

Inflation Report

November 2006



BANK OF ENGLAND





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In order to maintain price stability, the Government has set the Bank's Monetary Policy Committee (MPC) a target for the annual inflation rate of the Consumer Prices Index of 2%. Subject to that, the MPC is also required to support the Government's objective of maintaining high and stable growth and employment.

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 judgement 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 website at www.bankofengland.co.uk/publications/inflationreport/infrep.htm.

The entire *Report* is available in PDF at

www.bankofengland.co.uk/publications/inflationreport/2006.htm.

PowerPoint™ versions of the charts in this *Report* and the data underlying most of the charts are provided at

www.bankofengland.co.uk/publications/inflationreport/2006.htm.

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Overview

For the fourth consecutive quarter, UK output grew at close to its average quarterly rate over the past decade. Short-term market interest rates rose and sterling appreciated. Household spending has been volatile, but the underlying picture appears to be one of moderate expansion. The recovery in business investment was maintained. There has been some rebalancing in the composition of global growth towards the United Kingdom's key export markets. In the Committee's central projection, assuming that Bank Rate follows a path implied by market yields, the recent steady growth in GDP is broadly maintained.

The margin of spare capacity within businesses appears limited, but unemployment continued to edge up. Oil and gas prices fell back. Regular pay growth remained muted. CPI inflation edged down to 2.4% in September. In the central projection, inflation picks up in the near term and then falls back, settling around the 2% target over the medium term. The risks to growth and inflation are broadly balanced.

Financial markets

UK short-term interest rates rose following the MPC's August increase in Bank Rate. Short-term interest rates also firmed in the euro area, but declined in the United States, reflecting heightened expectations of slower growth there. Long-term interest rates continued to fall back, here and abroad. The effective exchange rate for sterling appreciated, in part reflecting those differential movements in market interest rates. And equity prices rebounded after their falls early in the summer.

Over the past year or two, there has been a sharp rise in the growth rate of broad money. Non-bank financial companies account for much of that increase, some of which may reflect structural changes. However, there is a risk that those additional money balances may eventually be used to purchase financial or real assets, prompting further asset price appreciation and boosting demand and inflation.

Domestic demand

Consumers' expenditure growth rebounded strongly in Q2 after a weak start to the year. But taking the first half of 2006 as a whole, spending growth was broadly in line with its long-run average rate. Indicators of retail sales point to some easing in growth between the second and third quarters. The

housing market remained buoyant and secured lending picked up. Looking ahead, household spending is expected to continue to grow at its historical average rate, reflecting the stable outlook for real household income growth.

Nominal government consumption continued to grow rapidly. The public sector is expected to make a gradually declining contribution to demand growth over the forecast period.

Business investment growth was above its long-run average in the first half of the year. Most measures of investment intentions have strengthened and the corporate financial position appears relatively healthy. Business investment is expected to continue to expand briskly, underpinned by firm demand growth and a high rate of return.

Foreign trade

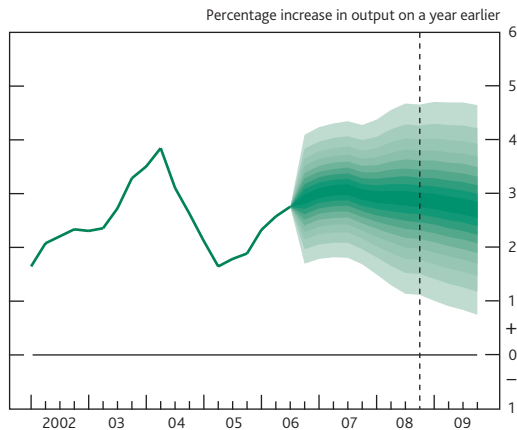
The world economy continued to expand at a rapid pace, with some re-orientation in the pattern of growth towards the United Kingdom's main export markets. In the euro area, GDP grew robustly in the second quarter. Business surveys point to continued firm output growth through the second half of this year, though the planned German VAT increase in early 2007 may lead to a temporary dip. The US economy slowed further in the third quarter, partly on the back of a weaker housing market and a sharp fall in residential investment. Japanese growth eased in Q2, though underlying conditions remain firm. And the rest of Asia continued to grow apace. Over the forecast period, the Committee anticipates a modest slowing in world output growth from the rapid rates of recent years.

Net trade is estimated to have boosted UK GDP growth in the second quarter, reflecting a sharp fall in import growth. But uncertainties over the extent of VAT fraud continue to cloud the true picture regarding foreign trade. Business surveys and reports from the Bank's regional Agents suggest that the underlying demand for exports is firm. Notwithstanding the appreciation of sterling since the spring, net trade is expected to provide a modest boost to output growth over the forecast period.

The outlook for GDP growth

According to the ONS's provisional estimate, GDP increased by 0.7% in Q3, the same as in the preceding three quarters and close to its average rate over the past decade. Output growth in the service sector eased a touch, but remained buoyant. And manufacturing posted a third consecutive quarter of healthy growth. In the energy sector, a rise in utilities output partially offset a decline in the output of the extraction industries. On the whole, business surveys point to further solid growth in total output in the final quarter.

Chart 1 Current GDP projection based on market interest rate expectations



The fan chart depicts the probability of various outcomes for GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that GDP growth over the subsequent three years would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outcomes of GDP growth are also expected to lie within each pair of the lighter green areas on 10 occasions. Consequently, GDP growth is expected to lie somewhere within the entire fan chart on 90 out of 100 occasions. The bands widen as the time horizon is extended, indicating the increasing uncertainty about outcomes. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed line is drawn at the two-year point.

Under the assumption that Bank Rate follows a path implied by market yields, the MPC's central projection — shown in **Chart 1** — is for four-quarter GDP growth to remain close to its average rate over the past decade, edging down towards the end of the forecast period as government spending slows. The profile is slightly stronger than that contained in the August *Report*.

Costs and prices

The margin of spare capacity within firms appears limited. Business surveys and reports from the Bank's regional Agents suggest that capacity utilisation is above its historical norm. Moreover, the recovery in labour productivity since the middle of 2005 suggests that labour hoarding has declined. By contrast, unemployment continued to edge up, as substantial net inward migration and higher labour force participation boosted labour supply. On balance, the Committee judges that there is relatively little spare capacity in the economy as a whole.

Spot oil prices have declined substantially since the August *Report*, returning to levels seen a year ago. That fall reflected both supply developments and higher stock levels. Lower oil prices, together with increased pipeline capacity, were also associated with a decline in UK wholesale gas prices. Non-oil commodity prices continued to rise.

Imported goods price inflation eased. The recent appreciation of sterling and the fall in energy prices are likely to depress import price inflation further over the next year or so.

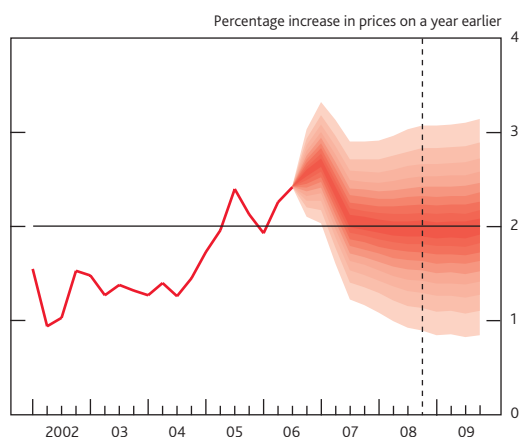
Regular pay growth has remained muted over the past year. That may reflect the rise in unemployment, but could also be a sign that employers have responded to pension deficits and higher energy costs by awarding lower pay increases. The recent pickup in RPI inflation — often cited in wage negotiations — may, however, lead to greater upward pressure on settlements in the coming pay round. And businesses may seek to exploit the opportunity afforded by strong demand conditions and lower energy costs to rebuild profit margins.

CPI inflation eased to 2.4% in September, with lower petrol prices outweighing higher prices for a variety of goods and services. Inflation is likely to rise further above the target in the coming months, reflecting the interplay of movements in petrol price inflation, higher university tuition fees and pre-announced rises in utility prices.

The outlook for inflation

Chart 2 shows the Committee's best collective judgement of the outlook for CPI inflation, assuming that Bank Rate follows market yields. Under the central projection, inflation rises in

Chart 2 Current CPI inflation projection based on market interest rate expectations



The fan chart depicts the probability of various outcomes for CPI inflation in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation over the subsequent three years would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outcomes of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. Consequently, inflation is expected to lie somewhere within the entire fan chart on 90 out of 100 occasions. The bands widen as the time horizon is extended, indicating the increasing uncertainty about outcomes. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed line is drawn at the two-year point.

the near term and then falls back, settling around the target over the medium term. Moderating energy and import price inflation are partially offset by slightly higher pay growth and some rebuilding of corporate profit margins. Inflation returns to target a little more rapidly than in the *August Report*.

As usual, there are substantial uncertainties surrounding these projections, especially on the supply side. These include: the implications of rapid growth in money and credit; the momentum in consumption and investment spending; the prospects for world activity; the degree of slack within the economy; and the outlook for wages and prices in the light of movements in energy and import prices. Overall, the risks to growth and inflation are judged to be broadly balanced, though, as in August, there is greater-than-usual uncertainty over the outlook for inflation.

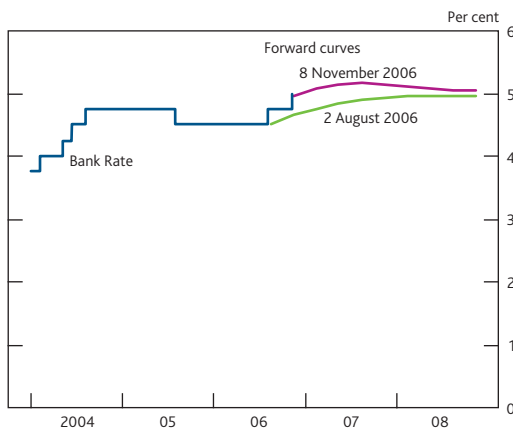
The policy decision

At its November meeting, the Committee noted that, under the assumption that Bank Rate follows market yields, the central projection was for output to continue growing steadily and for inflation to move higher in the near term and then fall back to settle around the target. Given that outlook, and bearing in mind the balance of risks, the Committee judged that an increase of 0.25 percentage points in Bank Rate to 5% was necessary to bring CPI inflation back to the target in the medium term.

1 Money and asset prices

The MPC increased Bank Rate by 0.25 percentage points to 5% on 9 November. During the past three months, UK short-term market interest rates rose, but long-term rates fell at home and around the world. Equity prices in most countries rebounded strongly from their falls in May and June. The sterling ERI appreciated, moving towards the top of the relatively narrow range that it has occupied over much of the past decade. Money and credit growth was strong, with secured lending growth picking up on the back of a buoyant housing market. Unsecured lending growth, however, continued to slow.

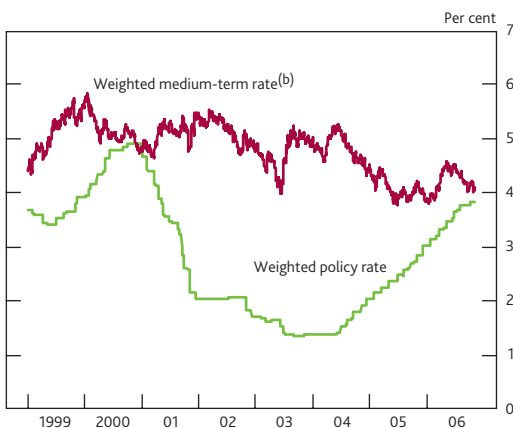
Chart 1.1 Bank Rate and one-day forward curves^(a)



Sources: Bank of England and Bloomberg.

(a) Forward rates are derived from instruments that settle on the London interbank offered rate. That includes market rates on short sterling futures, swaps, interbank loans and forward rate agreements. The forward curves shown in the chart are fifteen-day averages of one-day forward rates. The curves have been adjusted for credit risk.

Chart 1.2 G7 nominal interest rates^(a)



Sources: Bank of Canada, Bank of England, Bank of Japan, Bloomberg, Board of Governors of the Federal Reserve System, ECB and IMF.

(a) Weighted averages of rates in Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. Weights are based on nominal GDP in 2005 using market exchange rates.
(b) Implied five-year rates five years forward.

1.1 Asset prices

Short-term interest rates

The MPC increased Bank Rate by 0.25 percentage points to 5% on 9 November. A summary of the reasons for the Committee's policy decisions in September and October is provided in the box on page 10.

Short-term forward rates provide a guide to market expectations about the future path of Bank Rate. In early November, short-term market rates were higher than three months earlier (**Chart 1.1**), peaking in the second half of 2007 before easing back slightly in 2008. A survey of economists' interest rate expectations by Reuters ahead of the November MPC meeting showed a similar profile.

Elsewhere, the ECB raised its official rate by 0.5 percentage points, to 3.25%, but the FOMC and the Bank of Japan left their official rates unchanged over the past three months. In early November, market participants believed that US official rates had peaked, but further increases in euro-area and Japanese rates were expected over the next two years. The expected future paths of US and Japanese interest rates were slightly lower than in early August, whereas euro-area forward rates had risen.

This year has seen a widespread reduction in monetary accommodation around the world, with 16 of the 19 OECD central banks increasing official rates since May. Rates across the G7 economies have risen to close to the levels that market participants expect to prevail in the medium term (**Chart 1.2**). The largest increases in recent years have been in the United States, where official rates have risen by 4.25 percentage points since mid-2004.

Monetary policy since the August Report

The MPC's central projection in the *August Report*, under the assumption that Bank Rate followed a path implied by market yields, was for output to continue to grow at a rate close to its average over the past decade. CPI inflation was projected to rise in the near term, before easing back towards the 2% target.

By the time of the Committee's meeting on 6–7 September, market expectations of interest rates had moved slightly higher, and a further increase in Bank Rate before the end of 2006 had been priced in. The sterling ERI had also increased. But nominal long rates had fallen, despite a further drift upwards in breakeven inflation rates.

Official estimates of output, income and expenditure in Q2 were very close to the projections incorporated in the *August Report*, while the sparse indicators for Q3 suggested GDP growth at, or slightly above, trend. Data for the international economy also appeared to be broadly in line with the *August Report*. Looking forward, CPI inflation was still likely to rise over the remainder of the year, given information about the likely contributions from food, utility prices and university tuition fees. The Committee remained concerned about the possibility that higher short-term inflation expectations might affect wage settlements during the next pay round.

A majority of Committee members judged that the data had been supportive of the decision they had taken in August to reduce the degree of monetary accommodation. But they concluded that the news since then had not been sufficient to warrant a change in Bank Rate at the September meeting. For one member, the decision to vote for no change in August had been a very close call, but the signal to wage and price-setters in advance of the next pay round was sufficiently important that it would be unwise to vote for reducing rates.

Given these considerations, the Committee voted unanimously to maintain Bank Rate at 4.75%.

At the MPC meeting on 4–5 October 2006, the Committee concluded that there had not been a great deal of news on the

month. Near-term market interest rate expectations had risen slightly, and the sterling exchange rate had moved higher than envisaged at the time of the *August Report*. There had been modest upside news on private sector output, and output growth in Q3 still seemed likely to be firm. The data in the United States suggested continued downside risks to activity, but the euro area seemed to be growing at least as strongly as expected.

Energy prices had moved sharply lower. Although the near-term outlook for inflation appeared a little weaker as a result, the inflation rate was set to remain volatile over the next few months. In setting monetary policy, it was important to look through such short-term movements to the medium term.

For some members, the evidence was sufficient to warrant a 25 basis point rise in Bank Rate. A rise was consistent with the August central projection and might reduce the possibility of needing to make a larger increase later on. Since August, there had been signs that above-trend growth had continued. And evidence from business surveys and the Bank's regional Agents suggested that firms appeared more able to increase prices than in the past.

While other members placed considerable weight on these arguments, their view was that there was no pressing need to raise rates at the October meeting. They thought that an immediate rise in Bank Rate might encourage a further increase in market interest rate expectations, providing an additional degree of tightening that was not required at that juncture. The central projections in the *August Report* seemed broadly intact, but it would be helpful to process the news in the context of the November forecast round, particularly the fall in energy prices and the rise in sterling.

Seven Committee members voted to maintain Bank Rate at 4.75%. Two members preferred an increase in Bank Rate of 25 basis points.

At its meeting on 8–9 November, the Committee voted to raise the official Bank Rate paid on commercial bank reserves by 0.25 percentage points to 5%.

Long-term interest rates

Long-term nominal forward interest rates around the world declined over the past three months, partly reversing the widespread increases seen earlier in the year. The recent falls were primarily accounted for by lower real rates.

Previous *Reports* have suggested a number of potential reasons for the decline in long-term real interest rates in recent years, such as greater risk appetite and stronger demand for

Chart 1.3 Cumulative changes in international equity prices since 4 January 2006^(a)



Source: Thomson Financial Datastream.

(a) In local currency terms.

long-dated government bonds by pension funds. Some of these factors could have reasserted themselves after a temporary unwinding earlier in the year. The recent falls in global long rates also coincided with heightened concerns about US economic prospects.

Equity prices

In the United Kingdom, the FTSE All-Share index averaged 3162 in the fifteen working days to 8 November. That was 7.1% higher than the starting point for the *August Report*. Equity prices around the world have generally risen strongly, reversing the falls in May and June (**Chart 1.3**). Indeed, indices in many countries are now close to their previous peaks in 2000. Over the past three months, equity prices in most major countries increased by more than in the United Kingdom. In part, that reflects the greater relative importance in the UK index of energy extraction companies, whose share prices fell as oil prices declined in August and September.

Increased concerns about a slowdown in US activity might have been expected to depress global equity prices, and particularly those in the United States, by lowering expected profits. However, market participants may have believed that other factors would offset this impact. Lower short-term US market interest rates could limit the severity of any slowdown in growth. And the recent fall in oil prices is likely to have played a role, to the extent that it lowered companies' costs and boosted households' real incomes. The decline in longer-term interest rates will also have increased the value that investors place today on expected future dividend payments.

