

Inflation Report

May 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

The UK economy slowed to a standstill by the end of 2001, but surveys suggest that recovery is now under way. Exports and business investment fell in the wake of the global downturn, but strong growth in private and public consumption mitigated the impact on activity and the employment rate has barely fallen. Oil prices have risen, but underlying earnings growth has edged down and RPIX inflation has stayed close to the 2.5% target. The Committee's central projection at the current level of official interest rates is for a recovery in growth to above-trend rates over the next two years, and for inflation to remain a little below target over the next eighteen months before moving above it as the two-year horizon approaches.

After the ICT-led downturn in the global economy in 2001, there are signs that recovery is under way. Output in the United States rose by 1.4% in the first quarter, underpinned by a marked reduction in the rate of inventory decumulation and continued resilience in consumer spending. High levels of private sector debt, excess capacity and depressed corporate profitability may, however, slow the recovery there. Euro-area output declined by 0.2% in Q4, though recent indicators point to a slight recovery in the first quarter of this year and business confidence has improved. Japan has continued to contract, but the revival in the global demand for high-tech goods has been reflected in an improvement in the prospects for the emerging Asian economies. Overall, world output appears to have grown somewhat faster in the first quarter than was expected in the February *Inflation Report*, but the outlook further ahead is little changed.

Spot oil prices have risen sharply since February against the background of heightened concerns about the Middle East. But oil prices are still within OPEC's reference range and two-year futures prices have increased far less. The prices of other commodities have also risen somewhat, reflecting the turnaround in global activity. The build-up of surplus capacity has ensured that producer price inflation in the major industrialised countries remains negligible at present. The effective exchange rate for sterling is close to that expected in the February *Report*, although there has been some movement in bilateral rates as the euro has recovered somewhat against the dollar.

In the United Kingdom, strong growth in household and public spending has helped to sustain the growth of final domestic

demand, but output growth stalled in the fourth quarter as falling global demand depressed exports further and companies cut back investment in inventories and fixed capital. Preliminary estimates suggest that GDP rose just 0.1% in Q1, but forward-looking surveys point to significantly stronger growth in the second quarter. Present indications are that the last quarter of 2001 was the trough of the current cyclical slowdown.

Private consumption rose 0.9% in Q4, with purchases of durables accounting for about two-thirds of that growth. Recent indicators suggest that the growth of expenditure may have eased in Q1, but strong house price inflation and continued heavy borrowing suggest that household spending is likely to remain firm in the near term.

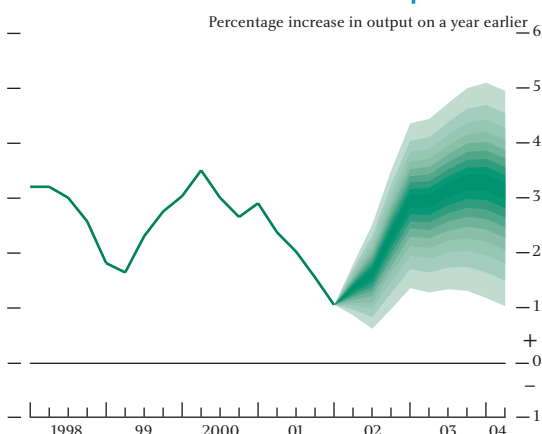
The Budget contained announcements of increases in spending worth around 1% of GDP in 2003/4, rising to 2% in 2005/6, compared with previous plans. Although the extra spending will be financed largely through extra revenue over the forecast period, the net impact of the Budget is likely to be to augment demand growth next year. It is also possible that the higher National Insurance contributions required of employees and employers may add to wage and price pressures.

Alongside the deterioration in exports, private investment in both fixed capital and inventories has been a source of weakness in demand. Business investment in Q4 was over 7% lower than a year earlier—the sharpest fall for ten years. But there are signs that investment intentions may be starting to revive in the services sector, while substantial increases in public sector capital spending are also planned. An end to the drawdown in stocks should raise growth, though the effect should be milder here than in the United States reflecting the shallower inventory cycle.

Manufacturing output fell a further 1.5% in the first quarter, but survey data suggest expansion is likely in Q2. Service sector output rose 0.5% in Q1, the same as in the previous quarter, and surveys suggest an acceleration in the second quarter. The incipient global recovery and an easing in consumer spending should reduce the difference between the sectoral growth rates that has been so pronounced over the past year.

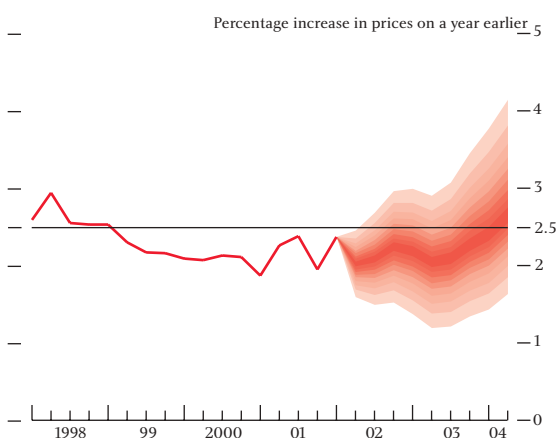
A notable feature of the current slowdown has been the minimal fall in the employment rate. Continued recruitment in the public sector and construction has offset falls in manufacturing and some parts of the service sector, and employers appear to have been reluctant to lay off workers on the assumption that the slowdown was temporary. LFS unemployment in the three months to February was consequently just 48 thousand higher

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 this *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 this *Report* for a fuller description of the fan chart and what it represents.

than at its trough in Spring 2001 and the claimant count measure has continued to edge down. Survey-based measures of labour market tightness have eased only fractionally, and employment intentions have started to pick up.

Headline earnings growth has slowed sharply, largely reflecting lower bonus payments than a year earlier. But growth in regular pay—which may provide a better guide to underlying pay pressures—has declined rather less, in part reflecting shorter average hours. The growth of output per head has dipped further below its trend rate, but the labour hoarding during the slowdown implies scope for a cyclical improvement in productivity growth as activity picks up.

Annual RPIX inflation in the first quarter of this year was 2.4%, just below the target. The contrast in goods and services price inflation remains, with goods prices remaining broadly unchanged, while services price inflation rose to over $4\frac{1}{2}\%$. Surveys suggest inflationary pressures remain benign and RPIX inflation is likely to remain below the target in the near term, though monthly movements may continue to be erratic.

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 growth to recover to above-trend rates as stronger world demand and higher public spending outweigh a modest easing in household spending growth. Output growth over the two years as a whole is rather stronger than in the February *Report*.

Chart 2 shows the corresponding outlook for RPIX inflation. The central projection is for inflation to run a little below target through the first year, before edging above it during the second year reflecting strengthening demand and faster growth in labour costs. The inflation profile is somewhat higher than in the February *Report*, particularly as the forecast horizon approaches. Some members prefer alternative assumptions about the impact of the Budget and the effect of global disinflationary pressures that generate a profile that is either slightly higher or up to $\frac{1}{3}$ percentage point lower at the forecast horizon.

Considerable uncertainties surround these projections. The central projection assumes that the higher National Insurance contributions lead to only moderate upward pressure on prices and instead that the impact is mainly to lower earnings growth. But the pass-through into prices could be different, or employees could prove reluctant to accept lower growth in their disposable incomes. A re-evaluation of economic prospects leading to a correction to domestic demand in the United States and the United Kingdom also remains a risk. Such a correction

would dampen activity, but might also be associated with a change in the pattern of exchange rates, including a fall in sterling. Relative to the central projection, the Committee judges that the overall risks to growth are weighted slightly to the downside and that the overall risks to inflation at the forecast horizon are moderately on the upside.

At its May meeting, the Committee noted that the central projection for inflation was close to, but a little below, the target over most of the forecast period, rising above it only towards the two-year horizon. Taking into account that the economic recovery abroad and at home was not yet well established and that inflationary pressures currently remain benign, the Committee judged that it was appropriate to leave official interest rates at 4%. The Committee stands ready to act to contain any developing inflationary pressures further ahead.

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Aggregate money and credit growth slowed somewhat in Q1. But the slowdown reflected falls in the other financial corporations (OFCs) sector's volatile holdings of money and credit. Household deposit and borrowing growth remained vigorous suggesting a continuing firm near-term outlook for consumption. Private non-financial corporations (PNFCs) repaid bank and building society debt in Q1, but their capital market finance rose on the quarter. Estimates of longer-term forward inflation rates have risen, although comparable survey estimates of inflation expectations are little changed. UK equity prices have edged up slightly since February. House price inflation based on data published by mortgage providers remains high and there is little divergence across most UK regions. The MPC assumes that house price inflation will decline over the next two years, although more gently than supposed in February. The sterling effective exchange rate index (ERI) has changed little in recent months. The MPC's central projection assumes a depreciation of the sterling ERI of about 2.5% over the next two years.

Table 1.A
Growth rates of the monetary aggregates

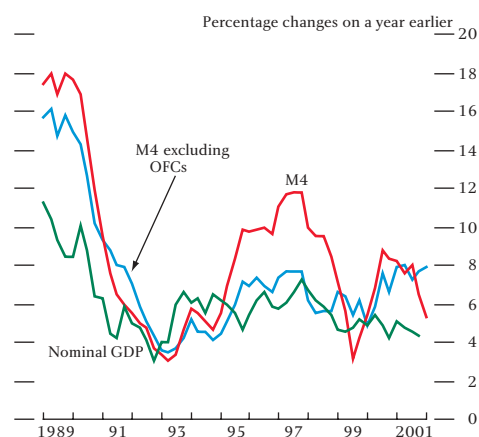
Percentage changes on a year earlier

	2000 Q4	2001 Q1	Q2	Q3	Q4	2002 Q1
Notes and coin	4.1	8.1	7.2	6.8	8.3	7.5
M0	4.2	8.1	6.8	6.5	7.9	7.1
M4	8.2	8.2	7.5	7.9	6.5	5.3
M4 lending (a)	12.5	11.9	11.3	10.0	8.9	8.0

Source: Bank of England.

(a) Excluding the effects of securitisations.

Chart 1.1
M4, M4 excluding OFCs, and nominal GDP



Sources: ONS and Bank of England.

1.1 Money and credit

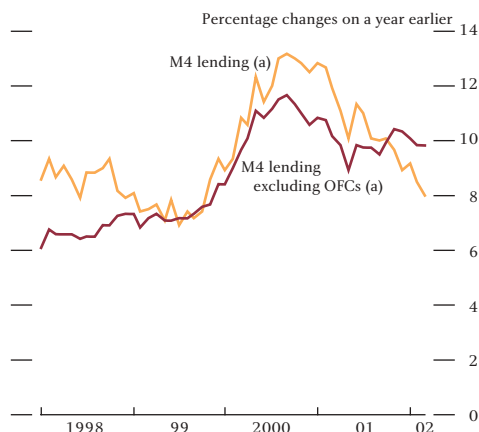
Aggregate money and credit

The annual growth rate of notes and coin slowed in 2002 Q1, but nevertheless remained broadly in line with rates seen during 2001 (see Table 1.A). The annual rate of growth of aggregate M4 has slowed during the past year (see Table 1.A). Aggregate M4 is the sum of holdings of cash and sterling deposits at banks and building societies by the household sector, by PNFCs and by OFCs. Most of OFCs' deposits are unlikely to be spent on goods and services directly (although they may have an indirect effect on aggregate demand, if for example they are switched into equities or bonds, thus driving up the price of those assets). It is perhaps not surprising, therefore, that M4 excluding OFCs' deposits is more closely related to nominal GDP than the aggregate measure (see Chart 1.1). In contrast to the aggregate measure, annual growth in M4 excluding OFCs' deposits has remained broadly stable recently at around 8%. Similarly, although annual growth of M4 lending has eased since mid-2000, the aggregate excluding the OFCs' component has remained far more steady (see Chart 1.2).

Household sector

Households' deposits have grown strongly since mid-2000. In 2002 Q1, households' deposits increased by 2.3%, the highest quarterly growth rate for five years. Divisia measures of money weight together each component of M4 by a measure of its

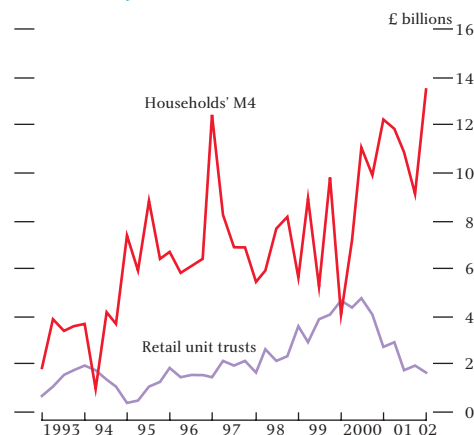
Chart 1.2
M4 lending and M4 lending excluding OFCs



Source: Bank of England.

(a) Excluding the effects of securitisations.

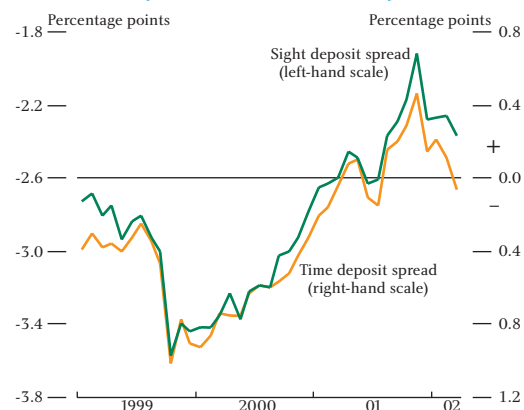
Chart 1.3
Quarterly flow in households' M4 and unit trust purchases^(a)



Sources: Bank of England and the Investment Management Association (IMA).

(a) Retail unit trust flows seasonally adjusted by the Bank of England.

Chart 1.4
Effective deposit interest rate^(a) spreads^(b)



Source: Bank of England.

(a) The effective deposit interest rate is an average of implied interest rates (accrued interest flows as a proportion of daily outstanding account balances).
 (b) The spread is the effective deposit interest rate minus three-month Libor (proxying the rate of return on alternative assets).

liquidity and hence the likelihood that it will be used for spending. Although the annual growth rate of households' Divisia fell slightly to 9.0% in Q1, this rate remains historically strong. These data could indicate continued firm consumption growth in the near term.

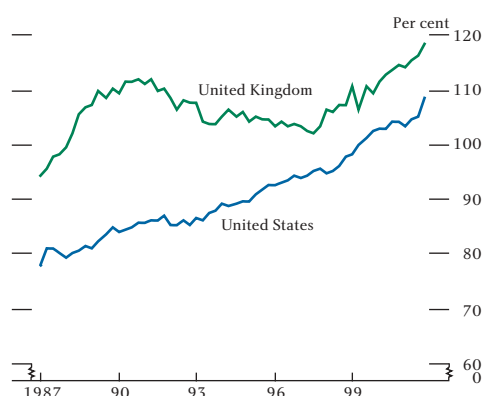
Household deposits, even liquid ones, can also be used to store savings. Indeed, although uncertainty about equity prices, as measured by market estimates of implied volatility, has fallen (see Section 1.2, Chart 1.15), households still appear less inclined to purchase shares and unit trusts than they did in 2000 and early 2001 (see Chart 1.3). Part of the rise in households' deposits could therefore reflect asset reallocation to a perceived less risky portfolio. Furthermore, from early 2000 deposit interest rates rose relative to other short-term rates, providing an incentive to hold larger M4 balances (see Chart 1.4). As the chart shows the rise in spreads was not confined to 'traditional' savings deposits (such as time deposits, where a period of notice is required before withdrawal of funds), but was prevalent across interest-bearing sight deposit rates as well (where no notice is required). With increased competition and greater flexibility of products offered by the bank and building society sector it is likely that the more liquid deposits will be used increasingly as savings vehicles. More recently, spreads have fallen somewhat on both sight and time deposits and this might suggest some slowing of households' deposit growth in the future.

Total net lending to individuals (which includes data from institutions other than banks and building societies that are not included in M4 lending), rose by 11.5% in the year to March. Secured lending to individuals grew by 10.6% in the year to March, the fastest rate of increase since 1991 Q2. Recent increases in house prices mean that people will need to take out bigger mortgages than before. That will account for some of the strength in secured borrowing. But not all the money raised in this way ends up being invested in the housing stock. In 2001 Q4, secured borrowing by individuals rose by £15.2 billion, but only an estimated £8.2 billion was invested in new houses or home improvements. That means mortgage equity withdrawal (or MEW) was estimated at £7.0 billion. MEW is likely to be used to finance consumer spending although it can also be used to purchase other financial assets or pay off existing debt.⁽¹⁾

Unsecured lending to individuals rose by 15.1% in the year to March, the highest since May 1999. Given the strength of

(1) See Davey, M (2001), 'Mortgage equity withdrawal and consumption', *Bank of England Quarterly Bulletin*, Spring, pages 100–03, and Aoki, K, Proudman, J and Vlieghe, G (2001), 'Why house prices matter', *Bank of England Quarterly Bulletin*, Winter, pages 460–68.

Chart 1.5
UK and US households' debt to income ratio^(a)



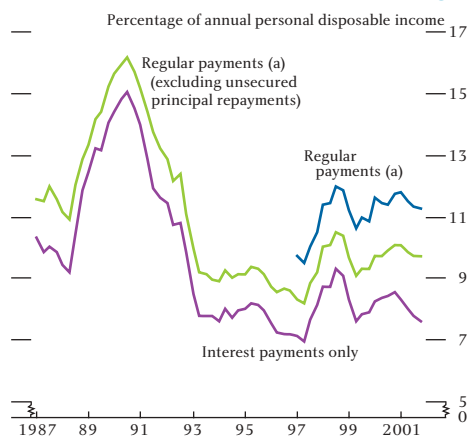
Sources: ONS, Bank of England and Board of Governors of the Federal Reserve System: *Flow of Funds Accounts of the United States*.

(a) The debt to income ratios are defined as the ratio of households' total financial liabilities to annualised disposable income. As the underlying series come from country-specific data sources, the levels of the ratios are not wholly comparable.

lending, the ratio of total household debt to annualised disposable income reached a record high of 118% in 2001 Q4 (see Chart 1.5). The US debt to income ratio has exhibited a similar upward trend in recent years.

Given the sustained strength of consumption to date, does this high level of debt constitute a serious risk to future consumption growth? One way in which debt can affect consumption is when households, having insufficient liquidity to meet their debt payment commitments, must adjust their spending. Comprehensive data on non-discretionary debt servicing, which should include both contractual regular repayments of principal and interest charges, are scarce. Nevertheless Bank estimates suggest that this debt servicing as a proportion of income has remained modest in recent years (see Chart 1.6), reflecting the decline in nominal interest rates during the 1990s.

Chart 1.6
Measures of UK households' income gearing



Sources: ONS, Financial Research Survey and Bank of England.

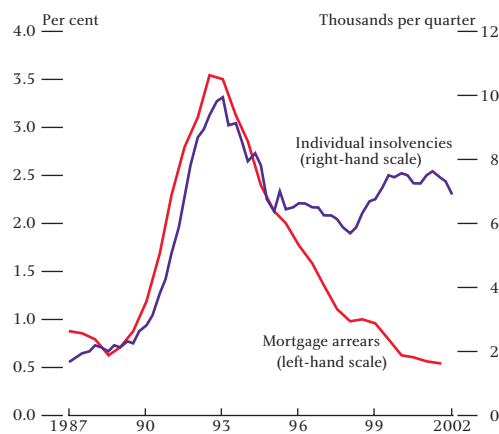
(a) 'Regular payments' should be considered as non-discretionary payments made as they include estimates of all interest payments, regular mortgage principal repayments and unsecured loan principal repayments. They do not include principal repayments on credit cards as these data are unavailable. Information on unsecured loan principal repayments is not available prior to 1997. Regular mortgage principal repayments are estimated prior to 1998.

Other measures of households' financial position suggest little financial distress (see Chart 1.7). Mortgage arrears are currently close to previous cyclical lows, while individual insolvencies appear broadly stable.

Private non-financial corporations

In contrast to households' credit, there has been a substantial slowdown in PNFCs' M4 borrowing. In Q1 PNFCs repaid £0.5 billion of bank and building society borrowing (excluding the effects of securitisations) and the annual growth rate fell to 5.0%. The fall in sterling bank borrowing growth not only reflected manufacturers repaying debt in Q1 for the sixth consecutive quarter, but also weaker borrowing in some of the services sector (wholesale and retail trade repaid bank debt in Q1). The annual growth rate of PNFCs' deposits picked up from 5.6% in Q4 to 6.5% in Q1. The rise in deposits exceeded the flow in borrowing in 2002 Q1 indicating an increase in PNFCs' liquidity—the first time since 1999 Q1—and possibly pointing to an improvement in companies' financial health (see Chart 1.8).

Chart 1.7
Arrears^(a) and defaults^(b)

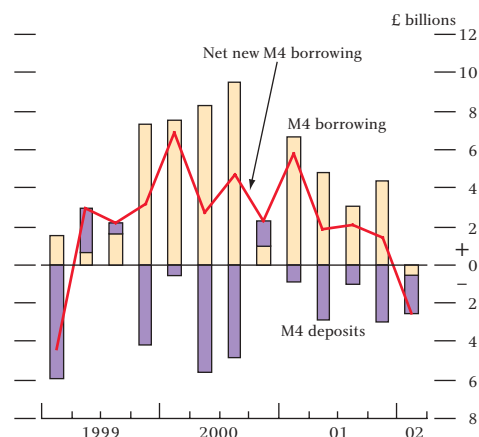


Sources: CML and DTI.

(a) Percentage of mortgages more than six months in arrears.
(b) Individual insolvencies for England and Wales only. The 2002 Q1 data are provisional.

Despite the fall in PNFCs' M4 borrowing, their total sterling and foreign currency external finance (excluding the effects of securitisations), which includes non-bank capital market finance, increased slightly from £9.7 billion in Q4 to £10.1 billion in Q1. Within that total, sterling equity issuance rose on the quarter, while sterling bond issuance remained above the average over the past two years. In aggregate, UK corporate bond spreads (over the appropriate government bonds) have fallen slightly during the past three months, possibly indicating a general reduction in perceived corporate credit risks.

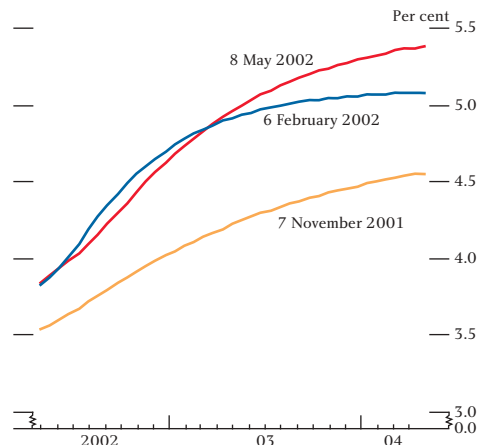
Chart 1.8
Quarterly flow of PNFCs' net new M4 borrowing^(a)



Source: Bank of England.

(a) Excluding the effects of securitisations.

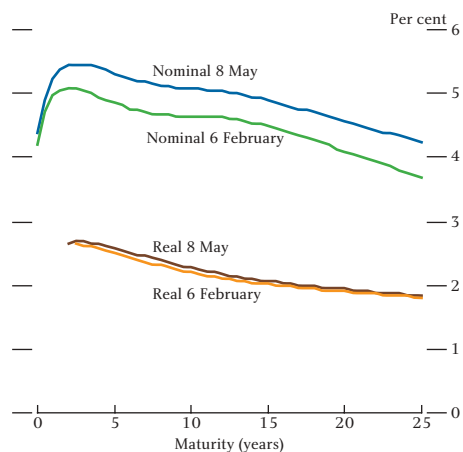
Chart 1.9
GC repo/gilt^(a) two-week forward curve^(b)



Source: Bank of England.

- (a) Generalised collateral (GC) repo rate refers to the rate for sale and repurchase agreements 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
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.

1.2 Asset prices

Interest rates

The MPC maintained the Bank's repo rate at 4% at its meetings in March, April and May. Official interest rates were also left unchanged in the United States and the euro area during the past three months.

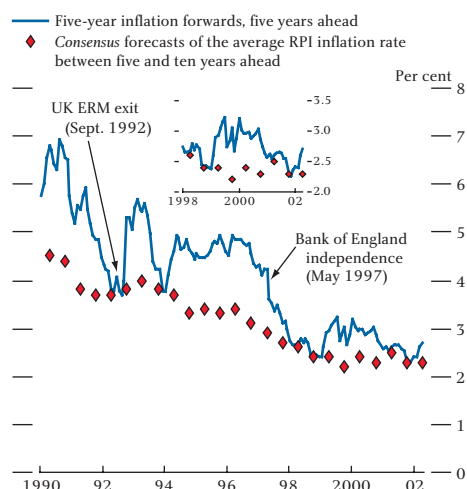
Future interest rates implied by Government debt instruments at very short maturities are little changed since the previous *Report* (see Chart 1.9). But future interest rates implied at horizons of a year or more have increased. By 8 May, the implied two-week forward rate two years out was 5.4%, 0.3 percentage points higher than the implied rate on 6 February and 0.8 percentage points higher than the implied rate on 7 November. However, as explained in February's *Report*, implied forward rates could well overstate expectations of the official repo rate due to the existence of term premia. Since 1982, the implied two-week forward rate at a maturity of two years has exceeded the subsequent policy rate by an average of 0.5 percentage points.⁽¹⁾ But the term premia are also likely to vary over time, so average premia from the past are not necessarily a good guide to those in current yield curves.

