath of 11 September. Business investment—some three quarters of the total—is now estimated to have fallen by 9% in the year to 2002 Q1, with substantial reductions in the service sector as well as in manufacturing.

Business investment is likely to remain subdued in the near term until there are clearer signs that the upturn in global and UK demand is firmly established. The average cost of finance has increased in recent months as a higher cost of equity capital has outweighed a fall in corporate bond yields. Moreover, the sharp rise in financial market volatility may have raised uncertainty, thus leading to a deferral of some capital spending. These influences are likely to retard the recovery in business investment. The central projection is that business investment will remain around current levels for most of this year, and will then gradually increase as demand prospects improve. Combining this prospect with the weaker starting point, the likely level of business investment is markedly below that projected in May.

According to the latest ONS estimates, a rebound in inventory investment added to domestic demand in 2002 Q1. That was unexpected, as business surveys and reports from the Bank Agents' contacts were consistent with a further rundown of stocks, particularly in manufacturing. It is likely that any involuntary build-up of inventories in Q1 will be unwound quickly. Indeed, manufacturing companies report further paring of surplus inventories in Q2. As the correction of

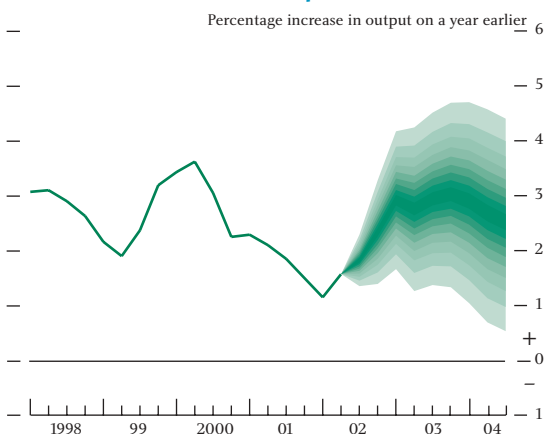
inventory levels comes to an end, there may be a small boost to aggregate demand in the second half of the year. Over the medium term, stocks are likely to rise in line with output.

Export volumes have turned up in recent months, in response to the improvement in global demand since the start of the year. After four successive quarters of falling exports, monthly trade data for April and May point to a marked rise in volumes in 2002 Q2. Export prospects are likely to improve over the forecast period in response to the gradual strengthening in external demand. Nonetheless, the outlook is less bright than in May, reflecting the more moderate pace of the world recovery.

Import volumes also strengthened in the second quarter, fuelled by a growing influx of consumer goods. Import growth is likely to quicken over the forecast period, alongside the gradual upswing in UK aggregate demand. But the central projection is a little weaker than in May, reflecting the more subdued outlook for domestic demand growth.

Net trade is likely to add to GDP growth in 2002 Q2, reversing the sharp negative contribution in Q1. However, the broad pattern over the forecast period is likely to be a continuation of the tendency for net trade to detract from growth, though to a much lesser extent than in the recent past. Indeed, imports and exports are expected to rise at roughly similar rates over the next two years.

Chart 6.1
Current GDP projection based on constant nominal interest rates at 4%



The fan chart depicts the probability of various outcomes for GDP growth in the future. 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 probability, until 90% of the probability distribution is covered. The bands widen as the time horizon is extended, indicating increasing uncertainty about outcomes. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents.

The Committee's current projection for four-quarter growth in GDP is shown in Chart 6.1.⁽¹⁾ It is based on the assumption that official interest rates are maintained at 4%.⁽²⁾ On the central projection, GDP growth is likely to pick up over the next year or so to around trend, and remain around that rate thereafter. As in May, the prospective upturn in activity is supported by a gradual improvement in global demand, aided by the continued stimulus from domestic monetary and fiscal policy, which should prompt some moderate strengthening in domestic demand in the United Kingdom. Nonetheless, growth prospects have been scaled back noticeably since May, principally reflecting the impact of the steep falls in equity prices at home and abroad.

The fan chart for activity is based on a projection for GDP growth at constant 1995 market prices: that is, the values of current expenditures are deflated to the prices prevailing in 1995. As the interval from the statistical base year extends, the appropriateness of the price base for assessing the current growth in the volume of GDP diminishes. In particular, those

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

(2) An alternative projection based on market interest rate expectations is presented in Chart 6.5 below.

demand components whose relative prices have fallen would have a larger impact on GDP measured at 1995 prices than they would if it were measured at, say, 2002 prices. As a fall in the price of a good typically stimulates the demand for it, the net effect is likely to raise aggregate GDP growth measured in 1995 prices, compared with an alternative estimate based on more up-to-date relative prices.⁽¹⁾ As this is purely a measurement issue, which affects both aggregate demand and estimates of potential supply, it has no implication for the assessment of capacity pressures and thus for the inflation projection. But it will need to be taken into account, when comparing the current forecast for GDP growth, which is based on 1995 prices, against subsequent published outturns on a different price base.

The outlook for inflation depends on an assessment of prospective nominal demand pressures in relation to supply capacity. Previous *Reports* have highlighted the challenges of evaluating the current level of aggregate capacity in the economy and gauging the likely growth in potential supply over the forecast period. A range of difficult judgments must be made to produce estimates of current and potential inputs of both labour and capital, as well as of the underlying growth in productivity in the economy. In the *May Report*, the Committee raised slightly the assumed level of potential output growth over the next two years based on an assumed higher rate of inward migration. The recent downward revision to the current level of business investment points, however, in the opposite direction. Although new investment constitutes only a relatively small proportion of the total capital stock, the magnitude of the revision to recent data and so to the near-term outlook is sufficient to have a noticeable impact on estimates of the growth of available plant capacity going forward. This implies a slightly lower rate of growth of potential supply in the current projection.

RPIX inflation eased to an average of 1.9% in 2002 Q2—a little below the central projection in the *May Report*. The slowdown through the quarter was particularly pronounced: RPIX inflation dipped to 1.5% in June, the lowest rate since 1967.⁽²⁾ The decline in inflation was entirely accounted for by the weakness in goods prices, which fell by 1.6% in the year to June. In particular, food prices—which are highly volatile from month to month and from year to year—fell by more than expected. Service sector inflation remained around 4½%—the highest rate since 1993.

(1) In the past, the price base of the National Accounts has been updated periodically to avoid such distortions. In 2003, the ONS will introduce an annual chain-linked system of National Accounts which will update the price base each year.

(2) Although RPIX has only been recorded since 1974, the RPI index did not include mortgage interest payments until then.