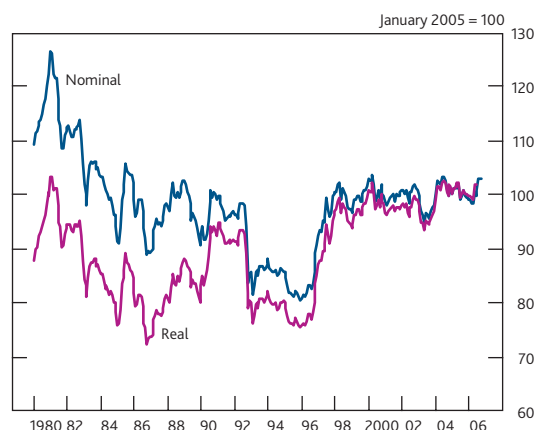
Exchange rates

In the fifteen working days to 8 November, the sterling effective exchange rate index (ERI) averaged 103.5. That was 2.3% higher than the starting point for the *August Report*. Sterling appreciated immediately following the MPC's decision to raise Bank Rate in August. Since then, the ERI has fluctuated, but remained above its level in early August.

Part of the appreciation of sterling since early August reflected the rise in UK market interest rates relative to those in other countries, which made holding sterling assets more attractive. Such exchange rate movements are part of the transmission mechanism of monetary policy.

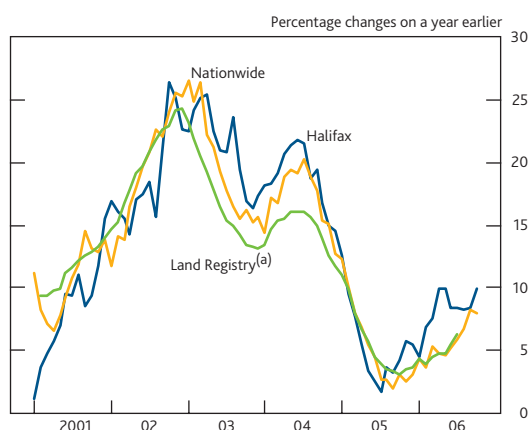
Sizable movements in the sterling ERI have not been unusual in recent years, but they have tended to be transitory. As a result, both nominal and real sterling effective exchange rates have been fairly stable since 1998, particularly compared with the substantial shifts seen during much of the previous 20 years (**Chart 1.4**). The appreciation of around 6% since early April has taken the nominal ERI towards the top of the range it has occupied over much of the past decade.

Chart 1.4 Sterling effective exchange rates^(a)



Sources: Bank of England and IMF.

(a) Monthly averages of sterling effective exchange rate indices. The real effective index is based on relative consumer prices.

Chart 1.5 House prices

Sources: Halifax, Land Registry (© Crown copyright 2006 HMLR) and Nationwide.

(a) Lagged by two months to reflect the fact that the index is based on completions whereas the lenders' indices are based on mortgage approvals.

The housing market

The Halifax and Nationwide indices suggest that annual house price inflation increased over the past three months, continuing the general pickup since mid-2005 (**Chart 1.5**). A new index from the Land Registry shows a similar pattern for house price inflation in recent years. The RICS survey measure of expected price changes over the next three months also continued to rise.

Indicators of recent housing market activity have generally been buoyant as well. Loan approvals for house purchase rose to their highest level for over two years in 2006 Q3. And the RICS measure of new buyer enquiries remained firm. However, the HBF measure of site visits for new homes declined.

1.2 Money, credit and balance sheets

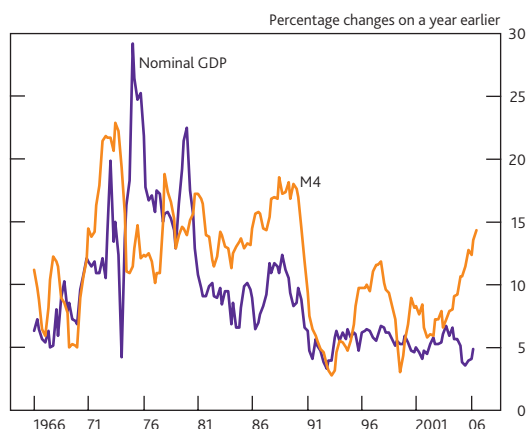
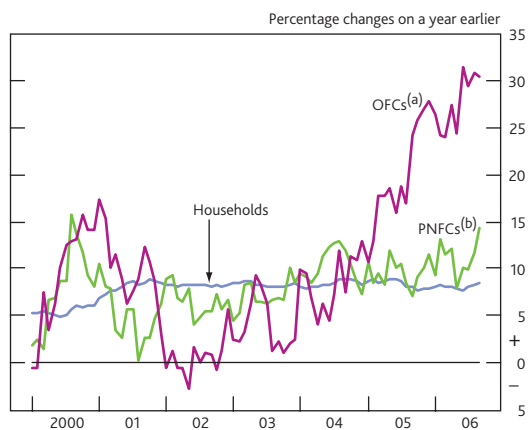
Monetary aggregates

Notes and coin are held predominantly by households and retailers, so the quantity in circulation can be a timely guide to developments in retail spending. Notes and coin rose by 5.5% in the year to October, consistent with continued solid growth in spending.

Growth in M4, a broader measure of money which also includes bank and building society deposits, has picked up sharply over the past year or so, to 14.5% in the year to September. On average, over time and across countries, persistently high rates of money growth are associated with high nominal demand growth and inflation. In recent quarters, broad money has grown at higher rates, relative to nominal demand, than at any time since 1990 (**Chart 1.6**). That poses a potential upside risk to inflation.

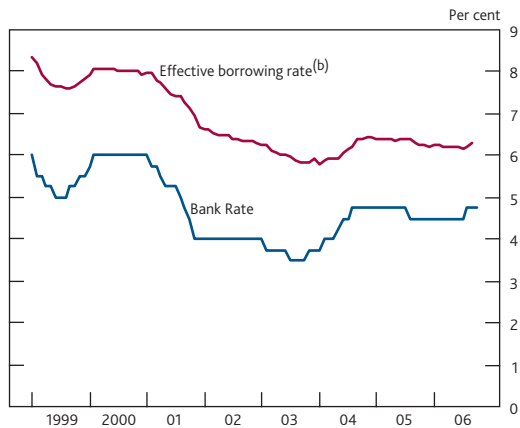
But growth in money and nominal demand can sometimes diverge without having such strong implications for inflation. In particular, money holdings can be affected by changes in the relative attractiveness of holding money, such as movements in the returns on alternative assets and technological innovations that improve the services provided by bank deposits and other forms of broad money. Such changes, if they persist, can drive permanent shifts in the demand for money relative to the nominal demand for goods and services without affecting inflation.

To understand the implications of the recent rise in money, therefore, it is important to identify the underlying causes. Growth rates of households' and private non-financial companies' deposits have been high (**Chart 1.7**). But the sharp pickup in money growth over the past year or so has been driven largely by increases in deposits held by non-bank financial companies (known as other financial corporations, or OFCs).

Chart 1.6 M4 and nominal GDP**Chart 1.7 M4 holdings by sector**

(a) Other (non-bank) financial corporations.
(b) Private non-financial corporations.

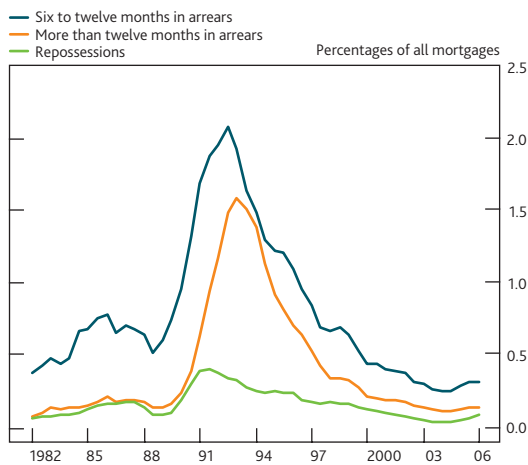
Chart 1.8 Bank Rate and the effective rate on household loans^(a)



(a) Monthly data to October for Bank Rate and September for the effective borrowing rate, so they do not include the impact of the increase in Bank Rate to 5% on 9 November.

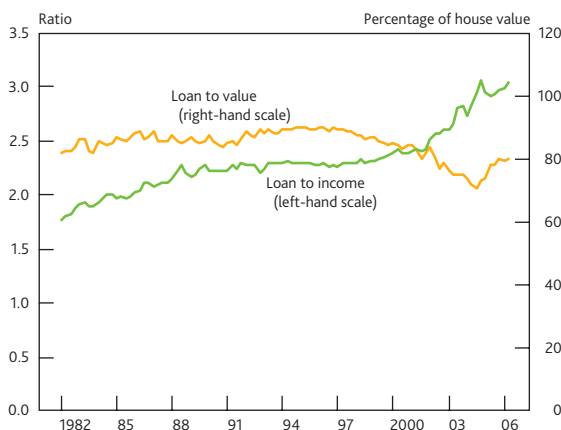
(b) Weighted average of effective rates on the outstanding stock of mortgages, credit card borrowing, overdrafts and other unsecured loans.

Chart 1.9 Mortgage arrears and repossessions



Source: Council of Mortgage Lenders.

Chart 1.10 Median loan to value and loan to income ratios on new mortgages^(a)



Source: CML/BankSearch Regulated Mortgage Survey.

(a) New loans for house purchases by both first-time buyers and home movers. Changes to the methodology and sample of the survey in April 2005 mean that the figures before and after that date are not strictly comparable.

The inflationary consequences of these additional money balances hinge on the extent to which they are eventually used to purchase financial or real assets, prompting further asset price appreciation and boosting demand and inflation. OFCs are a diverse range of businesses. For example, institutional investors such as pension funds hold money to finance purchases of other financial assets, as part of a balanced investment portfolio. So a build-up in liquidity in this sector could be associated with upward pressure on asset prices. Other types of OFC act more like banks. To the extent that these OFCs are facilitating business between one bank and another, their deposits are less likely to be closely linked to future inflation. But to the extent that they are helping to channel excess cash holdings from households or companies into the banking system, they are more likely to be informative about future price pressures.

Household finances

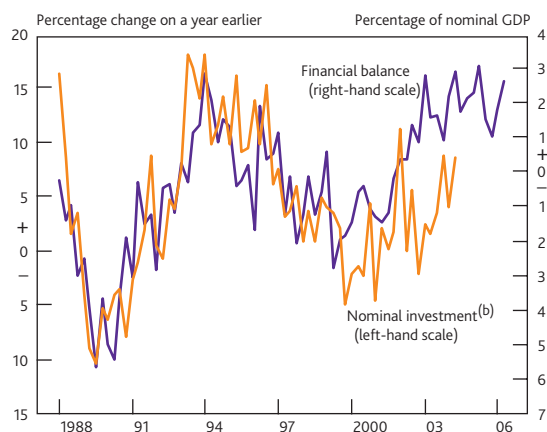
Annual growth in household borrowing remained strong in Q3, at 10.3%, well ahead of recent household income growth. Within that total, growth in secured debt has picked up steadily, consistent with the buoyancy of the housing market. But annual growth in unsecured debt has more than halved since the beginning of 2005. Credit card borrowing was particularly weak in August, which saw the first aggregate net repayment of debt since 1994. That could reflect tightening credit standards on unsecured lending, as well as households switching towards cheaper forms of borrowing.

Increases in Bank Rate usually lead in due course to a rise in the cost of household borrowing. However, the precise scale and timing of the impact depends on the response of banks and the structure of household debt. In recent years, the effective rate of borrowing faced by households has been falling relative to Bank Rate, reflecting increased competition between lenders and greater use of cheaper fixed-rate mortgages. But more than half of the change in Bank Rate in August has already fed through to the rates faced by households (**Chart 1.8**).

Some indicators suggest that the number of households facing repayment difficulties has risen. The number of insolvencies has more than doubled in the past two years. And the amount of debt written off by banks has also increased sharply. Write-offs have been heavily concentrated on credit card and other unsecured borrowing, consistent with anecdotal evidence from lenders that they have tightened their lending criteria for unsecured borrowing.

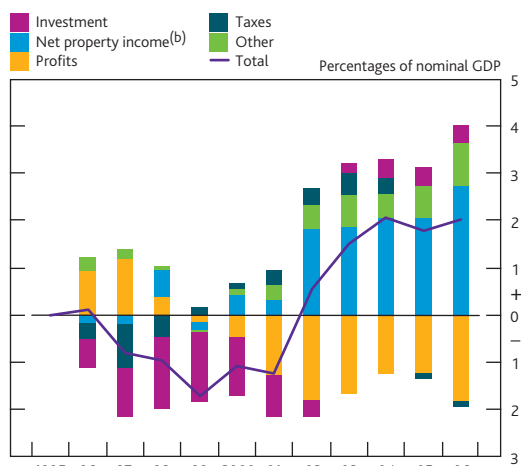
Difficulties with secured lending have so far been less apparent. Mortgage arrears and repossessions have remained low by historical standards (**Chart 1.9**). But there has been a rise in the median value of new mortgage lending relative to borrowers' incomes over the past five years (**Chart 1.10**). And

Chart 1.11 Companies' financial balance and lagged investment^(a)



(a) Private non-financial corporations.
(b) Investment lagged two years.

Chart 1.12 Contributions to the change in companies' financial balance since 1995^(a)



(a) Annual data for private non-financial corporations. The data point for 2006 refers to the first half of the year.
(b) Includes net receipts of interest payments, rents, dividends and other income distributed by companies.

median loan to value ratios, after declining for much of the past ten years, have started to pick up again. Rising mortgage levels may indicate renewed optimism about the prospects for the economy, but could pose risks to some households if their financial situations deteriorate.

Overall, only a small proportion of households currently appear to be facing difficulties — as indicated by a recent survey by NMG Research for the Bank (see the box on page 15). That is likely to reflect a number of factors. The value of households' assets has increased substantially. And a generally lower level of interest rates, alongside greater macroeconomic stability, is likely to have made repayments more manageable. While repayment difficulties are a serious issue for those concerned, those households are likely to account for only a small proportion of aggregate household income. The impact on overall consumer spending is therefore likely to have been muted. But there is a risk that the impact on spending could become more significant if debt problems were to become more widespread.

Corporate finances

Corporate finances remained relatively healthy overall. The financial balance — which measures retained profits after allowing for taxes, investment and other costs — increased to 2.6% of GDP in 2006 Q2. Financial surpluses represent funds available for investment in physical capital or other assets. During the 1990s, the financial balance tended to be a reasonable indicator of future investment spending. However, companies have run substantial surpluses over the past few years, while investment growth until recently has remained subdued (**Chart 1.11**).

One reason why robust corporate finances have not led to stronger investment growth may be that some of those funds have been generated overseas. The pickup in the financial balance since 2001 has been driven by the strength of net property income — broadly, receipts from financial and overseas assets net of companies' own dividend and interest payments — rather than profits (**Chart 1.12**). Part of that reflects lower dividends and other payouts from income compared with the late 1990s. But over a third has been due to higher earnings on foreign direct investment that have been reinvested overseas. And higher receipts of dividends from equity holdings of financial and overseas companies account for a slightly smaller proportion. Such earnings are less likely to indicate investment opportunities for non-financial firms in the United Kingdom.

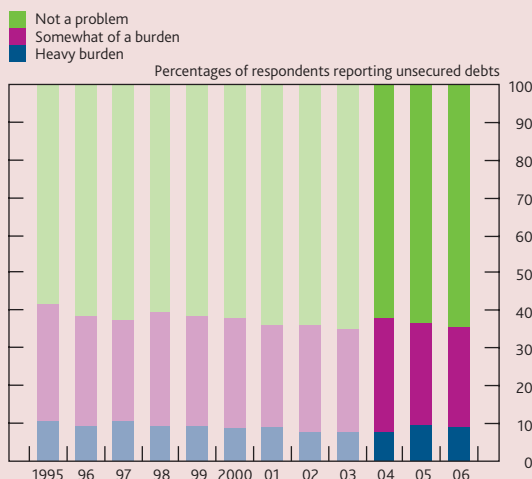
The distribution of debt and repayment difficulties

Household debt has doubled since 1999, and is now equivalent to around 1½ times households' annual post-tax income. Consumer spending could be affected if households find it difficult to repay those debts. But there is considerable variation in debt and repayment difficulties across households. This box describes some key findings from the latest in a series of annual surveys of households carried out in September for the Bank by NMG Research.⁽¹⁾

Around one in six respondents reported facing problems repaying debts, although more than half of those said that this had happened only occasionally. The most common response to such difficulties was to cut back spending.

Repayment difficulties appear to have remained concentrated in unsecured debt. A little under one in ten of those that reported having unsecured debts found them a heavy burden, and a further quarter found them somewhat of a burden. That was little changed from previous years (Chart A). Reported difficulties in repaying secured debt had picked up over the past few years, consistent with rising arrears and repossessions, but the proportion remained low: just 8% of households with secured debts reported difficulties, half the proportion in the early 1990s.

Chart A The burden of unsecured debt^(a)



Sources: BHPS, NMG Research and Bank calculations.

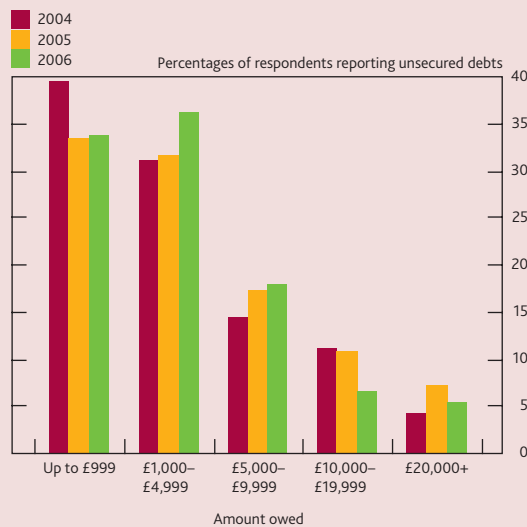
(a) Data prior to 2004 are calculated using information from the British Household Panel Survey, and are indicated by the lighter bars.

In line with previous surveys, those households that considered unsecured debt to be a heavy burden tended to report slightly below-average incomes. And overall, they accounted for less than 5% of the total income of all households reporting their income. That suggests that the quantitative impact of a

reduction in those households' spending on aggregate consumption is likely to be small.