Expectations about interest rates over the time horizon shown in Chart 1.9 might be relevant to a firm that is faced with a temporary cash-flow problem, or to a household that is considering whether or not to take out a short-term loan. But many economic decisions, such as the decision to undertake a large investment project, will depend on expectations about interest rates over a longer time scale. This is because it might be difficult to reverse such decisions without incurring a high economic cost. For example, second-hand markets for capital goods are often absent, which means that firms might not be easily able to adjust their desired capital stock in response to changes in the short-term cost of finance. So anticipating this, firms will often make longer-term investment decisions based on expectations of the cost of finance over the horizon of the investment project.

Chart 1.10 shows that the increase in nominal forward interest rates has not been confined to the short end of the curve. Since the February *Report*, nominal forward interest rates have risen more or less uniformly by around 0.5 percentage points at most maturities out to 25 years. Why might nominal forward interest rates have risen so sharply? It is possible to derive a real forward curve from the prices of index-linked government bonds. Real forward interest rates have risen only

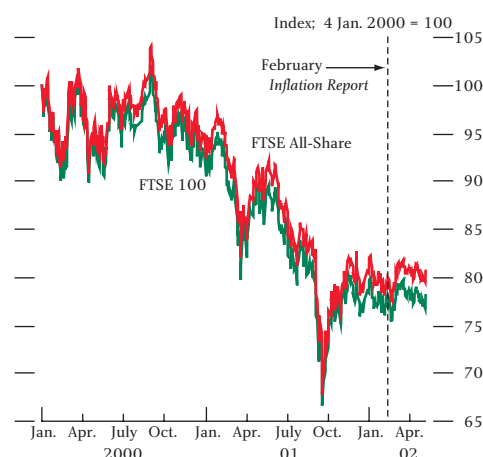
(1) See the box on page 9 of the *Bank of England Quarterly Bulletin*, Spring 2002 for more detail.

Chart 1.11
A survey-based measure of the inflation risk premium



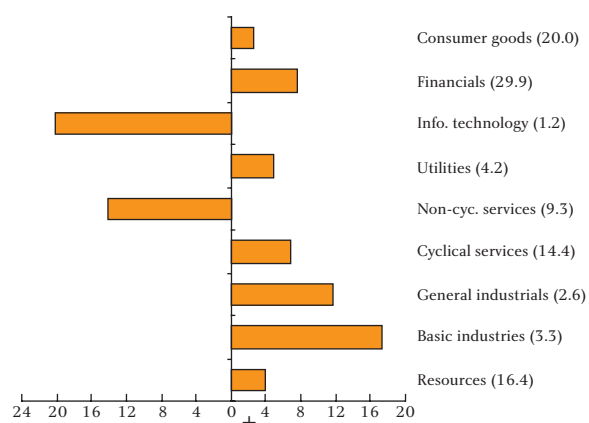
Sources: Consensus Economics and Bank of England.

Chart 1.12
FTSE 100 and FTSE All-Share



Source: Bloomberg.

Chart 1.13
FTSE All-Share sectoral indices: percentage change since February Inflation Report



Note: Figures in parentheses are weights in the FTSE All-Share based on market values.

Source: Bloomberg.

slightly since 6 February. So most of the increase in nominal forward interest rates has reflected an increase in the implied inflation forward rate (the difference between the nominal and real forward interest rates).

In principle, an increase in the implied inflation forward should reflect either an increase in inflation expectations or a rise in the inflation risk premium (the compensation investors require for holding nominal debt with an uncertain real return). But the implied inflation forward is derived from traded market securities. Movements in the implied inflation forward could therefore also reflect institutional or regulatory features of the market which affect the demand for or supply of these securities.⁽¹⁾

Twice each year, in April and October, Consensus Economics asks a sample of economists to provide forecasts of the average annual rate of RPI inflation between five and ten years ahead. Chart 1.11 compares these forecasts with the comparable five-year implied inflation forwards five years ahead derived from bond markets.

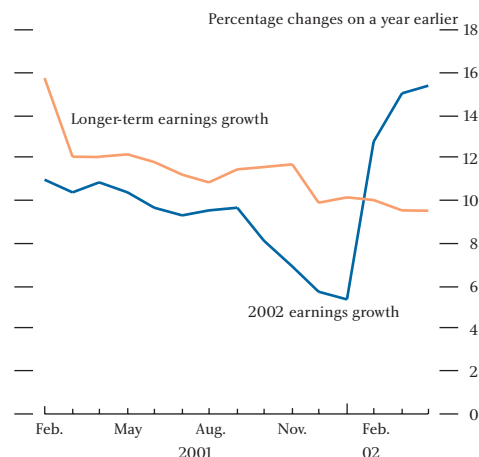
Despite an increase in market-based inflation forward rates five years ahead from 2.3% in October 2001 to 2.7% in April 2002, the *Consensus* forecast for RPI inflation for the same period remained unchanged at 2.3%. It is possible that the *Consensus* surveys have not yet fully captured those factors governing the rise in long-term rates. Alternatively it could suggest that underlying longer-term expectations have not risen and that the rise in the inflation forward reflects movement in either the inflation risk premium or technical factors related to the market. Whatever the reasons behind the rise, at 2.7% the implied inflation forward in April remained close to the inflation target and well within the range of outcomes seen over the past four years.

Equities

There has been a modest increase in UK equity prices since February's *Report*. Comparing the 15 working days up to 8 May with the 15 working days up to 6 February, the FTSE All-Share index rose by 1.3%, while the FTSE 100 index rose by 0.8% (see Chart 1.12). As Chart 1.13 shows, some of the strongest gains were in the more internationally exposed sectors, such as general industrials (which includes engineering firms) and basic industries, (which includes chemicals and steel). Non-cyclical services fell, reflecting a continuing decline in telecom share prices. Equity prices in the resources sector fell after the announcement of increased taxation on oil and gas production in Budget 2002, but

(1) See Scholtes, C (2002), 'On market-based measures of inflation expectations', *Bank of England Quarterly Bulletin*, Spring, pages 67–77.

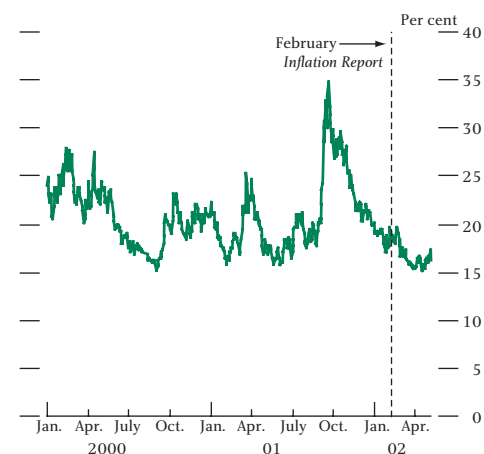
Chart 1.14
IBES forecasts of 2002 and longer-term earnings growth for FTSE 100^(a)



Source: IBES.

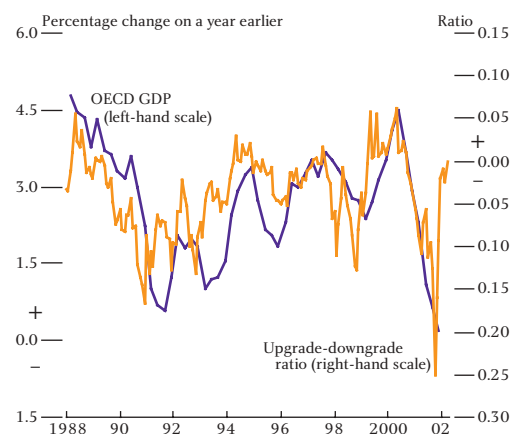
(a) Growth in earnings per share.

Chart 1.15
FTSE 100 implied volatility



Sources: LIFFE and Bank of England.

Chart 1.16
Revisions to earnings forecasts^(a) and OECD GDP



Sources: IBES, OECD and Bank of England.

(a) Balance of equity analysts' upgrades minus downgrades to earnings forecasts over the next twelve months for companies in the FTSE world index as a fraction of all companies covered.

prices are slightly higher than at the time of the February Report.

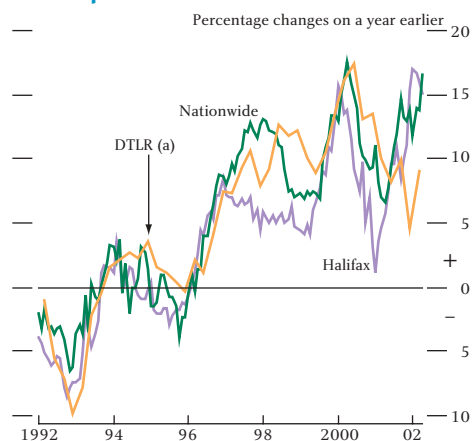
Equity prices depend on the present discounted value of expected future earnings, where the discount rate is the sum of the risk-free real rate of interest, often approximated by the yield on index-linked gilts, and any risk premium that investors require to hold equities. Each month, the Institutional Brokers' Estimate System (IBES) collects data on analysts' forecasts of corporates' earnings growth. IBES data show that, in contrast to their 2002 forecast, growth in expected future earnings per share over the next three to five years for firms in the FTSE 100 index has actually moderated slightly since the February Report (see Chart 1.14).

Arguably, these longer-term forecasts for earnings are the more relevant for equity valuation.⁽¹⁾ The marginal increase in yields on index-linked gilts described above should, on balance, have put some further downward pressure on equity prices. But in recent months, uncertainty about equity price movements over the near term, at least as measured by the implied volatility of three-month options prices on the FTSE 100 index, has fallen (see Chart 1.15). This evidence suggests that UK equity prices might have edged up largely because of a fall in the equity risk premium.

IBES also collates information on the number of upgrades and downgrades to twelve-month earnings forecasts made by equity analysts for a variety of companies in different countries. The upgrade-downgrade ratio, defined as the number of upgrades minus the number of downgrades divided by the number of companies covered, gives a simple measure of changes in equity analysts' sentiment on the near-term outlook for corporate profits and earnings. This ratio, for the FTSE world index, is shown in Chart 1.16. It shows that earnings forecasts were, on balance, revised down throughout last year, and markedly so after the terrorist attacks of 11 September. In November 2001, the upgrade-downgrade ratio reached its lowest level since data were first collected in January 1988. Subsequently, the ratio has moved up sharply so that, by April, the ratio was close to zero and above its historical average. Chart 1.16 shows that, in the past, the upgrade-downgrade ratio for the FTSE world index has been closely related to GDP growth in the OECD economies. If the improved sentiment of equity analysts proves to be well founded, world GDP growth could recover quite sharply in 2002.

(1) See Panigirtzoglou, N and Scammell, R (2002), 'Analysts' earnings forecasts and equity valuations', *Bank of England Quarterly Bulletin*, Spring, pages 59–66.

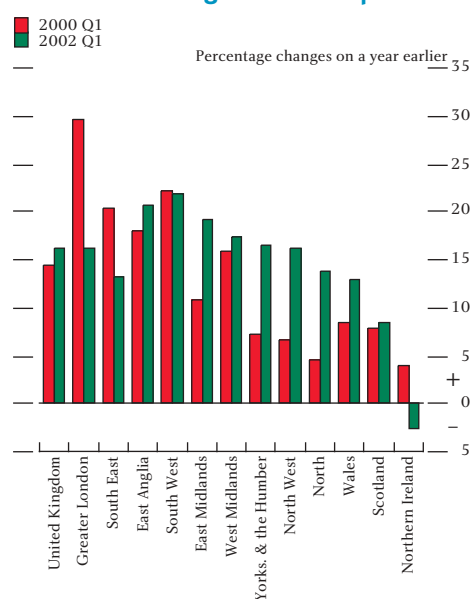
Chart 1.17
House price inflation



Sources: DTLR, Halifax plc and Nationwide Building Society.

(a) These data are not seasonally adjusted.

Chart 1.18
Halifax annual regional house price inflation



Source: Halifax plc.

Property prices

According to data published by mortgage lenders, house price inflation has risen significantly since the first half of last year (see Chart 1.17). In April, the Halifax measure of average house prices was 15.1% higher than a year earlier, while the Nationwide measure was 16.5% higher. Indeed in April, at 3.4%, the Nationwide index registered its highest monthly increase since June 1993. By contrast, the Department of Transport, Local Government and the Regions (DTLR) index of house prices rose by 9.1% in the year to 2002 Q1. The discrepancy between the indices partly reflects differences in aggregation. The DTLR index tends to put more weight on relatively expensive houses compared with the Halifax and Nationwide measures. Recently the prices of these houses have been rising more slowly than the rest of the market, pulling down the aggregate DTLR index relative to the other indices.

Current house price inflation based on published mortgage lender data is comparable with the peaks seen in early 2000. However, there now appears to be far less divergence than at that time between house price inflation in different regions. Annual rates of increase in London and the South East are now much closer to the national average (see Chart 1.18). Indeed in Q1, according to Halifax data, London and the South East registered the second and third lowest quarterly rates of increase across the twelve UK regions.

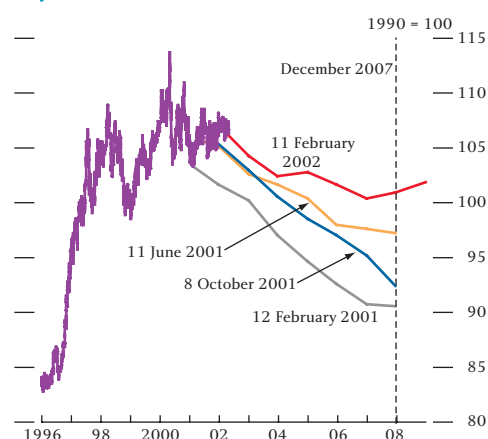
The near-term outlook for housing market activity remains buoyant. In 2002 Q1, the number of loan approvals for house purchase was higher than at any time since the late 1980s. The MPC assumes that house price inflation will fall over the next two years though at a gentler pace than in its February projection.

The exchange rate

During 1996 and 1997 the sterling ERI appreciated by about 25%. As Chart 1.19 shows, that appreciation has been sustained. And in recent years the ERI has been remarkably stable (although there have been some offsetting movements in the constituent bilateral rates). Last year, it reached a low point in February, when it averaged 104.1, and a high point in July, when it averaged 107.2. So the monthly average of the index moved within a 3% range in 2001, the narrowest range in any calendar year since the index was first constructed in 1975. In the 15 working days up until 8 May, the sterling ERI averaged 106.8, more or less unchanged from the average of 107.1 in the 15 working days up until 6 February.

Although the spot value of sterling has changed very little over the past year, economic commentators have changed their

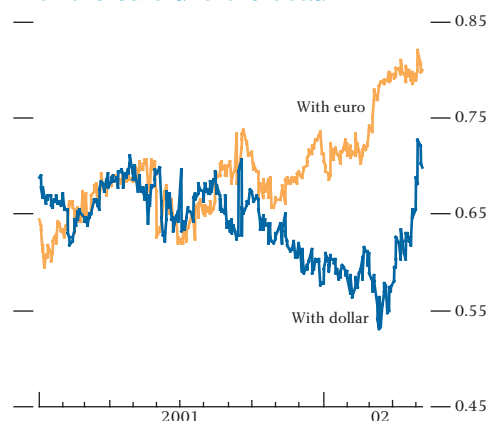
Chart 1.19
Implied Consensus forecasts of the sterling ERI^(a)



Sources: Consensus Economics and Bank of England.

(a) Consensus Economics does not publish forecasts of the sterling ERI, but a set of forecasts for US dollar bilateral rates. The implied sterling bilaterals can be derived from these forecasts and subsequently aggregated to make an estimate of the future path for the sterling ERI. The estimate presented in the chart uses four implied sterling bilaterals which together make up around two-thirds of the ERI basket.

Chart 1.20
Twelve-month implied correlations of sterling with the euro and the dollar



Source: Bloomberg.

assessment of the prospects for the currency. In October 2001, forecasts from a survey conducted by Consensus Economics suggested that the sterling ERI would be some 13% lower by 2007 (see Chart 1.19). However, in February 2002 respondents revised up substantially their forecast for sterling at the end of 2007, mainly reflecting changes to its projected value against the euro. Implicitly, the respondents appeared to believe that the spot value of sterling might be broadly sustainable in the medium term, despite the growing external deficit.

Exchange rate uncertainty, as measured by the implied volatility in twelve-month options prices on the major bilateral exchange rates, has declined since the February *Inflation Report*. An exchange rate option gives information on the market's uncertainty about the price of one currency in terms of another, so with a set of options prices for three currencies (such as sterling, dollar and euro) it is possible to derive a measure of the market's expected future, or implied, correlation between two of the exchange rates. The implied correlation between sterling and the euro has increased since late 2001 and although the gap has narrowed somewhat in recent weeks, that correlation is now considerably higher than the corresponding correlation between sterling and dollar (see Chart 1.20). This suggests that the market expects that sterling will move more closely with the euro than with the dollar in the future. In recent weeks the dollar effective exchange rate has weakened. Indeed, since the February *Report* the dollar has depreciated against both the euro and sterling by 3.4% and 2.6% respectively (when comparing their respective average levels in the 15 working days up until 8 May and the 15 working days up until 6 February). The MPC's central projection assumes a depreciation of the sterling ERI of about 2.5% over the two-year forecast horizon.

The global slowdown appears to have been shorter lived and slightly less pronounced than expected three months ago. Notwithstanding this upside news to near-term activity, the outlook for growth in the United Kingdom's major trading partners further ahead is judged by the Committee to be largely unchanged. And concerns about the imbalances in the global economy, particularly in the United States, remain an important consideration for the medium-term outlook. The United Kingdom recorded no growth in GDP during the final quarter of 2001, the weakest quarterly outturn for almost a decade. And GDP is provisionally estimated to have risen by just 0.1% in 2002 Q1, somewhat weaker than expected. Nevertheless, there are clear pointers to recovery from this low point, with surveys and other evidence suggesting that GDP growth is likely to pick up considerably in coming quarters.

Chart 2.1
US industrial production

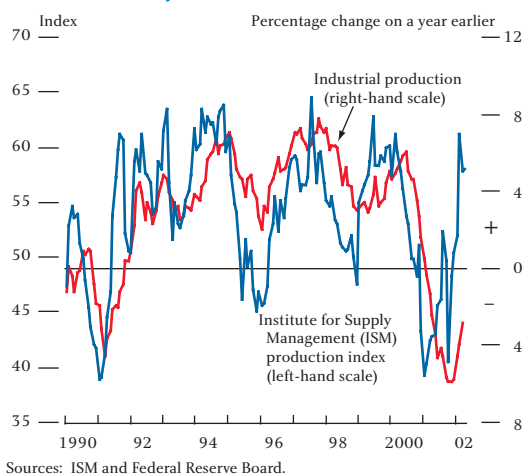
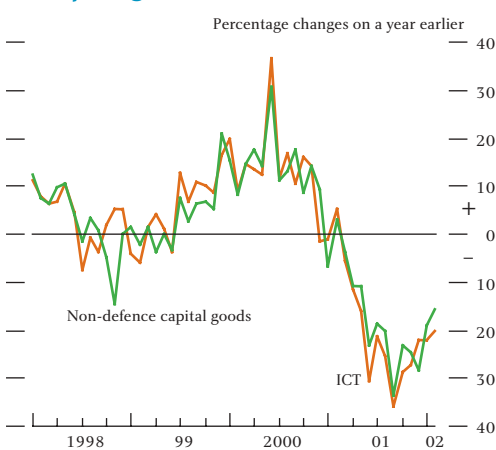


Chart 2.2
US capital goods orders



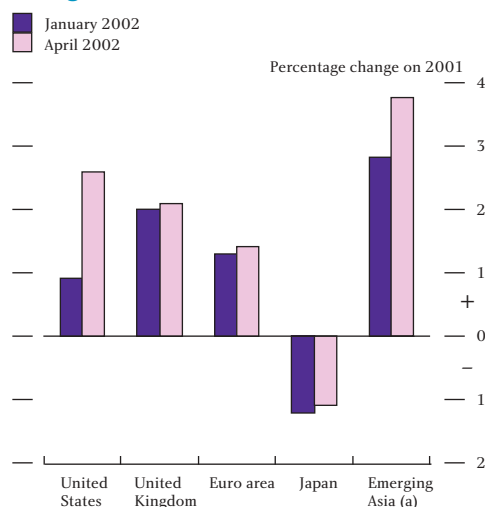
2.1 External demand and UK net trade

There have been signs of a recovery in global activity in recent months, propelled by a marked turnaround in conditions in the United States. It appears that the second half of 2001 represented the trough in the current global economic cycle, and that a gradual recovery in world GDP growth is likely through this year.

After contracting slightly in the third quarter of 2001, the US economy grew by an upwardly revised 0.4% in the final quarter, and output is provisionally estimated to have risen by 1.4% in 2002 Q1, appreciably stronger than expected at the time of the February Report. The greater part of this strong growth was the result of a particularly large boost from the turning point in the inventory cycle. Private consumption also remained firm, despite an unwinding of exceptionally strong motor vehicle sales in the previous quarter. And all major surveys of consumer attitudes point to a more optimistic picture than three months ago, although their recovery has faltered slightly in recent weeks.

In addition, a recovery in industrial production now appears to be under way in the United States. US industrial production rose for the first time in six quarters during 2002 Q1. Moreover, the Institute for Supply Management (ISM) survey suggests that growth should pick up rapidly in the coming months (see Chart 2.1). And, important for the business investment outlook, there has been some small improvement in capital goods orders, partly reflecting a turnaround in orders for information and communications

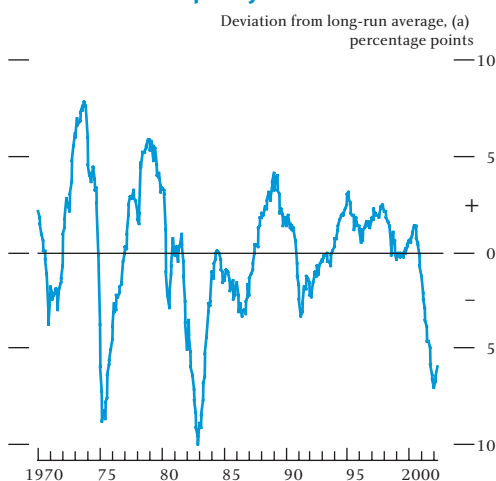
Chart 2.3
Evolution of *Consensus* forecasts for 2002 GDP growth



Source: Consensus Economics.

(a) Includes Hong Kong, Indonesia, Singapore, South Korea, Taiwan and Thailand. Constructed from individual country forecasts, using 2000 GDP weights.

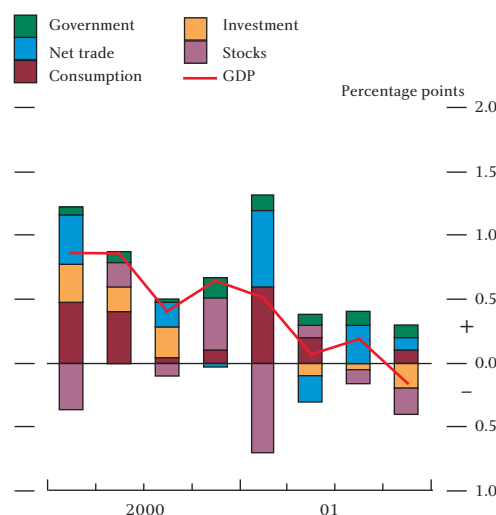
Chart 2.4
US industrial capacity utilisation



Source: Federal Reserve Board.

(a) Since 1970.

Chart 2.5
Contributions to quarterly euro-area GDP growth



Source: Eurostat.

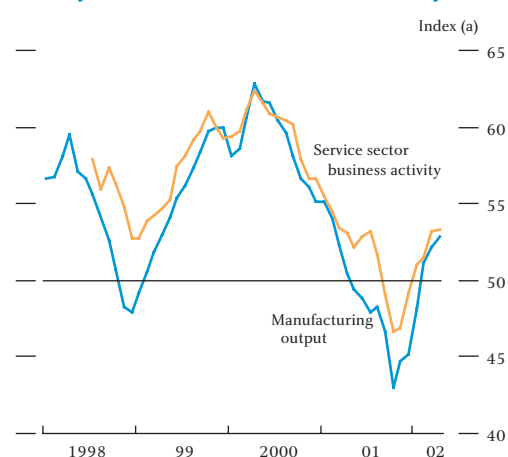
technology (ICT) equipment (see Chart 2.2). *Consensus* forecasts for US GDP growth in 2002 have been revised up considerably in the past few months—from 0.9% in the January 2002 survey to 2.6% in April (see Chart 2.3).