Inflation seems unlikely to persist at recent low levels. Comparing current price trends with those of a year ago, RPIX inflation is expected to edge up from the June level in the coming months as the erratic movements in food and petrol prices a year ago drop out of the annual calculation. So, although the immediate outlook for inflation is a little weaker than in May, there is relatively little implication for the medium-term prospects which are relevant to policy. Surveys of near-term price trends report a slight increase in input price pressures in both manufacturing and services, but the near-term prospect for output prices remains benign.

Pay pressures remain muted. As anticipated in the *May Report*, whole-economy earnings growth has increased as the negative impact from falling annual bonuses has dissipated; the pick-up—to around 4%—is broadly in line with expectations three months ago. Recent pay settlements are generally running below their equivalent levels in 2001, consistent with some alleviation of underlying nominal earnings pressure. Nonetheless, real pay growth remains strong, setting earnings against low inflation of the tax and price index (TPI).

Prospective pressures on real earnings depend on the demand for labour relative to available supply. According to the Labour Force Survey, numbers employed have continued to rise roughly in line with the increase in the working-age population over the past year, despite the cyclical slowdown in aggregate demand. The LFS unemployment rate has inched up only marginally. Given widespread expectations of a relatively mild and short-lived slowdown, companies have sought to retain staff when faced with costs of redundancy, rehiring and retraining in company-specific skills. In these circumstances, firms have acted to contain labour costs by reducing overtime and average hours worked, as well as by pressing down on pay settlements.

The outlook for labour demand has weakened since May, reflecting the downgrading of output prospects. Although public sector demand will continue to grow strongly, private sector companies in aggregate may shed labour in the short term given the likelihood that the upturn will be shallower than previously anticipated. Moreover, the gradual strengthening in activity over the forecast period is likely to be satisfied initially by a cyclical recovery in productivity, and by a restoration of average hours worked to more normal levels. Aggregate employment is expected to be little changed over the next twelve months or so, but should then edge up in the second year of the projection as growth picks up. Labour market pressures on real earnings are a little softer than in May. Moreover, the expected cyclical revival in productivity will depress the growth

Chart 6.2
Current RPIX inflation projection based on constant nominal interest rates at 4%

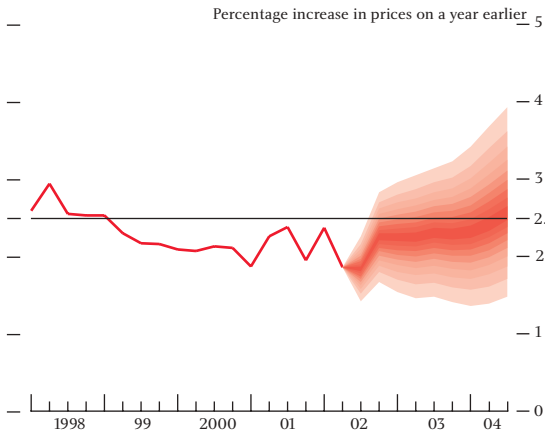
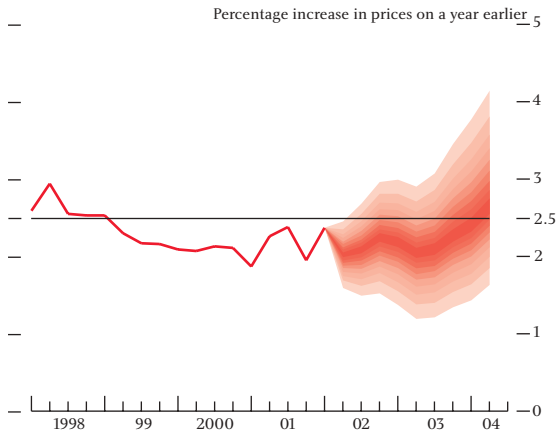


Chart 6.3
RPIX inflation projection in May based on constant nominal interest rates at 4%



The fan chart depicts the probability of various outcomes for RPIX inflation in the future. 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 probability, until 90% of the probability distribution is covered. The bands widen as the time horizon is extended, indicating increasing uncertainty about outcomes. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents.

in labour costs in the near term. However, especially given the overall tightness in the labour market, the rise in National Insurance contributions in April 2003, and the prospective sustained recovery in demand, labour cost developments are likely to place modest upward pressure on inflation in the second year of the projection.

Drawing together the various influences in cost and price trends, the Committee's latest projection for the twelve-month RPIX inflation rate is presented in Chart 6.2.⁽¹⁾ The projection is conditioned on the assumption that official interest rates are maintained at 4%.⁽²⁾ It is shown alongside the May projection, which was also based on interest rates remaining at 4% (see Chart 6.3).

Although the path is likely to remain volatile from month to month and quarter to quarter, inflation, under the central projection, is expected to return to a 2%–2¹/₄% range by the end of this year, as a number of erratic factors which have depressed the twelve-month inflation rate recently should reverse, and as import prices edge up. RPIX inflation is then expected to drift up gently over the following eighteen months or so to around the 2¹/₂% target in two years' time. Domestic cost influences are likely to strengthen gradually over the forecast period given incipient pressures on supply capacity. External influences might add a little to inflationary pressure, reversing the pattern of recent years, because of the slight rise in foreign export prices and the assumed moderate depreciation of sterling.

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

(2) An alternative projection based on the assumption that interest rates follow market expectations is shown below in Chart 6.4.

Chart 6.4
Current RPIX inflation projection based on market interest rate expectations

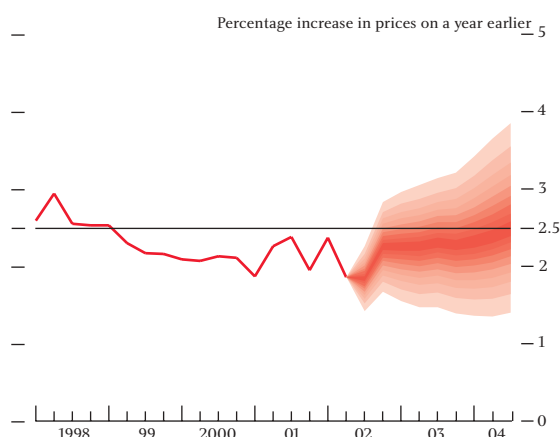


Chart 6.5
Current GDP projection based on market interest rate expectations

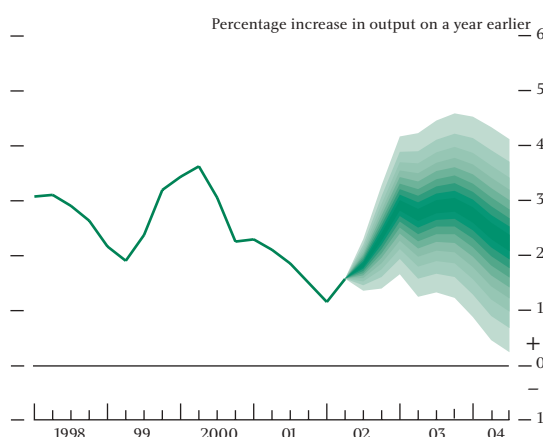


Table 6.A
Market expectations of the Bank's official interest rate^(a)

Per cent

2002		2003				2004		
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
4.0	4.0	4.1	4.3	4.6	4.8	4.9	5.0	5.1

(a) Based on the interest rate available on gilt-edged securities, including those used as collateral in short-term repo contracts, plus a small upward adjustment to allow for the average difference between this rate and the Bank's official interest rate. The data are 15-day averages to 31 July 2002.