The proportion of households reporting very high unsecured debts remained low. More than half of the survey respondents said that they had no unsecured debt at all. And of those with unsecured debts, the proportion owing more than £10,000 was actually slightly lower than in previous years, at around 12% (Chart B). However, the proportion reporting medium debts, of between £1,000 and £10,000, has increased to more than half of these households reporting unsecured debts.

Chart B The distribution of unsecured debt



Sources: NMG Research and Bank calculations.

Insolvencies have risen sharply over the past two years. Around 0.2% of the population became insolvent over the past year. It is not clear whether the increases have been driven by rising debt problems or other factors, such as changes in legislation and easier access to individual voluntary arrangements.⁽²⁾ The survey provides some information about households' views on insolvency. Almost 90% of those that offered their views said that they would never consider bankruptcy, or would consider it only as a last resort. That was very similar to the previous survey.

Overall, the latest survey evidence suggests that the impact of debt has not changed substantially over the past year. Some households face repayment difficulties, particularly for unsecured debt. That is serious for those households. But they are likely to account for a small proportion of overall consumer spending.

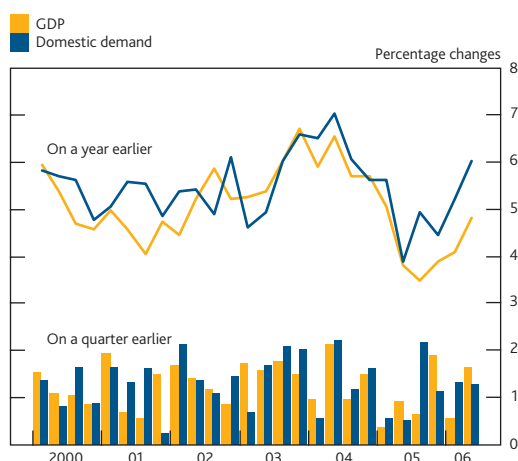
(1) Annual surveys have taken place since 2003. The results of the 2005 survey are described in Barwell, R, May, O and Pezzini, S (2006), 'The distribution of assets, income and liabilities across UK households: results from the 2005 NMG Research survey', *Bank of England Quarterly Bulletin*, Spring, pages 35–44.

(2) See the box on pages 8–9 of the May 2006 *Report* for a discussion of the potential reasons for rising insolvencies.

2 Demand

Developments in demand were broadly in line with the MPC's expectations at the time of the *August Report*. Household consumption grew at its long-run average rate in the first half of the year, supported by a recovery in post-tax labour income. Business investment growth in the first half of the year was above its long-run average and most surveys showed rising investment intentions. World activity remained strong, despite a moderation in growth in the United States. Surveys of export orders were consistent with firm growth in UK exports.

Chart 2.1 Nominal GDP and domestic demand^(a)



(a) At current market prices.

Table 2.A Expenditure components of demand^(a)

Percentage changes on a quarter earlier

	Averages		2005		2006	
	2004	2005	Q3	Q4	Q1	Q2
Household consumption ^(b)	0.8	0.3	0.4	0.6	0.4	0.9
Government consumption	0.5	0.7	0.6	0.4	0.3	0.8
Investment	0.9	1.1	2.5	0.8	2.0	0.6
of which, business investment	0.2	0.7	1.0	0.1	2.0	1.6
Final domestic demand	0.8	0.5	0.7	0.7	0.6	0.9
Change in inventories ^{(c)(d)}	0.0	-0.1	0.2	-0.1	0.1	0.1
Alignment adjustment ^(d)	0.0	-0.1	0.2	-0.1	0.4	-0.6
Domestic demand	0.8	0.3	1.0	0.5	1.0	0.4
'Economic' exports ^(e)	1.4	1.4	0.2	2.3	2.3	1.3
'Economic' imports ^(e)	1.7	0.8	2.1	1.3	3.4	0.3
Net trade^(d)	-0.1	0.1	-0.6	0.2	-0.4	0.2
Real GDP at market prices	0.6	0.5	0.5	0.7	0.7	0.7

(a) Chained-volume measures.

(b) Includes non-profit institutions serving households.

(c) Excludes the alignment adjustment.

(d) Percentage point contributions to quarterly growth of real GDP.

(e) Excludes the estimated impact of missing trader intra-community (MTIC) fraud.

Actual and expected changes in Bank Rate affect the level of nominal demand in the economy. The balance between that demand and the ability of the economy to supply the relevant goods and services helps to determine the outlook for inflation. On average, nominal demand should grow at a rate consistent with the supply capacity of the economy and the target inflation rate.

Since the previous *Report*, there have been small downward revisions to nominal growth around the turn of the year. But the latest estimates suggest that annual nominal GDP growth picked up further in 2006 Q2, to 4.8% (**Chart 2.1**). And nominal domestic demand rose more quickly, by 6% over the same period.

2.1 Domestic demand

The latest estimates indicate that real GDP increased by 0.7% in 2006 Q2 (**Table 2.A**). Real GDP was provisionally estimated to have increased by 0.7% again in 2006 Q3 (Section 3). That marked the fourth consecutive quarter of unchanged growth, the longest such period since quarterly records began in 1955.

Household consumption

As expected at the time of the *August Report*, the weakness in household spending in 2006 Q1 proved temporary. Indeed, taking the first half of the year as a whole, growth was in line with its long-run average rate. Official consumption data for Q3 are not yet available, but retail sales and survey indicators are generally consistent with some easing of growth between the second and third quarters (**Table 2.B**).

The profile of consumer spending has been influenced by movements in taxes and energy prices over the past few years. The effective tax rate increased. Energy prices also rose and, with only a modest reduction in the amount of energy consumed by households, there was a marked rise in the share of nominal household spending dedicated to energy-related

Table 2.B Indicators of retail sales growth

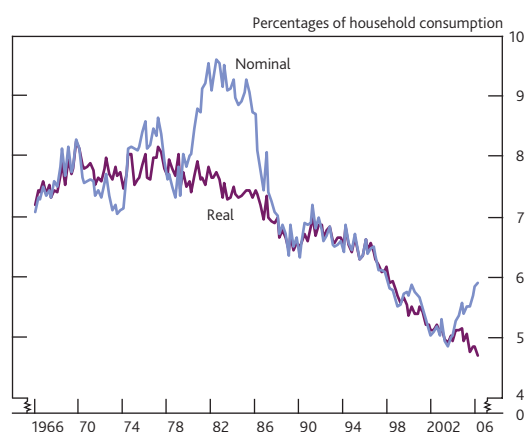
	Averages		2006			
	2004	2005	Q1	Q2	Q3	Oct.
Retail sales volumes, growth on a quarter earlier						
ONS	1.1	0.7	-0.5	1.9	0.8	n.a.
Retail sales values, growth on a year earlier^(a)						
BRC (total)	4.4	3.2	2.8	6.9	5.6	5.2
BRC (like-for-like)	1.6	-0.5	-0.2	4.2	2.8	2.5
Balances/scores^(a)						
CBI ^(b)	24	-14	-15	7	11	7
Agents ^(c)	1.2	0.2	0.8	1.1	1.5	n.a.

Sources: Bank of England, BRC, CBI and ONS.

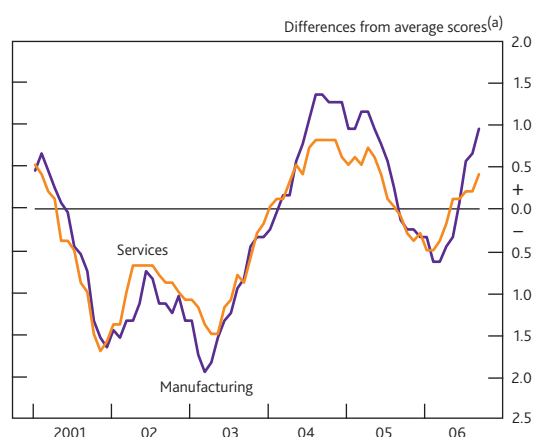
(a) Averages of monthly data. October figures are averages of the three months to October.

(b) Balance of retailing respondents in the CBI Distributive Trades Survey reporting sales higher than a year earlier.

(c) A score of zero indicates that retail sales values were unchanged in the latest three months compared to a year earlier. A positive (negative) score indicates retail sales were higher (lower) than a year earlier.

Chart 2.2 Household spending on energy^(a)

(a) Bank estimates. Energy is defined as electricity, gas and other fuels plus vehicle fuels and lubricants.

Chart 2.3 Investment intentions from Agents' scores

(a) Calculated as differences from averages since July 1997. For the underlying Agents' scores, a score of zero indicates that UK investment spending over the next twelve months is expected to be unchanged, compared with current spending, and a positive (negative) score indicates investment spending is expected to be higher (lower) than current spending.

products (**Chart 2.2**). Both developments should have depressed consumption growth in 2004–05, by reducing the resources that households had available to spend on more discretionary non-energy goods and services, and by lowering households' expectations of their future spending power. Since then, the effective tax rate has stabilised and, over the past few months, energy prices have fallen. That should be providing a boost to consumption growth.

With a broadly stable outlook for real household income growth, the MPC continues to judge that the most likely outcome is for consumer spending to grow steadily over the forecast period, at a rate close to its long-run historical average.

Investment and inventories

Official estimates suggest that whole-economy investment rose by only 0.6% in 2006 Q2. That weakness was due to public sector investment. In contrast, private investment in dwellings rose strongly in the second quarter, consistent with strength in the housing market (Section 1). And business investment increased by 1.6%, above its long-run average.

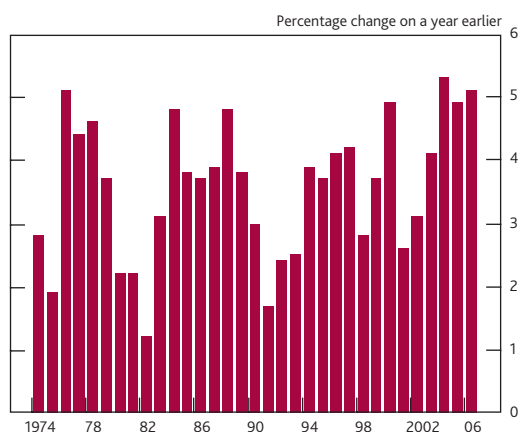
The recent strength in business investment has disguised some sectoral differences. In particular, manufacturing firms are estimated to have cut back on capital spending in the past two quarters. In contrast, there have been robust increases in estimated investment by firms in services and in the 'other industrial' sector (mainly energy companies).

Most surveys suggest that capital expenditure growth will remain firm in the near term. Reports from the Bank's regional Agents indicate that businesses intend to invest more, especially in manufacturing (**Chart 2.3**). This picture of rising investment intentions is supported by the BCC's *Quarterly Economic Survey*. The CBI's latest *Industrial Trends Survey* was less upbeat, although the percentage of firms reporting that low expected rates of return on new investment were restraining capital spending was the lowest in over 20 years.

In addition to investing in fixed capital, businesses also invest in stocks of raw materials, intermediate inputs and finished goods. Latest estimates imply that inventory adjustments reduced GDP growth by 0.5 percentage points in 2006 Q2. However, that was entirely due to the alignment adjustment used by the ONS to ensure that the expenditure measure of GDP matches the path of the output data. This alignment adjustment may be allocated to other components of expenditure — and net trade in particular — as more information becomes available.

Government consumption

Nominal government consumption continued to grow more rapidly than nominal private sector demand, rising by almost 7% in the year to 2006 Q2.

Chart 2.4 World GDP^(a)

Source: IMF World Economic Outlook Database September 2006.

(a) Volume measure using purchasing power parity exchange rates. 2006 is an IMF forecast.

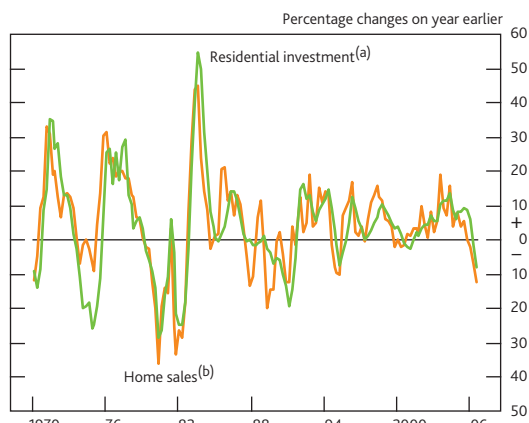
Table 2.C GDP in the major economies^(a)

Percentage changes on a quarter earlier

	Averages		2005		2006		
	2004	2005	Q3	Q4	Q1	Q2	Q3
Euro area	0.4	0.5	0.6	0.4	0.8	0.9	n.a.
of which: Germany	0.0	0.4	0.5	0.3	0.7	0.9	n.a.
France	0.5	0.3	0.7	0.3	0.4	1.2	n.a.
Italy	0.1	0.1	0.3	0.0	0.7	0.5	n.a.
United States	0.8	0.8	1.0	0.4	1.4	0.6	0.4
Japan	0.1	1.0	0.5	1.0	0.8	0.2	n.a.

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

(a) Chained-volume measures.

Chart 2.5 US home sales and residential investment

Sources: Bureau of Economic Analysis and Thomson Financial Datastream.

(a) Chained-volume measure.

(b) Sales of existing single-family homes.

2.2 External demand and net trade

World activity has remained robust. Growth is expected to be above average in 2006 and, using purchasing power parity exchange rates, close to a 30-year high (**Chart 2.4**). However, the geographical pattern of growth has recently shifted (**Table 2.C**): the US economy has slowed slightly, while activity has accelerated in the euro area.

The United States

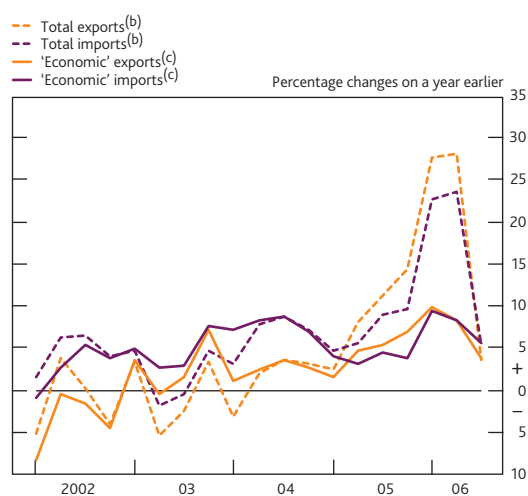
US GDP is estimated to have grown by 0.4% in 2006 Q3, weaker than the average of the previous two years. The fall in growth can be attributed to declines in residential investment as the housing market slowed (**Chart 2.5**). Residential investment has a larger share of GDP in the United States than in the United Kingdom, and in the past has also been more volatile. In both 2004 and 2005, residential investment contributed 0.5 percentage points to annual GDP growth. But in the second and third quarters of this year, it reduced annualised GDP growth by an average of 0.9 percentage points in each quarter.

Previous sharp swings in US residential investment have also been associated with swings in consumer spending. But, thus far, consumer spending has remained firm: the 0.8% increase recorded in the third quarter was close to the long-run average growth rate. Looking ahead, consumption growth should be supported by continued employment growth and rising incomes, as well as the higher level of household financial wealth associated with previous equity price increases. The recent decline in gasoline prices should also support consumer spending in the near term.

The euro area

The euro-area economy — the United Kingdom's largest trading partner — has grown strongly since the beginning of the year. GDP rose at an annualised rate of over 3% in the first half of 2006, the strongest performance for six years. Investment has recovered sharply. And capacity utilisation rose above its long-run average in the second and third quarters, according to the European Commission's survey of industry. That could prompt further increases in capital expenditure.

By contrast, consumer spending in the euro area was rather subdued in 2006 Q2. Some recovery is likely in the near term: surveys have recorded a rise in employment intentions, and consumer confidence is at the highest level in five years. But the rise in German VAT from 16% to 19% next January may cause further weakness in early 2007. Overall, the MPC continues to expect firm underlying growth in euro-area GDP over the forecast period.

Chart 2.6 UK goods exports and imports^(a)

(a) Chained-volume measures.
 (b) Including estimated missing trader intra-community (MTIC) fraud.
 (c) Excluding fraud adjustments.

Table 2.D Export orders^(a)

	Series averages ^(b)	2005 Averages	2006			
			Q1	Q2	Q3	Oct.
Manufacturing						
BCC orders	8	11	22	15	28	n.a.
CIPS/RBS orders ^(c)	50.3	50.9	50.0	53.4	51.8	53.9
CBI orders	-9	-6	-3	7	-1	n.a.
CBI optimism ^(d)	0	-6	3	5	1	n.a.
Services						
BCC orders	10	9	26	12	21	n.a.

Sources: BCC, CBI and CIPS/RBS.

(a) Percentage balances of respondents reporting 'higher' relative to 'lower' export orders, except CIPS/RBS where a reading above 50 suggests increasing orders, and below 50 suggests falling orders.
 (b) Averages since 1989 for BCC, 1972 for CBI *Quarterly Industrial Trends* and 1996 for CIPS/RBS.
 (c) Average of monthly indices.
 (d) Optimism about export prospects for the next twelve months.

Asia

Economic growth in Asia continued to be robust. Although real GDP was reported to have risen by only 0.2% in Japan in 2006 Q2, these data are volatile and subject to revision. The latest Tankan survey in Japan showed that businesses remained upbeat about current conditions. Annual Chinese GDP growth slowed slightly in the third quarter of 2006, but remained very robust at 10.4%.

Net trade

The UK trade data remain distorted by the impact of missing trader intra-community (MTIC) fraud.⁽¹⁾ HMRC has recently amended the methodology used to produce its estimates of fraud. There was a significant upward revision to the estimated level for 2006 Q1, from £6.5 billion to almost £10 billion, and there was a further increase to £13 billion in the second quarter. But the latest data show a notable decline in estimated fraudulent activity in the third quarter to less than £4 billion.