Similarly, the Committee has judged that US activity this year will be stronger than projected in February. However, these revisions chiefly represent improved growth during the first quarter of 2002, and while the level of activity is higher, the outlook for growth further ahead is little changed. Part of the reason for this is that much of the recent acceleration in US activity has been driven by a turnaround in the inventory cycle, which will not provide a continuing boost to growth. Another important consideration is the amount of excess productive capacity—in the industrial sector, capacity utilisation is much lower than during the early 1990s, and is similar to that seen in the mid-1970s' and early 1980s' recessions (see Chart 2.4). The existence of this excess capacity could restrain the recovery in corporate investment spending in the United States. In addition, though consumption growth has so far remained resilient, it could falter given the accumulating household debt burden (see Section 1), particularly if asset prices were to fall. Notwithstanding these considerations, the Committee continues to judge that the recovery in the United States should be sustained by the considerable monetary and fiscal policy stimulus already in the pipeline, together with favourable underlying productivity trends.

Euro-area GDP contracted by 0.2% in 2001 Q4, broadly in line with the central projections prepared for the February Report. Similar to developments in the United States, the slowdown in euro-area activity during 2001 mainly reflected weaker corporate sector investment and a rundown in stocks (see Chart 2.5). And private consumption growth also slowed. Official data suggest that conditions remained sluggish at the beginning of 2002, although more timely survey indicators of industrial production and service sector activity have recovered recently (see Chart 2.6). Such a recovery was already incorporated in the Committee's February projections. As such, the euro-area outlook is judged to be little changed, with economic growth expected to remain subdued in the short run before recovering towards trend in the second half of this year.

Output fell for the third consecutive quarter in Japan, with GDP declining 1.2% in Q4. This was a larger fall than expected in February, and reflected a particularly marked decline in private investment. However, despite weaker-than-expected outturns in recent months, the

Chart 2.6
Survey indicators of euro-area activity



Source: NTC Research.

(a) A reading above 50 suggests expansion, a reading below 50 suggests contraction.

Chart 2.7
UK trade in goods

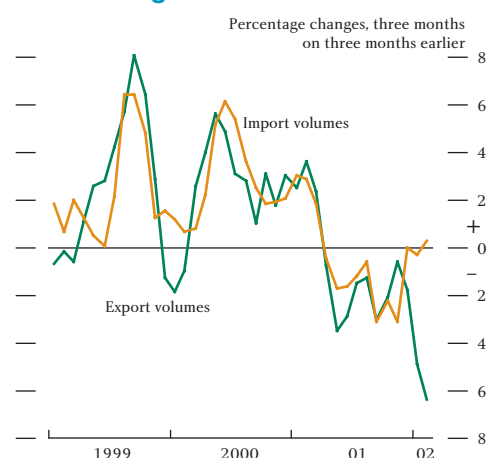


Table 2.A
UK export outlook^(a)

	Series average (b)	2001			2002	
		Q2	Q3	Q4	Q1	April
BCC export orders						
Manufacturing	7	1	-21	-20	1	n.a.
Services	11	1	1	-8	-1	n.a.
CIPS export orders (c)						
Manufacturing	49.4	47.8	45.4	45.4	49.8	55.1
CBI industrial trends						
Export orders	-9	-20	-32	-36	-18	n.a.
DHL manufacturing export indicator						
Export confidence, next three months	32	26	24	19	32	n.a.
EEF export orders	-3	-8	-19	-31	-24	n.a.

Sources: BCC, CIPS, CBI, DHL and EEF.

(a) Numbers reported are percentage balances of respondents reporting 'higher' relative to 'lower'. Responses are attributed to the quarter that is most closely associated to the reference period of each survey. For example, the April CBI Quarterly Industrial Trends survey is represented as Q1 because respondents are asked about activity in the four months to April.

(b) BCC since 1989; CIPS since 1996; CBI since 1975; DHL since 1995; EEF since 1994.

(c) Average of seasonally adjusted monthly indices. A reading above 50 suggests expansion, a reading below 50 suggests contraction.

Committee judges that the already subdued near-term prospects for Japan have changed little since February.

The improvement in global ICT demand, particularly from the United States, is being reflected in more buoyant conditions in many other Asian economies—for example, in Korea and Taiwan. This suggests that the close economic links between the United States and emerging Asia, which were evident in the downturn, are also likely to characterise the recovery.

The current *Inflation Report* projections incorporate a recovery in world activity during the first quarter of 2002, somewhat earlier than anticipated three months ago. However, the Committee has not altered significantly its view of growth in the external environment further ahead. Concerns about the current imbalances in the global economy, particularly in the United States, and how they might unwind, remain an important consideration for the medium-term outlook. Any assessment about the risks from these imbalances needs to be based on a view of the underlying factors that have driven them, and how these may imply different patterns of adjustment. These issues are discussed in more detail in the [box on pages 14–15](#).

Reflecting the weakening of world growth into the final quarter of 2001, demand for UK exports remained particularly depressed. UK export volumes fell by 1.2% in Q4, the third consecutive quarter of decline. And exports are likely to have fallen further in the first quarter of 2002 (see Chart 2.7). However, the Committee expects that as the global recovery takes hold, particularly in the euro area, export volumes should begin to pick up in coming months. Providing support for this view, various surveys indicate a considerable turnaround in orders and confidence recently, although most of these indicators remain at or below their long-run averages (see Table 2.A).

In contrast, UK import volumes were broadly flat in 2001 Q4. Taken together with the continued fall in exports, net trade reduced GDP growth by 0.5 percentage points during Q4. And the latest monthly data on trade in goods suggest that this contribution is set to become even more negative in the first quarter of 2002. However, that drag on growth is expected to attenuate considerably in future quarters, as external demand recovers.

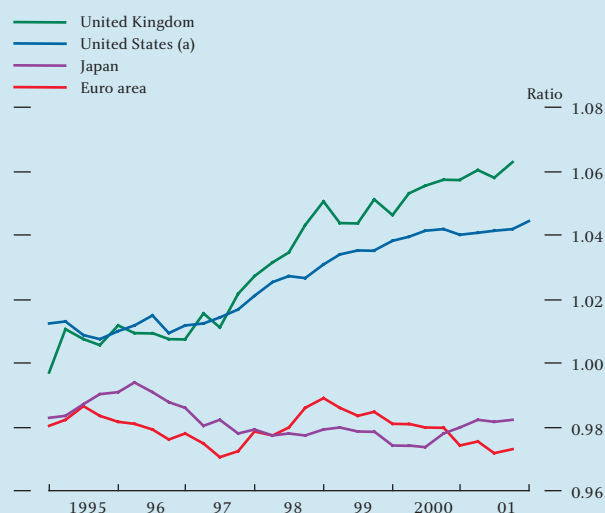
2.2 Gross domestic product

GDP growth slowed during each quarter of 2001, and revisions to National Accounts data show that the slowdown was slightly more pronounced than previously thought. By the final

Imbalances in the global economy: sources and potential implications

Domestic demand in the United States rose strongly during the second half of the 1990s, and at a faster rate than output, while demand in the euro area and Japan was relatively weak (see Chart A). At the same time, the dollar experienced a large real appreciation, while the yen and euro weakened (see Chart B). These developments were accompanied by a sharp divergence in the current account positions of the major economies (see Chart C). In particular, the US current account deficit rose to over 4% of GDP. Developments in the United Kingdom to some extent resembled those in the United States, though the rise in the current account deficit was substantially less marked.

Chart A
Domestic demand to GDP ratios



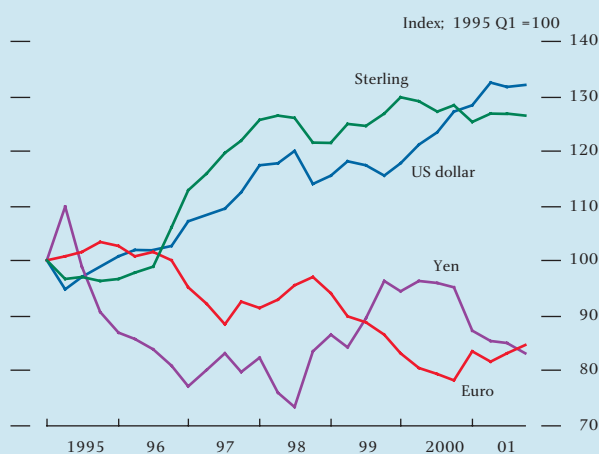
Sources: ONS, US Bureau of Economic Analysis, Japanese Cabinet Office, Eurostat.

(a) The chain-weighting of US national accounts data means that domestic demand and net trade do not necessarily sum to GDP.

The global position hinges on developments in the United States. Imbalances are unlikely to continue indefinitely because, on the basis of US current account data at least, that would imply an unsustainable accumulation of net foreign liabilities in the United States (and of net US assets held by the rest of the world). But the path and timing of adjustment is highly uncertain, and will partly depend on why the imbalances arose in the first place and on what factors might trigger an unwinding. So any assessment of the world outlook and the risks to that outlook needs to consider the potential sources of the imbalances.

While there could be a number of reasons behind the build-up of global imbalances, the MPC has focused on those associated with strong US productivity

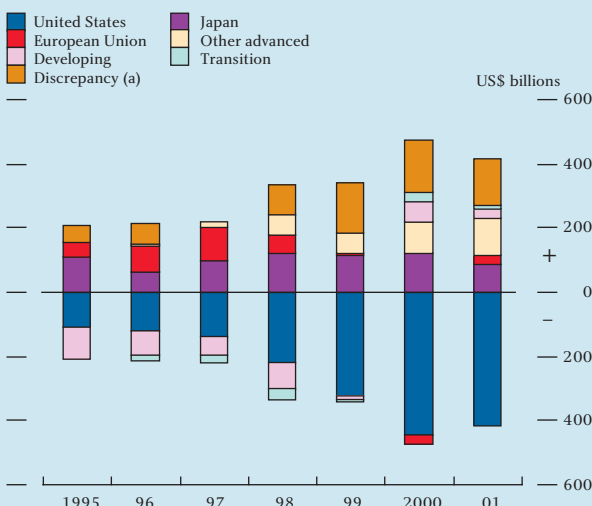
Chart B
Real exchange rates^(a)



Source: IMF.

(a) Derived from nominal effective exchange rate indices, adjusted for relative changes in consumer prices.

Chart C
Current account positions



Source: IMF.

(a) The discrepancy balances the sum of reported national account positions. It reflects errors, omissions and asymmetries, and the exclusion of data for international organisations and a limited number of countries.

growth during the late 1990s. One possibility is that this period saw households, companies, and financial market participants revise upwards their expectations of future US output growth. In that case, the strength of consumption and investment could have reflected households and companies raising their expenditure in line with higher expected future growth in incomes and profits, and financing that spending increase initially by additional borrowing. Moreover, the appreciation of the dollar could have reflected an associated increase in the expected rate of return to holding dollar assets,⁽¹⁾ and the accompanying rise in

(1) See Bailey, A, Millard, S, Wells, S (2001), 'Capital flows and exchange rates', *Bank of England Quarterly Bulletin*, Autumn, pages 310–18 for an explanation of the possible interactions between capital flows and exchange rates.

domestic demand. On the assumption that this revision to expected future output growth was the main source of the imbalances, the key to future developments would be the extent to which the expectations were subsequently realised. If higher productivity growth were sustained, then the imbalances would gradually unwind as output began to rise more quickly than demand. And debt levels would stabilise or even gradually decline. Under this scenario, the dollar might depreciate somewhat to encourage the rest of the world to absorb a share of the additional output.

An additional possibility is that global output growth expectations could rise as the technological advances which raised underlying productivity in the United States were emulated by producers in other countries. In that case, domestic demand elsewhere would start to rise, based on an expectation of permanently higher incomes, and financed by higher borrowing. That would lead to a gradual unwinding of the current pattern of imbalances, as the direction of international capital flows reversed. In this scenario,

the euro could be expected to appreciate and the dollar to fall back.

Alternatively, US households and firms may have raised their expectations unrealistically. In that case, domestic demand growth would slow as income expectations were revised down, which would again be associated with declining imbalances and debt repayment. This form of adjustment could be quite abrupt if sentiment were to change quickly, possibly accompanied by sharp falls in domestic asset prices. And the dollar could be expected to depreciate as expectations of returns on dollar assets were revised downwards and domestic demand slowed.

For the United Kingdom, a sudden unwinding of global imbalances would probably be associated with an appreciation of sterling against the dollar and a depreciation against the euro. To the extent that perceptions of UK economic prospects also weaken relative to those overseas, the sterling effective exchange rate could depreciate somewhat.

Chart 2.8
GDP growth

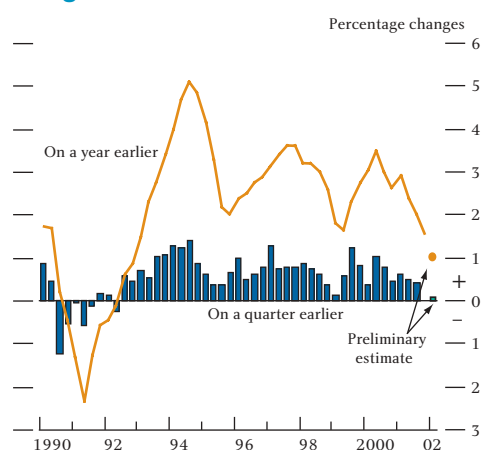


Table 2.B
GDP and expenditure components^(a)

Percentage changes on a quarter earlier

	Average 2000	Average 2001	2001 Q1	Q2	Q3	Q4
Consumption:						
Households	0.9	1.0	1.0	1.0	1.0	0.9
Government	0.7	0.8	2.6	-0.1	-0.9	1.4
Investment	1.7	-1.0	-3.9	0.5	-1.2	0.7
of which, business investment	2.2	-1.9	-5.2	-1.5	-0.6	-0.5
Final domestic demand	1.0	0.6	0.3	0.8	0.3	0.9
Change in inventories (b)	-0.2	-0.1	0.2	0.1	-0.1	-0.5
Excluding alignment adjustment (b)	-0.1	0.0	0.4	-0.5	0.1	-0.2
Domestic demand	0.8	0.5	0.5	0.8	0.3	0.5
Exports	2.5	-1.2	1.4	-2.8	-2.4	-1.2
Imports	2.6	-0.7	1.1	-1.5	-2.4	0.2
Net trade (b)	-0.2	-0.2	0.1	-0.4	0.1	-0.5
GDP at market prices	0.7	0.4	0.6	0.5	0.4	0.0

(a) At constant 1995 market prices.

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

quarter, the United Kingdom recorded no growth in GDP at market prices, the weakest quarterly outturn for almost ten years. GDP at factor cost, which excludes the effects of taxes and subsidies on products and production, contracted slightly in 2001 Q4. GDP growth at market prices is provisionally estimated to have increased by just 0.1% in 2002 Q1, rather weaker than expected. And annual growth slowed to 1.0% (see Chart 2.8).

2.3 Domestic demand

Domestic demand grew by 0.5% in 2001 Q4 (see Table 2.B), broadly in line with the February *Inflation Report* central projection. Annual growth in domestic demand was around half the pace of 18 months before, but, at 2.1% in Q4, continued to exceed GDP growth. The slowdown has continued to be driven by the slump in corporate sector investment, while vigorous consumer spending (particularly on durables) and solid growth in public sector demand has persisted (see Chart 2.9).

Household sector consumption

Consumer spending showed few signs of moderating during the final quarter of 2001. Household consumption expenditure rose by 0.9%, a similar pace to earlier quarters in the year and slightly above expectations at the time of the February *Report*. Continuing the recent trend, spending growth was concentrated on durable goods, particularly motor vehicles. Spending on durable goods accounted for around two thirds of the quarterly rise in consumption during Q4.

Chart 2.9
Contributions to annual changes in final domestic demand

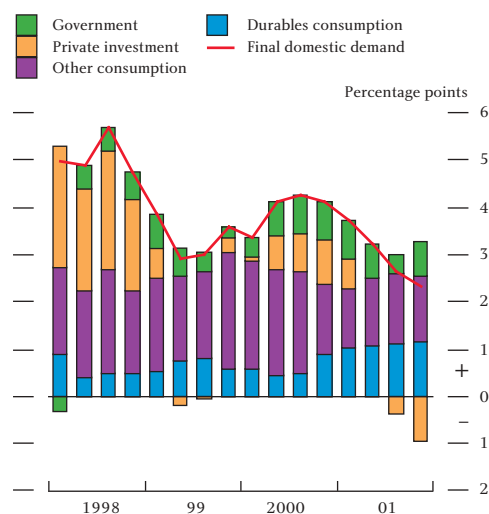


Chart 2.10
Volume of retail sales

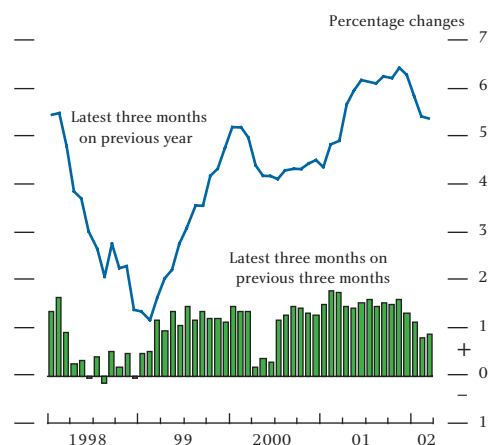
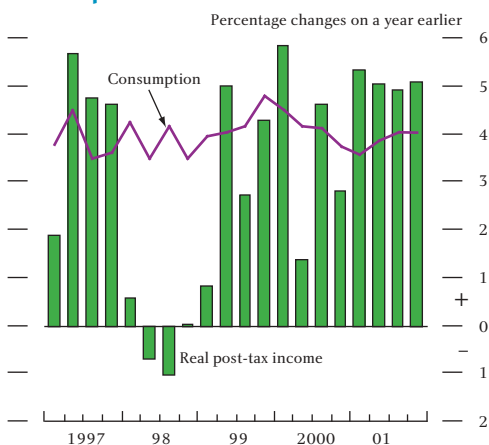


Chart 2.11
Real household post-tax income and consumption^(a)



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

More recent official indicators, however, suggest that consumption growth may have eased in the first quarter of 2002. Retail sales volumes rose 0.9% in 2002 Q1, somewhat slower than the quarterly growth rates recorded during the previous 18 months (see Chart 2.10). Sales have been volatile in recent months. After weak outturns in both December and January, sales volumes rebounded strongly in February, before growth waned again in March. As mentioned in the previous *Report*, adjusting for seasonal effects can be challenging. The problems associated with interpreting short-term movements in seasonally adjusted series are discussed further in the **box on page 17**.

Private motor vehicle registrations rose by 5% on a year earlier in Q1, down significantly from the 25% growth rates recorded in the previous two quarters. Registrations data have generally been a reliable indicator of consumer spending on vehicles. These data are broadly consistent with evidence on the level of motor vehicle traders' output in Q1, which the ONS reports was broadly unchanged from the previous quarter.

However, although those data suggest that consumption growth in Q1 is likely to be somewhat slower than in recent quarters, other indicators suggest that underlying household demand remains buoyant, and that spending growth is likely to stay firm in the near term. For example, motor vehicle registration data for April showed a significant rebound in annual growth rates, consistent with the April CBI Distributive Trades survey. And survey data provide little evidence of any significant slowdown in retail sales growth. Indeed, the April CBI Distributive Trades survey showed the highest balance for retailers' annual sales growth since 1988. Moreover, house prices continue to rise rapidly, and, as pointed out in **Section 1**, the rate at which UK households are taking on new debt continues at a brisk pace.

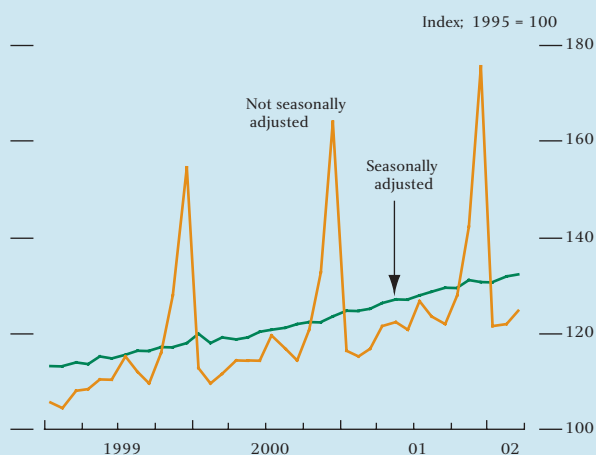
The strength of consumption should reflect current and expected real income, together with households' wealth. Annual growth in real post-tax income has remained strong in recent years, and was somewhat above growth in consumption during 2001 (see Chart 2.11). Accordingly, the household saving ratio—the proportion of current income that consumers save—has edged up (see Chart 2.12). However, the growth rate of household incomes during 2001 is judged by the Committee to have been unusually strong, and is therefore expected to slow sharply in coming quarters.

Although remaining appreciably lower than a year ago, real household wealth rose at its fastest pace in two years during the final quarter of 2001. A limited recovery in equity prices resulted in the first increase in net financial wealth in six quarters. And, as highlighted in **Section 1**, despite long-held

Seasonal adjustment

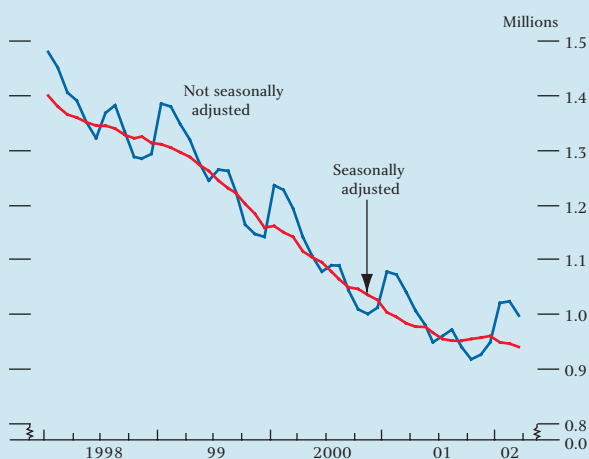
Most well-known economic statistics, including retail sales, GDP and unemployment, contain seasonal effects. These are broadly defined as variations associated with the time of year. They can account for a high proportion of the short-run variation in some series. For example, retail sales rise significantly every December because of the effect of Christmas on spending patterns. Sales in that month generally rise by more than 20%, before falling back in January (see Chart A).

Chart A
Retail sales volumes



Unemployment data also have clear seasonal variations. Chart B shows that the level of unemployment tends to rise every January (possibly reflecting the impact from temporary Christmas workers) and July (as students enter the unemployment pool).

Chart B
Claimant count unemployment



Analysis and interpretation of these 'raw' data are problematic because the seasonal pattern may obscure other movements. The purpose of seasonal adjustment is to remove variations associated with the time of year. That allows consecutive months to be

compared, providing a more reliable estimate of short-term changes and trends.

In addition to these highly regular effects, there is also some variation in series which is attributable to the arrangement of the calendar and the timing of public holidays. These include:

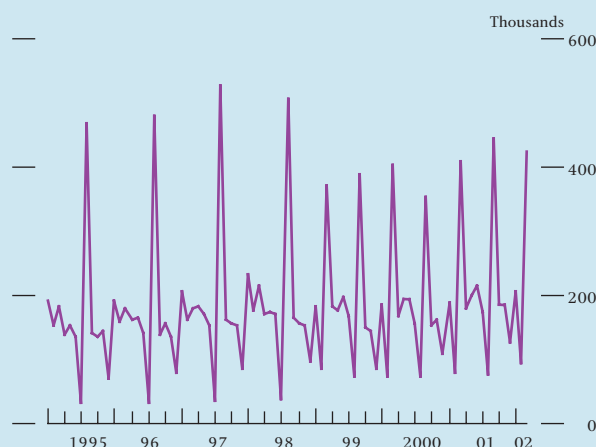
Trading day effects which are caused by months having differing numbers of particular days from year to year. For example, retail spending is likely to be higher in a month with five, rather than four, weekends; and

Calendar effects which result from holidays falling in different months from year to year. For example, Easter was relatively early in 2002, falling in March. In addition, there is the unusual feature this year of the movement of the Spring Bank Holiday from May to June, and the extra Bank Holiday for the Queen's Golden Jubilee.

Extreme values, caused by factors such as strikes or unusual weather conditions, can also distort the seasonal adjustment process. In addition, sudden and sustained changes to the seasonal pattern can occur. For example, Chart C highlights the dramatic change to movements in motor vehicle registrations that occurred when the system of updating registration plates every August was changed in 1999 to a twice-yearly system every March and September.

For most official economic data, the ONS estimates the magnitude of all the various effects discussed above, and adjusts the data accordingly. However, accurately quantifying the magnitude of certain effects can sometimes be difficult. As such, it should be recognised that seasonal adjustments always contain some uncertainty.