The current projection for RPIX inflation in the second year of the forecast period is lower and rising less steeply than foreshadowed in May. Underlying inflationary pressure is likely to build more slowly than expected three months ago, reflecting the more sluggish recovery in aggregate demand in the wake of the sharp drop in global equity prices. That more than outweighs the corresponding impact of weaker business investment on potential supply growth over the forecast period.

Since the *May Report*, financial market participants have substantially reduced their expectations of the likely path of official interest rates in the United Kingdom over the next two years. Adopting the same technique as in previous *Reports*, and based on a 15 working day average to 31 July, market expectations are consistent with little change in UK official interest rates until early next year, with a gentle rise thereafter towards 5% by mid-2004 (see Table 6.A). The Committee's latest projections based on this interest rate trajectory are presented in Charts 6.4 and 6.5. They show a marginally weaker profile for output growth and inflation than in the constant interest rate projections.

The prospects for output growth and inflation remain highly uncertain. The fan charts illustrate the Committee's best collective assessment of the likelihood of possible outcomes, including judgments on the principal risks to the outlook. The judgmental variance of the fan chart continues to be guided by an assessment of past forecast errors.⁽¹⁾ No change has been made to the approach adopted in the *May Report* to

(1) See the box on pages 52–53 for an analysis of recent forecast performance.

The MPC's forecasting record

The MPC's inflation projection is a key input to policy decisions because interest rate changes take time to affect inflation. This box assesses how well past projections have served as a guide to the outturns for inflation and output growth.

Each time the MPC prepares a forecast, members assess the new information and analyse the possible lessons. Thus an evaluation of short-term forecast errors is an integral part of the Committee's forecast process.

The Committee's projections are conditioned on assumptions about key influences such as the world economic outlook and exchange rate prospects, and about structural relationships between economic variables. Given the inherent uncertainty in these economic judgments, the Committee presents its forecasts as a probability distribution rather than as a single projection. It is the distribution of possible outturns for inflation which is crucial for monetary policy.

The fan charts show the MPC's assessment of the probability distributions for inflation and GDP growth over the following two years. The darkest band includes the central (single most likely or modal) projection and covers 10% of the probability. Each successive pair of bands covers a further 10% of this distribution, and the total shaded area covers 90%. Thus, over a large number of years, we would expect 10% of inflation and output growth outturns to lie in the central darkest band. We would expect a similar number of observations to lie in each pair of bands, and 10% of outturns to lie outside the shaded area.

In the August 2001 *Inflation Report*, the MPC's forecasting record was examined. Outturns for output growth and inflation were compared with the Committee's mean forecasts, produced assuming interest rates followed a path implied by financial market expectations. The main findings were first, that outturns for both GDP and inflation had generally been closer to the Committee's central projections than might have been expected given the width of the fan charts.⁽¹⁾ Second, inflation had tended to be somewhat lower than expected by the MPC, particularly in its two year ahead forecasts, while GDP growth had been slightly higher than projected in the Committee's one year ahead forecasts. However, these conclusions were drawn on the basis of a very small sample of observations.

There are now four more outturns for inflation and GDP growth with which to examine the MPC's

forecasting record. For the inflation forecasts, around half of the outturns have fallen within the central 30% of the fan charts for both one year ahead and two year ahead forecasts, and over two thirds of the outturns have fallen within the central 50% bands (see Table 1). For GDP growth, around one quarter of the outturns have fallen within the central 30% of the fan charts for both one year ahead and two year ahead forecasts, while around half of the outturns have fallen within the central 50% of the fan charts.

Table 1
Dispersion of outturns relative to fan chart probability distributions^(a)

	Number of outturns	Number in central 30% bands	Number in central 50% bands
RPIX inflation			
One year ahead	14	7	10
Two years ahead	10	4	8
Annual GDP growth			
One year ahead	14	4	7
Two years ahead	10	2	6

(a) Calculated for the market rates fan charts published between February 1998 and May 2001.

This analysis suggests that inflation outturns have tended to be rather closer to the centre of the MPC's fan charts than would have been expected. One possible explanation for this might be that, since the formation of the MPC, there have been fewer or smaller shocks than on average over the previous ten years. Alternatively, the implementation of monetary policy may have caused inflation to be less volatile than in the past, so that there is less uncertainty over future inflation than assumed by the Committee. However, this analysis is based on a very small number of overlapping outturns, so it is too early to draw any firm conclusions.

An alternative approach is to examine the average absolute errors since the formation of the MPC. Table 2 shows these errors for inflation and GDP growth, comparing outturns with the Committee's mean, market interest rate based forecasts. The table shows that on average, inflation has differed from the MPC's one year ahead forecast by 0.3 percentage points, and from the two year ahead forecast by 0.5 percentage points. These average errors are smaller than when they were examined in the August 2001 *Inflation Report* for both the one-year and two-year forecasts. This is because despite the volatility of current inflation outturns, recent forecast errors have been relatively

(1) The width of the distribution, reflecting the MPC's uncertainty about the future, is guided by the Bank's forecast errors over the previous ten years.

Table 2
Average absolute forecast errors of mean projections^(a)

	Size of sample	RPIX inflation	Annual GDP growth
One year ahead	14	0.3	0.9
Two years ahead	10	0.5	0.7

(a) Calculated for the market rate fan charts published between February 1998 and May 2001. Similar calculations for mean and mode projections based on constant nominal interest rates are published on the Bank of England web site at www.bankofengland.co.uk.

small; for example in two of the latest four quarters, inflation has been within 0.1 percentage point of the MPC's corresponding two year ahead forecasts.