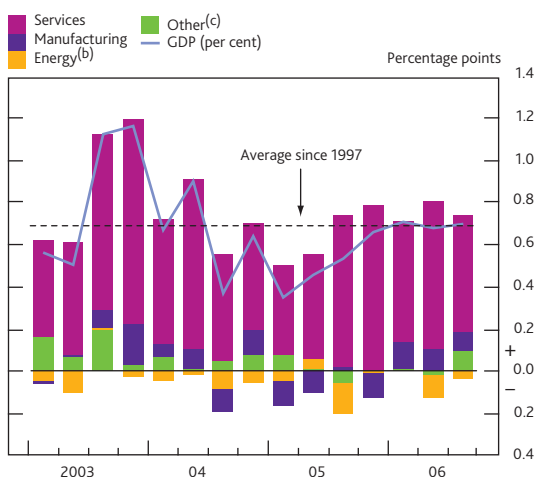
The MPC continues to focus on 'economic' trade excluding the impact of MTIC fraud (**Chart 2.6**). The official estimates suggest that growth in both exports and imports has slowed recently. But the trade data may yet be revised. In the past, large alignment adjustments — such as that estimated for 2006 Q2 — have often been allocated to net trade. And surveys of export orders are consistent with firm, rather than slowing, growth (**Table 2.D**). Overall, the Committee continues to expect that net trade will provide a small boost to growth over the forecast period.

(1) See the box on pages 22–23 of the August 2006 *Report* for a full discussion.

3 Output and supply

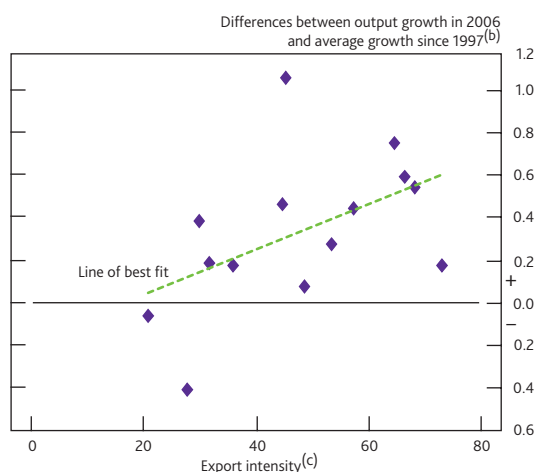
For the fourth consecutive quarter, UK output grew at close to its average quarterly rate over the past decade. Growth in service sector output remained buoyant. And the export-led recovery in manufacturing output continued. Annual growth in private sector labour productivity rose and capacity pressures within businesses intensified. Labour market participation, employment and unemployment all continued to rise. Staff shortages and recruitment difficulties appear to be below average.

Chart 3.1 Contributions to quarterly GDP growth^(a)



(a) GDP at basic prices. This chart uses information published in the preliminary GDP release.
 (b) Includes output of the energy-extraction sector and electricity, gas and water supply.
 (c) Includes output of the agriculture and construction sectors as well as rounding differences.

Chart 3.2 Growth of manufacturing output and export intensity by sector^(a)



(a) Based on a division of manufacturing into fourteen sectors.
 (b) Indicates the difference between average quarterly growth in 2006 and average growth since 1997. The series have been normalised (divided by the standard deviation of their respective growth rates) so they are comparable across sectors.
 (c) Derived from the UK Input-Output Analytical Tables, 1995.

3.1 Output

According to the latest vintage of official data, whole-economy output has expanded by 0.7% in each of the past four quarters (**Chart 3.1**) — in line with its average rate over the past decade.

Manufacturing

Manufacturing accounts for about 15% of UK output. In the first three quarters of 2006, output in that sector expanded at an annualised rate of close to 3% — well above its average growth rate since the late 1990s. Most of the United Kingdom's major manufacturing industries have registered above-average growth. But **Chart 3.2** shows that the output of export-intensive sectors has grown particularly strongly during the current upturn, in line with intelligence gathered from the Bank's regional Agents. Looking ahead, the latest surveys of manufacturing export orders are consistent with firm growth in the near term (**Table 2.D**).

Services

Official estimates imply that quarterly growth in service sector output eased to 0.8% in 2006 Q3. That slackening mainly reflected weaker growth in the distribution sector.

When assessing short-term trends in service sector activity, the MPC also considers information from a range of private sector surveys. These surveys are often more timely than the official data and they can help predict the direction and size of future revisions to those data. The BCC and CIPS/RBS surveys suggest that output growth in the private service sector was probably either close to, or a little above, average over the first half of 2006 — a somewhat stronger profile than that suggested by the ONS data (**Table 3.A**). Like the official data, both surveys eased slightly in 2006 Q3. However, the latest reading of the CIPS/RBS survey implies that growth may pick up in Q4. And recent reports from the Bank's regional Agents also suggest robust service sector activity.

Table 3.A Indicators of private service sector activity

	Correlations ^(a) with output data	Averages since 1997	2006			
			Q1	Q2	Q3	Oct.
ONS ^(b)	1.00	1.1	0.6	1.1	0.9	n.a.
CIPS/RBS ^(c)	0.55	56.0	57.7	59.2	57.2	59.3
BCC ^(d)	0.39	26	22	28	24	n.a.

Sources: BCC, CIPS/RBS and ONS.

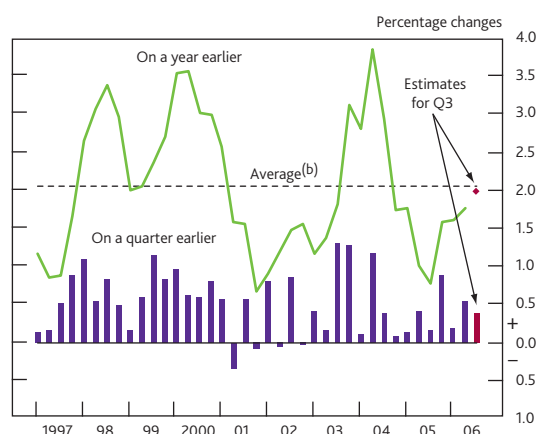
- (a) Contemporaneous correlation between survey and output data over the period 1997 Q1–2004 Q4.
 (b) Defined as quarterly growth of service sector output excluding education, public administration and defence and health and social work. The Q3 estimate is derived using information in the preliminary GDP release.
 (c) A reading above 50 indicates rising service sector activity compared with the previous period. Quarterly figures are averages of monthly observations.
 (d) Percentage balance of firms experiencing a rise in domestic sales.

Table 3.B Indicators of capacity utilisation within businesses^(a)

		2006			
	Averages ^(b)	Q1	Q2	Q3	Oct.
Manufacturing					
CBI ^(c)	39	41	50	41	n.a.
BCC ^(d)	36	38	39	41	n.a.
Agents ^(e)	-0.8	-1.1	-0.7	-0.2	0.1
Services					
BCC ^(d)	38	36	37	42	n.a.
Agents ^(e)	1.4	1.3	1.5	1.9	2.4

Sources: Bank of England, BCC and CBI.

- (a) All data are non seasonally adjusted.
 (b) Since 1997 (1998 for the Agents' scores when the series began).
 (c) Percentage of firms reporting that their level of output is not below capacity.
 (d) Net percentage balance of firms reporting they are working at full capacity.
 (e) Quarterly estimates are averages of monthly observations. The scores refer to likely capacity constraints faced by companies over the next six months. Before January 2005, these scores were based on companies' current situation.

Chart 3.3 Private sector output per worker^(a)

- (a) ONS private sector output divided by private sector employment (calculated by subtracting ONS public sector employment from total LFS employment). The estimate for 2006 Q3 is constructed using information in the preliminary GDP release and the assumption that private sector employment in 2006 Q3 grew at the same rate as total employment in the three months to August.
 (b) Average annual growth since 1997.

3.2 Balance between demand and potential supply

The outlook for inflation depends in part on the margin of spare resources in the economy. That margin is related to how intensively businesses work their existing staff and capital — capacity utilisation within businesses. It is also related to labour market tightness. This section assesses each in turn.

Capacity utilisation within businesses

There are no wholly reliable measures of capacity utilisation.⁽¹⁾ One approach is to ask businesses directly about the capacity pressures that they face. With the exception of the latest CBI manufacturing observation, survey measures suggest that capacity utilisation picked up through 2006 (Table 3.B). And all are running above their averages over the past ten years or so. Evidence from the the Bank's regional Agents also suggests that capacity pressures picked up during 2006.

Cyclical fluctuations in the rate of labour productivity growth can also help gauge movements in spare capacity within businesses. Labour productivity measures how much output businesses produce for a given amount of labour. In the long term, labour productivity growth is determined by the capital available to workers and the efficiency with which businesses use labour and capital. But in the short term, movements in labour productivity growth are also affected by cyclical factors. For example, in response to rising demand, managers initially tend to work existing staff more intensively. That would lead to higher growth in labour productivity for a period.

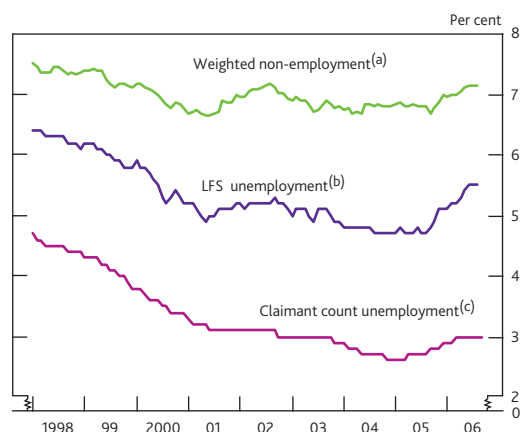
Chart 3.3 shows that annual growth in labour productivity fell during the second half of 2004 and most of 2005, a period of soft output growth. One plausible explanation is that some employers retained staff, expecting the slowdown to be temporary. As demand recovered, businesses have increased their labour utilisation rates.

Looking ahead, if spare capacity is limited, one response by businesses might be to raise prices. Section 4 discusses such price pressures. Another response might be to invest in more capital and employ more staff. The ability of businesses to do this depends on conditions in the market for inputs, and in particular on how easily companies can recruit and retain staff. The next section assesses labour market conditions in more detail.

Labour market tightness

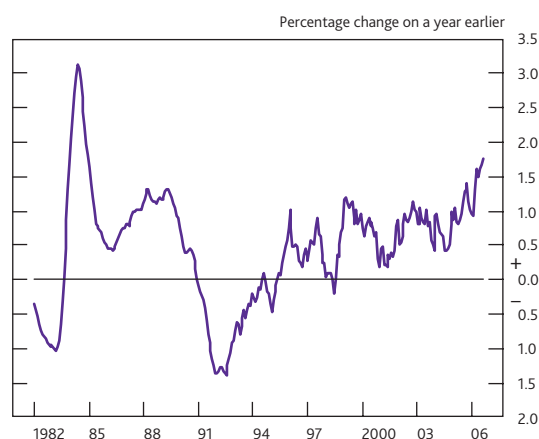
Labour market tightness refers to the balance between the demand for workers and the available labour supply. One measure of this is the unemployment rate. During the past

(1) See the box on pages 24 and 25 of the February 2005 *Inflation Report* for a discussion of different measures of capacity utilisation within businesses.

Chart 3.4 Measures of unemployment and non-employment rates

Sources: ONS and Bank of England calculations.

- (a) Percentage of the working-age population. This measure of non-employment weights together the different types of non-employed by a proxy of their likelihood of finding work based on transition rates into employment derived from the Labour Force Survey (LFS). Weights are backward-looking four-quarter moving averages of the quarterly transition rates of each group into employment.
- (b) Percentage of the economically-active population. Three-month moving average measure. Includes all those actively looking for work and available to start, and those due to start a new job in the next two weeks.
- (c) Percentage of the sum of the claimant count and workforce jobs.

Chart 3.5 The workforce^(a)

Source: ONS Labour Force Survey.

- (a) The economically active — the sum of those in work and those actively looking for work.

Table 3.C Estimates of migration flows

Thousands	2003	2004	2005	2006 H1
Net inward migration ^(a)	151	223	185	n.a.
of which, Accession Countries ^(b)	n.a.	48	67	n.a.
National Insurance numbers ^(c)	371	440	662	n.a.
of which, Accession Countries ^(b)	20	111	270	n.a.
A8 Worker Registration Scheme ^(d)	n.a.	126	205	96

Sources: Department for Work and Pensions, Home Office and ONS.

- (a) Official ONS estimates of net inward migration.
- (b) The Accession Countries include Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.
- (c) Number of overseas nationals who have registered for a National Insurance number. These data are constructed on a tax year basis.
- (d) Nationals from the A8 (the Accession Countries, excluding Malta and Cyprus) are required to register under the Worker Registration Scheme upon finding a job. The 2004 observation only considers those who registered after EU accession in May. The 2006 data are not annualised so they only include the raw data for the first two quarters of the year.

year, the Labour Force Survey (LFS) unemployment rate has risen by 0.8 percentage points to 5.5% (**Chart 3.4**). The claimant count rate — a measure based on those who are claiming Jobseeker's Allowance (unemployment benefits) — has also risen.

But the impact of a rise in unemployment on wage pressures depends on why it has increased. An unexpected increase in labour supply could temporarily lead to higher unemployment and weaker wage pressures. Higher unemployment caused by a cyclical downturn in the demand for labour is also likely to be associated with downward pressure on wage growth. However, it is also possible for unemployment to rise without any downward pressure on wages. For example, employment growth could decline if workers achieved higher pay in compensation for higher energy and import prices.

All of these factors may have played some role in the recent rise in unemployment. The rest of this section reviews the available data in greater depth.

Migration and labour supply

A standard measure of labour supply is the economically-active population or 'workforce' — the sum of those in work (employed) and those actively looking for work (unemployed). Growth in the workforce is estimated to have risen sharply over the past two years. Indeed, in the three months to August, the workforce was 1.8% higher than a year earlier, the highest annual growth rate since December 1984 (**Chart 3.5**).

One factor supporting growth in the workforce is net inward migration to the United Kingdom. The official data suggest that migration rose in 2004 following enlargement of the European Union (**Table 3.C**). However, the true picture on migration is highly uncertain. In the absence of census data, official estimates are derived primarily from the International Passenger Survey (IPS), a survey of individuals passing through UK air and sea ports and the Channel Tunnel.

As discussed in the August 2005 *Report*, the IPS data suffer from a number of problems.⁽¹⁾ For example, the definition of a migrant in the IPS survey may not be the most relevant one for assessing the impact of migration on labour supply. Individuals are identified as migrants in the IPS if they intend to stay in the country for a year or more. That means that those who come to work in the United Kingdom for a short period of time (such as seasonal workers) will not be classified as migrants. In addition, the IPS has limited coverage of non-principal airports. And the survey is voluntary. In 2005, 17% of those asked to participate refused to do so.

(1) See the box on pages 22 and 23 of the August 2005 *Inflation Report*.

More timely government administrative information exists on the number of National Insurance numbers allocated to overseas nationals, as well as the number of people who have registered for work in the United Kingdom who come from countries that acceded to the EU in 2004 under the Worker Registration Scheme (WRS).⁽¹⁾ The advantage of those data is that they are accurate — they should have a high coverage of the population that they are trying to measure. And because they mainly relate to those who come to work, they may have more relevance for assessing the impact of migration on labour supply. But these measures only consider gross inflows of migrants and so take no account of migrants who have subsequently returned home, or of emigration by other UK residents. In addition they do not cover all workers. For example, the self-employed are not obliged to register under the WRS.

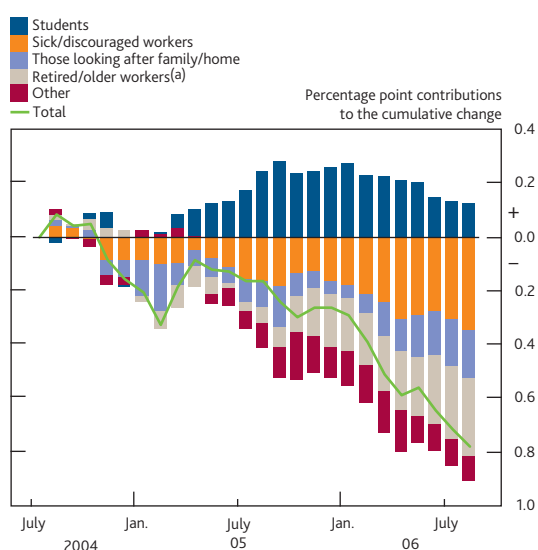
This uncertainty about the extent and nature of migration may have important implications for aggregate labour market data. For example, the official data suggest that net inward migration slowed in 2005 — in contrast to indications from the National Insurance and WRS data (Table 3.C). If true migration has been stronger than official data suggest, then growth in the workforce may also have been higher. It could also have implications for other labour market data, to the extent that migrants are not adequately represented in official labour market surveys (because they are only part of the UK labour force temporarily) and have different labour market characteristics to the population as a whole.

Overall, there is great uncertainty over the scale of migration in recent years and its impact on the UK labour market. Evidence from the Bank's regional Agents suggests that migrants have played a significant role in alleviating labour shortages, especially in sectors such as agriculture and catering.⁽²⁾ By itself, that has probably restrained upward pressure on wages. But there are other ways in which migration affects the economy. The box on page 24 assesses this issue in more detail.

Inactivity and labour supply

Another factor behind the recent expansion of the workforce is that more of the United Kingdom's existing population has become economically active. The inactivity rate — the percentage of the adult population who are not working or not looking for work — has fallen by about 0.8 percentage points since mid-2004 (Chart 3.6). These falls in inactivity have been concentrated among the retired, those looking after family or the home, and those previously classified as sick. That could reflect several factors: concern about pension adequacy prompting older workers to return to or remain in the labour

Chart 3.6 Change in the inactivity rate since mid-2004



Source: ONS Labour Force Survey.

(a) Includes the inactive population aged 59/64+, and those in younger age groups who identify themselves as retired.

(1) See footnote (d) in Table 3.C.

(2) See page 21 of the February 2006 *Inflation Report*.

The macroeconomic impact of migration

In recent years, changes in the estimated UK population have been dominated by an increase in inward migration, partly connected to the expansion of the EU in May 2004.⁽¹⁾ This box explores the macroeconomic impact of higher migration.

Impact on potential supply

The potential supply of an economy is determined by the amount of labour and capital available to firms, as well as the efficiency with which they can be combined. Changes in migration affect all these aspects.