Chart C
Motor vehicle registrations



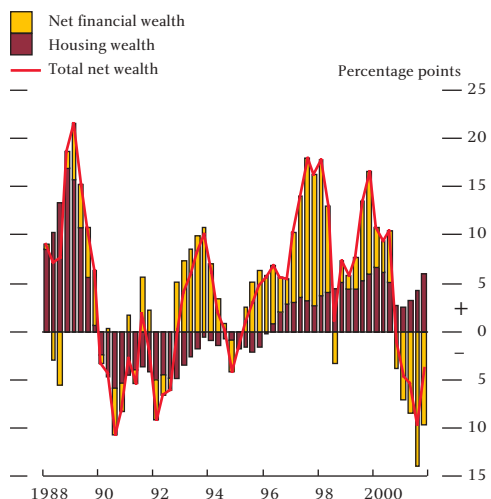
Source: The Society of Motor Manufacturers and Traders Ltd (SMMT).

Chart 2.12
Household sector saving ratio^(a)



(a) Four-quarter moving average.

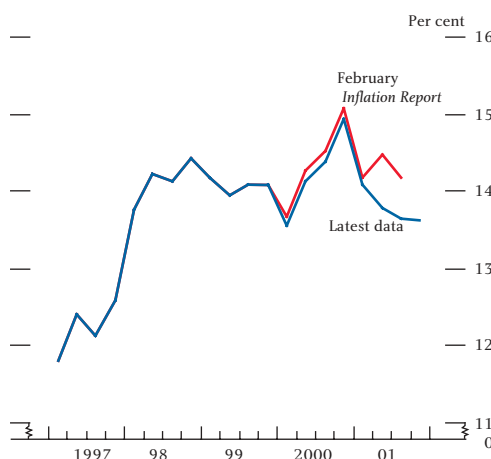
Chart 2.13
Contributions to annual growth in real household wealth^(a)



Sources: ONS and Bank of England.

(a) Deflated by the household consumption deflator.

Chart 2.14
Real business investment to GDP ratio



expectations of some moderation, house price inflation quickened further (see Chart 2.13).

As in the February central projection, the MPC expects consumption growth to moderate from the buoyant growth rates seen during 2001, mainly reflecting slower growth in household incomes. The central projection for consumption growth this year also incorporates some dampening effects of consumers anticipating the increase in National Insurance contributions announced in the recent Budget (see Section 6). Indeed, the latest GfK survey showed a considerable moderation in households' perceptions of their future financial situation in the week following the Budget announcement. In contrast, given the recent persistent strength of house price inflation, the Committee has judged that increases in housing wealth will be rather stronger than previously thought. Overall, the MPC expects consumption this year to be a little above the February central projection.

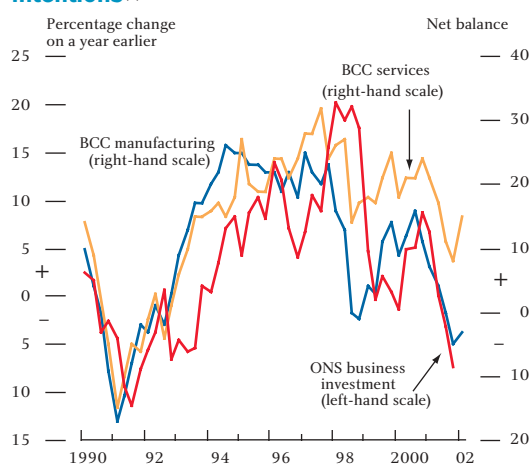
Investment demand

As expected, private sector investment fell slightly in the final quarter of 2001. However, revisions in the latest National Accounts release show a much weaker picture of corporate demand throughout 2001 than previously thought (see Chart 2.14). Business investment fell 0.3% in Q4, the fourth consecutive quarter of decline, and was 7.4% lower than a year earlier, the most substantial decrease for ten years.

At the time of the February *Report*, the Committee judged that some of the weakness in investment was a reflection of cyclical factors. But it also believed that the extent of the downturn had probably been exacerbated by the effects of increased uncertainty, caused by the events of 11 September. As such, the outlook for business investment was for short-term weakness, before recovering during 2002 as deferred projects came back on stream. But the revised profile of investment shows that the most significant falls in spending occurred during the early part of 2001. Consequently, any adverse effects of 11 September on investment appear less noticeable than previously expected. And so the recovery in investment is likely to be less marked, as there will be less momentum from delayed plans being implemented.

Nevertheless, latest survey evidence seems to provide support for the Committee's view of a gradual recovery in business investment during this year. For example, the latest BCC survey shows tentative signs of a turnaround in investment intentions in Q1, particularly in the service sector (see Chart 2.15).

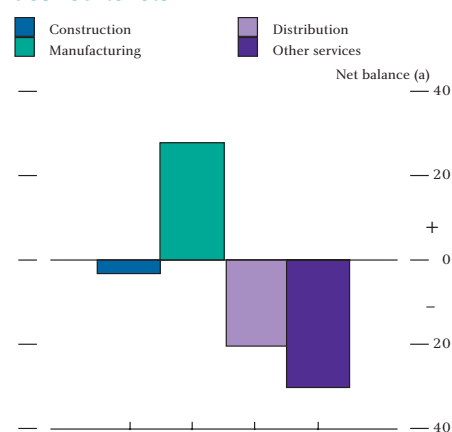
Chart 2.15
Business investment and BCC investment intentions^(a)



Sources: ONS and BCC.

(a) Percentage balance of respondents who had revised up their plans for investment in plant and machinery during the past three months.

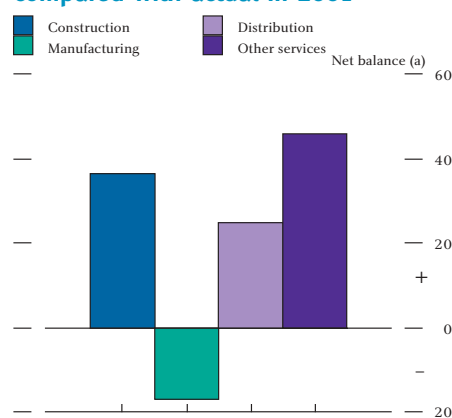
Chart 2.16
Physical capacity: current compared with desired levels



Source: Bank of England.

(a) Weighted net balance of responses to the question: 'Defined broadly as including assets such as buildings, plant and machinery, transport and software, is your current level of physical capacity: well below desired level; slightly below desired level; about right; slightly above desired level; or well above desired level?' Individual responses weighted by turnover.

Chart 2.17
Planned investment expenditure in 2002 compared with actual in 2001



Source: Bank of England.

(a) Weighted net balance of responses to the question: 'How does your planned investment spending for 2002 compare with your actual investment spending in 2001?': significantly less; slightly less; the same; slightly more; or significantly more. Individual responses weighted by turnover.

Moreover, the Bank's regional Agencies undertook a survey of around 225 firms in February 2002 to seek their views on the investment outlook. The results showed that manufacturing was the only sector where firms considered that capital was above desired levels (see Chart 2.16). And firms in that sector did not expect to increase investment this year, citing concerns about demand prospects, profitability and increased uncertainty. This is consistent with the April CBI Quarterly Industrial Trends survey, which showed that manufacturers' capacity utilisation remained well below average. In contrast, the outlook for the rest of the economy was considerably more upbeat. The Agents' survey reported that a significant net balance of service sector firms considered their current levels of capacity to be below desired levels. And the majority of firms expected to increase investment spending this year (see Chart 2.17), reflecting improved demand prospects.

Overall, the MPC continues to judge that private investment spending will recover throughout 2002. However, the lower-than-expected starting-point, together with the Committee's assessment that there is now less future impetus from the resumption of deferred investment, means that the projected level of business investment is expected to be slightly weaker than assumed in February.

Public sector spending

Government expenditure on goods and services increased by 1.4% in real terms in 2001 Q4, and by 3.3% at current prices. Real and nominal government investment rose by 13.9% and 14.6% respectively during the quarter. In real terms, government demand contributed 0.5 percentage points to GDP growth in the final quarter of 2001.

The Budget on 17 April increased planned government spending, compared with previous plans, by about 1% of GDP in 2003/4, rising to nearly 2% of GDP in 2005/6. This will be financed largely by tax increases (mostly higher rates of employee and employer National Insurance contributions), although a small increase in borrowing is projected from 2005/6 onwards. The measures announced in the Budget are expected to provide some stimulus to aggregate demand from 2003/4 onwards. The effects of the Budget are discussed in more detail in [Section 6](#).

Inventories

In line with projections in February, the contribution from inventories to GDP growth (excluding the alignment adjustment) was -0.2 percentage points in Q4. The estimated level of inventories actually fell during the quarter—for the first time in five years. Data on the sectoral breakdown of inventory holdings show that manufacturers continued to run

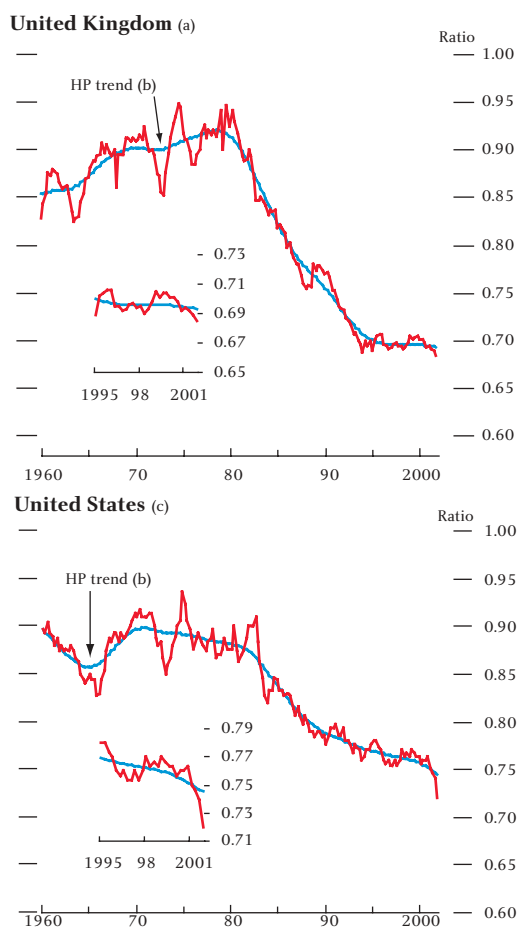
Table 2.C
GDP and components in 2001

	United Kingdom	United States	Euro area
Real GDP (a)	1.6	0.5	0.6
Final domestic demand (b)	2.5	2.0	0.9
Inventories (b) (c)	-0.2	-1.5	-1.0
Net trade (b)	-0.6	0.0	0.7

Sources: Bureau of Economic Analysis, Eurostat and ONS.

- (a) Percentage changes over four quarters of 2001.
- (b) Percentage points contribution during four quarters of 2001.
- (c) UK figure excludes a statistical alignment adjustment.

Chart 2.18
Stock to final sales ratios



Sources: ONS and Bureau of Economic Analysis.

- (a) Whole-economy inventories (excluding alignment adjustment) relative to GDP excluding stockbuilding.
- (b) A common and simple way of establishing 'trends' in variables is to use the Hodrick-Prescott (HP) filter. This can be applied to the stock to final sales ratio to give an indication of whether it is above or below trend.
- (c) Private inventories to private final sales. Because the public sector is excluded from this measure, the ratios of stocks to final sales in the United Kingdom and the United States are not directly comparable.

down inventories, although at a similar pace to the previous quarter. Destocking was most pronounced in the wholesale sector.

A breakdown of US and euro-area GDP in 2001 shows that the inventory drawdown was a substantial drag on growth in both economies (see Table 2.C). In contrast, the impact on UK GDP growth during 2001 was much less severe.

Changes in inventories are closely linked to the economic cycle. Unexpected falls in the growth of demand tend to lead initially to a rise in stocks, before firms react to the lower level of demand by reducing output and running down inventories. The extent of destocking in the United Kingdom during 2001 was significantly less marked than during the early 1990s' and 1980s' downturns. That is consistent with the more muted slowdown in final sales growth in the recent period. And the current ratio of stocks to final sales appears close to its trend level (see Chart 2.18).

In contrast, the United States has experienced more of a slowdown in final sales growth, partly explaining the greater magnitude of destocking. Notwithstanding this, the extent of inventory correction in the United States appears to have been large by historical standards. Chart 2.18 implies that the current level of US stocks relative to sales is significantly below trend.

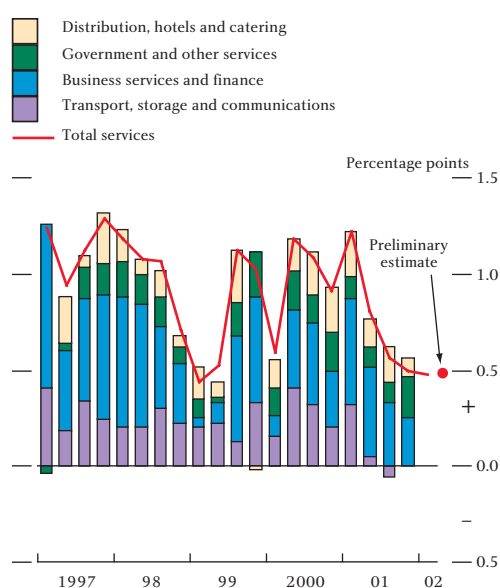
As the rate at which firms run down inventories eases, or as firms begin to rebuild stocks, the positive contribution to GDP growth can be considerable at the beginning of an upturn. For example, a slower pace of destocking in the first quarter of 2002 in the United States accounted for around two thirds of the increase in GDP during the quarter. In contrast, because growth in the UK economy was not greatly affected by inventories during 2001, the short-term impetus to growth from the unwinding of the inventory cycle is likely to be less prominent in the United Kingdom.

Survey evidence suggests UK firms are likely to have continued to run down inventories in the first quarter of 2002, but probably at a similar rate to Q4. As such, the MPC judges that stockbuilding made a negligible contribution to GDP growth in 2002 Q1, but should provide a small boost to growth in future quarters.

2.4 Output

Preliminary estimates suggest that after recording no growth in the final quarter of 2001, UK GDP rose by just 0.1% in Q1, rather weaker than expected at the time of the February Report.

Chart 2.19
Contributions to quarterly service sector growth^(a)



(a) Contributions may not sum to the total because of rounding.

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

	Series average (b)	2001			2002	
		Q2	Q3	Q4	Q1	April
Euler						
Orders	64	51	43	50	61	n.a.
CIPS (c)						
Business expectations, next twelve months	76.2	72.7	67.9	66.2	74.5	78.1
Incoming business	55.6	52.3	49.3	48.3	52.9	56.6
BCC business confidence, next twelve months	48	49	44	44	57	n.a.
BCC home orders, past three months	17	19	14	10	20	n.a.
CBI (d)						
Business optimism	-2	-12	-43	-58	20	n.a.
Volume of business, next three months	17	3	-13	-30	13	n.a.

Sources: CIPS, Euler, BCC and CBI.

- (a) Numbers reported are survey balances unless otherwise stated. An increase suggests a rise in the proportion of respondents reporting 'higher' relative to 'lower'.
- (b) Since 1989 for BCC; since November 1998 for CBI; CIPS since 1996; Euler since 1992.
- (c) Average of seasonally adjusted monthly indices. A reading above 50 suggests expansion, a reading below 50 suggests contraction.
- (d) Weighted average of the responses for consumer, business and professional services.

Service sector growth slowed considerably during 2001, mostly due to a downturn in transport and communications sector output (see Chart 2.19). In 2002 Q1, service sector output rose by 0.5%, an identical rate to Q4. This is somewhat weaker than surveys of service sector activity had suggested. Looking ahead, information from these surveys suggests that service sector activity is likely to strengthen in the near term (see Table 2.D).

Industrial production has recovered in most major industrialised economies in recent months. Following several quarters of declining output, industrial production increased in the United States during the first quarter of 2002, and is also likely to have risen slightly in the euro area. The turnaround in the United Kingdom has been much less marked. Industrial production fell by 1.5% in the first quarter of 2002. Within this, manufacturing output also declined by 1.5%, the fifth consecutive quarter of falling output. ICT production continued to fall rapidly in the United Kingdom, driven by the sustained weakness of telecommunications equipment production, which accounts for a larger share of ICT production than in many other countries.

Nevertheless, survey evidence points to a significant turnaround in conditions recently, suggesting that some improvement in output is likely in the coming months. For example, the April CIPS manufacturing survey reported that manufacturing output was growing at the fastest pace for two and a half years. Evidence from the latest BCC survey was also more upbeat, with a significant improvement reported in manufacturing output and orders. The April 2002 CBI Quarterly Industrial Trends survey was somewhat more cautious. Although the survey reported the highest optimism balance for seven years, there was only limited evidence to suggest that firms had seen any real improvement in actual output or orders.

Output of the energy-related industries fell significantly for the second consecutive quarter in 2002 Q1, partly reflecting higher-than-normal temperatures during the period. The ONS indicates that agricultural output rose slightly in 2002 Q1, following quarterly declines throughout 2001. And construction output was estimated to have increased for the sixth consecutive quarter. Overall, UK GDP growth is expected to recover to above-trend rates in the coming quarters, following the weaker-than-expected outturn in Q1.

There has been little change in the rates of employment, unemployment or inactivity since the middle of 2001. However, hours worked have fallen. Annual earnings growth slowed abruptly around the turn of the year, mainly reflecting the temporary impact of lower bonus payments, although regular pay growth has also eased. Productivity growth as measured by output per head has dropped sharply. Earnings growth is likely to rebound later this year with a prospective recovery in hours worked and as bonus payments become a less important downward influence on average earnings growth. The MPC assumes that the impact of National Insurance contribution increases announced in the Budget will fall ultimately on employees' real take-home pay, but the implications for earnings growth will depend on just how adjustment to that eventual position occurs.

Chart 3.1
Workforce jobs in 2001 Q4

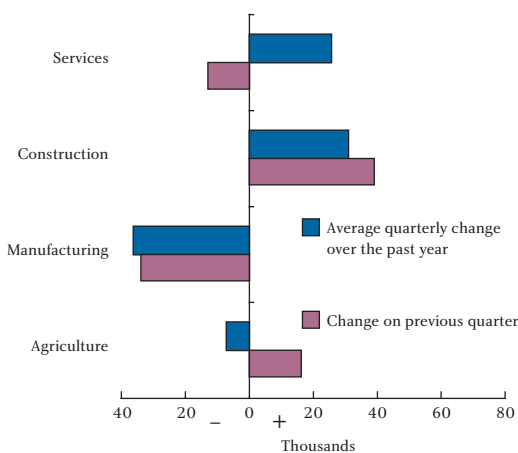
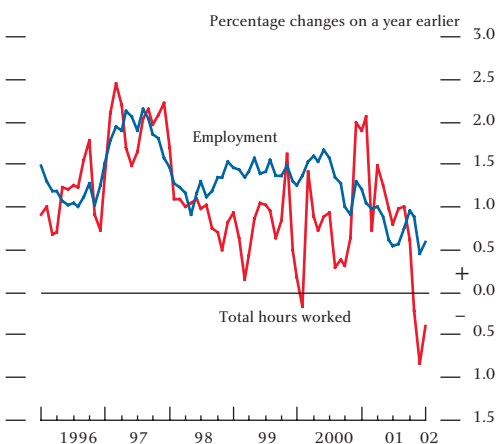


Chart 3.2
LFS labour input measures



3.1 Employment

The employment rate as measured by the household-based Labour Force Survey (LFS) has been broadly stable since mid-2001. Following the upward trend through the second half of the 1990s, the rate has stayed within a range of 74½% to 75% for the past two years. There was a further small increase in the number of people in employment in the three months to February, to reach a record high. This matched the continuing growth in the population of working age, so that the employment rate was broadly unchanged compared to the three months to November.

The number of jobs according to the quarterly Workforce Jobs survey of employers was marginally higher in 2001 Q4 than in the previous quarter. However, the number of jobs fell in both manufacturing and services. This was the first quarterly fall in service sector jobs since 1998, as cuts in private services outweighed continued recruitment in the public sector. And it was only the third fall in service sector jobs in the past nine years. The largest increase came in construction (see Chart 3.1), where the number of jobs has risen for five consecutive quarters to reach its highest level since early 1992.

The number of people in employment is one indicator of labour usage, but hours worked provides a more comprehensive picture, as it incorporates information on the intensity with which that labour is being utilised. In the second half of 2001 there was a divergence between falls in total hours worked and flat or rising employment (see

Chart 3.3
Average actual and usual weekly hours worked

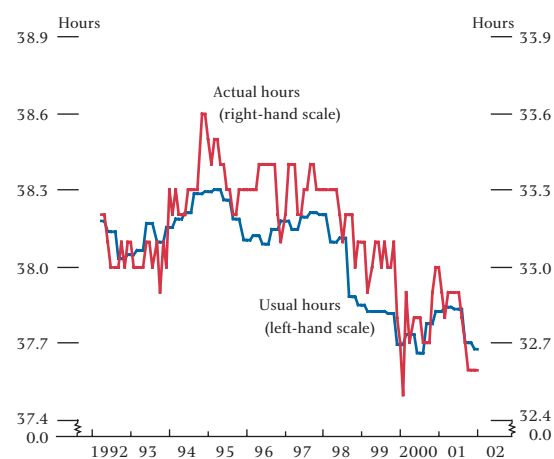


Chart 3.4
Average usual weekly hours and GDP

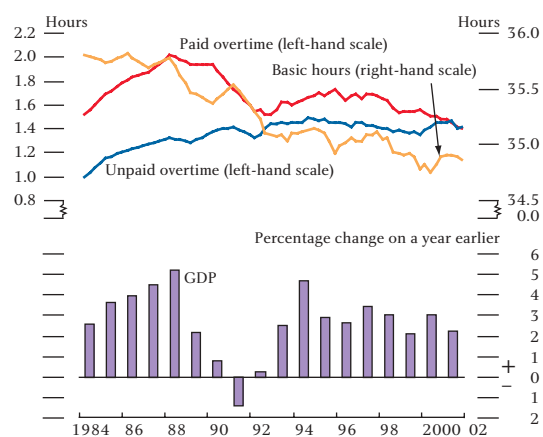


Table 3.A
Surveys of employment intentions^(a)

Percentage balance of employers planning to recruit staff

Series	average (b)	2001			2002	
		Q2	Q3	Q4	Q1	Q2
Manufacturing						
BCC	3	11	-1	-2	-6	6
CBI	-17	-21	-28	-26	-39	-25
Manpower	15	14	9	12	1	8
Services						
BCC	14	21	19	16	13	22
CBI/PwC (financial)	-15	-5	12	-15	-19	-26
CBI (consumer)	4	-19	-8	-59	5	n.a.
CBI (business)	23	27	5	-15	17	n.a.
Manpower	15	23	18	18	15	19
Public sector						
Manpower	4	21	21	17	13	17

Sources: BCC, CBI and Manpower.

(a) Seasonally adjusted by the Bank of England. The surveys cover employment intentions over next three months, except for CBI which is next four months. Responses are attributed to the quarter most closely associated with the period covered by the question.

(b) Averages since 1972 for CBI manufacturing; 1988 for Manpower; 1989 for BCC and CBI/PwC; and 1998 for CBI service sector.

Chart 3.2). The drop in total hours reflected falls in average weekly hours of those working both full-time and part-time. However, in the three months to February there was a small rebound in total hours worked, reflecting a combination of rising employment and a halt to the fall in average hours worked.

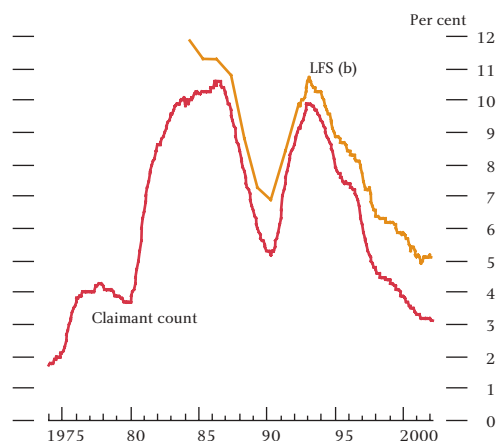
The LFS asks respondents both how many hours they actually worked in the previous week, the data shown in Chart 3.2, and also about their usual working hours. Usual hours are less volatile than actual hours worked (see Chart 3.3), and the difference between the two does not appear to be related to the cycle or trended over time. The behaviour of usual hours worked may therefore offer a better guide to underlying labour market conditions than that of the more noisy actual hours data. In the three months to February usual hours fell by 0.4% compared with a year earlier, and actual hours fell by 1.2%.

So why did hours fall and not employment? Firms may have wished to avoid hiring and firing costs, especially if they expected the labour market to remain relatively tight, and feared potential difficulties in re-hiring skilled labour when output recovered. So if firms did not expect the present slowdown to be prolonged or severe, they may have sought to reduce labour input by cutting hours worked rather than reducing the number of employees.

Total hours worked includes 'basic' hours worked in a person's main job, paid and unpaid overtime, and any hours worked in second jobs. Movements in paid overtime appear to have a proportionally greater cyclical response than the other components of total hours. Indeed, a recent survey by the Bank's regional Agents suggested that firms in most sectors saw changes in paid overtime hours as a particularly common way of managing short-term fluctuations in labour requirements. In the three months to February usual paid overtime hours worked were 5½% lower than a year earlier (see Chart 3.4). This was a faster fall than would be indicated just by the downward trend seen since the mid 1990s. Over the past year, the fall in paid overtime accounted for around half of the fall in usual hours worked, and around one fifth of the much larger fall in actual hours.