For GDP growth, outturns have been on average 0.9 percentage points away from the MPC's one year ahead forecasts, and 0.7 percentage points away from the two year ahead forecasts. These average errors are slightly larger than those discussed in the August 2001 *Inflation Report*. Two year ahead forecasts should in general be more uncertain than one year ahead forecasts, and so larger average errors for one year ahead forecasts are at first sight a little surprising. However, there is only a small sample, and the result arises largely because of forecast errors in two particular quarters. The MPC's two year ahead forecasts for growth in the first half of 2000, published in the February and May 1998 *Inflation Reports*, anticipated robust growth in activity. Current estimates now suggest that GDP was growing by over 3% in this period, and so the corresponding two-year forecast errors were relatively small. In contrast, the MPC's one year ahead forecasts for the first half of 2000 were published soon after the Russian debt restructuring and the near-failure of the Long-Term Capital Management hedge fund in the second half of 1998. As a consequence, the MPC reduced its forecast for GDP growth in the first half of 2000, resulting in relatively large one year ahead forecast errors as output recovered more strongly than expected.

In addition to the absolute size of forecast errors, it is important to investigate whether forecasts have tended to be one side or other of outturns; that is whether there is any evidence of forecast bias. Table 3 shows that the MPC has on average overpredicted inflation in its one year ahead forecasts by 0.2 percentage points, and in its two year ahead forecasts by 0.5 percentage points. However, the two year ahead forecast error is smaller than shown in the August 2001 *Inflation Report*, as the overprediction of inflation during the past year has been relatively low.

Looking at the MPC's complete track record, the overprediction has been a little more pronounced for the mean forecasts than for the modal projections. One reason for lower-than-forecast inflation outturns was that, particularly in the early part of the sample, sterling was consistently stronger than assumed in the MPC's projections. This meant that import prices and so retail prices rose by less than expected. A second reason for the lower-than-expected inflation outturns is that earnings growth tended to be lower than might have been expected given conditions in the labour market. The Committee responded to this unexpected weakness in earnings by re-examining the assumptions underlying its forecasts, in particular by reducing its estimate of the rate of unemployment consistent with stable inflation.⁽¹⁾ This issue provides an example of where the analysis of forecast errors has been a crucial input into the MPC's forecasting process.

Table 3 also shows that the MPC has on average underpredicted GDP growth by 0.3 percentage points in its one year ahead forecasts, but overpredicted it by 0.3 percentage points in its two year ahead forecasts. As noted earlier, the average underprediction in the one year ahead forecasts is heavily influenced by the unexpected strength in the first half of 2000. However, the average one year ahead forecast error is significantly smaller than that discussed in the August 2001 *Inflation Report*. This is because recent GDP growth has been weaker than the MPC projected in its one year ahead forecasts. UK output growth slowed sharply in the final quarter of 2001, with business investment and UK exports both significantly weaker than the MPC had forecast. Unlike RPIX inflation, GDP is subject to revision. So future data revisions may alter any of the conclusions in this box which are heavily affected by recent outturns.

Table 3
Average errors of mean projections^(a)

	Size of sample	RPIX inflation	Annual GDP growth
One year ahead	14	-0.2	0.3
Two years ahead	10	-0.5	-0.3

(a) Calculated for the market rates fan charts published between February 1998 and May 2001. The error is calculated as outturn minus forecast.

This unexpected weakness in GDP growth in the most recent quarters means that the MPC's two year ahead forecasts have now on average overpredicted growth (compared with the small average underprediction described in the August 2001 *Inflation Report*). However, this average overprediction of output growth is small, particularly given the limited number of observations.

(1) The MPC lowered its estimate of the equilibrium rate of unemployment on three occasions: in the August 1999, August 2000 and November 2000 *Inflation Reports*.

calibrate the overall variance. But particular sources of high uncertainty in the current projection relate to the outlook for asset prices and to the impact of the recent sharp movements on demand at home and abroad.

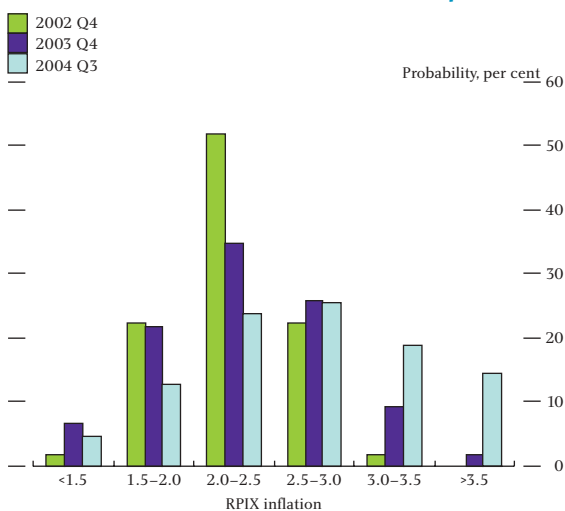
Given the volatility in equity markets in recent months, there remains considerable uncertainty surrounding the prospects for share prices. The central projection is based on the usual convention that local currency equity prices in the major economies (including the United Kingdom) increase in line with nominal GDP from their 15 working day average prior to 31 July. The Committee judges that the risks around this assumption are evenly balanced. It is possible that equity prices could rise more rapidly over the forecast period, for example, if trust in corporate governance and accounting in the United States improves and confidence in the outlook for corporate earnings strengthens. Equally, there are risks of further falls in equity prices. Traditional valuation yardsticks such as price-earnings ratios remain above their long-run historical average, and somewhat more so in the United States than in other major markets. Although, as noted in Section 1, low real interest rates and a possible secular fall in the equity risk premium would support a higher price-earnings ratio than in the past, it is hard to gauge the magnitude of the effect. It is also possible that given weaker sentiment in equity markets, prices could decline further, and, indeed might overshoot a long-run equilibrium position for a substantial period.

Furthermore, there is also considerable uncertainty surrounding the likely economic impact of the recent fall in equity prices. The average response to changes in equity prices over the relatively recent past may offer a poor guide to the likely response to a sudden, but persistent, large change in the level of prices, and thus the Committee judges that the risks around the central projection are substantial, but in a broad sense evenly balanced.

The outlook for other asset prices is also hard to assess. Although the best collective judgment is that risks around the assumptions for exchange rates and house prices incorporated in the central projections are evenly weighted, the Committee noted that major deviations from the assumed paths could have a material impact on the outlook for inflation and growth.