The most obvious way in which increased numbers of migrants affect potential output is through an increase in labour supply. But it is not straightforward to gauge the size of this effect. Some migrants may have entered the United Kingdom for reasons other than employment, such as to study or visit family members. And new entrants to the labour force may have different characteristics from existing workers. For example, they may initially be employed in low productivity jobs, or in industries to which their skills are not best suited.

By itself, the increase in labour supply caused by migration is likely to push down on wage inflation. This in turn will boost the rate of return on existing capital. As a result, firms are likely to invest more. Migrants might also possess skills and techniques that could — over time — boost potential supply through technology and innovation.

Impact on demand

Increased inflows of migrants will also affect demand in the economy. Aside from the upward impact on investment spending discussed above, migrants will purchase goods and services, including food and accommodation. However, their spending patterns may depend on their length of stay. Those only expecting to stay for a short period of time are unlikely to

build up a stock of consumer durables, for example. They may also decide to postpone some consumption until they return to their home country, where prices are probably lower. And some of their earnings may be remitted to their home country, possibly to support family members. If migrants intend to save a significant proportion of their incomes, this will mute the impact of their arrival on demand.

Another possible impact on demand is through the housing market. An increase in population will tend to push up house prices and rents, as the supply of housing in the United Kingdom adjusts only gradually to changes in demand. This could support consumption, for example by permitting homeowners to borrow more. But the increase in future housing costs faced by households means that this effect is likely to be only temporary.

Implications for inflation

In the long run, inflation is determined by monetary policy. But, by affecting the balance between supply and demand, migration can affect inflation in the shorter term. The nature of that impact depends on whether or not migrants seek employment, how productive they are, the length of their stay, their saving patterns, and how UK companies react to the increase in labour supply.

It seems likely that recent migrant inflows to the United Kingdom have boosted supply by more than aggregate demand, especially as some migrants do not intend to stay in the country for a long time. That should have pushed down on inflation, although to what extent is a key uncertainty. The increased ability of UK firms to hire from overseas when facing recruitment difficulties is also important. This could have weakened the link between changes in domestic activity and inflationary pressures.⁽²⁾

(1) See pages 22–23 for a discussion of the uncertainties around migration estimates, and how these affect labour market data.

(2) See Bean, C (2006), 'Globalisation and inflation', available at www.bankofengland.co.uk/publications/speeches/2006/speech287.pdf.

force; more flexible employment practices; and government initiatives to make work more rewarding or easier to find for low-income households and those on benefits.

The implications of a fall in inactivity for labour market tightness are not straightforward. If the fall represents a genuine increase in labour supply, that should act to increase labour availability and put downward pressure on wages. But businesses often directly recruit inactive individuals. So some of the inactive are effectively already in the jobs market and contributing to the existing pool of available labour, even though they are not classified as such in the official statistics. That means that falling inactivity could act to mitigate some of the impact of higher unemployment on labour market tightness.

Table 3.D Employment and survey measures of labour demand

	Averages since 1997	2005 H2 averages	2006 H1 Q3 averages	Oct.	
Official labour market data ^(a)					
People employed ^{(b)(c)}	0.3	0.1	0.3	0.4	n.a.
Employment rate ^{(c)(d)}	59.5	60.1	60.1	60.2	n.a.
Surveys					
BCC employment intentions ^(e)	18	15	23	26	n.a.
CIPS/NTC employment index ^(f)	51.2	51.0	51.9	52.9	53.2

Sources: BCC, CIPS/NTC and ONS.

(a) Labour Force Survey.

(b) Percentage change on a quarter earlier.

(c) 2006 Q3 observation based on the three months to August.

(d) Total number of employed divided by adult population.

(e) Net percentage balance of firms expecting their workforce to increase over the next three months.

(f) Manufacturing and service sector balances have been weighted by their respective share in employment. Non seasonally adjusted.

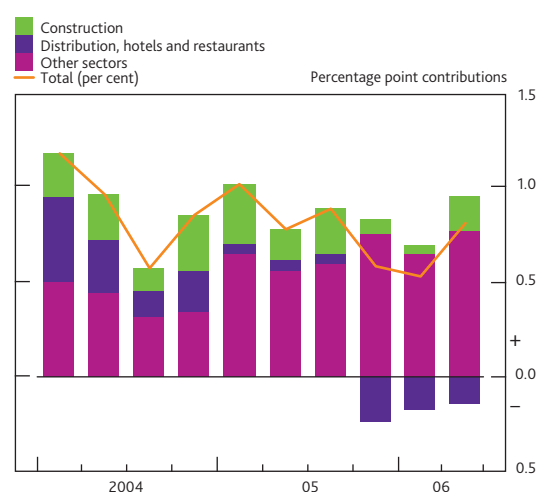
(f) Average of the monthly observations. Balance above 50 indicates rising employment.

It is possible to construct broader measures of labour availability that take this into account. A simple measure would be the sum of the unemployed and the inactive. But that ignores the fact that the short-term unemployed are likely on average to search harder for jobs than the inactive or the long-term unemployed. **Chart 3.4** shows an alternative measure that weights different groups of unemployed and inactive people by an estimate of the probability of their finding work. This 'weighted non-employment rate' has picked up less rapidly than the LFS unemployment rate over the past year. Any loosening in the labour market could therefore be less marked than the rise in the headline unemployment rate suggests.

Employment

Quarterly employment growth, measured either using the number of people employed or the number of hours worked, is estimated to have picked up in 2006 Q3. The pickup mainly reflected higher part-time employment. The number of job vacancies also rose. As **Table 3.D** shows, the recovery followed a period of weakness in labour demand in late 2005. That weakness may have contributed to some of the earlier rise in unemployment.

The timing of the employment slowdown is consistent with a cyclical explanation. Employment growth eased soon after the slowdown in output growth, but picked up again as output recovered. The latest survey data suggest that as capacity pressures have risen, so have employment and employment intentions (**Tables 3.B and 3.D**).

Chart 3.7 Annual growth in Workforce Jobs

It is also possible that higher energy costs have dampened employment growth. There is little evidence in the sectoral pattern of jobs growth to suggest that energy-intensive businesses have reduced their employment. The recent mild slowdown in employment was concentrated in sectors such as distribution and construction that are not unusually energy intensive (**Chart 3.7**). However, there is some evidence to suggest that, in the labour market as a whole, workers' real take-home pay has not yet fully accommodated higher energy and other business costs. In that case, firms may have scaled back their hiring plans, depressing employment growth somewhat, relative to the available labour supply. This is discussed further in the box on pages 30–31.

Overall impact on labour market tightness

It is likely that the pickup in unemployment over the past year reflects some combination of higher labour supply, the lagged effects of the cyclical slowdown in demand in 2005 and the rise in non-wage business costs.

One way of assessing the overall impact of these factors on labour market tightness is to ask businesses about their

Table 3.E Survey evidence on recruitment difficulties and labour shortages

	Averages since 1997 ^(a)	2006			
		Q1	Q2	Q3	Oct.
Availability of agency staff^(b)					
KPMG/REC: Permanent	48.0	45.6	45.1	42.4	46.1
KPMG/REC: Temporary	49.1	51.5	48.7	50.4	52.1
Recruitment difficulties^(c)					
BCC: Manufacturing	64	39	43	48	n.a.
BCC: Services	62	62	60	60	n.a.
Factors likely to limit output^(d)					
CBI: Skilled labour	12	15	11	11	n.a.
CBI: Other labour	3	2	2	2	n.a.

Sources: BCC, CBI and KPMG/REC.

(a) Since 1997 Q1 except for KPMG/REC survey which is from October 1997.

(b) Indices. A balance above 50 indicates rising labour market availability. Quarterly estimates are averages of the monthly observations.

(c) Percentage of firms reporting difficulties. Non seasonally adjusted.

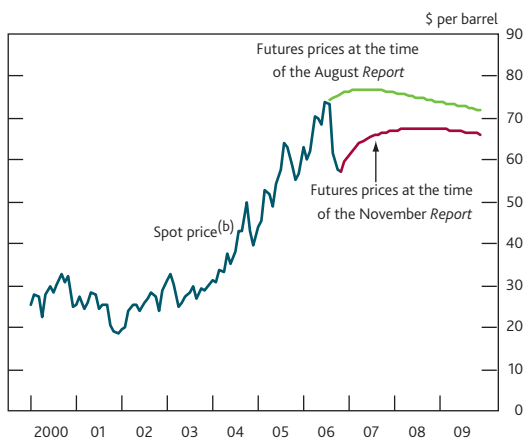
(d) Manufacturing sector. Weighted percentages of respondents. Non seasonally adjusted.

recruitment difficulties and staff shortages. Most surveys suggest that both have been below average during 2006 (Table 3.E). That is consistent with relatively loose labour market conditions. The Bank's regional Agents have also suggested that, on the whole, there has been an ample supply of labour to meet businesses' demand for workers. However, more recently the Agents have reported that recruitment difficulties have edged higher, particularly for those in skilled occupations.

4 Costs and prices

Energy prices fell markedly but remained high. Import price inflation eased and regular pay growth remained subdued. More muted cost pressures over the past three months should have attenuated the pressure on businesses' profits, but evidence from the Bank's regional Agents points to further prospective rises in some firms' output prices. CPI inflation remained above target, and is likely to rise further in the near term.

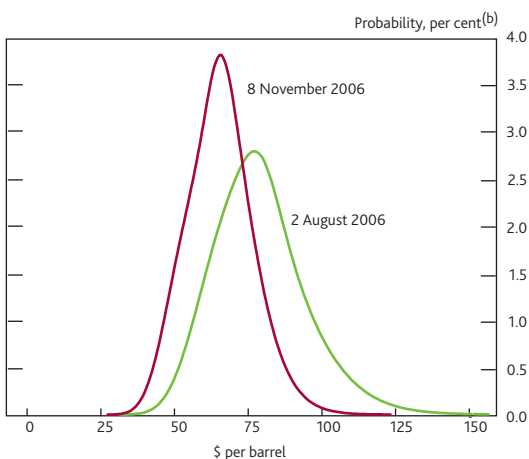
Chart 4.1 Brent crude oil prices^(a)



Sources: Bloomberg and Thomson Financial Datastream.

- (a) Monthly averages of daily data. Futures prices and spot data for November are averages during the fifteen working days to 8 November. The equivalent data for the August Report are averages during the fifteen working days to 2 August.
(b) Forward price for delivery in 10 to 21 days' time.

Chart 4.2 Market beliefs about oil prices six months ahead^(a)



Sources: Bank of England, Bloomberg and New York Mercantile Exchange.

- (a) Data refer to the price of West Texas Intermediate crude oil.
(b) Probability of the oil price being within $\pm \$0.5$ of any given price level. For example, on 8 November 2006, the probability of the price of a barrel of oil being between \$64.50 and \$65.50 in six months' time was around 3.8%.

4.1 Global costs and prices

Oil prices

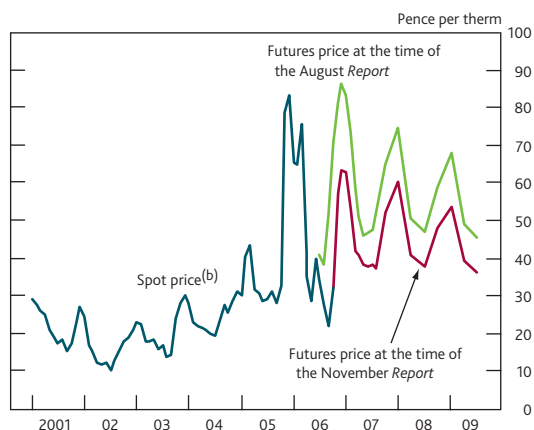
Oil prices have fallen sharply since the August Report. The spot price of a barrel of Brent crude oil fell to \$57 in the fifteen working days to 8 November, 23% lower than at the time of the August Report (Chart 4.1). The futures curve over the next three years fell by an average of 12%.

Recent movements in oil prices could be related to shifting demand conditions. Oil prices doubled in 2004–05 as global demand increased. So one possibility is that the decline in oil prices over the past few months is related to market concerns about the prospects for world growth. But non-oil commodity prices should also reflect world growth prospects. And these have increased by around 5% since August in dollar terms, according to *The Economist* all-items index.

Supply factors are likely to have played a greater role. The recent oil price fall reversed an increase earlier in 2006. Some of that rise may have reflected concerns about the available supply of oil, due to an increase in tensions in the Middle East and potential hurricane damage to oil rigs in the Gulf of Mexico. Since then, some of these concerns have diminished. In addition, BP has resumed production in Alaska ahead of schedule and crude oil stock levels in the United States have been unseasonably high in recent months.

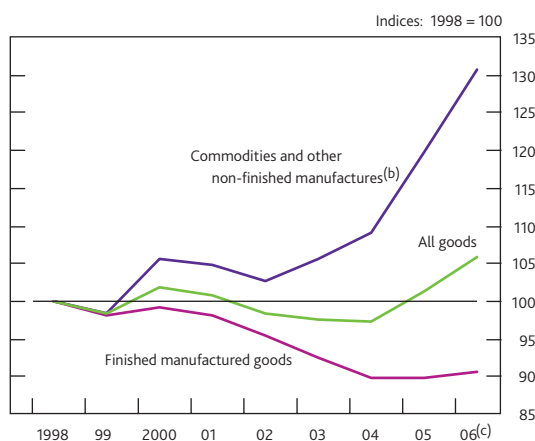
The MPC uses the futures curve to guide its assumed path for oil prices. In early November, the curve pointed to the oil spot price remaining high, rising slightly in the near term. But there remains considerable uncertainty about the outlook for oil prices, and financial market participants think that a wide variety of outcomes is possible over the coming months (Chart 4.2).⁽¹⁾

(1) These calculations use options data and assume that investors are risk-neutral. For more details, see Clews, R, Panigirtzoglou, N and Proudman, J (2000), 'Recent developments in extracting information from options markets', *Bank of England Quarterly Bulletin*, February, pages 50–60.

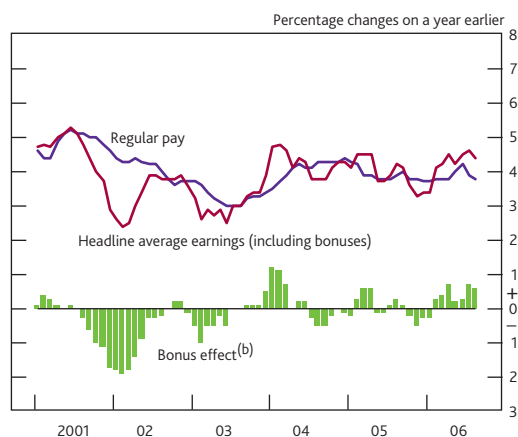
Chart 4.3 UK wholesale gas prices^(a)

Sources: Bloomberg, International Exchange (www.theice.com) and Reuters.

- (a) Futures prices and spot price data for November are averages during the fifteen working days to 8 November. The equivalent data for the August Report are averages during the fifteen days to 2 August. The spot price data, and the futures prices to late 2007, are monthly averages of daily data. Thereafter, futures prices have been interpolated from quarterly data.
- (b) One-day forward price of UK natural gas.

Chart 4.4 Annual UK goods import prices^(a)

- (a) These data have not been adjusted for missing trader intra-community (MTIC) fraud.
- (b) Bank estimate. Defined as food, beverages and tobacco, basic materials, fuels, semi-manufactures and other miscellaneous goods.
- (c) Data for 2006 are only available up to September. The full calendar year estimate has been calculated by applying the annual growth rate over this period to the 2005 level.

Chart 4.5 Private sector earnings^(a)

- (a) Three-month average measure of the average earnings index.
- (b) Percentage points. Defined as average earnings growth less regular pay growth.

Gas prices

Wholesale gas prices have fallen sharply since the August Report (Chart 4.3). In part, that reflects close links between the oil and gas markets on the Continent, from which the United Kingdom imports gas. But it also reflects the opening of a new pipeline between Norway and the United Kingdom.

As in previous years, gas prices are expected to pick up temporarily this winter as demand increases. This seasonal volatility is expected to lessen somewhat in future years as further planned improvements to the United Kingdom's import and storage capacity come on line.

Import prices

For an open economy like the United Kingdom, import prices are an important influence on firms' costs and consumer prices. Over much of the past decade, import prices were flat or falling. That reflected a number of factors, such as the strength of sterling and the increased sourcing of finished manufactured goods from low-cost countries such as China.

During 2004 and 2005, this import price trend reversed and the price of imported goods and services increased by around 5% over the two years. Much of the rise reflected higher commodity prices related to strong global growth, particularly in emerging economies. But prices of imported finished manufactured goods also stopped falling in early 2004 (Chart 4.4). That was driven by movements in domestic prices in both developing economies and developed economies, as global demand rose strongly and higher commodity prices pushed up the cost of producing these goods.

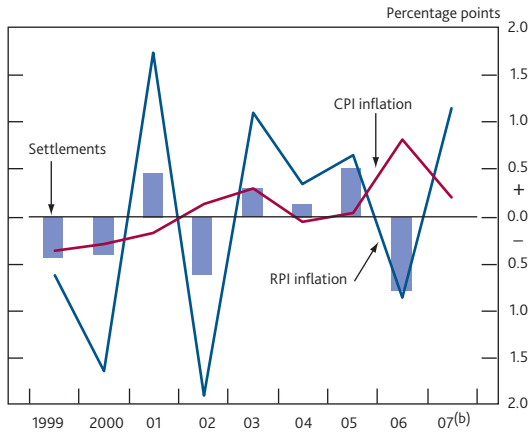
More recently, annual imported-goods price inflation has eased, from 5.1% in June to 1.7% in September. Following the recent appreciation of sterling and the fall in energy prices, import price inflation is expected to ease further in coming quarters.

4.2 Cost pressures

Labour costs

Regular pay growth has been relatively muted this year, despite firm growth in the economy. According to official estimates, growth in regular pay remained just below 4% during much of 2006 (Chart 4.5). But bonus payments have increased since the beginning of the year, raising the headline average earnings index by around 1 percentage point over that period. Higher bonus payments increase the amount of money that households have to purchase goods and services. But they tend to be volatile and may simply represent a one-off sharing of profits. So it is important to smooth the impact of bonuses over time when assessing underlying pay growth.