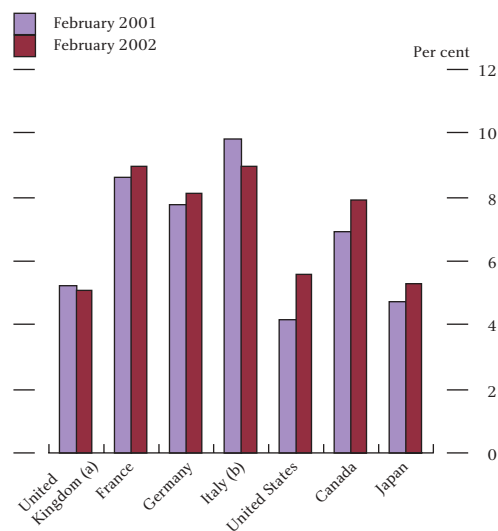
Looking forward, surveys of employment intentions have shown some rebound from low points around the turn of the year. However, only around half of the measures shown in Table 3.A are above their long-term averages, and most are below the levels seen in 2001 Q2. Moreover, a survey by the Bank's regional Agents in April suggested that employers expected little change in employment levels over the remainder of the year.

Chart 3.5
Unemployment rate^(a)



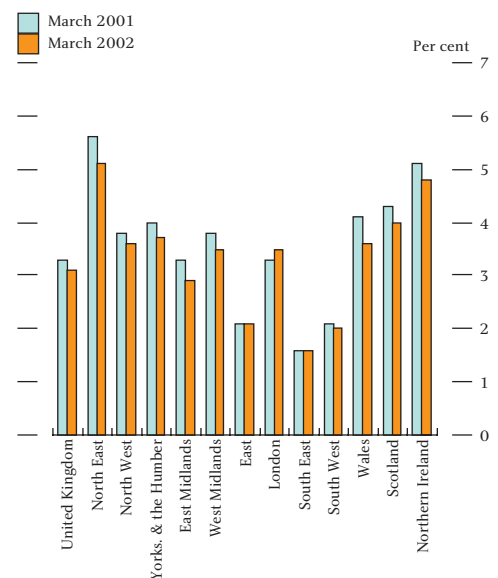
(a) Rates calculated as a percentage of the economically active population.
(b) Annual data before 1992, then backward-looking three-month moving averages.

Chart 3.6
Unemployment rates in the G7



(a) UK figures are for December to February (LFS).
(b) Italian figures are for January.

Chart 3.7
Regional claimant count unemployment rates



3.2 Labour availability

The past six months have seen very little change in either the claimant count or the internationally comparable measure of unemployment used by the LFS (see Chart 3.5). Unemployment remains low in relation to the 1980s and 1990s: in February and March claimant count unemployment was at its lowest rate since 1975. Outflows from, and inflows into, unemployment have been relatively stable since the middle of 2001.

Unemployment in the United Kingdom is also at a low level relative to other major countries. The fall in the LFS unemployment rate during the past year, and rising unemployment in most other G7 countries, saw the United Kingdom attain the lowest unemployment rate of the G7 countries (see Chart 3.6), for the first time in over 40 years.

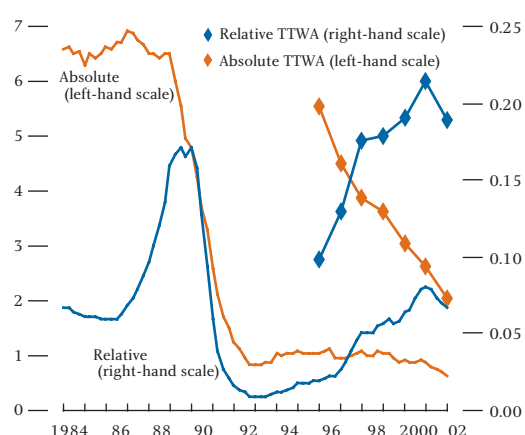
The fall in claimant count unemployment during the past twelve months was spread across most regions of the United Kingdom (see Chart 3.7) and tended to be largest where there were relatively high rates of unemployment. The two most widely used measures of regional unemployment dispersion have both decreased recently (see Chart 3.8). Absolute dispersion shows how much regional unemployment rates diverge from the national average, while relative dispersion is based on the *ratio* of unemployment rates to the national average. So there would be no change in absolute dispersion, for example, if unemployment rates fell by one percentage point in every region. But there would be a rise in relative dispersion, because a one percentage point fall would represent a larger proportionate decrease for a region with low unemployment than for a region with high unemployment. Both measures are informative, and both have fallen during the past year.

However, these regional data are themselves at quite an aggregated level—the United Kingdom is divided into nine English regions plus Wales, Scotland and Northern Ireland. These areas can be quite large—for instance the South West region includes both Gloucester and Penzance—and there can be significant variation in unemployment rates within individual regions.

A range of data is available covering smaller areas, including claimant count unemployment by county, local authority district and Parliamentary constituency. One useful disaggregation is that by Travel To Work Area (TTWA), defined such that most people live and work within one area.⁽¹⁾ These

(1) There are 207 Travel To Work Areas in England, 36 in Wales, 54 in Scotland and 11 in Northern Ireland. The precise criteria are that at least 75% of the resident economically active population should work in the area, and at least 75% of those working there should live in the area.

Chart 3.8
Dispersion^(a) of regional unemployment^(b)



- (a) The absolute dispersion measure is a weighted variance of unemployment rates across regions. The relative dispersion measure is a weighted variance of the ratio of regional unemployment rates to the national unemployment rate.
(b) Claimant count measure. Travel To Work Area figures for March.

Table 3.B
Surveys of labour shortages and recruitment difficulties

Series	2001			2002		
	average (a)	Q2	Q3	Q4	Q1	Q2
CBI labour shortages (b)						
Skilled	14	17	15	15	8	9
Unskilled	3	2	3	4	2	3
BCC recruitment difficulties (c)						
Manufacturing	57	62	75	66	60	n.a.
Services	51	64	66	60	60	n.a.

Sources: CBI and BCC.

- (a) CBI average from 1972 and BCC from 1989.
(b) Percentage of manufacturing firms citing labour shortages as a constraint on output over the next four months.
(c) Percentage of firms experiencing recruitment difficulties during the past three months.

Table 3.C
Average earnings

Percentage changes on a year earlier

	2001			2002	
	Oct.	Nov.	Dec.	Jan.	Feb.
Headline rate (a)					
Whole-economy	4.3	4.1	3.4	2.9	1.9
Public	5.7	5.4	5.2	4.9	4.7
Private services	3.6	3.8	2.8	2.2	0.6
Manufacturing	4.3	3.7	3.1	2.8	2.7
Average earnings, including bonuses (b)					
Whole-economy	4.4	3.7	2.1	2.9	1.0
Public	5.7	4.8	5.1	4.7	4.1
Private services	4.0	3.7	0.8	2.3	-0.8
Manufacturing	4.0	2.8	2.5	3.0	2.5
Average earnings, excluding bonuses (b)					
Whole-economy	5.0	4.6	4.4	4.1	4.2
Public	5.7	4.8	5.1	4.7	4.1
Private services	4.8	4.7	4.3	4.1	4.3
Manufacturing	4.4	3.9	4.0	3.7	3.7

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

should reflect local labour market conditions better than data based on purely administrative boundaries such as districts or constituencies. Claimant count unemployment rates in March ranged from 0.6% in Windermere to 9.3% in Strabane.

Chart 3.8 includes the two measures of dispersion based on Travel To Work Areas rather than broad regions. Both absolute and relative dispersion are higher than for the regional data, as would be expected from the greater variation when comparing smaller areas. Absolute dispersion has declined since 1996, while the relative measure follows a similar pattern to its more aggregated counterpart in that it rose through the second half of the 1990s but has since fallen back.

The inactivity rate, which measures the proportion of the working-age population who do not have a job and who do not meet the LFS unemployment criteria of seeking and being available for work, has moved very little over the past six months. After falling through the second half of the 1990s, inactivity started to increase in early 2000, but may have stabilised since the middle of 2001. This is, of course, consistent with there being little movement in the rates of either employment or unemployment.

Surveys indicate little change in labour shortages and some continuing easing of recruitment difficulties (see Table 3.B). And the reduction in hours worked, discussed above, gives firms scope to increase output with their present workforce. Nevertheless, the BCC survey suggests that the percentage of firms experiencing recruitment difficulties remains above the average since 1989 for both manufacturing and service sectors. Reports by the Bank's regional Agents continue to suggest that skill shortages remain in particular areas and occupations.

3.3 Earnings and unit wage costs

Earnings growth has plummeted in recent months, in large part because bonus payments have been significantly lower than a year earlier. The headline rate of average earnings growth, which is a three-month average, fell to 1.9% in February—the lowest rate since 1967. Changes in bonuses reduced whole-economy annual earnings growth by 3.2 percentage points in February, and by 5.1 percentage points for private services (see Table 3.C), to put the level of average earnings in that sector lower than a year earlier. Although some of the impact may reflect timing changes—there was an unusually large number of bonus payments in February 2001 and not all of those firms made payments in February 2002—the main cause was companies paying lower bonuses than last year, predominantly in the financial sector

Interpreting average earnings data

The monthly Average Earnings Index (AEI) is a key input for assessing the degree of inflationary pressure coming from the labour market. This box discusses what conclusions can be drawn from the AEI data about what is actually happening to earnings in the economy.

Most economic data, including average earnings, are estimated from a sample rather than by collecting exhaustive figures covering every relevant transaction in the economy. If what happened within the chosen group did not reflect developments in the economy as a whole, then the data would be distorted by sampling error. For average earnings, the ONS collects data from over 8,000 businesses, and attempts to limit the risk of distortion from unrepresentative movements by ensuring that all large firms are covered, and where possible reducing the weight given to obvious outliers so that they have less influence on the overall index.

The Turnbull/King review⁽¹⁾ of the AEI recommended that the ONS should produce estimates of the precision of AEI annual growth rates. Now that the new AEI sample introduced in 1999 has been in place for sufficient time, the ONS has published estimates⁽²⁾ of the standard errors for annual growth rates of the headline (three-month average) AEI and monthly AEI, as well as for the month-on-month change in the annual growth rate of the AEI. Standard errors are estimates of the potential difference between a sample estimate and the 'true' value that would be found if all firms in the country were included in the sample. The detailed results can be used to improve the quality of the index over time, for instance by highlighting those sectors that have relatively large standard errors, and so indicating where there may be scope to improve the quality of the data by revising or increasing the sample. Estimates of standard errors can also provide a guide to how much weight should be put on any one particular figure.

Standard errors can be used to derive confidence intervals, which for any given probability would show the range around the estimate within which the 'true' value is likely to fall. For instance, 95% of the time the true value would normally be expected to be less than two standard errors away from the sample estimate; and approximately two-thirds of the time less than one standard error away. The average

standard error⁽³⁾ of the headline AEI annual growth rate is around 0.6 percentage points, so for any one data point a 95% confidence interval would be given by 1.2 percentage points above and below that estimate, as shown by the bands in Chart A: with headline AEI growth estimated at 1.9% for February, there is a 95% probability that the 'true' growth rate lies between 0.7% and 3.1%.

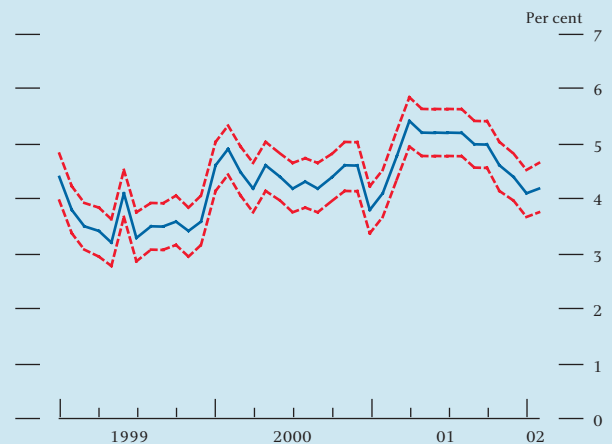
Chart A
Headline^(a) average earnings growth:
95% confidence interval



(a) Three-month average.

Chart B shows that the 95% confidence interval for annual AEI growth excluding bonuses is much narrower, at just over 0.4 percentage points either side. This is because the data excluding bonuses are less volatile over time and less variable across

Chart B
Average earnings growth excluding bonuses:
95% confidence interval



(1) *The Review of the Revision to the Average Earnings Index*, report submitted by Sir Andrew Turnbull and Mervyn King to the Chancellor of the Exchequer, 1 March 1999.

(2) Youll, R (2002), 'Quality of the estimates of earnings growth from the Average Earnings Index', *Labour Market Trends*, April.

(3) The ONS estimates of standard errors have been derived from series that have not been seasonally adjusted, as the methodology involved would make it very difficult to estimate standard errors for seasonally adjusted data. In practice, the annual growth rates of seasonally adjusted and unadjusted series are usually very similar.

different businesses. Of course, AEI data can also be affected by a range of factors apart from sampling, and the effect of bonus payments in particular can make it difficult to assess the underlying trend in earnings growth.

Similar confidence intervals for headline average earnings growth can be calculated for the different sectors of the economy. These range from 0.8 percentage points either side of the estimate for the public sector to 1.9 percentage points either side for private services. The table below shows that confidence intervals for earnings growth excluding bonuses are rather lower and vary less between sectors.

Annual headline^(a) AEI growth rates: 95% confidence intervals

Percentage points

	Including bonuses	Excluding bonuses
Whole economy	±1.2	±0.4
Manufacturing	±1.8	±0.8
Services	±1.4	±0.5
Private services	±1.9	±0.7
Public sector	±0.8	±0.5
Private sector	±1.4	±0.5

(a) Three-month average.

A broadly similar picture emerges from estimates of the average standard error for month-to-month changes in annual earnings growth, with 95% confidence intervals shown in Charts C and D. It is notable that for both series, at least in recent experience, zero is usually within the confidence interval, indicating the need for caution when drawing inferences from any one month's change in the annual growth rate.

Chart C
Monthly change in average earnings growth: 95% confidence interval

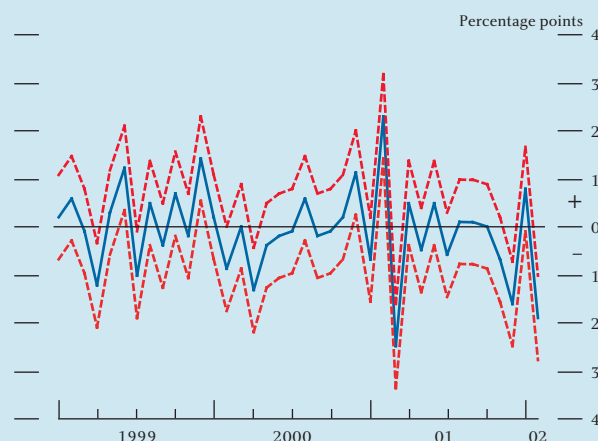


Chart D
Monthly change in average earnings growth excluding bonuses: 95% confidence interval

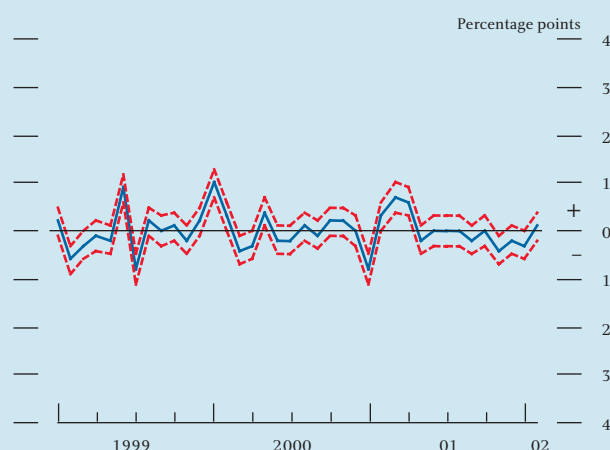
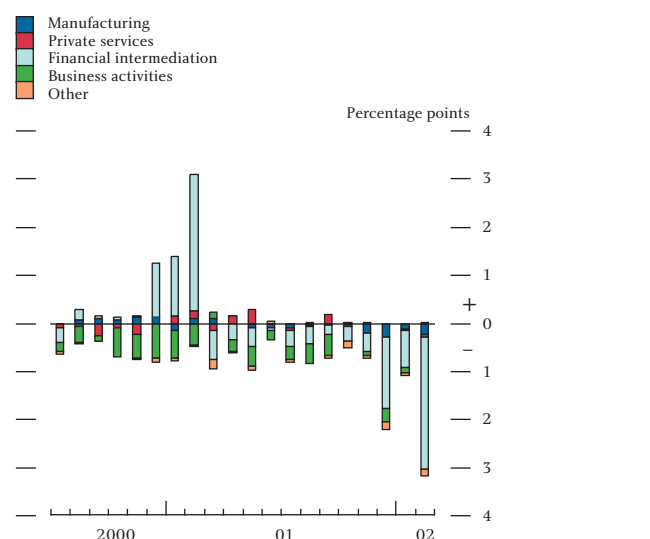


Chart 3.9
Estimated bonus contributions to annual average earnings growth



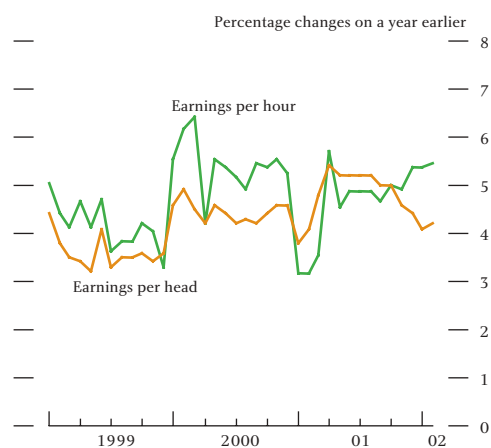
Sources: ONS and Bank of England.

where bonuses had been very high in early 2001 (see Chart 3.9).

With bonuses imparting such a large temporary element to recent data, growth in regular pay (average earnings excluding bonuses) may provide a better guide to underlying pressures. Wage growth has moderated in recent months, even discounting the effects of bonuses (see Table 3.C).

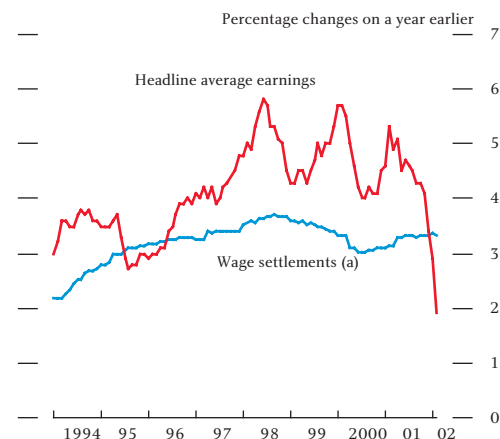
Some of the recent fall in growth will reflect the fact that earnings are measured as an average per person employed. The growth in regular pay per hour over the past few months has actually risen (see Chart 3.10), to around 5½%. Take-home pay per person will have been reduced by the decline in paid overtime, and also by cuts in hours worked where employees are paid by the hour. Even so, lower paid overtime can only account for some of the fall in regular pay growth. It seems likely that as hours worked recovers, growth of average earnings per person will increase. But regular pay

Chart 3.10
Regular pay^(a): per head and per hour



(a) Average earnings excluding bonuses.

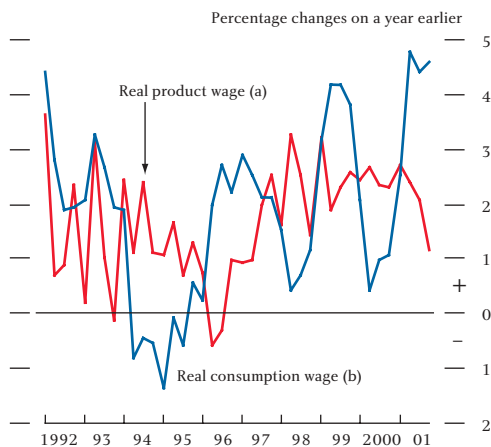
Chart 3.11
Headline earnings and wage settlements



Sources: CBI, IDS, IRS, Labour Research Department, and the Bank's regional Agents.

(a) Twelve-month average, weighted according to Average Earnings Index weights.

Chart 3.12
Real wages



Sources: ONS and Bank of England.

(a) Wages and salaries and employers' social security contributions per head divided by GDP deflator at basic prices.
(b) Wages and salaries per head divided by Tax and Price Index.

growth per hour may subside because of increases in hours worked other than paid overtime and hourly paid staff.

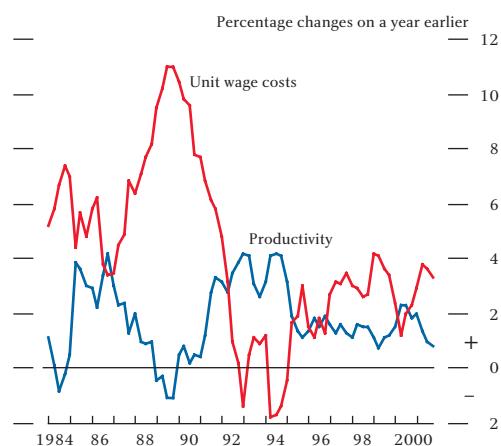
The drop in earnings growth has been associated with a marked fall in wage drift, the difference between earnings growth and pay settlements. Settlements have changed little recently (see Chart 3.11).

Low mortgage rates and low inflation have helped to boost the purchasing power of earnings recently, despite lower growth in nominal earnings. Chart 3.12 highlights the continuing divergence between the relatively high growth in the real consumption wage and lower growth in the real product wage. The real consumption wage measures the purchasing power of employees' post-tax incomes, while the real product wage represents the cost of labour (including employer labour taxes) faced by firms relative to the prices of the goods and services that they sell. An increase in growth in the real consumption wage relative to the real product wage should help to reduce short-term wage pressure by reducing the bargaining intensity of wage negotiations: the purchasing power of employees' take-home pay will be growing faster, but without higher growth in labour costs faced by employers.

The impact of Budget changes to National Insurance contributions will in the first instance, however, raise the real product wage relative to the real consumption wage in April 2003: higher employers' contributions increase the product wage, while higher employees' contributions reduce the consumption wage. In the long run, adjustment to these changes would be expected to come through lower growth in the real consumption wage, with no permanent effect on the real product wage faced by firms: the cost of higher employer and employee contributions will ultimately be borne by employees. Otherwise firms would reduce their demand for labour in the face of a higher real product wage, leading to a temporarily lower level of employment and downward pressure on wage growth until equilibrium was restored. In the shorter term, however, the impact will depend on whether and the degree to which employees resist lower growth in their take-home pay.

Even in the absence of any resistance, the cost of the National Insurance changes may not be borne fully by employees in the short run. That is because wage negotiations typically take place every twelve months or so, and therefore cannot always respond promptly to changes in circumstances. In the present case, the adjustment process may be helped by the pre-announcement of the changes, which gives wage negotiators time to anticipate the higher contributions in their bargaining over the course of the next year. It may also

Chart 3.13
Whole-economy productivity^(a) and unit wage costs



(a) Ratio of GDP to whole-economy workforce jobs.

be helped by the greater use of more flexible modes of payment, such as bonuses and merit awards, in recent years.

Productivity growth has fallen in recent quarters, as is normal during periods of weaker output growth when firms are, at least initially, reluctant to reduce their workforces. The growth rates of productivity and unit wage costs usually move in opposite directions, as shown in Chart 3.13. But the sharp fall in earnings growth in late 2001 more than offset the effect of the fall in productivity growth, so that there was a small fall in unit wage cost growth too.

The MPC expects that earnings growth will recover in the coming months. Over the course of 2002, the impact of changes in bonus payments is expected to abate, and any recovery in paid overtime hours would boost the average earnings of those employed.

Oil prices have picked up sharply since the February Report and are now around a third higher. Sterling import prices continued to decline around the turn of the year. The price of manufacturers' materials and fuels rose in 2002 Q1, largely reflecting the impact of higher oil prices. Manufacturing output prices have stabilised, after falling since September last year. Service sector output price inflation declined during 2001, but may be about to rise again. RPIX inflation in Q1 was higher than expected at the time of the February Report, with retail services inflation reaching its highest level since 1993 Q3. Looking forward, RPIX inflation is projected to fall in Q2 and remain below the 2.5% target for the remainder of the year. It is expected to be a little higher in the short term than was projected in February.

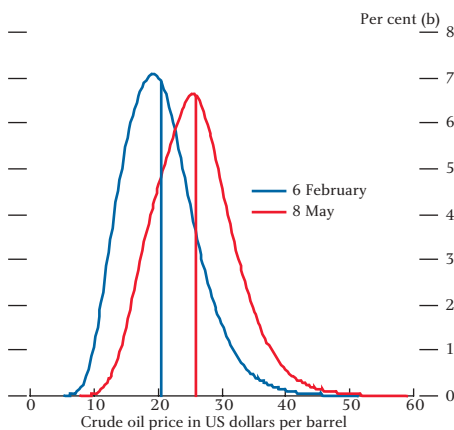
Chart 4.1
Brent oil futures



Source: Thomson Financial Datastream.