The May *Report* described the considerable uncertainty surrounding the potential impact of the pre-announced increase in National Insurance contributions, which takes effect in April 2003. That uncertainty remains. No change has been made to the assumptions incorporated in May: the Committee continues to judge that there is a risk of greater

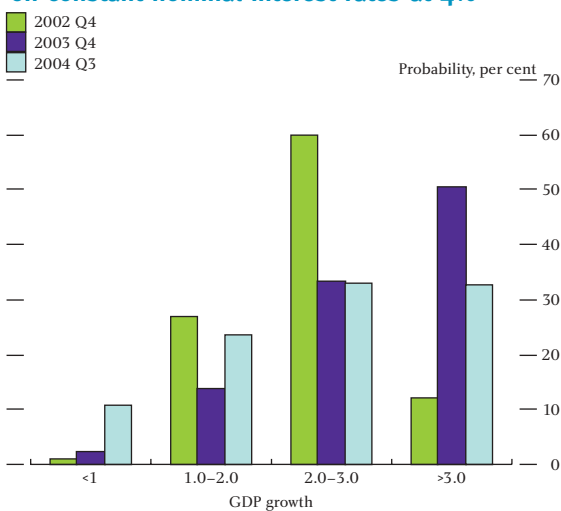
Chart 6.6
The MPC's expectations for RPIX inflation based on constant nominal interest rates at 4%^(a)



Source: Bank of England.

(a) These figures are derived from the same distribution as Chart 6.2. They represent the probabilities which the MPC assigns to RPIX inflation lying within a particular range at a specified time in the future.

Chart 6.7
The MPC's expectations for GDP growth based on constant nominal interest rates at 4%^(a)



Source: Bank of England.

(a) These figures are derived from the same distribution as Chart 6.1. They represent the probabilities which the MPC assigns to GDP growth lying within a particular range at a specified time in the future.

upward pressure on wages and prices than currently incorporated in the central projection, which would tend to be associated with a slightly weaker outlook for activity.

The fan charts display the Committee's best collective judgment on the overall balance of risks around the central projection. As noted above, risks from asset price changes are large, but evenly balanced, and so the judgments on the impact of National Insurance contributions account for the slight skew in the overall balance of risks. In particular, risks to the prospects for inflation are evenly balanced in the first year, but are weighted to the upside in the second year. Risks to the outlook for GDP growth are balanced in the first year of the projection, and weighted marginally to the downside in the second year. The probabilities of various outcomes for GDP growth and RPIX inflation are shown in Charts 6.6 and 6.7. The overall balance of risks to the inflation outlook at the two-year horizon is depicted in Chart 6.8, alongside the corresponding balance in the *May Report* (see Chart 6.9). Bearing in mind the major uncertainties, there are some differences among the Committee about the overall balance of risks, although the range of opinion is relatively narrow.

The Committee reviewed the latest economic news and the current projections at the policy meeting on 31 July–1 August, taking into account the latest assessment from external forecasters (see the box on page 57). On the assumption that official rates were maintained at 4%, the most likely outcome

Chart 6.8
Current projection for the percentage increase in RPIX in the year to 2004 Q3^(a)

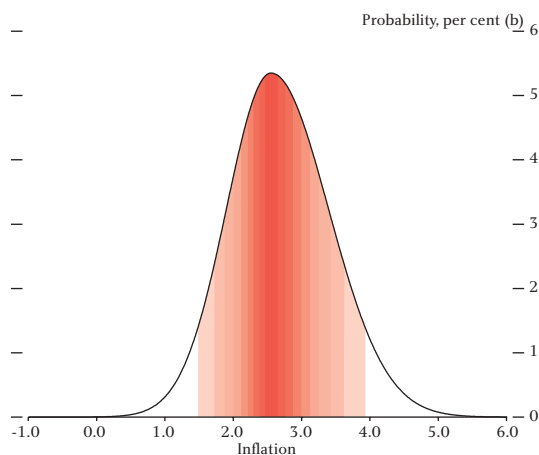
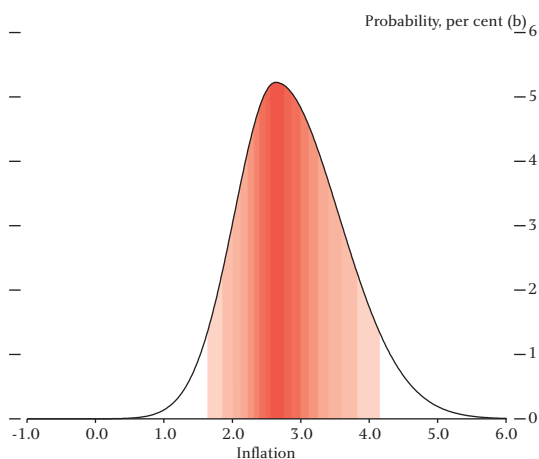


Chart 6.9
May projection for the percentage increase in RPIX in the year to 2004 Q2^(a)



Source: Bank of England.

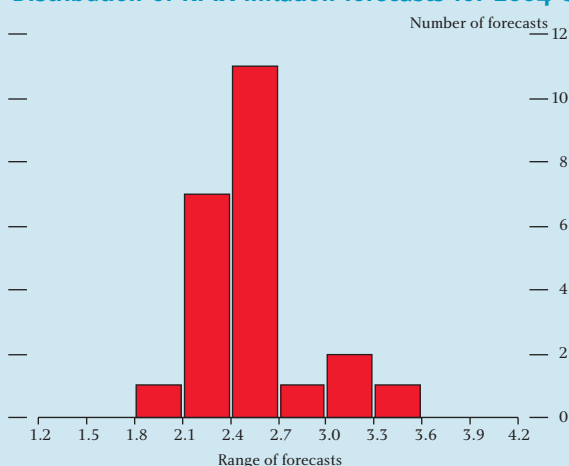
- (a) These charts represent a cross section of the fan chart at the end of the respective forecast horizons. As with the fan charts themselves, the shaded areas represent 90% of the distribution of possible outcomes for RPIX inflation in the future. The darkest band includes the central (single most likely) projection and covers 10% of the probability. Each successive pair of bands covers a further 10%. There is judged to be a 10% chance that the outcome will lie outside the shaded range. For further details on how the fan charts are constructed see the box on pages 48–49 in the May 2002 *Inflation Report*.
- (b) Probability of inflation being within ± 0.05 percentage points 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 5%.

was that GDP growth would settle at around trend, and that RPIX inflation would be close to—though a little below—target for most of the forecast period, slowly rising to around the target level in two years' time. Based on this assessment and recognising the many risks, the Committee voted to maintain interest rates at 4%.