Chart 4.6 Changes in settlements and lagged measures of inflation^(a)



Sources: Bank of England, Incomes Data Services, Industrial Relations Services, the Labour Research Department and the ONS.

- (a) Changes in settlements and inflation rates on the previous year, based on private sector settlements in the first four months of each year (accounting for around half of all settlements) and the average annual inflation rate in the final four months of the preceding year.
(b) Based on CPI and RPI inflation in September 2006.

Moderate regular pay growth has probably reflected three key influences: an increase in available labour; greater non-wage cost pressures; and a lagged response to weaker activity in 2004–05.

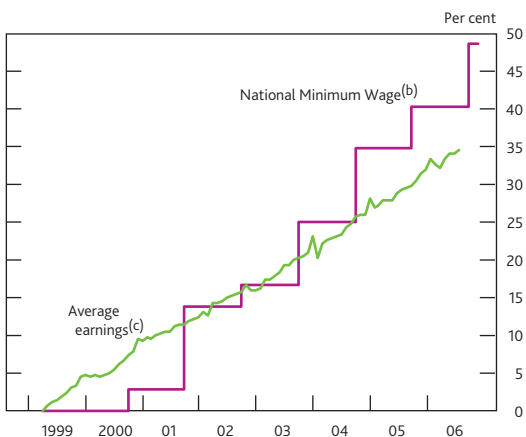
The size of the workforce — defined as people either in work or actively looking for work — has increased sharply in recent years (Section 3). It seems likely that the recent inflows have boosted labour supply by more than demand, putting downward pressure on regular pay growth.

Companies have also faced increasing cost pressures in recent years. Higher energy and import prices have raised the cost of firms' non-labour inputs. And many firms with defined-benefit pension schemes have had to increase their pension contributions. While some of these contributions reflect funding of past deficits, others are an ongoing labour cost related in part to increased life expectancy. It seems likely that businesses have been pushing down on wage growth to offset part of the rise in their non-wage costs (see the box on pages 30–31).

In addition, companies may have been particularly resistant to paying higher wages following the weakening in demand growth in 2004–05. As discussed in the *May Report*, this weaker activity may also have heightened workers' concerns over their job prospects for a period, making them more wary about pushing for higher wages.

Looking ahead, the pickup in inflation during 2006 could have a bearing on future wage growth. CPI inflation has risen this year, and RPI inflation — often cited in wage negotiations — has increased by rather more (Chart 4.6). If employers and employees expect the rise in inflation to persist, or if employees attempt to recover the lost real income from higher past inflation, that could put upwards pressure on settlements in the coming pay round. Nevertheless, as the box on pages 32–33 discusses, the evidence for a persistent rise in inflation expectations is not clear-cut. And pay outcomes are also influenced by other factors, including productivity growth and the state of the labour market.

Chart 4.7 Cumulative growth^(a) in average earnings and the National Minimum Wage



Sources: Department of Trade and Industry and ONS.

- (a) Since the National Minimum Wage began in April 1999.
(b) Main adult rate (for workers aged 22 and over).
(c) Whole-economy average earnings index.

Another influence on firms' labour costs in coming months will be the recent rise in the National Minimum Wage. The adult rate (for workers aged 22 and over) increased by 5.9% on 1 October, from £5.05 per hour to £5.35 per hour. This year's increase is above earnings growth and is larger than the rise last year (Chart 4.7). The Low Pay Commission estimated that around 5% of jobs will benefit from the 2006 increase. There could be further upward pressure on wages if workers try to restore the gap between their wages and those of the lower paid. But the total impact on businesses' costs depends on the extent to which they are able to push down other costs in response. These other costs are considered in the next section.

The implications of higher costs for wages, prices and employment

Companies have faced rising non-wage cost pressures in recent years. The costs of imported and energy-intensive inputs have risen since 2004, and pension obligations have increased. This box explores the implications for businesses' wage and pricing decisions and aggregate inflation.

Rising non-wage costs can be offset by an increase in labour productivity; absorbed by businesses in lower profits; or passed on to employees through some combination of lower nominal wage growth and larger rises in prices.

Over the medium to long term, in the absence of sustained changes in productivity growth, much of the burden of adjustment to higher non-wage costs has tended to be borne by employees. That is because profits have tended not to fall permanently as a share of output, since businesses are required to deliver a rate of return to investors that is ultimately set on international capital markets. In competitive markets, sustained cost pressures on businesses' profits should ultimately result in exit from the industry rather than affecting the sustainable rate of return.

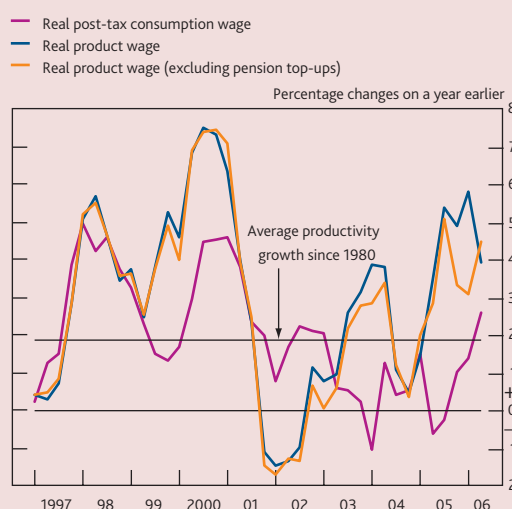
But nominal wages and prices can take time to adjust fully. Nominal wage growth may be slow to adjust downwards, because wages are only reset periodically or because workers resist the implied fall in living standards. And businesses may be reluctant to raise prices, because there are costs of doing so, either directly or in terms of the potential loss of market share if competitors do not raise their prices.

The nature of this adjustment is apparent in real wages. Employees care about the 'real consumption wage' — their take-home pay relative to the price of goods and services that they purchase. By contrast, firms care about the 'real product wage' — the price of labour relative to value added in the production process. In the long run, both measures should grow in line with productivity (all other things being equal). But during an adjustment to a change in non-wage costs, these growth rates will diverge. To the extent that employees bear the burden of the adjustment, it will be reflected in weaker growth of the real consumption wage relative to productivity. To the extent that companies bear the burden, it will be reflected in stronger growth in the real product wage.

Recent adjustments in real wages and profits

There does appear to have been some downwards adjustment of the growth in the real consumption wage. As **Chart A** shows, the real consumption wage has grown more slowly than average productivity growth for much of the period since

Chart A Real wages^(a)



(a) Real consumption wage defined as household post-tax wages and salaries per head divided by the consumption deflator. Includes non-profit institutions serving households. Real product wage defined as total compensation of employees per head relative to the gross value added (GVA) deflator of the non-oil and gas private sector (Bank estimate, using ONS experimental data on the market sector).

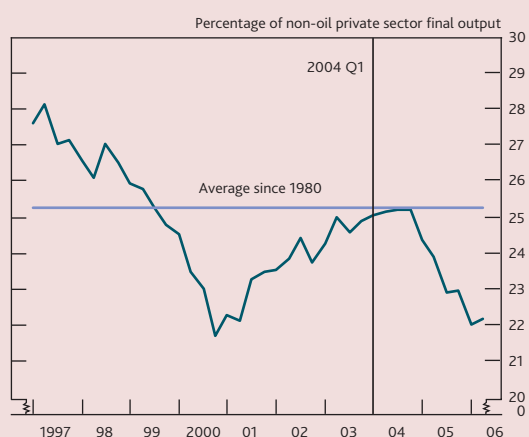
energy and import price inflation began to rise in 2004. In an accounting sense, that reflects both the pickup in consumer price inflation and the relatively muted pace of regular pay growth.

But this slower real consumption wage growth has not been enough to offset the impact of higher energy and import prices on businesses' costs completely. That is apparent from the behaviour of the real product wage. Growth in the real product wage has outstripped average productivity growth over much of the past two years (**Chart A**). That will have encouraged businesses to scale back hiring plans, as the cost of employing an additional employee will have been growing more rapidly than the value being added in the production process.

The overall scale of the required adjustment is indicated by the wedge between the two real wage measures. Between the end of 2003 and 2006 Q2, the wedge increased by 4½%. In part, that was the result of the rise in energy and import prices. But other factors also contributed to the evolution of the wedge during this period, such as the impact of special pension contributions⁽¹⁾ and movements in taxes.

With incomplete adjustment in the real consumption wage, some of the adjustment has occurred through a squeeze in profit margins. Since 2004, the ratio of profits to final output in the non-oil private sector has fallen below its historical average (**Chart B**). It is possible that the long-run sustainable profit margin has fallen (for example, if the recent fall in world

(1) See the box on pages 14–15 of the August 2006 *Report* for a discussion of the impact of pension fund deficits on company behaviour.

Chart B Non-oil private sector profit share^(a)

(a) Bank estimate. Final output is defined as gross value added of the non-oil and gas private sector plus intermediate inputs. Profits defined as final output minus employees' compensation, intermediate inputs and alignment adjustments.

real interest rates were to be sustained). But it is also possible that businesses will respond to the increase in non-wage costs by pushing down further on growth in the real consumption wage. The extent to which they attempt to do this through larger increases in prices rather than more subdued wage growth is an important issue for the MPC's inflation projection, and is considered in Section 5.

Other cost pressures

Companies' non-labour cost pressures have picked up in recent years. In the manufacturing sector, annual input price inflation rose from -4.5% in 2002 to a peak of 14.5% in 2006 Q1. That was consistent with survey evidence, which pointed to above-average increases in input prices in both the manufacturing and service sectors (Table 4.A).

Part of companies' response to higher costs can come through raising prices. Some companies in highly energy-intensive sectors do appear to have been able to pass on much of the higher energy prices. Utility companies have raised domestic gas prices in response to higher wholesale prices. And petrol retailers also increased prices earlier in the year.

The picture in other sectors is more mixed. In the two years to 2006 H1, manufacturers raised their prices faster than previously: the annual rate of increase of manufacturing output prices (excluding excise duties) averaged 3.1% over this period, almost 2 percentage points higher than during the previous two years. But the pickup in output prices was relatively modest compared with the rise in costs, and some measures of output price inflation have fallen a little recently.

In aggregate, businesses do not yet appear to have passed on all of the increase in costs since 2004, either through lower wages or higher prices. As the box on pages 30–31 explains, there has been a squeeze on profits as a result. Indeed, a survey by the Bank's regional Agents in May found that a majority of respondents had experienced a decline in profit

Table 4.A Manufacturing and service sector prices

	Averages ^(a) 2006				
		Q1	Q2	Q3	Oct.
Input prices					
ONS manufacturing ^(b)	2.0	14.5	13.3	7.9	n.a.
CIPS/RBS manufacturing ^(c)	53.5	64.0	66.2	68.0	63.1
CIPS/RBS services ^(c)	57.4	59.5	61.4	61.8	57.4
Output prices					
ONS manufacturing ^(d)	1.0	3.0	3.3	2.6	n.a.
CIPS/RBS manufacturing ^(c)	51.1	54.3	53.4	55.5	56.0
CIPS/RBS services ^(c)	52.1	52.5	54.5	54.5	53.0

Sources: CIPS/RBS and ONS.

(a) Quarterly averages since 1998 (since 2000 for CIPS/RBS manufacturing output prices).

(b) Non seasonally adjusted annual inflation rate (including climate change levy).

(c) Quarterly CIPS/RBS data are averages of monthly indices. A reading above/below 50 implies rising/falling input or output prices.

(d) Non seasonally adjusted annual inflation rate (excluding excise duties).

Inflation expectations

Inflation expectations should be anchored around the inflation target in the medium term, provided that the monetary policy framework is credible. But consumer price inflation has picked up in the United Kingdom. And that could potentially feed through to higher inflation expectations, particularly in the short term. This box explores the role of inflation expectations in the economy and assesses recent developments.

The role of inflation expectations

Inflation expectations affect the economy in a variety of ways. For example, they can affect wage bargaining, since employees care about the future purchasing power of their wages and employers care about the price of labour relative to value added in the production process. Inflation expectations can also influence consumption and investment decisions. For a given path of nominal interest rates, higher expected inflation by households and companies implies lower expected real interest rates. That would tend to make spending more attractive relative to saving. But the views of financial market participants matter too — if their inflation expectations rise, nominal market interest rates are liable to increase and real rates might not actually decline.

Recent developments

Expectations are difficult to measure accurately. Surveys and information from financial markets can provide an indication of changes in inflation expectations. However, the concepts of inflation that they relate to vary. Measures of expectations from financial markets are based on instruments linked to RPI. But surveys of households tend not to specify a precise index, in part because individual households buy different baskets of goods and services, so their perceived inflation rates will vary.

Measures of market participants' medium-term views on inflation can be obtained from the difference between the interest rates prevailing on nominal and index-linked government bonds — so-called 'breakeven inflation rates'. Over the past year or so, these have drifted upwards at five to ten-year horizons, by 0.3–0.4 percentage points (**Chart A**). However, interpreting these movements is not straightforward, since breakeven rates measure not just market participants' inflation expectations, but also the premium they require to compensate them for future inflation uncertainty.

It is unlikely that much of the rise in breakeven rates reflects expectations of higher medium-term CPI inflation. Survey measures of financial market and other professional economists' medium-term inflation expectations have risen by rather less. The rise in breakeven rates could be because market participants have revised up their assessment of future

Chart A Medium-term breakeven inflation rates^(a)



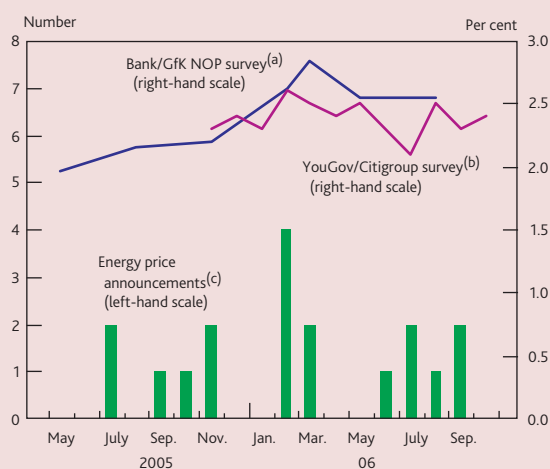
Sources: Bank of England and Bloomberg.

(a) Implied instantaneous inflation rates five and ten years ahead, based on the difference between yields on nominal and inflation-linked government bonds. The instruments used are linked to RPI, rather than CPI, and so are not directly comparable to the Bank's inflation target.

inflation volatility a little in light of recent inflation outturns. The rise could also reflect changes to market participants' views on the outlook for RPI inflation that are unrelated to their expectations for CPI inflation.

Survey measures of households' short-term inflation expectations have been quite volatile recently. A quarterly survey carried out by GfK NOP for the Bank asks about expected changes in shop prices over the next year. That measure picked up earlier in the year, though it has since eased back a little (**Chart B**). An alternative survey carried out by YouGov for Citigroup, which asks about consumer prices over the next year, has also been quite volatile. The YouGov/Citigroup survey also asks about households' inflation

Chart B Short-term inflation expectations and energy price announcements



Sources: Bank of England, Citigroup, GfK NOP and YouGov.

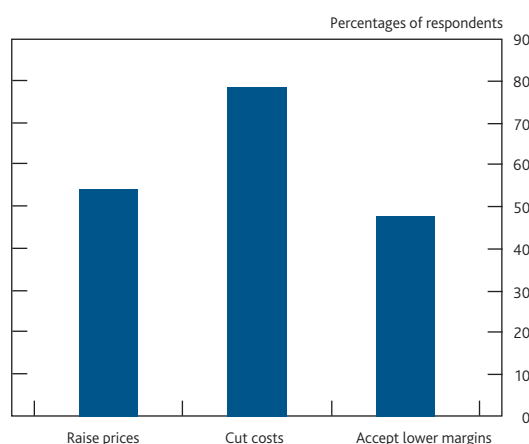
(a) Median of respondents' expected change in shop prices over the next twelve months.
 (b) Median of respondents' expected change in consumer prices of goods and services over the next twelve months.
 (c) The number of announcements of future energy price increases in each month by six of the largest gas and electricity companies.

expectations five to ten years ahead. That measure has shown similar fluctuations to the short-term measure.

Short-term expectations may be influenced by recent increases in actual inflation, or specific news on future prices. Rapid rises in energy prices over the past two years have led to well-publicised announcements of increases in gas and electricity bills. That may have influenced short-term expectations for a period earlier this year (**Chart B**).

Overall, it is not clear that the increase in actual inflation over the past two years has led to a persistent shift in medium-term inflation expectations, either by households or by market participants. However, there is a risk that higher inflation, particularly if it persists, will push up medium-term expectations. And that could lead to heightened inflationary pressure in the future.

Chart 4.8 Agents' survey: how companies plan to respond to the fall in margins^(a)



(a) Based on 302 responses to a survey of companies by the Bank of England's regional Agents in September 2006, weighted by respondents' turnover. Firms were allowed to give more than one response.

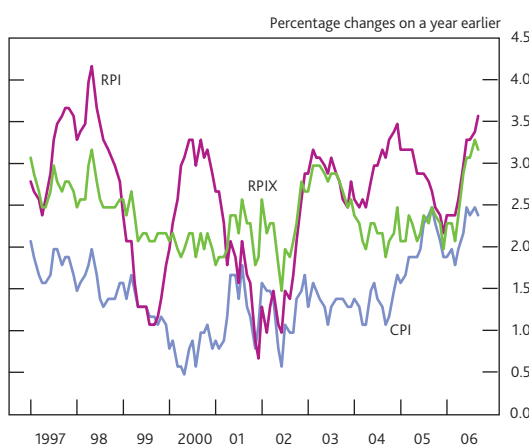
margins over the past year⁽¹⁾ — although some of that pressure may have eased with the recent fall in the inflation rate of energy and other input prices (**Table 4.A**).

The outlook for inflation depends on how businesses respond to the remaining squeeze on profit margins. According to a survey by the Bank's regional Agents in September, the majority of companies intended to cut costs, while a number reported that they had no alternative but to accept the margins squeeze. But around half intended to raise prices (**Chart 4.8**). The implications of companies' behaviour for the inflation outlook are discussed further in Section 5.