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

Chart 4.2
Likely outcomes for oil prices six months ahead^(a)



Sources: NYMEX and Bank of England.

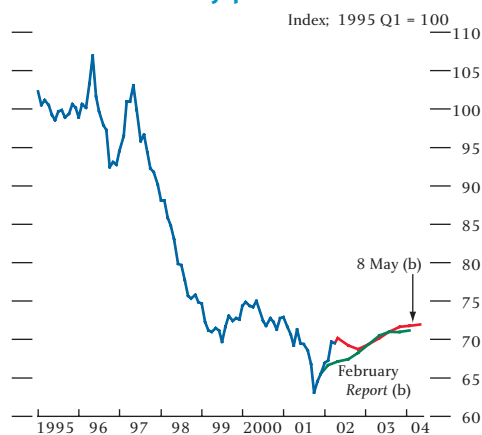
(a) Derived from options prices for West Texas Intermediate (WTI) crude oil. Prices of WTI tend to be around \$1 higher than those of Brent crude oil.
(b) Probability of oil price being between 50 cents above and below any given price.

4.1 Commodity prices

Since the February *Report* the spot price of crude oil has risen by around 35%. The average during the 15 working days up to 8 May was in the top half of OPEC's reference range of \$22 to \$28 per barrel and reached its highest level since September 2001 (see Chart 4.1). A large part of this increase was most likely associated with potential supply effects. The escalation of tensions in the Middle East raised concerns about future oil supplies to industrialised economies. Chart 4.2 shows that uncertainty about oil prices in six months time has increased since February and that the distribution has shifted upwards. Expectations of future oil prices are now well above those at the time of the February *Report*, though the two sets of futures prices do converge over the two-year horizon (see Chart 4.1).

The prices of commodities other than oil have continued to rise from their Q4 troughs (see Chart 4.3). There are three broad groups of non-oil commodities: metals, food and non-food agricultural products. The relative prices of metals tend to be affected predominantly by demand factors and so move pro-cyclically with world industrial activity (see Chart 4.4). However, the fall in metals prices in the recent global downturn was not as severe as past patterns in the data would have predicted. That may be because the contraction was particularly concentrated in the information and communications technology (ICT) sector, which is less metal-intensive than more traditional parts of manufacturing. So when industrial production recovers, the rise in metals prices is likely to be more muted, compared with past recoveries. The prices of the other two commodity groups, food and non-food agricultural products, have also risen since the February *Report*, in part because of supply factors such as

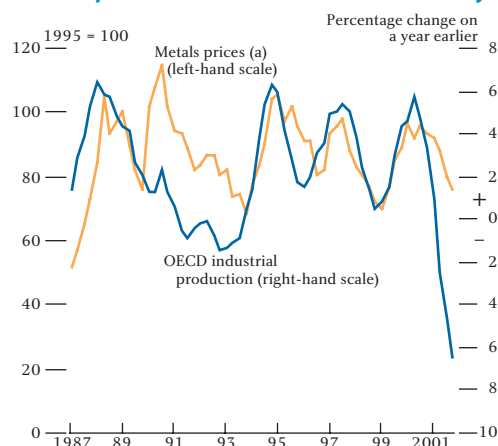
Chart 4.3
Non-oil commodity prices^(a)



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

- (a) *The Economist* all-industrials 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 all-industrials index.

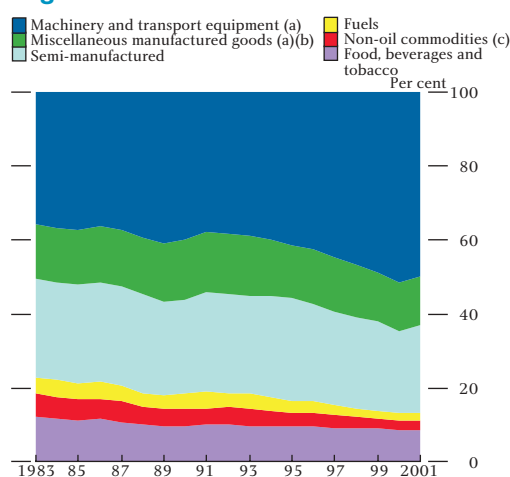
Chart 4.4
Metals prices and OECD industrial activity



Sources: IMF, OECD, *The Economist* and Bank of England.

- (a) *The Economist* metals dollar index, deflated by weighted G7 manufacturing export prices.

Chart 4.5
UK goods imports—volume shares by type of goods



- (a) Includes consumer goods.
- (b) Miscellaneous manufactured goods (SITC category 8) plus goods and transactions not classified according to kind (SITC category 9).
- (c) Crude materials (SITC category 2) plus animal and vegetable oils and fats (SITC category 4).

adverse weather conditions. Futures prices suggest a further small rise in non-oil commodity prices over the next two years (see Chart 4.3).

4.2 Import prices

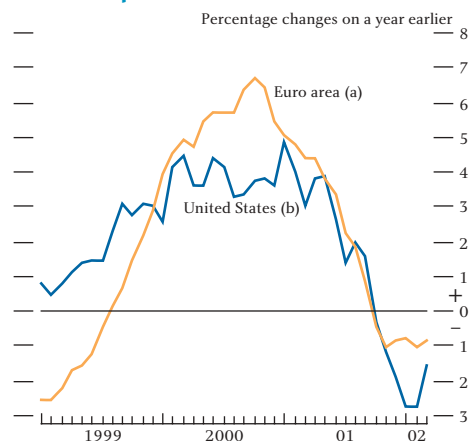
Since the United Kingdom is only a small producer of commodities other than oil, changes in non-oil commodity prices should have their main impact on the UK economy through import prices. But commodities account for only a minor share of UK goods imports (see Chart 4.5). After falling by 2% in Q4, January's and February's data suggest a smaller decline in goods' import prices in Q1. However, over time there should be a greater impact from these recent non-oil commodity price increases on the United Kingdom, as they feed into other countries' producer prices and hence UK import prices.

Higher oil prices are also likely to be a key near-term upward influence on the prices of manufactured goods across the world. Although the prices of many goods and services are determined by the forces of global demand and supply, domestic economic conditions in each of the other major six (M6) economies will be an additional important influence on their future output prices, particularly in the case of differentiated products. The build-up of surplus capacity in the United States (see Section 2) may continue to suppress US producer prices (see Chart 4.6). But the United States accounts for only around 12% of UK goods imports. More than half of the value of UK goods imports originates from the euro area. Chart 4.7 shows that manufacturing capacity utilisation in the euro area has been above its long-term average for most of the past two years. Though recently there have been indications of some spare capacity, it seems likely that producer price pressures in the euro area will be more pronounced than in the United States (see Chart 4.6). Overall, producer prices in the M6 economies are expected to pick up this year, though producer price inflation is likely to remain below levels seen in early 2001. Movements in the sterling exchange rate will ultimately play a key role in determining how these overseas price pressures are transmitted to UK import prices (see Section 1).

4.3 Costs and prices in manufacturing

The prices of manufacturers' materials and fuels (including the effects of the Climate Change Levy) rose by 1.2% in Q1, the strongest quarterly increase since 2000 Q3. They fell by 5.2% in the year to Q1, compared with an 8.0% drop in the year to Q4. Since the beginning of last year, lower oil prices—which have a weight of around 10% in manufacturing input prices—have been the main contributor to the fall in annual input

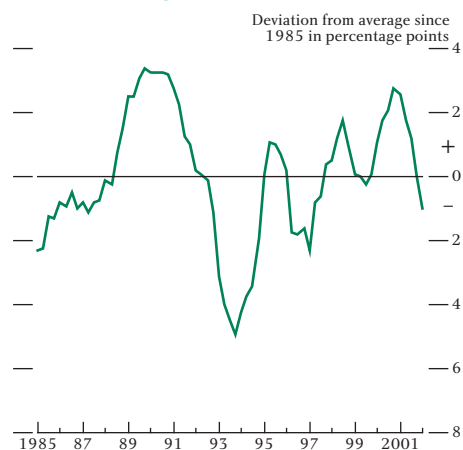
Chart 4.6
Producer prices



Sources: Thomson Financial Datastream, Eurostat and US Department of Labor.

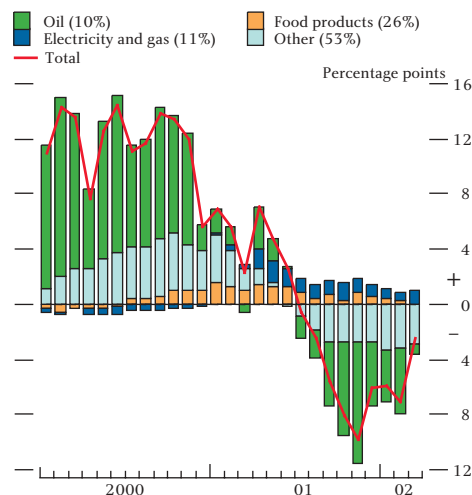
(a) Prices of industrial goods excluding construction.
(b) Prices of finished goods.

Chart 4.7
Euro-area capacity utilisation in manufacturing



Sources: Thomson Financial Datastream, European Commission.

Chart 4.8
Contributions to annual input price inflation in manufacturing^(a)



(a) Figures in parentheses represent the weights in the manufacturing input price index.

price inflation (see Chart 4.8). But oil accounted for most of the rebound in input prices in Q1 and is likely to create additional upward pressure on annual input price inflation in the near future.

The other major cost components more than offset the negative contribution from input prices to the annual change in manufacturers' costs in 2001 Q4. Labour is probably the biggest component of manufacturers' costs, and unit labour costs rose by 4.6% in the year to Q4, compared with 4.1% in the year to Q3. Earnings increased by 3.1%, but productivity growth was negative. The costs of bought-in services, such as transport and the rental of buildings, also probably increased by around 4% over the same period. Looking forward, April's quarterly CBI survey showed a rise in the net balance of firms expecting average unit costs to increase over the next four months.

Manufacturers' output prices (excluding the effects of excise duties) declined by 0.3% in the year to Q4, suggesting that the profit share in the manufacturing sector deteriorated during 2001. Indeed, official data show that the rate of return on capital fell from 8.7% in 2000 to 5.5% in 2001, the lowest since 1992. But in the final quarter of last year the rate of return edged up to 5.6%, from 5.4% in Q3.

Manufacturers' output prices have stabilised this year and rose by 0.1% in the year to Q1. Looking forward, the CBI and BCC quarterly surveys both showed an increase in the net balance of firms expecting to raise their prices. Overall, the evidence suggests that output price inflation may pick up again later this year, in particular as the recent rise in input prices starts to feed through. But it is possible that—in the near term—intense international competition, in part reflecting the excess capacity in many industrialised economies, will prevent firms from raising prices sharply.

4.4 Costs and prices in the service sector

Wages account for a much higher proportion of total costs in the service sector than in manufacturing. Estimated unit wage cost growth in the service sector continued to fall and reached 0.8% in the year to Q4, compared with 1.8% in the year to Q3. This is in sharp contrast to the rise in the manufacturing sector and was largely accounted for by the effects of lower bonuses (see Section 3). The CIPS services survey suggests that average costs rose more quickly in Q1 than in Q4 (see Table 4.A), mainly due to higher insurance premia and fuel costs.

Service sector output price inflation, as measured by the ONS' experimental corporate services price index (CSPI), eased

Table 4.A
Measures of service sector costs and prices

Series average (a)	2001			2002		
	Q2	Q3	Q4	Q1	April	
Backward-looking						
CIPS average costs index (b)	57.1	56.2	54.7	51.8	53.1	53.9
CIPS average prices charged index (b)	51.5	51.5	51.4	49.6	50.6	51.1
CSPI (c)		5.0	4.4	3.9	n.a.	n.a.
Forward-looking						
BCC prices balance (d)	22.0	18	16	20	24	n.a.
CBI selling prices (e)						
Consumer services	9.9	4	23	-34	0	n.a.
Business and professional services	-2.9	17	-13	-16	-1	n.a.

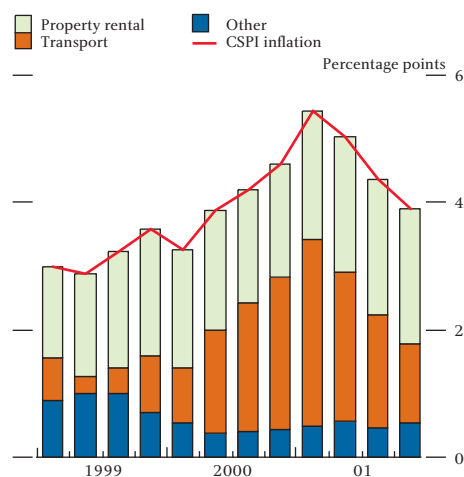
Sources: CIPS, ONS, BCC and CBI.

- (a) Averages since 1996 for CIPS; 1997 for BCC; and 1998 for CBI.
 (b) 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.
 (c) Corporate services price index (experimental index, including rent). Percentage change on a year earlier.
 (d) 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?'
 (e) 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?'

gradually last year (see Chart 4.9). This was mainly accounted for by a reduction in the contribution from transport services, the prices of which are closely related to the oil price. Since then, the CIPS survey has provided evidence of only modest output price increases (see Table 4.A).

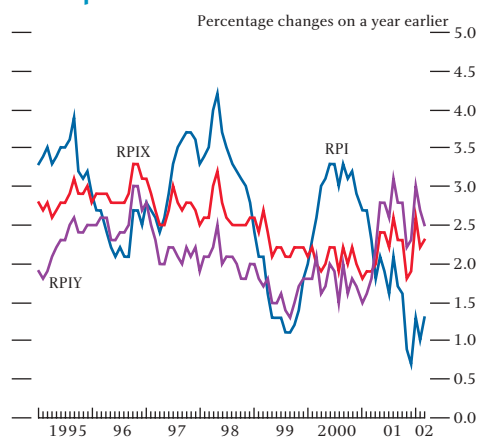
Forward-looking surveys suggest that output price inflation may move up a little. The February CBI survey showed a rise in the balance of providers of both consumer and professional services expecting to increase their prices, as demand prospects improved significantly compared with the previous quarter. The BCC survey for Q1 was also more upbeat about current demand. The balance of companies intending to increase their selling price over the next three months rose slightly to just above its long-term average, and the balance of respondents operating above full capacity remained higher than its long-term average.

Chart 4.9
Contributions to annual CSPI inflation



Sources: ONS and Bank of England.

Chart 4.10
Retail price inflation

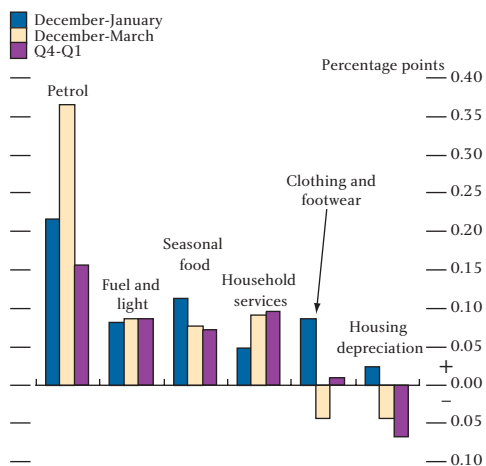


4.5 Retail prices

Annual RPIX inflation increased from 2.0% in 2001 Q4 to 2.4% in Q1, entirely reversing the fall in Q4 and above the central projection embodied in the February *Inflation Report*. Monthly changes remained volatile (see Chart 4.10). RPIX inflation rose by 0.7 percentage points to 2.6% in January. It fell back to 2.2% in February and ticked up to 2.3% in March. RPI inflation, which additionally includes the effects of mortgage interest payments, rose to 1.2% in the year to Q1, compared with 1.0% in the year to Q4. The annual inflation rate of RPIY, which excludes indirect taxes from the RPIX measure, strengthened to 2.7% in Q1. HICP inflation rose to 1.5% in Q1, compared with 1.0% in Q4 last year.

A large part of the rise in RPIX inflation in January, as well as during 2002 Q1 as a whole, was accounted for by a higher contribution from petrol prices (see Chart 4.11). Most of that reflected petrol price decreases at the beginning of 2001 (and reductions in fuel duties in March last year) ceasing to affect the annual comparison. But given the pattern for oil futures prices three months ago, the rise in petrol prices in March 2002 was unanticipated. The contributions from the prices of fuel and light and household services also rose significantly in Q1. Most of these increases were expected. Unfavourable weather in southern Europe was responsible for an unexpectedly sharp rise in seasonal food prices in Q1. Less seasonal discounting on clothing and footwear than usual added to January's higher-than-expected RPIX outturn. But that was offset in the following months: clothing and footwear prices increased less after the January sales than in previous years, which meant that their contribution to annual inflation fell marginally during the quarter. The contribution from housing depreciation fell during Q1.

Chart 4.11
Major changes in contributions to annual RPIX inflation



Annual RPIX goods inflation rose to 0.1% in March, compared with a 0.3% fall in goods prices in the year to December. Annual changes in RPIX services prices have continued to exceed those of goods prices. Services inflation climbed from 4.1% in December to 4.6% in March to reach its highest level since September 1993.

Looking forward, the MPC judges that the near-term profile of annual RPIX inflation is likely to be a little higher than at the time of the previous *Report*. Some of the recent unexpected price level increases may have a persistent positive effect on the twelve-month inflation rate throughout the year. Notwithstanding that upward revision to the forecast for Q2, annual RPIX inflation is expected to be lower than in Q1. Retail price inflation is projected to remain volatile, but below the 2.5% target, for the remainder of this year.

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

In the February Report, the MPC's central projection for RPIX inflation was little changed from November. Inflation was expected to remain around 2% during 2002, before drifting back up towards the target during the second year of the forecast period. Annual GDP growth was projected to dip further in the first half of 2002, but subsequently to pick up to around trend rates. Risks to growth were on the downside, while risks to the inflation outlook were on the upside.

At its meeting on 6–7 March, the Committee first discussed the world economy. Prospects for 2002 had continued to improve in the United States. Recent euro-area economic data had been weak, but forward-looking indicators were somewhat stronger. Though the economic data for Japan had been discouraging, strong data in some other Asian countries were consistent with the view that the worldwide information and communications technology sector (ICT) was beginning to turn round.

Consumption growth in the United Kingdom had been much stronger in 2001 Q4 than previously thought. House prices, household borrowing and private car sales had continued to rise, though retail sales volumes were estimated to have fallen in December and January. Looking ahead, consumer confidence remained buoyant. Surveys suggested that prospects for business activity and investment had improved in the latest month. In the labour market, employment had risen while average hours worked had fallen. Average annual earnings growth had fallen sharply, mainly due to lower bonus payments, and that could help slow consumption growth.

Sterling's effective exchange rate had fallen slightly. However the *Consensus* survey for February had shown a rise of over 8% in the effective rate expected for 2007 compared with the survey published in October. In consequence, the market now expected only a modest fall in the effective exchange rate over the next five years.

(1) The minutes of the February, March and April meetings are reproduced under a separate cover, published alongside this Report.

The annual rate of RPIX inflation had recorded the largest one-month rise for more than ten years. About half of this rise had been expected, but there were also unexpected increases in seasonal food prices, leisure services, clothing and footwear, and housing depreciation.

In discussing the immediate policy decision, the Committee agreed that prospects for world activity had improved over the past month. For some Committee members that was particularly significant, as they had previously envisaged greater downside risks to the world economy than had been assumed in the February *Report* fan charts.

Overall, the balance of evidence pointed to somewhat stronger economic prospects in the United Kingdom, probably implying a higher path for inflation than had been envisaged in February. Consumption growth was likely to remain strong, although there were some downside risks to the outlook. Investment growth looked stronger going forward. Members agreed that many of the factors contributing to the unexpectedly sharp increase in RPIX inflation in January were likely to prove temporary, with the lasting effect on the inflation outlook being modest. There was some upward pressure on UK inflation from oil prices and domestically generated inflation. It was too early to be sure how large or persistent the changes in prospects for UK activity would be, and inflation was likely to be marginally below target for some time. It was therefore considered appropriate to wait for further evidence to assess the change to inflationary prospects.

The Committee voted unanimously to maintain the Bank's repo rate at 4%.

At its meeting on 3–4 April, the Committee began by reviewing the world economy. The economic situation in the United States continued to look encouraging, although there were questions about whether the recent pace of recovery was sustainable. The immediate outlook and *Consensus* forecasts for the euro area were little changed, and economic news from Japan was mixed.

In the domestic economy, consumption growth was still buoyant, and the continued strength of house prices was noted. The labour market remained surprisingly benign, with unemployment little changed and average earnings growth weaker than projected. Revised business investment data pointed towards less of a decline in Q4 than previously suggested, implying a correspondingly shallower recovery in the early part of this year. Manufacturing output had continued to decline, despite the early signs of an upturn in

worldwide ICT output. However, survey evidence did suggest some signs of improvement in manufacturing orders. More than half of the sharp rise in RPIX inflation seen in January had been reversed in February, highlighting the extent to which measured inflation was susceptible to short-term volatility.

In discussing the immediate policy decision, members noted that the downside risks to the world economy in the near term had become much less acute, and the overall world outlook was encouraging. But sustained recovery, even in the United States, was by no means yet assured. Higher oil prices also continued to be a concern, and there was uncertainty over the outlook for the euro area, which was more directly relevant for UK external demand than activity in the United States.

Members agreed that the case for increasing interest rates in order to restrain consumption growth was not yet pressing. Consumption growth remained strong, as did leading indicators such as household credit and house prices. And unemployment had picked up by less than expected. But the strong rise last year in real post-tax wages was unlikely to persist and pay settlements were now lower than a year ago. Also it was possible that the rapid increase in durables purchases could ease, although it was difficult to be confident about when this might happen.

Although survey results had suggested some improvement in manufacturing output, there was not yet conclusive evidence of that at this stage. Forward-looking surveys of business activity had been encouraging, but investment had been falling steadily through 2001 and investment intentions had so far only shown modest increases. Domestic inflationary pressures remained subdued, although some members detected signs that pay pressures might be building again. Others noted that labour hoarding provided scope for productivity to recover as demand increased. Some members thought the recent news added some weight to the argument for an increase in rates, although it was by no means decisive. Most, however, took a more neutral view.

The Committee voted unanimously to maintain the Bank's repo rate at 4%.

At its meeting on 8–9 May, the Committee voted to maintain the Bank's repo rate at 4%.

The Committee's latest assessment of the prospects for GDP growth and inflation is described below. The current projections are set out in Charts 6.1 and 6.2, based on the assumption that interest rates in the United Kingdom remain at 4%.

GDP growth has recently been rather weaker than previously envisaged. But output growth is likely to recover over the forecast period to above-trend rates, supported by an upturn in the world economy, strong growth in public spending, and the continuing stimulus from the easing of monetary policy last year. RPIX inflation has been above the expectations of three months ago and remains close to, although a little below, target. Over the next two years, underlying inflationary pressure is likely to increase gradually as demand pressures intensify. The most likely outcome is for RPIX inflation to rise a little above target by the two-year horizon. The overall balance of risks to the central projection for GDP growth at that point is weighted slightly to the downside and that for inflation moderately to the upside.

6.1 The inflation projection assumptions

There have been early signs of a revival in global economic growth in recent months, spurred in particular by a marked turnaround in conditions in the United States. It now seems likely that the second half of 2001 was the trough in the current global economic cycle, and that there will be a gradual recovery in GDP growth through this year. Business and consumer confidence have strengthened further in most regions, and macroeconomic policy remains supportive of a quickening in growth.

The early pick-up in global demand is mostly accounted for by the stronger-than-expected performance of the US economy, where following an upward revision to growth in 2001 Q4, GDP rose by 1.4% in 2002 Q1. Although consumer spending has proved more resilient than expected over the past six months, the recent rebound in US activity owes much to the one-off boost from the reduced rate of inventory decumulation. While there may be a small further gain to output levels to come from this source, as the inventory rundown ends, the impact on growth is likely to fall back substantially. Fundamentally, the durability and pace of the recovery in the United States will depend on the underlying growth in final demand. Consumers' expenditure should be supported in the coming quarters by the continued stimulative policy stance and by a very gradual improvement

in the employment outlook. But high levels of household debt are likely to weigh on spending, and, in addition, the recent rise in oil prices will depress real incomes in the near term. Moreover, although there are some signs that demand for high technology information and communications equipment has turned a corner, low levels of capacity utilisation and weak—albeit now improving—profitability are likely to restrain private capital spending in the short term. The medium-term prospect remains for a recovery in US GDP growth to around trend over the next two years.

Prospects outside the United States have altered little in recent months. GDP fell slightly in the euro area in 2001 Q4, and recent indicators of production and sales remain sluggish. Business and consumer sentiment continue to improve, however, and there are signs that excess stock levels have been largely eliminated. The outlook remains for a gradual recovery in output growth over the rest of this year and beyond, although the persistence of underlying inflationary pressure in the euro area may act as a brake on the speed of the recovery. Near-term prospects for Japan remain depressed. The improvement in growth elsewhere should promote some pick-up in export volumes, but the follow-through to domestic demand is likely to be relatively subdued. Emerging market economies in Asia have benefited from the recent upswing in US demand and from the turnaround in the production of ICT goods. But medium-term prospects are little changed, given limited revision to the outlook for the United States.