Other forecasters' expectations of RPIX inflation and GDP growth

In July, the Bank asked a sample of external forecasters for their latest projections of inflation and output. The average forecast for the twelve-month rate of RPIX inflation in 2002 Q4, based on the results of this survey, was 2.1% (with a range of 1.5% to 2.5%) rising to 2.5% in 2004 Q3 (with a range of 1.8% to 3.4%). The average forecast for inflation at the two-year horizon was unchanged from the survey results in the *May Report*. However, the distribution of the forecasts was less symmetrical than in May, with a greater number of respondents expecting inflation to be between 2.1% and 2.4% (see Chart A). On average the external forecasters saw a 56% probability of inflation being at or below 2.5% in 2004 Q3 (see the table below).

Chart A
Distribution of RPIX inflation forecasts for 2004 Q3



Source: Forecasts of 23 outside forecasters as of 22 July 2002.

Other forecasters' expectations of RPIX inflation and GDP growth

RPIX inflation (a)

Probability, per cent	Range:					
	Less than 1.5%	1.5% to 2.0%	2.0% to 2.5%	2.5% to 3.0%	3.0% to 3.5%	More than 3.5%
2002 Q4	12	32	40	13	2	2
2003 Q4	8	16	34	26	11	5
2004 Q3 (b)	9	16	31	26	12	6

GDP growth (c)

Probability, per cent	Range:			
	Less than 1%	1% to 2%	2% to 3%	More than 3%
2002 Q4	7	26	48	18
2003 Q4	10	21	41	28
2004 Q3 (d)	13	22	42	24

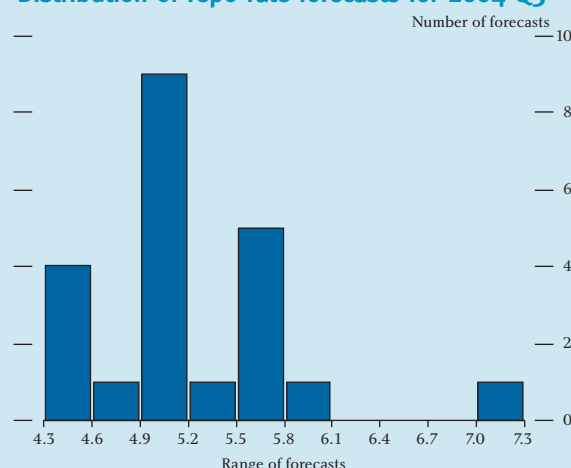
(a) 27 other forecasters provided the Bank with their assessment of the likelihood, at three time horizons, of expected twelve-month RPIX inflation and four-quarter output growth falling in the ranges shown above. This table represents the means of the responses for each range. For example, on average, forecasters assign a probability of 9% to inflation turning out to be less than 1.5% in 2004 Q3. Figures may not sum due to rounding.

(b) 23 forecasters.
(c) 26 forecasters.
(d) 23 forecasters.

The forecasters' average projection for four-quarter GDP growth in 2002 Q4 was 2½% (with a range of 2% to 3½%). The average projection for GDP growth in 2004 Q3 was also 2½% (with a range of 2% to 3%).

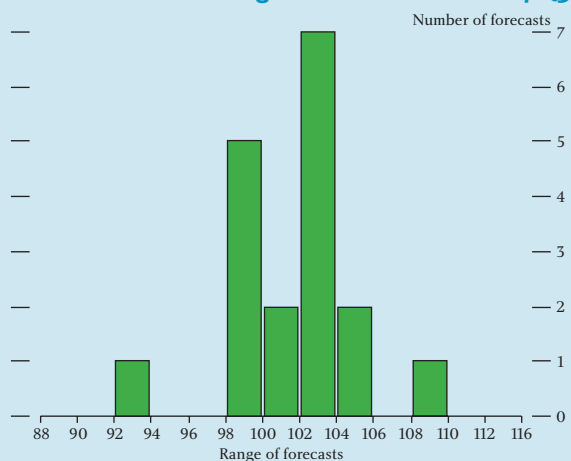
The average forecast for the official interest rate in 2002 Q4 was 4¼% (ranging from 4% to 5½%), rising to 5¼% by 2004 Q3, with forecasts ranging from 4½% to 7% (see Chart B). The forecast for 2002 Q4 was somewhat lower than the average in May, but at the two-year horizon was little changed. On average, forecasters assumed that the sterling ERI will be 103¼ in 2002 Q4 (ranging from 98½ to 105). But they assumed it will fall to 101¼ by 2004 Q3, with forecasts ranging from 93½ to 108 (see Chart C).

Chart B
Distribution of repo rate forecasts for 2004 Q3



Source: Forecasts of 22 outside forecasters as of 22 July 2002.

Chart C
Distribution of sterling ERI forecasts for 2004 Q3



Source: Forecasts of 18 outside forecasters as of 22 July 2002.

Bank of England

Agents' summary of business conditions

August 2002

This publication is a summary of monthly reports compiled by the Bank of England's Agents, following discussions with around 2,000 businesses in the period between mid-April and mid-July. It provides information on the state of business conditions, from firms across all sectors of the economy. The report does not represent the Bank's own views, nor does it represent the views of any particular firm or region. The Bank's Monetary Policy Committee uses the intelligence provided by the Agents, in conjunction with information from other sources, to assist its understanding and assessment of current economic conditions.

- The modest improvement in confidence in the agricultural sector continued overall, although growing imports of dairy and arable products, combined with increased domestic yields, led to lower prices.
- Manufacturing output and orders continued an uneven recovery, albeit from a low base. Few contacts were working at full capacity and the shift to overseas production persisted.
- Public sector projects remained a major driver of growth in construction output. Demand for retail and leisure developments also rose further. The housing market was buoyant throughout most of the period, but slowed in recent weeks in some regions.
- Growth in business services continued to recover, buoyed by public sector demand in some fields. Growth in consumer services remained strong, particularly in housing market related activities.
- Consumer spending patterns were distorted by the Golden Jubilee holiday and the distraction of the World Cup. The underlying picture appeared to be of a slight moderation in retail sales growth, but continued robust demand for new cars and leisure services.
- The depreciation of sterling against the euro during the period had not yet benefited exporters' sales to that market. The pace of recovery in the US market had slowed. Markets in Asia and Australasia continued to strengthen.
- Capital spending freezes imposed last autumn had begun to be lifted, but steep declines in equity markets resulted in renewed nervousness about investment.
- Prices of raw materials began to edge up, although companies were purchasing more efficiently in order to gain discounts. Most contacts were more concerned about rising non-material costs, such as those of regulatory compliance, security and insurance. Manufacturers' output prices remained under downward pressure, except for new or customised products.
- Retail goods prices, including those for new cars, were generally flat to falling. Prices of a variety of retail services continued to increase.
- In the labour market, redundancies were noted in some sectors, but at a slower pace than in the previous *Agents' Summary*. Expanded recruitment in consumer services and by public sector employers absorbed workers displaced through redundancy. Towards the end of the period skill shortages ticked up a little, but pressure on pay generally remained low.