4.3 Consumer prices

Consumer price inflation has picked up on a range of measures during 2006 (**Chart 4.9**).⁽²⁾ Annual CPI inflation rose by 0.6 percentage points between March and September of this year, to 2.4%. That rise was largely accounted for by higher food prices and utility bills (**Chart 4.10**). Some of that upward pressure was offset by lower petrol prices in September, reflecting the decline in the oil price.

Chart 4.9 Measures of consumer prices



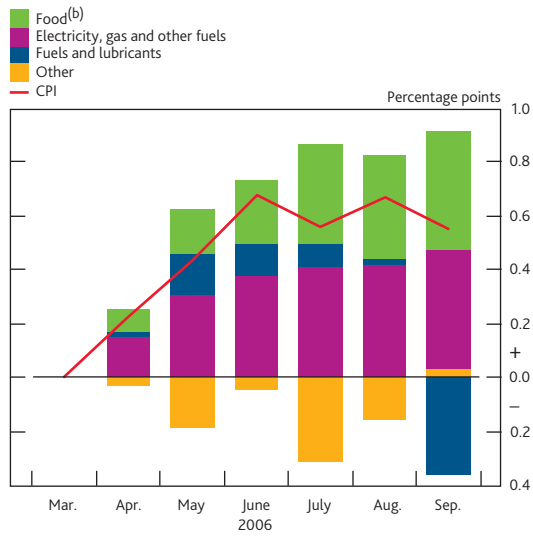
The short-term outlook for consumer prices

In the next few months, CPI inflation is again likely to be influenced by developments in a number of specific prices. The 2004 Higher Education Act included a provision for universities to raise the tuition fees charged to undergraduates starting in the 2006/07 academic year. That should push up on CPI inflation from October. Inflation will also be affected by movements in petrol prices. Although these fell further in October, petrol prices may push up on the annual rate of CPI inflation during the remainder of 2006, given the sharp decline that occurred in late 2005. And there may be some slight pickup in the contribution from gas and electricity prices, reflecting pre-announced rises by some utility companies. But

(1) For further details, see page 34 of the August 2006 Report.

(2) For details on the differences between CPI and RPI inflation, see the box on pages 29–30 in the November 2005 Report.

Chart 4.10 Contributions to the rise in CPI inflation since March 2006^(a)



(a) Contributions to the cumulative rise in annual (non seasonally adjusted) CPI inflation.
 (b) Includes non-alcoholic beverages.

the recent fall in energy prices, if sustained, is likely to feed through to lower domestic utility prices over time.

Overall, the annual rate of CPI inflation is expected to rise further over the next few months before easing back to around the target. Section 5 discusses the factors underpinning the MPC's inflation projection.

5 Prospects for inflation

In the MPC's central projection, assuming that Bank Rate follows a path implied by market yields, GDP growth remains close to its average rate over the past decade. The profile is marginally stronger than in the *August Report*. CPI inflation picks up in the early part of the central projection, before falling back, settling around the 2% target over the medium term. The central projection for CPI inflation is similar to that in August, though inflation returns to target a little more rapidly. As usual, there are substantial uncertainties surrounding these projections, especially on the supply side. These include: the implications of rapid growth in money and credit; the momentum in consumption and investment spending; the prospects for world activity; the degree of slack within the economy; and the outlook for wages and prices in the light of movements in energy and import prices. Overall, the risks to growth and inflation are judged to be broadly balanced, though, as in August, there is greater-than-usual uncertainty over the outlook for inflation.

5.1 The outlook for demand

In the MPC's central projection, demand grows at close to its average rate over the past decade. Within this, there is a modest rebalancing in the composition of demand, with investment and net trade both contributing a little more to overall growth than they have in the past few years.

Consumer spending

The recent path of quarterly household consumption growth has been volatile. But smoothing through these short-term movements, consumer spending has clearly recovered from its trough in the first half of 2005. Average quarterly consumption growth so far this year has been in line with its long-term average rate, and the judgement embodied in the MPC's central projection is that consumer spending growth will settle at around this average over the forecast period. That reflects a relatively stable outlook for real household income. Average consumption growth is projected to be a little higher than it was in the *August Report*, as the impact of higher short-term market interest rates is more than offset by the effects of stronger financial wealth and slightly firmer growth in expected real labour income, associated with a further rise in the size of the workforce and the recent fall in energy prices.

Household spending accounts for nearly two thirds of total UK expenditure. So the risks around this projection are particularly relevant to the judgement on the overall risks to activity. On the upside, it is possible that consumption growth will rise further in the near term, perhaps reflecting greater buoyancy in the housing market. But on the downside, the

burden of rising household debt may weigh more heavily on spending than in the central case.

Private sector investment

Growth in business investment picked up in the first half of 2006, according to official estimates, and by more than expected at the time of the *August Report*. Investment data are volatile and prone to substantial revision. But a recovery in investment spending, if sustained, would be consistent with business surveys of investment intentions, as well as with other indicators of the investment climate, such as the limited margin of spare capacity, the relatively healthy financial position of the corporate sector and the falling relative price of capital goods. In the central projection, business investment is expected to grow more rapidly than GDP, helping to underpin the expansion. Adding in dwellings investment — projected to be boosted by the recovery in the housing market — overall private sector investment growth is projected to be a little higher than it was in the *August Report*. It is possible that investment may rise more strongly than in the central case, reflecting the relatively positive outlook for many of its determinants.

Government spending

The MPC continues to assume that nominal government spending growth will be broadly in line with the plans outlined in the Chancellor's most recent Budget. Those plans imply that nominal government spending will grow at a firm, but gradually declining, pace over the forecast period.

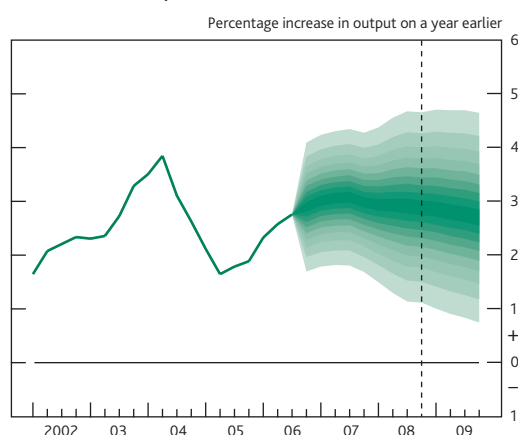
External demand and UK trade

UK exports depend on developments in the global economy. On a UK trade-weighted basis, global growth in the first half of the year continued to exceed expectations, with the pickup in growth in continental Europe more than outweighing slower growth in the United States. In the MPC's central projection, world output growth slows a little over the forecast period, though average growth remains only slightly below that seen in the past three years. The projected path for world activity is little changed compared with that in the *August Report*.

Prospects for activity in the United States are judged to have weakened a little, but remain reasonably firm. The central projection builds in a somewhat sharper near-term decline in residential investment than in the *August Report*, and medium-term GDP growth is projected to be a touch lower. But, in part because of the cushioning effects of lower oil prices and higher financial wealth on consumption, the slowdown is relatively modest, with four-quarter GDP growth reaching its low point at the start of next year.

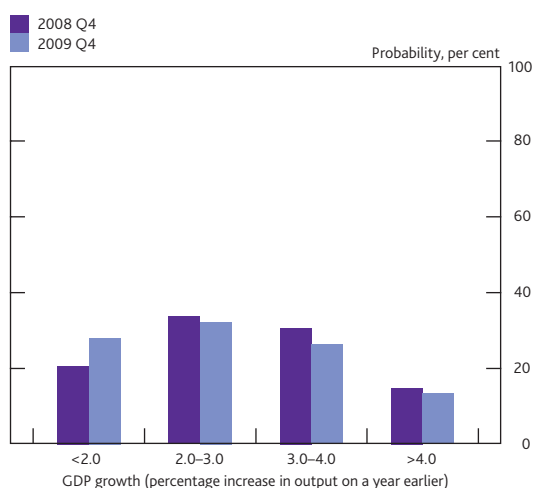
In the central projection, the slowdown in the United States is expected to have only limited spillover effects on the euro area and other UK trading partners. Growth in the euro area in the first half of this year was somewhat higher than expected in the *August Report*, as stronger-than-expected investment

Chart 5.1 Current GDP projection based on market interest rate expectations



The fan chart depicts the probability of various outcomes for GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that GDP growth over the subsequent three years would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outcomes of GDP growth are also expected to lie within each pair of the lighter green areas on 10 occasions. Consequently, GDP growth is expected to lie somewhere within the entire fan chart on 90 out of 100 occasions. The bands widen as the time horizon is extended, indicating the increasing uncertainty about outcomes. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed line is drawn at the two-year point.

Chart 5.2 The MPC's expectations for GDP growth based on market interest rate expectations^(a)



(a) These figures are derived from the same distribution as Chart 5.1. They represent the probabilities that the MPC assigns to GDP growth lying within a particular range at a specified time in the future.

growth more than offset weaker-than-expected consumption. Over the forecast period, GDP growth is expected to ease, with investment growth ticking down against a background of steady consumption growth. The precise timing of the consumption recovery is affected by uncertainties surrounding the impact of next January's increase in VAT rates in Germany, which may boost spending somewhat in anticipation of the change, but depress it in early 2007.

The continued robust outlook for world growth means that the path for UK export growth in the central projection remains strong, despite the appreciation of sterling since the *August Report* and the MPC's usual assumption of a continuation in the trend decline in the United Kingdom's share of world trade. That is consistent with the relatively buoyant picture of near-term export prospects given by most business surveys.

Overall GDP growth depends on the change in net exports: that is, exports adjusted for the growth in imports. In the central projection, the ratio of import volumes to domestic demand is assumed to continue to rise over the forecast period, but at a slower pace than in recent years, reflecting the cumulative impact of past increases in import prices. With exports growing steadily in the central projection, net trade is projected to make a small positive contribution to growth. The risks to the outlook for net trade are judged to be on the downside. In particular, the slowdown in the United States might be more pronounced than in the central case, either if it has more widespread effects within the United States — for example feeding through into markedly lower US consumption — or if the spillovers to other countries are more extensive.

The GDP projection

The MPC's central projection for four-quarter GDP growth is shown in **Chart 5.1**. The projection assumes that Bank Rate follows a path implied by market yields; this and other assumptions are described in more detail in the box on page 38.

In the central projection, GDP growth remains broadly stable at around its average rate over the past decade, edging down towards the end of the forecast period as government spending slows. The projection is a little stronger on average than in the *August Report*, as a more robust outlook for private sector investment, and a boost to private sector spending from a larger active workforce, more than offset the effects of higher short-term market interest rates and a higher exchange rate.

There are a number of uncertainties around this outlook. The possibility that the sharp pickup in money and credit growth will lead to further asset price appreciation, and eventually higher spending, is an upside risk. Investment growth could have more near-term momentum than in the central case. And there are both upside and downside risks to the outlook

Financial and energy market assumptions

The projections for GDP growth and CPI inflation described in **Charts 5.1** and **5.3** are conditioned on a path for official interest rates implied by market yields (**Table 1**). That path provides a convenient benchmark assumption on which to condition the MPC's projections.⁽¹⁾

Table 1 Expectations of Bank Rate implied by market yields^(a)

	2006					2007				2008				2009			
	Q4 ^(b)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
November	4.9	5.1	5.1	5.2	5.1	5.1	5.1	5.1	5.0	5.0	5.0	4.9	4.9	5.0	5.0	4.9	4.9
August	4.6	4.8	4.8	4.9	4.9	4.9	5.0	5.0	5.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9

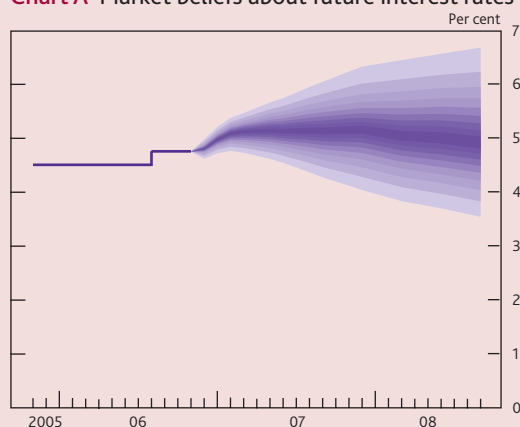
(a) The data are fifteen-day averages of one-day forward rates to 8 November 2006 and 2 August 2006 respectively. They have been derived from instruments that settle on the London interbank offered rate. That includes the market rates on futures, swaps, interbank loans and forward rate agreements, adjusted for credit risk. The MPC may change the way it estimates these expectations from time to time, as shifting market conditions can alter the relative advantages of using different methods.

(b) November figure for 2006 Q4 is an average of realised spot rates to 8 November, and forward rates thereafter.

On average, in the fifteen days leading up to the MPC's decision, the market yield curve implied that financial market participants attached some probability to a rise in Bank Rate above 5% during 2007, but expected rates to fall back in 2008 and 2009. That is a little higher than the profile expected in August. **Chart A** uses information from option prices to provide an approximate indication of market participants' uncertainty, ahead of the MPC's decision on 9 November, about the future path of official interest rates. The chart suggests that market participants believed that a wide variety of outcomes was possible.

The starting point for the sterling exchange rate index (ERI) in the MPC's projections for GDP growth and CPI inflation is 103.5, the average for the fifteen working days to 8 November. That was 2.3% above the starting point for the August forecast. Under the MPC's usual convention,⁽²⁾ the exchange

Chart A Market beliefs about future interest rates



The mean of the fan chart is the market rate profile for the fifteen-day average ending 8 November, consistent with the measure of interest rates shown in Table 1. The distribution is derived using the prices of options on three-month Libor futures contracts traded on Euronext.liffe. It is constructed by averaging the daily distributions around a common mean for each of the fifteen days. The average is calculated for each probability band at each quarter. The fan chart depicts the probability of outcomes for interest rates in the future. It has a similar interpretation to the fan charts in the Overview and in this section of the Report. The chart is only indicative of market expectations of future policy rates as it is based on Libor instruments, and is estimated on the assumption that investors are risk-neutral.

rate is assumed to depreciate to 102.0 by 2008 Q4, but remains higher than assumed in August throughout the forecast period.

The starting point for UK equity prices in the MPC's projections was 3162 — the average of the FTSE All-Share for the fifteen working days to 8 November. That was 7.1% above the starting point for the August forecast. Equity prices are expected to rise broadly in line with nominal GDP over the forecast period.

The starting point for the price of Brent crude oil was \$57 per barrel in the fifteen working days to 8 November, and the starting point for wholesale gas prices was 32 pence per therm. The starting points for both oil and gas prices were 23% lower than in August. Energy prices are expected to evolve broadly in line with the path implied by futures markets.

(1) See the box 'The interest rate assumptions in the projections', on pages 42–43 of the August 2004 *Inflation Report*.

(2) See the box 'The exchange rate in forecasting and policy analysis', on page 48 of the November 1999 *Inflation Report*.

for consumption. It is possible that global activity growth could decline more sharply than envisaged in the central projection. And there is considerable uncertainty about the impact of a larger active workforce on medium-term growth rates. The Committee's best collective judgement is that the risks to growth are broadly balanced. But there is a range of views among members, as discussed in Section 5.2. **Chart 5.2** shows the probabilities of outcomes for GDP growth at different horizons implied by the fan chart.

5.2 The outlook for CPI inflation

In the medium term, inflation is determined by the stance of monetary policy. But over shorter horizons, with slow

adjustment in wages and prices, the outlook for inflation is also influenced by imbalances between the demand for private sector output and the resources available to supply it, as well as by the way in which businesses respond to changes in key input costs, including energy and imports. An important judgement for the outlook is how these various factors influence pay settlements in early 2007.

The balance between demand and supply

The MPC's central projection assumes that the margin of spare capacity within businesses is relatively limited over the forecast period, and somewhat smaller than in the *August Report*, consistent with movements in most survey-based measures over the past three months.

By contrast, conditions in the labour market appear to have loosened further. The unemployment rate has continued to rise, and regular pay growth has remained subdued. In part, these developments reflect a pickup in the supply of labour, driven by higher participation rates of older people and those previously classified as long-term sick, and by continued strong inward migration from Eastern Europe and elsewhere. Subdued labour demand has probably also played a role, as firms first made more intensive use of existing staff retained during the mild slowdown in 2004–05. Both factors are likely to imply some downward pressure on wage growth. But firms may have chosen to scale back their hiring plans, to the extent that workers have resisted the reduction in real take-home pay implied by rises in energy and import prices since 2004. That would imply less downward pressure on wage growth.

There is considerable uncertainty about the future rate of growth in the labour supply, and its implications for inflation. Gaps and potential biases in the available data sources on inward migration make it hard to judge accurately how large the net flow of migrants either has been in the recent past, or will be in the future; how quickly migrants find (and keep) jobs; and how their saving rates and productivity compare to those of the existing population. The extent to which participation rates of existing UK residents will continue to rise is also uncertain.

In the central projection, the growth in labour supply is a little stronger than assumed in the *August Report*, raising output and employment growth somewhat and moderating the upwards pressure on wages and prices. But the Committee's best collective judgement is that the increased looseness of the labour market broadly offsets the reduction in spare capacity within businesses, leaving the overall margin of spare resources close to its historical average. The uncertainties around this part of the projection are considerable. If capacity pressures are somewhat weaker than in the central case, or there is greater slack in the labour market, there will be less upwards pressure on inflation. Conversely, the margin of spare capacity in the economy may be rather smaller than in the

central case, for instance if more of the rise in unemployment reflects past increases in businesses' energy and import costs.

Inflation expectations and wage growth

The pickup in inflation during 2006 could have a bearing on future wage growth and inflationary pressures. That could happen either if firms and workers expect the rise in inflation to persist, or if workers attempt to recover the lost real income from higher past inflation. As the box in Section 4 discusses, it is not easy to interpret recent movements in measures of inflation expectations. In the central projection, inflation expectations are assumed to remain reasonably well anchored to the target over the forecast period. But recent and prospective near-term developments in price inflation — particularly of the RPI — may pose an upside risk to this projection ahead of the onset of the main settlements round in early 2007.