Recognising the many uncertainties, the Committee considers that the improved short-run picture for global demand since the February *Report* largely reflects an early bounce-back in activity in the United States, rather than heralding a more buoyant outlook for world growth in the medium term. As in February, global GDP growth is likely to return to around trend rates in 2003 on the central projection. But reflecting the stronger-than-expected recent outturn, average growth in 2002 may be some $\frac{1}{4}$ to $\frac{1}{2}$ percentage points above the February projection.

International price pressures are likely to be a little stronger than in February. Spot oil prices have risen by around \$7 per barrel over the past three months, most probably reflecting escalating political tension in the Middle East. Nevertheless, oil prices have remained within OPEC's preferred price range and the recent rise takes prices back only to the levels of last summer. Moreover, futures markets point to a fall in prices over the forecast period, narrowing the difference from the previous projection to around \$2 per barrel in two years' time. Higher oil prices will add to inflationary pressures in the major overseas economies in the coming months. But, as oil prices

decrease thereafter, the impact on inflation will gradually reverse, although this effect may be at least partly offset by rising pressure from the continued recovery in global demand.

The sterling effective exchange rate (ERI) has been broadly stable in recent months, as a moderate appreciation against the US dollar has been counterbalanced by a slight depreciation against the euro. In the 15 working days to 8 May, the ERI averaged 106.8, consistent with bilateral sterling exchange rates of \$1.45 and 62 pence against the euro. The average is very close to the implied level for May in the February central projection, and forms the starting point for the current projection. The sterling ERI is assumed to depreciate slowly to 104.1 by 2004 Q2 on the central projection.

UK equity prices have also been relatively stable in recent months. In the 15 working days to 8 May, the FTSE All-Share Index was almost identical to the assumption embodied in the February *Report*. Following the usual convention, equity wealth is projected to rise in line with nominal GDP growth over the next two years.

The UK housing market remains strong. House prices have risen more quickly during recent months than assumed in the February central projection. Moreover, loan demand is very buoyant, providing little indication of an imminent slowdown in the market. Reflecting these developments, the Committee has raised the assumed profile for house price inflation somewhat. House price inflation is still assumed to slow to around the growth in nominal earnings in two years' time, as the steady decline in affordability should gradually restrain demand. But the likely deceleration is rather gentler than previously assumed.

The Committee has updated the assumptions on UK fiscal policy in the light of the Budget. As in previous *Reports*, the MPC's projections are 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 principal changes in the Budget on the spending side were an announcement of additional expenditure from 2003/4 onwards on health services, and on tax credits to improve work incentives and to support those on lower incomes. The additional spending was broadly matched by a prospective increase in revenues, largely resulting from the one percentage point increases in the rate of both employees' and employers' National Insurance contributions that take effect in April 2003.

To the extent that households lower spending this year in anticipation of the rise in National Insurance contributions,

the Budget measures may reduce demand pressures a little in the short run. Demand is, however, likely to be rather stronger in the second year of the projection and beyond, reflecting some 'balanced budget stimulus' from the tax-financed rise in spending: the injection to demand from higher public expenditure will not be matched by an equivalent cut in private demand, given that some of the extra taxes will result in lower savings and that the import content of public sector spending is typically lower than that of private consumption. The magnitude of such a stimulus is highly uncertain and will depend on factors such as the potential leakage from increased government spending into imports and higher public sector wages. Apart from these demand effects, the increase in National Insurance contributions may also have direct implications for wages and prices. These are discussed on pages 45–49 below.

6.2 The output and inflation projections

GDP growth in the United Kingdom has slowed more sharply than projected three months ago. Following downward revisions to earlier estimates, output is now judged to have been at a standstill in 2001 Q4. And according to the preliminary ONS estimate, GDP growth in 2002 Q1 was only 0.1%, again below previous expectations and rather weaker than indications from surveys. Current aggregate demand pressures are consequently more subdued than envisaged in the February *Report*.

Nevertheless, there are clear pointers towards recovery from this low point. Surveys of business activity and confidence show a significant improvement in recent months, with widespread gains across manufacturing, services and construction. Indeed, the turnaround in sentiment is particularly striking in the manufacturing sector, which has borne the brunt of the recent slowdown. So there are tentative signs that the wide divergence between sectoral growth rates may soon begin to diminish.

Consumer spending growth remains strong. Expenditure volumes rose over 4% in the year to 2001 Q4, above expectations three months ago. Spending growth is likely to have slackened a little in the first quarter, as retail sales growth eased and as private new car registrations recorded slower growth. But a range of indicators point to continued buoyancy in the near-term outlook. Household credit is rising at the fastest rate for more than ten years. Deposit growth remains brisk. House prices are increasing rapidly. And surveys report that consumer confidence remains high as fears of unemployment have diminished.

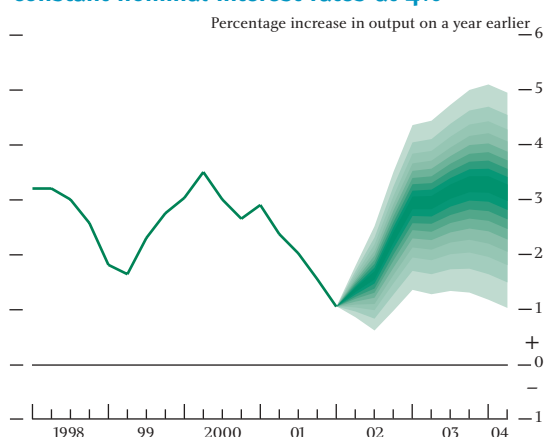
The Committee continues to expect a moderation in spending growth from last year's rates. Real household disposable incomes rose by over 5% in 2001. But real disposable income growth is likely to slow sharply given the recent weakening in labour income growth and the rebound in oil prices. The prospective increase in National Insurance contributions will also depress post-tax incomes. Nevertheless, the projected slowdown in spending is less pronounced than assumed in February. The recent strength of consumer borrowing and the robustness of the housing market signal rather greater resilience than previously judged. Although there remain considerable risks, the central projection is for consumer spending growth to moderate to around the long-run trend rate over the next two years.

Cutbacks in capital spending were a major source of the weakness in global demand last year. In the United Kingdom, business investment volumes fell by over 7% in the year to 2001 Q4, a rather sharper reduction than foreseen in the February *Report*. Investment in both private services and manufacturing industry dropped substantially, as companies became less certain about future demand prospects and as financial pressures intensified.

The outlook for investment has brightened a little in recent months, given growing prospects of an early recovery in global demand and a corresponding increase in business confidence. And although capital gearing remains high, other indicators of corporate financial health, such as corporate liquidity and income gearing, have improved somewhat. Surveys of investment intentions in the service sector have picked up over the past three months, although intentions in manufacturing remain depressed. The central projection is that business investment will strengthen gradually over the next two years. Nonetheless—and largely reflecting the lower starting point—the level of business investment is expected to be slightly weaker than in the previous *Report*. Whole-economy investment will continue to rise more rapidly given the planned substantial increase in public sector capital spending.

A significant proportion of the rise in final demand in 2001 Q4 was met from inventories, as firms liquidated holdings of stocks to improve cash flow and ease financial strains. Surveys suggest that inventories have been run down further in 2002 Q1. But they also indicate that stocks are moving closer into line with desired levels, and the ending of the phase of inventory correction may provide a fillip to activity in the coming quarters. The boost is, however, likely to be much weaker than in the United States and the euro area reflecting the much shallower inventory cycle in the United Kingdom.

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 this *Report* for a fuller description of the fan chart and what it represents.

Export volumes have fallen substantially over the past year, reflecting the steep drop in demand in the United Kingdom's major export markets. The recent decline in exports has been larger than projected three months ago. Nonetheless, signs of the nascent recovery in global demand have been mirrored in survey reports of an increase in export orders. Export volumes should begin to improve as the recovery in world trade gathers pace.

The adverse impact of falling export volumes on aggregate demand in the middle of last year was partly cushioned by a reduction in import volumes. However, imports changed little during 2001 Q4 and early 2002, and, given the further drop in exports, the net trade contribution to UK growth was substantially negative over this period. Net trade trends are likely to remain a brake on UK GDP growth over the forecast period, but the detraction from growth should lessen as global demand strengthens.

The Committee's current projection for four-quarter GDP growth is presented in Chart 6.1.⁽¹⁾ The projection is conditioned on the assumption of unchanged official interest rates at 4%.⁽²⁾ The outturn for four-quarter growth in 2002 Q1 was rather weaker than in the February central projection. But growth is likely to pick up in the coming quarters, supported by the rebound in the world economy, a turnaround in the stock cycle and robust growth in public spending. On the central projection, four-quarter growth is likely to be rising above trend by early 2003 and will remain above trend in the second year of the projection. Cumulative growth over the next two years is likely to be somewhat faster than assumed three months ago, principally reflecting the overall stimulus from the Budget changes and a slightly stronger picture for global demand. The level of GDP in two years' time is likely to be above that assumed in February, as faster growth outweighs the lower starting point.

The implications for inflation depend on prospective demand pressures relative to supply capacity. As noted in previous *Reports*, estimating the current aggregate capacity level and the likely growth of potential supply over the forecast period is extremely difficult. For example, in terms of capital input, assumptions are needed on the typical life of capital goods, on the rate of depreciation, and on the productive value of different types of equipment. In terms of labour input, assumptions are required on the likely growth of the working-age population, on changes in the degree of active participation in the labour force, and on any trends in the number of hours worked per person. Moreover, there is

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

(2) An alternative projection based on market interest rate expectations is illustrated in Chart 6.7 below.

considerable uncertainty on the underlying growth of productivity in the economy. In previous *Reports*, the central projection was based on the assumption that supply potential would grow in line with the average growth rate of GDP over the past forty years of some 2½%. However, evidence from the Government Actuary's Department (GAD) suggests that the working population has grown rather more quickly in recent years than previously estimated, due to an increase in inward migration. The Committee has raised slightly the assumption of potential output growth over the next two years in line with the GAD's 'principal' projection.

Notwithstanding the rather weaker-than-expected pressure of demand over the past six months, recent outturns for RPIX inflation have been a little above the February central projection. Although volatile from month to month, RPIX inflation averaged 2.4% in 2002 Q1—slightly below the inflation target. Goods price inflation remained negligible, while services price inflation rose to over 4½%—the highest rate since 1993. Surveys of pricing trends remain benign, pointing to only a marginal rise in prospective inflationary pressures. The BCC and CIPS surveys of service sector price trends report a slight increase in the proportion of firms planning to raise prices, although the proportion is below levels reported a year ago. Pressures on margins in the manufacturing sector remain intense, although the recent CBI and BCC surveys indicate a small easing in the downward pressure on prices.

Whole-economy headline earnings growth fell below 2% in February—the lowest rate for well over 30 years. But, as foreshadowed in previous *Reports*, this exaggerates considerably any underlying slowdown. In particular, a substantial proportion of the decline is linked to the recent sharp drop in bonus payments, which are running well below the levels of early 2001. As the main season for paying bonuses will end soon, their negative contribution to earnings growth should quickly diminish. Moreover, firms have lowered overtime and hours worked in response to the slowdown in activity over the past year, which also reduces earnings growth per worker. As output growth recovers this effect should also unwind.

Prospects for earnings growth depend on firms' demand for labour in relation to its availability. Although total hours worked have fallen by around ½% over the past six months, numbers employed have increased by some 100 thousand according to the Labour Force Survey. Some firms and industries are clearly continuing to recruit additional staff. Moreover, it seems likely that a number of others have reduced working time rather than numbers employed given the costs of

laying off staff, combined with an expectation that the slowdown in demand would be relatively short-lived. In consequence, unemployment has changed little over the past six months.

Given the improvement in business confidence and the prospective recovery in activity, the demand for labour should gradually strengthen, although in the early stages of the upswing there is likely to be an improvement in productivity per hour as well as a rebound in average hours worked per person as the current slack is re-absorbed. Nevertheless, the recent surprising strength of employment, together with an increase in recruitment intentions, suggests that the underlying demand for labour may be rather higher than judged likely three months ago.

The pre-announced increase in National Insurance contributions from April 2003 will, in the first instance, raise the cost of labour to employers and lower the purchasing power of employees. An important issue is how wages, prices and employment will react to these changes. Ultimately, the demand for labour depends upon the cost of an employee relative to the value of the output they produce, and so real take-home pay must adjust by the full extent of the increase in employer contributions if employment is to be maintained. Given the rise in employee contributions, that implies that employees' purchasing power must then fall by the total increase in both employee and employer rates together. Past experience suggests that, in the long run, the burden of an increase in employers' National Insurance contributions is indeed passed on fully to employees in this way. However, the adjustment to this long-run position may come about in a variety of ways. Firms may pay a lower nominal wage increase to their employees or reduce other benefits. Alternatively they might pass the tax on to their customers in higher prices. If they cannot do either of these, then profits will be squeezed and they will seek to economise on labour. In due course, the resulting higher unemployment would then bring about the necessary moderation in nominal wage growth. The situation is further complicated by the rise in employees' National Insurance contributions, as employees may attempt to protect their purchasing power by seeking higher wages, rather than accepting a fall in pay growth.

How this adjustment process will map out depends on market conditions and the expectations of market participants. Thus it will be harder to reduce wage growth—and easier for staff to gain compensatory wage increases—where labour market conditions are tight. Similarly, firms in very competitive markets, particularly those in the internationally tradable sector, may find it difficult to raise prices. And in both cases,

decisions will depend on expectations about the actions of other market participants and about the general economic environment, including the response of the Committee to any signs of incipient inflationary pressure. In the central projection it is assumed that, after an initial compression of margins, a rather higher proportion of the adjustment occurs through lower nominal wage growth rather than higher prices, as compared with past experience. This judgment reflects the view that labour markets have become more flexible in recent years and that product markets are somewhat more competitive than they were. In addition, the clear commitment of the Monetary Policy Committee to pursue its remit of 2½% RPIX inflation at all times should help to anchor inflation expectations and so might encourage adjustment through wages. The extent of employees' resistance to the fall in real take-home pay implied by the increase in National Insurance contributions is also assumed to be somewhat less than in the past, again reflecting increased labour market flexibility. The Committee will monitor wage and price developments particularly closely.

Nominal earnings growth is likely to return quickly to the rates of autumn last year as the main bonus season ends. Earnings growth may then edge up further as labour demand strengthens and as price inflation inches higher. Earnings may rise a little faster than assumed in February, principally reflecting rather tighter prospective conditions in the labour market and higher-than-expected inflation in early 2002. That will add marginally to expected cost pressures.

Drawing together the evidence on cost and price pressures, the Committee's current projection for the twelve-month rate of RPIX inflation is shown in Chart 6.2.⁽¹⁾ The projection is based on the assumption that official interest rates remain at 4% over the forecast period.⁽²⁾ It is presented alongside the corresponding projection from the February *Report*, which was also conditioned on constant interest rates at 4% (see Chart 6.3).

On the central projection, RPIX inflation is likely to dip to around 2% in the near term. But inflation is expected to move up thereafter as pressures build, to slightly above the 2½% target in two years' time. The profile from month to month and quarter to quarter is likely to remain volatile, reflecting a number of special factors affecting key components such as seasonal food and petrol prices. However, the underlying picture is of a gradual increase in inflationary pressures over the forecast period as demand strengthens, and as the spare capacity which has built up during the cyclical slowdown is

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

(2) An alternative projection based on market interest rate expectations is shown in Chart 6.6 below.

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

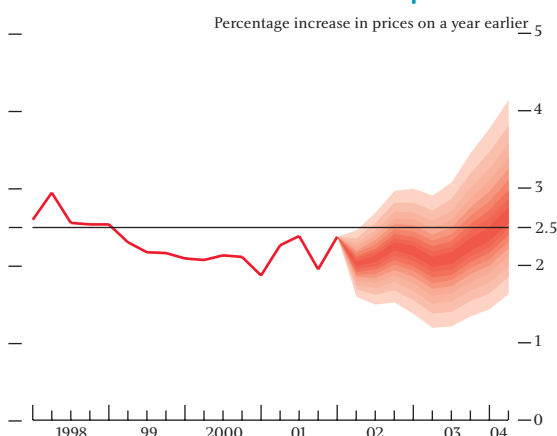
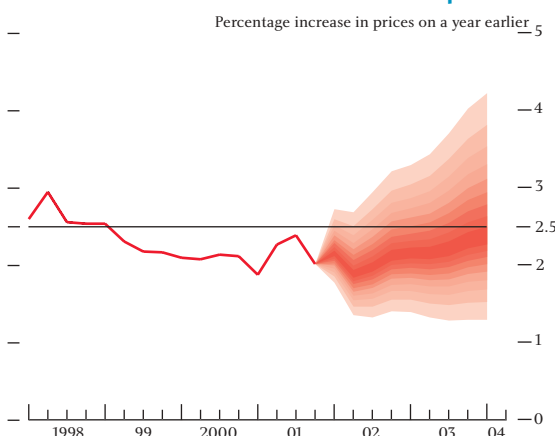


Chart 6.3
RPIX inflation projection in February based on constant nominal interest rates at 4%



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 this *Report* for a fuller description of the fan chart and what it represents.

re-absorbed. Labour cost pressures edge up over the next two years. External pressures on inflation may also rise as global demand recovers and given the sterling exchange rate assumption. The outlook is for slightly higher inflation than in the February projection, principally reflecting the rather stronger profile for demand in the United Kingdom and abroad.

The prospects for growth and inflation remain uncertain. The fan charts provide the Committee's best collective assessment of the likelihood of alternative outcomes, incorporating judgments on the key risks to the outlook (see the [box on pages 48–49](#) for a description of the fan charts.).

The central projection is based on the assumption that there is some pass through of higher employer National Insurance contributions into higher prices but that more of the adjustment ultimately occurs through lower wage growth. Improved labour market flexibility and greater product market competition relative to past experience support this assessment. Moreover, the knowledge that additional pressure on prices would prompt a monetary policy response should help to stabilise inflation expectations, which, given competitive pressures, could be enough to deter further price increases. There are risks to this judgment. Historical evidence, albeit under a different monetary policy regime, would have pointed to a stronger impact on prices than currently assumed.

The central projection also assumes that there is less attempt by employees to resist the decline in take-home pay through

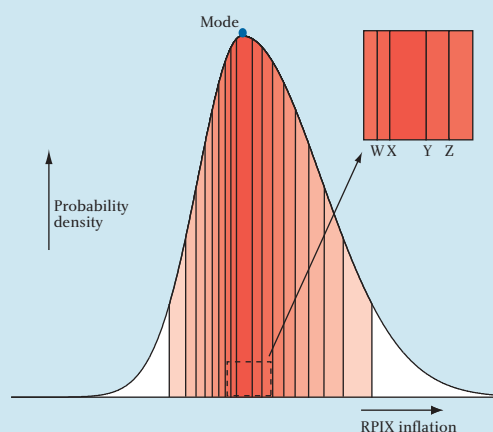
The MPC's fan charts⁽¹⁾

Nobody can predict the future evolution of the economy with absolute certainty. It is more realistic for forecasters to recognise that uncertainty when describing their projections. Consequently, the forecasts for GDP growth and RPIX inflation described in the *Inflation Report* are always presented in probability terms. And the fan charts are graphical representations of those probabilities.

The MPC's view of the likely outcome for inflation in any future quarter can be represented by a probability density function. Chart A is an example of such a function. The area under the curve between any two points shows the MPC's view on the probability of RPIX inflation lying within that range. More specifically, the area covered by the darkest red band in the centre of the chart represents a 10% probability. So there is a 10% probability that inflation will lie between X and Y in Chart A. This band contains the MPC's view of the single most likely outcome, which is the highest point on the curve—the mode. Moving away from the central band, the area covered by each pair of successive identically shaded bands—one on each side of the mode—also represents a 10% probability. So in Chart A, the probability of inflation lying between W and Z is 20%. The coloured bands cover 90% of the area under the curve, so there is judged to be a 10% chance that the outcome for RPIX inflation will be outside the shaded range.

Each forecast, the Committee must make a decision about the balance of risks. If members collectively thought that the risks were evenly spread around the mode, then the curve would be symmetrical. If the MPC believed there was a higher probability that inflation would be above the mode than below, then the area under the curve would be skewed to the right, as in Chart A. The opposite would be true if they thought outcomes below the mode were more probable.

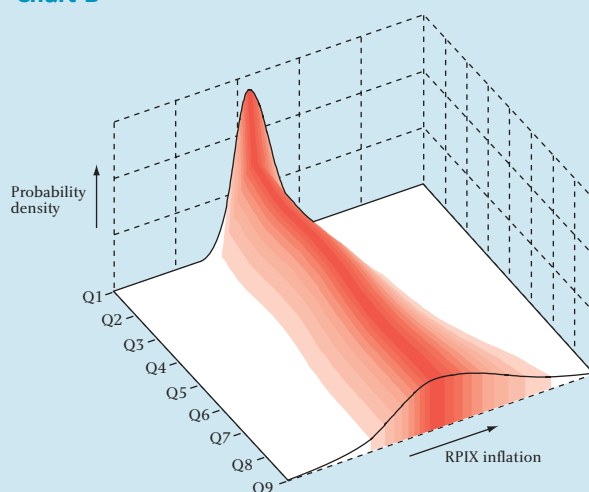
Chart A



The width of the coloured bands is an indication of how uncertain the Committee is about the prospects for inflation. The Committee uses the experience of past forecast errors to inform its judgment. But the MPC does not mechanically extrapolate those errors in order to calibrate its uncertainty for each forecast. Rather it makes a subjective assessment, based on the economic conditions prevailing at the time.

In preparing the *Inflation Report*, a probability distribution, as in Chart A, is produced for all of the nine quarters in the forecast. Putting those distributions together in three dimensions would give a probability 'hill', as in Chart B. The ridge of that hill is the mode and corresponds to the MPC's central projection. The further ahead in time, the less certain the MPC tends to be about the future, so each distribution becomes wider and flatter. Consequently the ridge of the hill declines in height through time, and the slopes on the side of the hill become less steep. The fan charts (an example is shown in Chart C), which are regularly shown in the *Inflation Report*, are two-dimensional pictures of that hill, viewed from above.

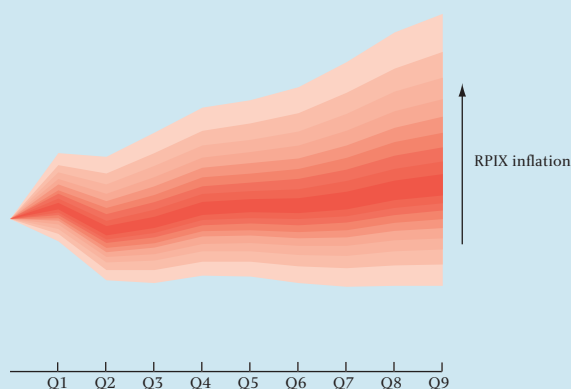
Chart B



The MPC's fan charts of inflation and GDP growth shown in this *Report* represent the best collective judgment of the Committee, conditional on a particular path for interest rates.⁽²⁾ It is sometimes said that the fan chart reflects the differences of view among Committee members. That is not the case. The fan chart encapsulates a single view, which represents the centre of gravity of opinion among Committee members about the outlook for the UK economy. Some

(1) For a more detailed and technical explanation, see 'The *Inflation Report* projections: understanding the fan chart', February 1998 *Bank of England Quarterly Bulletin*, pages 30–37.
 (2) For a description of how the MPC puts its forecast together see 'The formulation of monetary policy at the Bank of England', Winter 2001 *Bank of England Quarterly Bulletin*, pages 434–41.

Chart C



individuals may feel that the Committee's collective view is sufficiently far from their own to note those differences in the *Inflation Report*. Table 6.B in this and previous *Reports* provides illustrative calibrations of the most significant alternative judgments.

Given the lag between the change in the official interest rate and its full impact on inflation, the forecast represented by the MPC's fan chart is a key input to policy decisions. But it must be emphasised that there is no mechanical link between either the central projection or the distribution of inflation at the forecast horizon and the setting of monetary policy.⁽³⁾

(3) See the November 2000 *Inflation Report* (page 67) for a fuller discussion of the link between the forecast and monetary policy.

bargaining for higher wage growth, than in the past. If, however, there were more upward pressure on wages, then, given the difficulties of offsetting this additional pressure on corporate margins by raising prices, a greater burden of adjustment would be borne by lower employment, investment, and output.

As outlined in the February *Report*, the high levels of private sector debt in the United States and the United Kingdom are sources of vulnerability, particularly in combination with the significant external financing requirement in both countries. Although low interest rates have contained debt-servicing costs, there are downside risks to world activity and to UK output growth in the event of any change in sentiment about prospective growth in household income and corporate profits either in the United States or in the United Kingdom. A crystallisation of these downside risks would lower UK output growth and weaken the pressure of demand on supply capacity. The impact on inflation is less clear, however, as such a change in sentiment could be associated with adjustments in exchange rates, and, in particular, an increased probability of a fall in sterling which could be associated with a rise in the level of import prices. Committee members noted, however, that there is considerable uncertainty surrounding the likelihood, magnitude and timing of any such fall in sterling, and on the potential pass-through to domestic inflationary pressures. Moreover, some members noted that risks to the sterling exchange rate profile would affect their policy judgment only in the event that they were realised.