(1) The Bank of England has Agencies for Central Southern England, the East Midlands, Greater London, the North East, the North West, Northern Ireland, Scotland, the South East & East Anglia, the South West, Wales, the West Midlands, and Yorkshire & the Humber.

OUTPUT

Primary production

The modest recovery in confidence in the agricultural sector continued overall. Restocking following the end of foot-and-mouth disease was largely completed, though often to lower levels than before the outbreak. Contacts expected that the national pig herd would continue to fall, due to low meat prices and the effects of a wasting disease. Farmers were also reducing dairy herds as excess production and increasing imports of milk resulted in below break-even prices. Wheat prices were also depressed, due to growing competition from imports and the prospect of increased yields from the domestic harvest.

Manufacturing

The recovery in manufacturing orders and output remained modest and patchy. The outlook for orders was improving, but confidence remained fragile, and has been dented by recent stock market declines, particularly for capital goods' manufacturers. Few contacts were working at full capacity, although some producers of consumer goods were considering expansion of capital and labour. Companies continued to report relocation of production overseas. And some contacts were meeting orders through imports of goods which they would previously have manufactured in the United Kingdom.

Aerospace and telecommunications remained the weakest areas of manufacturing, but the rate of decline in output in both areas slowed. The automotive sector reported strong demand, and significantly higher car production year-on-year. But UK vehicle parts manufacturers did not necessarily benefit to the full extent because the trend among some car manufacturers has been increasingly to purchase components from abroad. The main areas of strength in output were consumer products (particularly food), goods for the construction industry, and oil and gas exploration equipment to fill export orders.

Construction and housing

Construction output continued to expand, with many contacts working at capacity and having full order books. Substantial delays in the planning process continued to impede progress on projects. Shortages of skilled construction workers and land were also constraining factors for most house builders.

The weakest area of commercial property construction continued to be industrial developments. There was also

relatively little speculative office building, as demand for office space slowed, particularly in the south. Demand for retail and leisure developments continued to grow. Public sector and utilities projects, however, continued to be the biggest source of output growth.

Although the housing market remained buoyant, there was some evidence of a slowdown towards the end of the period, most notably in parts of the south. Site visits and reservations of new houses fell, possibly by more than might be expected for the time of year. In the secondary market excess demand was most acute for smaller properties.

Services

Growth in business services recovered further with previously weak areas, such as advertising and printing services, picking up towards the end of the period. Public sector demand for recruitment and training services, and engineering consultants continued to increase. Private sector demand for IT training and software services, however, remained weak as companies cut budgets. Corporate entertainment and public relations services were also victims of cost cutting by clients. There was some improvement in corporate demand for hotels, although not from international business travellers. Private sector demand for conference facilities continued to be lower than a year earlier, and conferences were increasingly held in lower-cost locations.

In financial services, mergers and acquisitions activity remained muted, with relatively few deals. The beginnings of a revival in new share issues was severely dented by falls in the stock market, which led to some planned placements being withdrawn.

Retail financial services companies reported exceptionally strong mortgage and remortgage business, with volumes more than 20% higher year-on-year. Demand for pensions also strengthened, but sales of equity based ISAs were significantly lower than a year earlier. Other areas of strength in consumer services included estate agency, conveyancing and some transport services. Low inbound tourist numbers, particularly from the United States, had a negative impact on turnover for London leisure attractions.

DEMAND

Consumption

Consumer spending generally remained relatively brisk. The World Cup temporarily boosted sales of portable audio systems, televisions, video recorders, convenience

foods, football-related goods and satellite installations, but led to lower sales in some other areas, such as clothing, furniture and DIY goods. Abstracting from the effects of the World Cup and Golden Jubilee holiday, the annual rate of growth in retail sales appeared to have moderated somewhat. In part, though, this was the result of strong sales a year earlier.

Bookings for overseas holidays strengthened, whereas demand for domestic breaks was hit by poor weather. Spending in pubs, clubs, restaurants, cinemas and on bingo continued to grow strongly in most regions.

Growth in sales of new cars continued to exceed many contacts' expectations. Sales of prestige cars were particularly buoyant.

Exports and imports

As noted in the previous *Agents' Summary*, companies' efforts to reduce costs led to increased purchasing overseas of components and services, such as IT and architectural drawing. Double-digit year-on-year growth in imports from Asia was reported, compared with a minimal increase in exports to Asia. Clothing imports grew particularly strongly.

Contacts reported little benefit as yet from the depreciation of sterling against the euro in terms of export sales to Europe. Germany remained the least buoyant European market, particularly for household goods, machine tools and cars. The markets of Spain and France strengthened, and exports of services into the Republic of Ireland were picking up. The pace of recovery in the US market appeared to have slowed over the past few weeks. However, the decline in the dollar exchange rate was not cited as a major factor by contacts. A strengthening in demand was reported from the Far East, parts of the Middle East, Russia, Mexico and Australasia. Exports of plant and machinery to India and Pakistan, and intermediate goods to eastern Europe, increased in line with the transfer of production from the United Kingdom to those markets.

Investment

Demand for investment goods had started to improve by June, with the relaxation of some of the capital spending moratoria imposed last autumn. However, renewed nervousness following steep declines in equity markets resulted in some projects being deferred again.

Low profitability continued to hold back investment. This was particularly the case for manufacturers, many of whom still have excess capacity. However, some

investment by manufacturers was taking place to retain a competitive edge, increase efficiency or to take advantage of good deals available on productive assets following the liquidation of competitors. A large proportion of manufacturing investment continued to be channelled to eastern Europe or Asia, to benefit from lower production costs or to be closer to end-customers.

Investment by service sector contacts has strengthened overall since the previous *Agents' Summary*. Hotels, mainly outside London, began to invest in refurbishment, while retailers continued to invest heavily in re-styling, new stores and warehouse facilities.

There was strong growth in corporate investment in property over the period, in response to weak returns on other assets.

COSTS AND PRICES

Input prices

By the end of the period, contacts were reporting upward price pressure for most raw materials. Earlier oil price increases fed through to the prices of polymers. Higher prices were also reported for construction materials, some metals, speciality chemicals, paper and packaging. However, many contacts were able to avoid higher materials input costs through more efficient purchasing, and participation in buying groups to negotiate volume discounts. Most importers of raw materials have not yet benefited from the depreciation of the US dollar because they agree prices under long-term contracts.

Non-material costs continued to increase. Contacts reported substantial increases in overhead costs, such as business rates, IT operating licences, and costs of regulatory compliance, refuse disposal, and security. Some companies also reported substantial double-digit increases in insurance premia for a second consecutive year.

Output prices

Manufacturers' prices have remained under intense downward pressure, particularly for goods that face strong competition from overseas producers. Agencies reported that some component suppliers were subject to contracts specifying annual price reductions of 3% to 4%. Several contacts increased list prices, but were forced to concede offsetting discounts to some of their customers. Manufacturers were, however, able to charge higher prices for new or customised goods. Equally, some service providers negotiated modest price increases

in return for improved service levels. But corporate clients continued to demand discounted hotel room rates, and reduced fees for advisory work.

Retail prices

Prices of consumer goods, including clothing, food, DIY and electrical products, were generally flat to falling. Discounting in the summer sales was mostly on a par with last year, as retail contacts reported no excessive overhang of stock. New car prices were flat year-on-year, or falling if improved specifications were taken into account. Used-car prices fell as a result of high levels of stock.

Prices of retail services continued to rise. Charges for hotel rooms, domestic holiday lettings, leisure attractions and restaurant meals increased at the start of the summer season, mostly by between 3% and 5%. Home and motor insurance premia rose less quickly than last year.

Pay

There were few reports of pay pressure in manufacturing. Pay increases in the sector were generally slightly below last year's settlement figures, and closely bunched around 2.5%. Where multi-year deals were agreed, these generally reflected negotiators' expectations of low and stable inflation. However, in some cases pay freezes were imposed for a second consecutive year.

Many settlements in the service sector were also lower than last year, and have generally been in the 2% to 5% range. There were reports of pay cuts for IT staff, and freezes for existing staff in some professional services companies, as well as lower starting salaries for new entrants. However, pay in the construction sector continued to accelerate; contacts quoted paying increases of as much as 20% for craft skills.

Labour cost increases differed from settlement rates for various reasons. Reductions in overtime and cuts in

profit-related bonuses lowered pressure on pay bills. But interim awards were paid by some contacts to trained staff in localities with effectively full employment. The weakness of equity prices over the past two years has resulted in companies having to increase their contributions to pension schemes. Some contacts also awarded one-off payments or salary increases to staff, as compensation for the closure of final salary pension schemes. Where final salary schemes were retained, contributions generally rose for employers and employees.

EMPLOYMENT

Redundancies in manufacturing, financial services and some areas of consultancy continued, but generally involved smaller numbers per announcement than earlier in the year. Freezes on recruitment remained in place for many companies, notably those in professional services. Voluntary labour turnover continued to slow, and some contacts who have been hoarding labour stated that further redundancies will be necessary in the autumn, unless there is firm evidence of a pick-up in orders.

Unemployment has changed little during the period. Expanding public sector employment and strong recruitment in consumer services, such as hotels, retail, leisure services and call centres, absorbed labour displaced through redundancy elsewhere. Some travel companies that had laid off staff after 11 September began to recruit again.

The labour market eased a little in the first half of the period, but shortages of skilled and general labour picked up again in July. Some Agencies suggested that shortages of low-skilled labour were most acute in areas in which house prices had risen particularly sharply. Contacts were making increased use of immigrant labour to fill basic jobs, and recruiting from overseas for professional positions. Skill shortages continued to be reported across the country in the construction sector, and for nurses, HGV drivers, mechanics and engineers.

Text of Bank of England press notice of 6 June 2002

Bank of England maintains interest rates at 4.0%

The Bank of England's Monetary Policy Committee today voted to maintain the Bank's repo rate at 4.0%.

The minutes of the meeting will be published at 9.30 am on Wednesday 19 June.

Text of Bank of England press notice of 4 July 2002

Bank of England maintains interest rates at 4.0%

The Bank of England's Monetary Policy Committee today voted to maintain the Bank's repo rate at 4.0%.

The minutes of the meeting will be published at 9.30 am on Wednesday 17 July.

Text of Bank of England press notice of 1 August 2002

Bank of England maintains interest rates at 4.0%

The Bank of England's Monetary Policy Committee today voted to maintain the Bank's repo rate at 4.0%.

The Committee's latest inflation and output projections will appear in the *Inflation Report* to be published on Wednesday 7 August.

The minutes of the meeting will be published at 9.30 am on Wednesday 14 August.

Glossary and other information

Glossary of selected data

CSPI: corporate services price index.

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

EFS: Expenditure and Food Survey.

ERI: exchange rate index.

FES: Family Expenditure Survey.

GDP: gross domestic product.

HICP: harmonised index of consumer prices.

LFS: Labour Force Survey.

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, plus all sterling deposits (including certificates of deposit) held at UK banks and building societies by the non-bank, non building society private sector.

M4 lending: sterling lending by UK banks and building societies to the UK non-bank, non building society private sector. M4 lending includes loans and advances as well as investments, acceptances and reverse repo transactions.

MEW: mortgage equity withdrawal.

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.

TPI: tax and price index.

Abbreviations

BCC: British Chambers of Commerce.

CBI: Confederation of British Industry.

CIPS: Chartered Institute of Purchasing and Supply.

CML: Council of Mortgage Lenders.

E&O: electrical and optical engineering.

EEF: Engineering Employers' Federation.

EU: European Union.

FTSE: Financial Times Stock Exchange.

GfK: Gesellschaft für Konsum, Great Britain Ltd.

IBES: Institutional Brokers' Estimate System.

ICT: information, communications and technology.

ILO: International Labour Organisation.

IMF: International Monetary Fund.

IMS: Institute of Management Services.

IRS: Industrial Relations Services.

ISA: Individual Savings Account.

IT: information technology.

LIFFE: London International Financial Futures and Options Exchange.

M&A: mergers and acquisitions.

MPC: Monetary Policy Committee.

ODPM: Office of the Deputy Prime Minister.

OECD: Organisation for Economic Co-operation and Development.

OFCs: other financial corporations.

ONS: Office for National Statistics.

OPEC: Organisation of Petroleum Exporting Countries.

PNFCs: private non-financial corporations.

RICS: Royal Institution of Chartered Surveyors.

S&P: Standard and Poor's.

Symbols and conventions

Except where otherwise stated, the source of the data used in charts and tables is the Office for National Statistics (ONS).
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.