The fan charts illustrated in Charts 6.1 and 6.2 embody the Committee's best collective judgment of the overall balance of risks to output growth and inflation. Risks to the central projection for UK GDP growth are weighted slightly to the

Chart 6.4
Current projection for the percentage increase in RPIX in the year to 2004 Q2

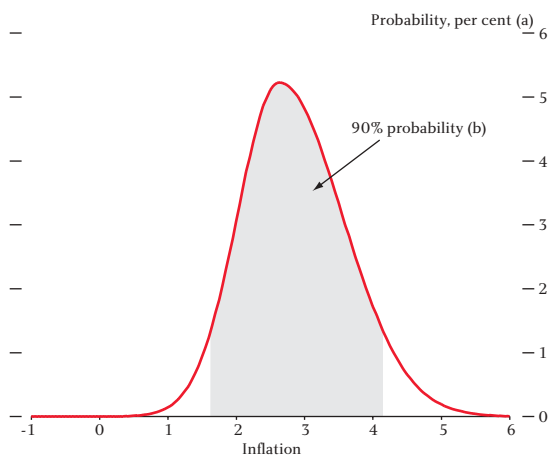
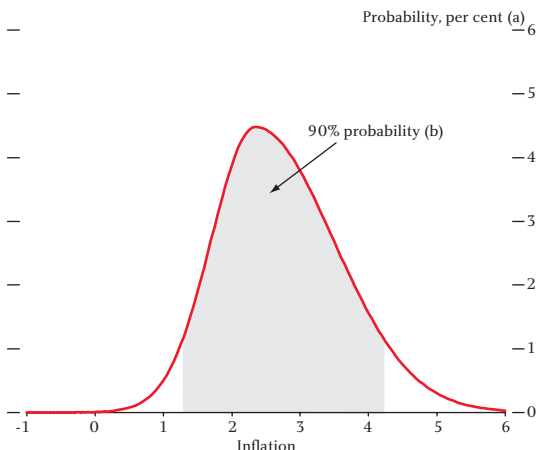


Chart 6.5
February projection for the percentage increase in RPIX in the year to 2004 Q1



Source: Bank of England.

- (a) 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%.
- (b) The areas shaded light grey contain 90% of the probability, and are consistent with the widest bands shown in Charts 6.2 and 6.3. For further details see 'The Inflation Report projections: understanding the fan chart', *Bank of England Quarterly Bulletin*, February 1998, pages 30–37, and the box on pages 48–49 of this Report.

Table 6.A
The MPC's expectations for RPIX inflation and GDP growth based on constant nominal interest rates at 4%^(a)

RPIX inflation

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	5	25	43	24	4	<1
2003 Q4	7	20	31	25	12	5
2004 Q2	2	9	21	26	21	21

GDP growth

Probability, per cent	Range:			
	Less than 1%	1% to 2%	2% to 3%	More than 3%
2002 Q4	6	31	47	16
2003 Q4	3	12	28	56
2004 Q2	5	15	29	51

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

Table 6.B
Possible effects on RPIX inflation and GDP growth of the alternative assumptions

Difference from central projection, percentage points

	Impact of world prices on UK inflation
RPIX inflation	
2003 Q2	-0.2
2004 Q2	-0.2
GDP growth	
2003 Q2	0.0
2004 Q2	0.0

downside, reflecting the prospects of weaker global demand, and of slower growth in private final demand in the United Kingdom. Although the realisation of these risks to activity would place downward pressure on prices, the overall balance of risks to the central projection for inflation is judged to be moderately on the upside, reflecting, in addition, the possibility of a sharper depreciation in sterling and, separately, of greater upward pressure on wages and prices from the increase in National Insurance contributions. The probabilities of various outcomes for inflation and growth on the best collective judgment of the Committee are shown in Table 6.A. The overall balance of risks at the two-year horizon is shown in Chart 6.4, alongside the corresponding estimate in the February Report (see Chart 6.5).

Recognising the many uncertainties, there are some differences of view among the Committee on the main assumptions incorporated in the central projection and on the balance of risks around the most likely outcome. In terms of the central projection, Table 6.B presents an illustrative calibration of the most significant difference. In particular, some members hold the opinion that the disinflationary impact of the low rate of world export price inflation on UK price-setting is underestimated. Also, some members believe that the impact of the Budget changes could be different from that assumed in the central projection. As in February, there is a narrow range of views about the central projection for inflation at the two-year horizon. Individual members judge that could be either slightly higher or up to $\frac{1}{3}$ percentage point lower than portrayed in Chart 6.2.

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

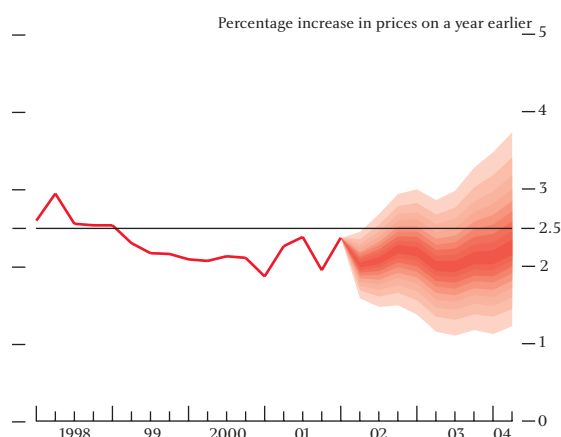


Chart 6.7
Current GDP projection based on market interest rate expectations

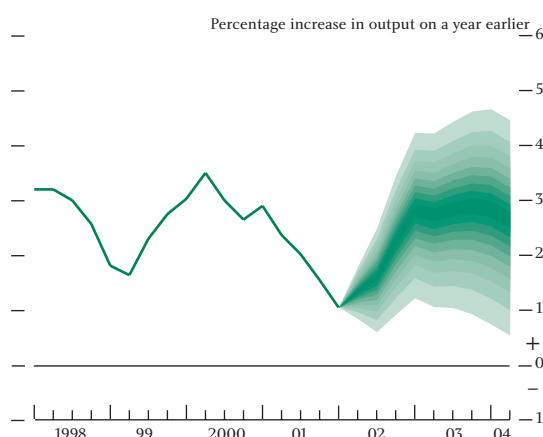


Table 6.C
Market expectations of the Bank's official interest rate^(a)

Per cent

2002			2003				2004	
Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
4.1	4.3	4.7	4.9	5.1	5.3	5.4	5.5	5.5

(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 8 May 2002.

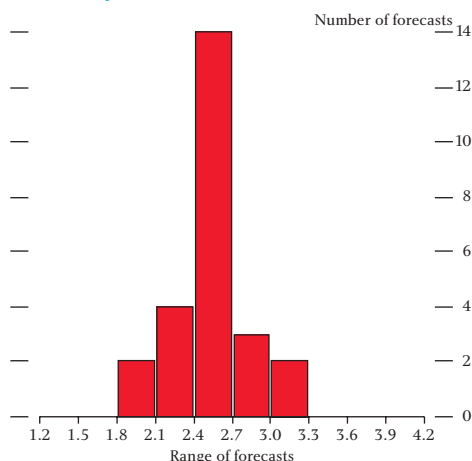
The Committee reviewed the latest economic news and the current projections at its policy meeting on 8–9 May. The most likely outcome, based on the assumption that interest rates were maintained at 4%, was that output growth would recover relatively quickly from current low rates, and that a period of above-trend growth would gradually soak up underutilised capacity and subsequently add to inflationary pressures. That would cause RPIX inflation to move up from slightly below target rates to slightly above target by the two-year horizon. Given, however, that the recovery in activity both internationally and in the United Kingdom was not yet well-established, and that inflationary pressures currently remain benign, the Committee voted to maintain interest rates at 4%.

The likely path of future official interest rates implied by market expectations is a little higher in the second year of the projection than in early February. Based on financial market prices in the 15 working days up to and including 8 May, and the same approach as in previous *Reports*, forward interest rates increase in the second half of this year, and gradually rise thereafter to perhaps around 5½% in two years' time (see Table 6.C). The Committee's latest projections based on this interest rate path are presented in Charts 6.6 and 6.7, and show a lower profile for output growth and inflation than in the constant interest rate projections. As noted in the previous *Report*, and in [Section 1](#), there is, however, a possibility that forward rates exaggerate the levels actually expected for future interest rates somewhat, because of the existence of additional risk premia.

6.3 Other forecasts

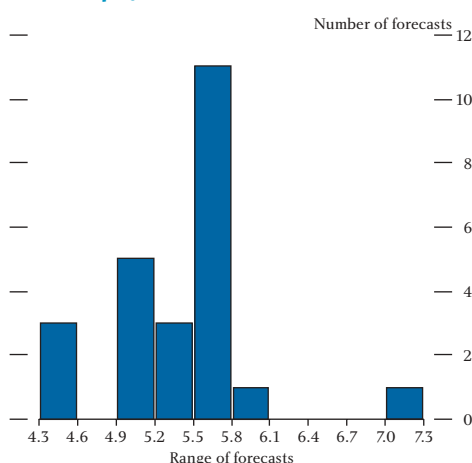
In April, the Bank asked a sample of external forecasters for their latest projections of inflation and output. Based on this

Chart 6.8
Distribution of RPIX inflation forecasts for 2004 Q2



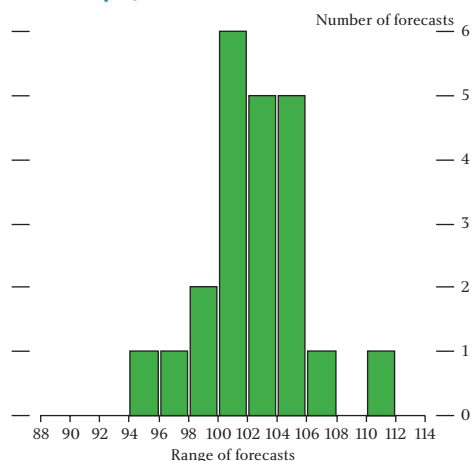
Source: Forecasts of 25 outside forecasters as of 26 April 2002.

Chart 6.9
Distribution of repo rate forecasts for 2004 Q2



Source: Forecasts of 24 outside forecasters as of 26 April 2002.

Chart 6.10
Distribution of sterling ERI forecasts for 2004 Q2



Source: Forecasts of 22 outside forecasters as of 26 April 2002.

survey, the average forecast for the twelve-month rate of RPIX inflation in 2002 Q4 was 2.4% (with a range of 1.8% to 3.0%) rising to 2.5% in 2004 Q2 (with a range of 1.8% to 3.1%). The distribution of central projections in 2004 Q2 is shown in Chart 6.8. Compared with the survey results in the February Report, the average forecast for inflation at the two-year horizon is now slightly higher, with the dispersion of forecasts more symmetrically distributed. On average, external forecasters see a 51% probability of inflation being below 2.5% in 2004 Q2, and a 49% probability of it being above (see Table 6.D).

The forecasters' average projection for four-quarter GDP growth in 2002 Q4 is 2¹/₂% (with a range of 1¹/₂% to 3¹/₄%), little changed from the average forecast reported in February. The average projection for growth in 2004 Q2 is also 2¹/₂% (with a range of 2% to 3¹/₂%).

The average forecast for the official interest rate is 4³/₄% in 2002 Q4 (with a range of 4¹/₄% to 5¹/₂%), rising to 5¹/₄% by 2004 Q2 (with a range of 4¹/₂% to 7¹/₄%). This is close to the average February forecast for 2002 Q4, but 25 basis points lower at the two-year horizon (see Chart 6.9). On average, forecasters assume that the sterling ERI will be 104¹/₂ in 2002 Q4 (with a range of 98 to 109) and will then fall to 102¹/₄ in 2004 Q2 (with a range of 95³/₄ to 110¹/₄) (see Chart 6.10).

Table 6.D
Other forecasters' expectations of RPIX inflation and GDP growth

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%
	1.5%	2.0%	2.5%	3.0%	3.5%	3.5%
2002 Q4	5	18	37	28	9	2
2003 Q4	4	15	33	29	13	6
2004 Q2 (b)	5	15	31	29	14	6

Probability, per cent	Range:			
	Less than 1%	1% to 2%	2% to 3%	More than 3%
	1%	2%	3%	3%
2002 Q4	10	25	45	20
2003 Q4	9	19	45	27
2004 Q2 (d)	11	22	42	25

(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 5% to inflation turning out to be less than 1.5% in 2004 Q2.

(b) 25 forecasters.
(c) 26 forecasters.
(d) 24 forecasters.

Bank of England

Agents' summary of business conditions

May 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-January and mid-April. 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.

- Prices of agricultural livestock began to recover following the end of movement restrictions related to foot-and-mouth disease.
- The picture for manufacturing was more positive than in the previous *Agents' Summary*. Orders and output in a variety of sectors began to recover during the period. However, contacts in aerospace, printing and telecommunications continued to report depressed demand.
- Construction activity remained at high levels, boosted by public sector projects and continued strong demand for housing.
- Growth in business services recovered further from its post-11 September slowdown. Although companies continued to economise on advertising and travel, increased outsourcing of non-core activities was reported. Contacts in consumer services generally reported strong growth.
- Consumer spending remained robust, buoyed by strong unsecured borrowing and mortgage equity withdrawal. Bookings for overseas holidays continued to recover from the slowdown at the end of last year.
- The movement of production overseas continued, resulting in higher volumes of imports of goods and components that used to be manufactured in the United Kingdom. Export markets were mixed; although the United States appeared stronger, Germany was weaker than in the previous *Agents' Summary*.
- There were few reports of investment in extra manufacturing capacity within the United Kingdom; capital spending was more commonly aimed at increasing efficiency or at complying with new legislative requirements. Investment in retail expansion and refurbishment continued at high levels.
- Although prices of raw materials were generally reported to be flat, increases in indirect costs, such as pension provision, tax, regulatory compliance and insurance, put upward pressure on unit costs. Manufacturers' output prices were broadly stable, while buoyant consumer demand resulted in less price discounting than usual by retailers around Easter. Business services prices increased modestly, with some recovery in advertising rates.
- The labour market continued to be characterised by redundancies in manufacturing, alongside growth in the service sector overall. Labour hoarding continued due to fears of future recruitment difficulties. Overall, pay pressures remained subdued. The trend away from across-the-board settlements continued, as companies gradually switched their focus to awarding sufficient pay rises to retain employees with key skills.

(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

A modest rebuilding of confidence among agricultural contacts was reported following the end of foot-and-mouth disease. The resumption of livestock markets and ending of restrictions on exports of lamb resulted in farmers obtaining higher prices. However, high levels of milk production, and the expectation of a good arable harvest, put downward price pressure on dairy products and wheat.

Output of quarry aggregates increased in the first two months to satisfy orders for construction materials ahead of the introduction of the aggregates tax in April. Some contacts in coal and minerals mining reported reduced demand, caused by shrinkage of the UK manufacturing base, and increased competition from imports.

Manufacturing

On balance, confidence among manufacturing contacts began to recover. This was largely due to a small pick-up in orders and enquiries from domestic and US customers. However, this was not universal, and some Agencies reported a deteriorating picture, with further factory closures as the shift of production to lower-cost economies accelerated. There was little sign of any upturn in printing, telecommunications and aerospace during the period. In the latter case, contacts suggested that output was unlikely to recover to 2001 levels until 2004.

Output of consumer and construction products for the domestic market remained relatively strong. Manufacturers of food and pharmaceuticals generally reported steady growth in output and orders. By the end of the period, there were clear signs of a pick-up in the automotive sector due to the successful introduction of new models, particularly at the luxury end of the market. Manufacturers also benefited from increased spending on security, defence and health equipment, both in the United States and domestically. Producers of intermediate goods, such as packaging, specialist engineering, speciality steels and electric components used in consumer goods, also reported a recent upturn.

Construction and housing

Commercial construction activity appeared to have flattened out at a high level. Retail and warehouse development continued to be in strong demand, but contacts reported more hesitancy about speculative development of office and industrial space. The main driver of construction output continued to be the

Government's *Private Finance Initiative* and public sector projects for the building and refurbishment of roads, railways, schools, prisons and hospitals.

Agencies reported that the volume of housebuilding was significantly below demand for new housing units, with development constrained by planning permission delays and shortages of skilled construction labour. Activity in the secondary housing market continued to be strong in most areas, with buy-to-let demand increasing.

Services

Growth in business services output recovered further from its post-11 September slowdown. Business travel began to pick up, although some hotels maintained occupancy rates by discounting, and companies made more use of economy airlines. Transatlantic passenger numbers remained lower than a year earlier, but the annual rate of decline slowed during the period. Advertising expenditure, other than by the public sector, remained depressed. Ongoing outsourcing by companies and local authorities of non-core activities, such as data management, payroll, recruitment and debt collection, also continued to underpin private service sector growth.

Growth in consumer services turnover generally strengthened during the period. The main areas of weakness were services related to inbound tourism and sales of equity-based investment products.

DEMAND

Consumption

Consumer spending continued to grow strongly throughout the period, underpinned by higher mortgage equity withdrawal and unsecured borrowing. Spending on entertainment, eating out and in pubs showed little sign of easing. Agencies reported that overseas holiday bookings recovered strongly in 2002, following the downturn in bookings following 11 September. Easter bookings for short breaks, both domestically in city and rural locations, and overseas, were also stronger than average.

Robust growth in retail sales volumes continued, although growth in sales of 'big ticket' items, such as furniture, carpets and domestic appliances, slowed in some areas. In most regions, however, spending was sufficiently strong that retailers' Easter promotions comprised only small price reductions on a relatively narrow range of goods.

Growth in car sales generally exceeded contacts' expectations. A slower rate of annual growth in car sales had been expected due to the strength of sales a year earlier. Sales of prestige car brands were growing most strongly. The market for used cars weakened slightly as demand appeared to be deflected into the new car market, possibly by the availability of 0% finance deals.

Exports and imports

The picture on exports was slightly more positive than in the previous *Agents' Summary*. The US market appeared to be at the start of a recovery, with firmer demand for luxury consumer products and healthcare goods. Contacts frequently reported increasing levels of enquiries from US customers, but a reluctance to commit to orders. China and Russia were commonly reported to be expanding markets, for capital and consumer goods. Solid demand was also reported in the Middle East, Far East and Australasia. Meanwhile, the German market declined further, particularly for capital goods. Other previously strong markets for exports, such as the Republic of Ireland, also weakened towards the end of the period. The weakness of the euro continued to make it difficult for UK exporters to compete on price, but contacts reported strengthening demand for their products in southern Europe, notably Spain and Italy.

Contacts suggested that migration of production to lower-cost countries was increasing, and those companies still manufacturing in the United Kingdom were seeking to cut costs through increased overseas sourcing of parts. This resulted in higher imports of components and manufactured goods. Import penetration also continued to increase, as some Asian exporters targeted the UK market owing to the downturn in demand for their products from the United States.

Investment

Group-wide investment freezes, especially by US-owned companies, continued to constrain UK subsidiaries. Where freezes were not in place, investment in increased manufacturing capacity was mostly offshore in lower-cost locations, such as China and eastern Europe. Investment in UK plants was largely confined to improving efficiency or to comply with legislative requirements. However, the availability of second-hand machinery at liquidation sales prompted some capital spending by manufacturers.

Investment by retailers in expansion, refurbishment and distribution centres continued to grow. Capital spending on car showrooms and theme parks also strengthened, in

line with increasing revenues. Conversely, some hotel refurbishment or expansion plans remained on hold due to financial pressures following weak trade in 2001.

COSTS AND PRICES

Input prices

By the end of the period, prices of raw materials were probably no longer falling overall, and were approximately flat year-on-year. For some contacts, discounts gained through changing supplier were sufficient to offset any price increases for materials and components. Additionally, the sharp decline in demand from the United States led some UK importers to be offered lower prices by Asian exporters. Although the price of oil rose during the period, this had not yet fed through to prices for plastics, polymers or fertilisers. It was, however, incorporated in higher air-freight charges. The aggregates tax, which was introduced in April, reportedly added more than 20% to the cost of some construction materials.

Rising costs of non-material inputs continued to be a key concern for contacts. Insurance premia rose sharply year-on-year and were combined with higher policy excesses and more exclusions. Other areas of significant cost increase were pensions funding, business rates, security, waste disposal and compliance with new regulations.

Output prices

The trend in manufacturing prices remained downwards, though Agencies reported that some manufacturers were trying to resist continuing price cuts because individual order volumes were lower. However, intense competition from imports continued to put downward pressure on output prices other than for niche or new technology products.

Printing prices weakened due to excess capacity and increased competition from Europe. Business services prices increased modestly over the period, although contacts reported client resistance to increased charges, for example for routine accountancy work. There was some recovery in advertising rates and hotel prices since the previous *Agents' Summary*, but prices remained lower than a year earlier.

Retail prices

Retail goods prices were broadly stable. There was less price discounting than usual around Easter as demand

was already buoyant. Seasonal food price inflation, which had been in double digits, eased during the period. New car prices were stable to falling, compared with a year earlier, while used car prices continued to weaken.

Strong consumer demand allowed increasing labour costs to be passed on to retail services prices. Prices for car servicing, entertainment, hairdressing, and restaurant and pub prices increased quite sharply in the first part of 2002. Prices of short-haul holidays increased significantly year-on-year, reflecting higher security costs and reduced capacity. Domestic air fares, in contrast, fell due to the strength of competition. Household and motor insurance premia reportedly increased by around three times the rate of annual RPIX inflation.

Pay

Pay pressure in manufacturing remained muted throughout the period. Settlements in parts of the service sector were several percentage points higher than those in manufacturing, but generally settlements were lower than last year. Agencies reported further cases of pay freezes and deferred pay reviews in both manufacturing and service sector companies. Pay cuts were also agreed by some manufacturing contacts' workforces to avoid redundancies.

As noted in the previous *Agents' Summary*, across-the-board settlements continued to become less common, with individual awards dictated by the need to retain key staff. Equally, some contacts had to skew pay rises towards those at the lower end of the scale, due to the increase in the National Minimum Wage in October 2001. Bonuses and overtime payments were generally

lower than in the equivalent period last year. Upward pressure on pay continued in areas of skill shortage, for example for drivers and craftsmen in the construction industry. Additionally, some contacts reported that union negotiators used public sector pay increases as a starting point for claims in the private sector.

EMPLOYMENT

Redundancies in manufacturing continued. This was the result both of the growing trend to relocate production abroad, and the structural shift to greater automation in response to intensifying pressure on margins. Despite large-scale redundancies, unemployment did not increase significantly in most areas, as employees quickly found other jobs, started training courses or took retirement. Towards the end of the period, the rate of job losses began to slow, and voluntary labour turnover remained at relatively low levels. There was some growth in service sector employment overall, but Agencies reported job cuts in financial services, travel-related services and advertising. Numbers of vacancies advertised in local newspapers fell quite sharply during the period.

General labour shortages continued in particular localities, and the use of labour from overseas increased in catering, agriculture, hospitals and hotels. Labour hoarding continued to be evident due to the fear of recruitment difficulties in the event of an upturn. Shortages continued to be reported across the country for heavy goods vehicle drivers, and craft and technical skills in manufacturing and construction were also in short supply. However, Agents reported that skill shortages declined in information technology and in some professional sectors.

Text of Bank of England press notice of 7 March 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 20 March.

Text of Bank of England press notice of 4 April 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 April.

Text of Bank of England press notice of 9 May 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 15 May.

The minutes of the meeting will be published at 9.30 am on Wednesday 22 May.

Glossary and other information

Glossary of selected data

AEI: Average Earnings Index.

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.

ERI: exchange rate index.

GDP: gross domestic product.

HICP: harmonised index of consumer prices.

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 monetary financial institutions (MFIs) to all UK residents other than the public sector and MFIs. M4 lending includes loans and advances as well as investments, acceptances and reverse repo transactions.

PMI: purchasing managers' index.

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.

CCL: Climate Change Levy.

CIPS: Chartered Institute of Purchasing and Supply.

CML: Council of Mortgage Lenders.

DHL: DHL International (UK) Ltd.

DTI: Department of Trade and Industry.

DTLR: Department of Transport, Local Government and the Regions.

EEF: Engineering Employers' Federation.

FTSE: Financial Times Stock Exchange.

G7: the 'Group of Seven' countries (Canada, France, Germany, Italy, Japan, the United Kingdom and the United States).

GfK: Gesellschaft für Konsum, Great Britain Ltd.

IBES: Institutional Brokers' Estimate System.

ICT: information and communications technology.

IDS: Incomes Data Services.

IMF: International Monetary Fund.

IRS: Industrial Relations Services.

ISM: Institute for Supply Management.

LFS: Labour Force Survey.

MEW: mortgage equity withdrawal.

MPC: Monetary Policy Committee.

NYMEX: New York Mercantile Exchange.

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.

SITC: Standard International Trade Classification.

SMMT: Society of Motor Manufacturers and Traders.

TTWA: Travel To Work Area.

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.