The outlook for energy and import prices

In the central projection, the prices of oil and gas are assumed to follow a path implied by futures markets. That path is substantially lower than in August, reflecting the marked decline in market prices in the past three months. But the level of oil prices in the projection remains high in real terms compared with longer-term averages. And, in the Committee's judgement, uncertainties over future price movements remain considerable in both directions.

Import prices rose by substantially more than the CPI in 2005 and early 2006, but import price inflation has begun to ease more recently. In the central projection, import price inflation is expected to moderate further in the near term, reflecting lower inflation in foreign exporters' energy inputs and an easing in world growth. Import price inflation in the central projection is weaker on average than it was in the *August Report*, reflecting the appreciation of sterling over the past three months and the sharp fall in energy prices. But as in previous *Reports*, there are risks on both sides of this central case. On the upside, non-oil commodity price inflation remains robust, and there have been signs of greater capacity constraints in some emerging markets. But on the downside, the pace with which UK companies shift towards lower-cost overseas suppliers may accelerate.

The pass-through of energy and import costs

Many energy and import-intensive goods and services are inputs to UK businesses, rather than being consumed directly. So the implications for CPI inflation of movements in energy and import prices will depend on the extent to which these businesses are able to pass on their costs to consumer prices, which will in turn depend on the stance of monetary policy.

As the box in Section 4 discusses, part of the rise in energy and import costs since 2004 appears to have been passed on to workers through lower growth in real take-home pay,

reflecting both restrained nominal wage growth and higher increases in consumer prices, partly accommodated by monetary policy. But — perhaps because of sluggish adjustment in wages and prices — real take-home pay growth has not moderated by enough to prevent a decline in the profits of energy-consuming companies, as a proportion of the value of their output.

Looking ahead, the MPC's central projection assumes that these profits will recover somewhat over the forecast period. To some extent, that recovery reflects lower energy and import costs, together with a further shift to lower-cost suppliers. But it also involves a period of below-trend growth in real take-home pay. That reflects in part continued subdued growth in nominal wages, and also further upwards pressure on consumer prices, notwithstanding the impact of the more direct pass-through of lower energy and import price inflation. The pace and scale of the real wage adjustment, and the extent to which it comes through nominal wages or prices, is highly uncertain, and poses risks to the inflation projection in both directions.

The outlook for CPI inflation

The MPC's projection for CPI inflation, assuming that Bank Rate follows a path implied by market yields, is shown in **Chart 5.3**. In the central case, annual CPI inflation is projected to pick up at the start of the forecast period, reflecting the interplay of movements in petrol price inflation, higher university tuition fees and pre-announced rises in utility prices. But from early next year, CPI inflation is projected to fall back towards the target as energy and import price inflation moderates. The projection is similar to that in the *August Report*, though inflation returns to target a little more rapidly. That reflects the combined effect of the sharp decline

Chart 5.3 Current CPI inflation projection based on market interest rate expectations

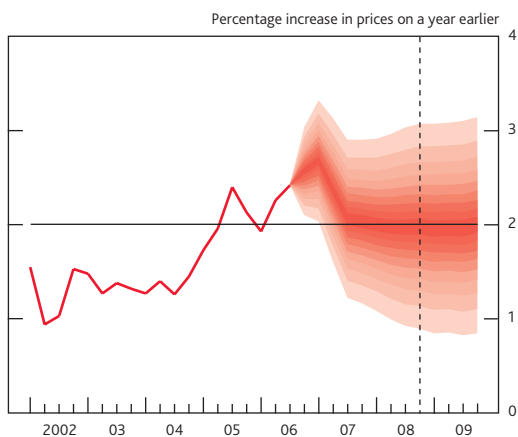
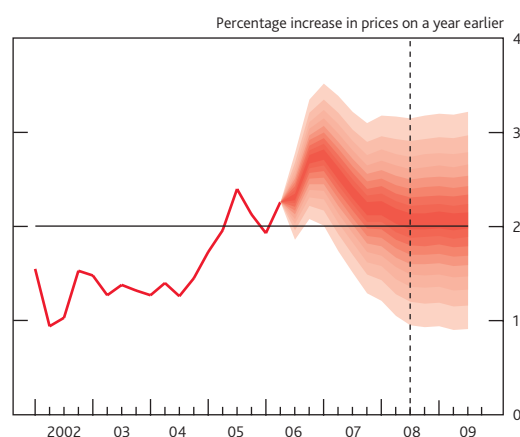


Chart 5.4 CPI inflation projection in August based on market interest rate expectations



Charts 5.3 and 5.4 The fan charts depict the probability of various outcomes for CPI inflation in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation over the subsequent three years would lie within the darkest central band on only 10 of those occasions. The fan charts are constructed so that outturns of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. Consequently, inflation is expected to lie somewhere within the entire fan charts on 90 out of 100 occasions. The bands widen as the time horizon is extended, indicating the increasing uncertainty about outcomes. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed lines are drawn at the respective two-year points.

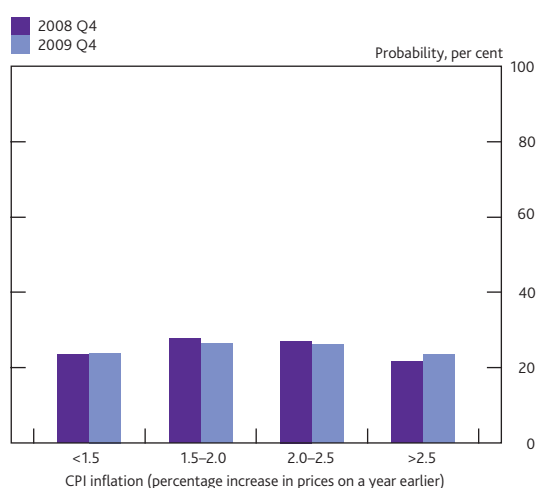
in energy prices since August, the rise in short-term market interest rates and the higher level of sterling.

There are some differences of view among the Committee concerning the central projection. One view is that there is a slightly greater margin of spare resources in the economy than embodied in the central projection, reflecting both greater spare capacity within businesses, and a greater degree of slack in the labour market. Taken together, those factors would generate a slightly weaker outlook for growth and inflation.

The uncertainties about the outlook for inflation are judged to be somewhat greater than normal, reflecting heightened uncertainty about the supply side of the economy. In the *August Report*, that was reflected in a widening of the bands in the inflation fan chart, and that judgement has been retained in the current projection. Particular uncertainty relates to the degree of slack in the labour market and within businesses, and the outlook for wages and prices in the light of rapid growth in money and credit and movements in energy and import prices. The Committee's best collective judgement is that the risks around the central projection are broadly balanced. But there is a range of views among the Committee on the relative weight to place on different risks, with some judging the balance to lie on the upside, and some on the downside.

The MPC's best collective judgement of the probabilities of various outcomes for CPI inflation is set out in **Chart 5.5**. The overall balance of risks to the inflation outlook at the two-year point is shown in **Chart 5.6**. **Chart 5.7** shows the corresponding balance in August. The box on page 44 reports

Chart 5.5 The MPC's expectations for CPI inflation based on market interest rate expectations^(a)



(a) These figures are derived from the same distribution as Chart 5.3. They represent the probabilities that the MPC assigns to CPI inflation lying within a particular range at a specified time in the future.

Chart 5.6 Current projected probabilities of CPI inflation outcomes in 2008 Q4 (central 90% of the distribution)^(a)

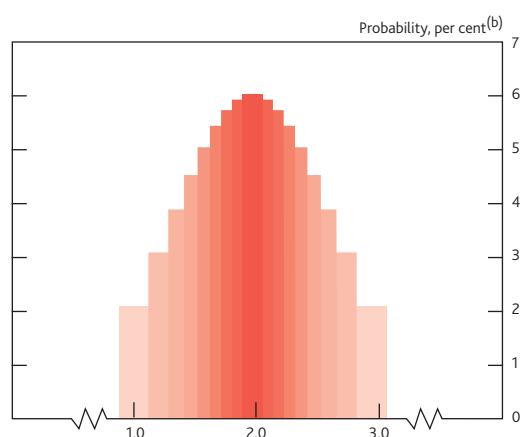
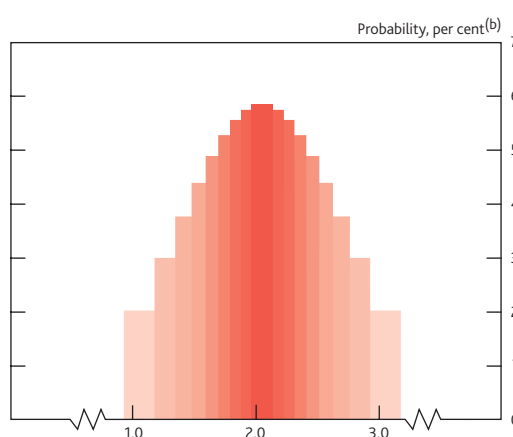


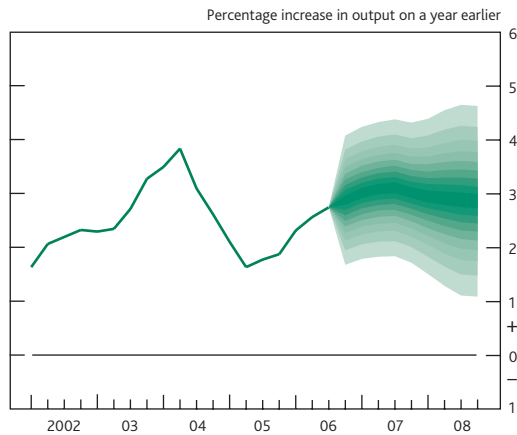
Chart 5.7 Projected probabilities in August of CPI inflation outcomes in 2008 Q4 (central 90% of the distribution)^(a)



Charts 5.6 and 5.7

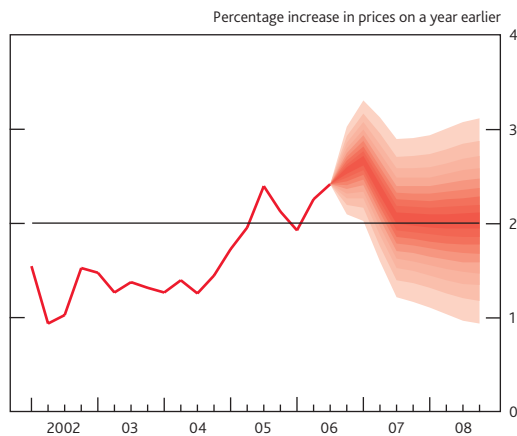
- (a) Chart 5.6 represents a cross-section of the CPI inflation fan chart in 2008 Q4 for the market interest rate projection. The coloured bands have a similar interpretation to those on the fan charts. Like the fan charts, they portray the central 90% of the probability distribution. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in 2008 Q4 would lie somewhere within the range covered by the histogram on 90 occasions. Inflation would lie outside the range covered by the histogram on 10 out of 100 occasions. Chart 5.7 shows the corresponding cross-section of the *August Inflation Report* fan chart.
- (b) Average probability within each band. The figures on the y-axis indicate the 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 2.0% (between 1.95% and 2.05%) in the current projection is around 6%.

Chart 5.8 Current GDP projection based on constant nominal interest rates at 5%



See footnote to Chart 5.1.

Chart 5.9 Current CPI inflation projection based on constant nominal interest rates at 5%



See footnote to Charts 5.3 and 5.4.

comparison projections drawn from the Bank's quarterly survey of external forecasters.

5.3 Projection based on constant interest rates

Charts 5.8 and 5.9 show the MPC's projections for GDP growth and CPI inflation, conditioned on a constant interest rate of 5%. Note that these are two-year rather than three-year projections.⁽¹⁾

5.4 The policy decision

At its November meeting, the Committee noted that, under the assumption that Bank Rate follows market yields, the central projection was for output to continue growing steadily and for inflation to move higher in the near term and then fall back to settle around the target. Given that outlook, and bearing in mind the balance of risks, the Committee judged that an increase of 0.25 percentage points in Bank Rate to 5% was necessary to bring CPI inflation back to the target in the medium term.

(1) The box on pages 42–43 of the August 2004 *Inflation Report* explains why the projections based on constant interest rates are only shown up to two years ahead.

Other forecasters' expectations

Every three months, the Bank asks a sample of external forecasters for their latest projections. In the most recent survey, carried out in late October, the central expectation of most forecasters was for CPI inflation to be close to target in the medium term (Table 1 and Chart A). And, on average, they thought that inflation was broadly as likely to be above target as below (Table 2).

Table 1 Average of other forecasters' central projections^(a)

	2008 Q4	2009 Q4
CPI inflation ^(b)	2.0	1.9
GDP growth ^(c)	2.6	2.6
Bank Rate (per cent)	4.9	4.8
Sterling ERI ^(d)	100.0	99.8
(New index: January 2005 = 100)		

Source: Projections of outside forecasters as of 27 October 2006.

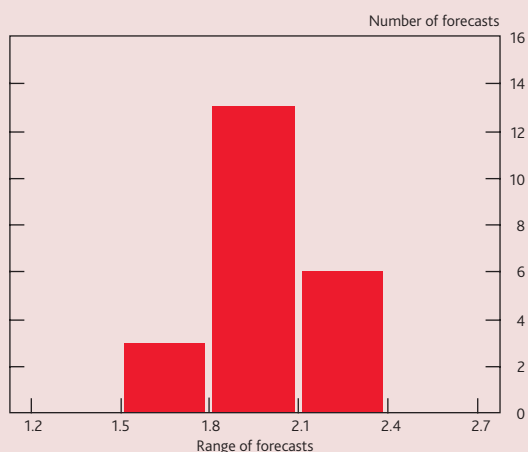
(a) For 2008 Q4, there were 22 forecasts for CPI inflation and GDP growth, 20 forecasts for Bank Rate, and 15 for the sterling ERI. For 2009 Q4, there were 19 forecasts for CPI inflation and GDP growth, 17 forecasts for Bank Rate, and 14 for the sterling ERI.

(b) Twelve-month rate.

(c) Four-quarter percentage change.

(d) Where necessary, responses were adjusted to take account of the difference between the old and new ERI measures, based on the comparative outturns for 2006 Q1.

Chart A Distribution of CPI inflation central projections for 2008 Q4



Source: Twelve-month CPI inflation projections of 22 outside forecasters as of 27 October 2006.

GDP growth was expected to remain steady. The average central projection was for four-quarter GDP growth to remain close to 2½% over the next three years (Table 1), although there was thought to be a considerably greater chance of growth falling below 2% than rising above 3% during this period (Table 2).

Bank Rate was expected to remain relatively stable: three quarters of respondents thought it would remain between 4.75% and 5.25% over the next three years. But, following the recent appreciation of sterling, the vast majority of

Table 2 Other forecasters' probability distributions for CPI inflation and GDP growth^(a)

CPI inflation						
Probability, per cent ^(b)	Range:					
	<1%	1–1.5%	1.5–2%	2–2.5%	2.5–3%	>3%
2008 Q4	5	12	32	34	13	4
2009 Q4	6	13	33	31	11	5
GDP growth						
Probability, per cent ^(b)	Range:					
	<1%	1–2%	2–3%	>3%		
2008 Q4	6	25	48	21		
2009 Q4	7	25	46	21		

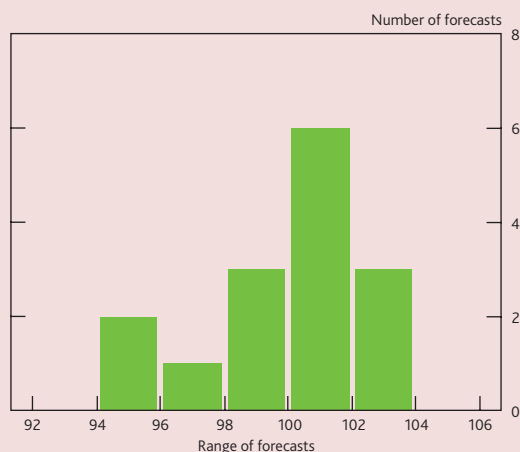
Source: Projections of outside forecasters as of 27 October 2006.

(a) For 2008 Q4, 22 forecasters provided the Bank with their assessment of the likelihood of twelve-month CPI inflation and four-quarter output growth falling in the ranges shown above. For 2009 Q4, the corresponding figure was 19. The table shows the average probabilities across respondents: for example, on average forecasters assigned a probability of 49% to CPI inflation turning out to be 2.0% or less in 2008 Q4. (b) Figures may not sum to 100 due to rounding.

respondents expected the sterling ERI to decline and follow a lower path than assumed by the MPC under its usual convention (Chart B).

Compared with three months earlier, the projections for growth and inflation were broadly unchanged, whereas the average expectations for the sterling ERI and Bank Rate were higher.

Chart B Distribution of sterling ERI central projections for 2008 Q4



Source: Projections of fifteen outside forecasters as of 27 October 2006.

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Text of Bank of England press notice of 7 September 2006

Bank of England maintains interest rates at 4.75%

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank rate paid on commercial bank reserves at 4.75%.

The minutes of the meeting will be published at 9.30 am on Wednesday 20 September.

Text of Bank of England press notice of 5 October 2006

Bank of England maintains interest rates at 4.75%

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 4.75%.

The minutes of the meeting will be published at 9.30 am on Wednesday 18 October.

Text of Bank of England press notice of 9 November 2006

Bank of England raises Bank Rate by 0.25 percentage points to 5.0%

The Bank of England's Monetary Policy Committee today voted to raise the official Bank Rate paid on commercial bank reserves by 0.25 percentage points to 5.0%.

The UK economy has recorded its fourth consecutive quarter of firm growth. Household spending has been volatile, but the underlying picture appears to be one of moderate expansion. The recovery in business investment has been maintained. The outlook for growth in the United Kingdom's main export markets remains positive. Credit and broad money growth remain rapid, and asset prices have continued to rise.

Although unemployment has continued to edge up, the margin of spare capacity within businesses appears limited. Oil prices have dropped back, but there are signs that other pricing pressures have picked up. CPI inflation was 2.4% in September. It is likely that inflation will rise further above the target in the near term, but then fall back as energy and import price inflation abate.

Against that background, the Committee judged that an increase in Bank Rate of 0.25 percentage points to 5.0% was necessary to bring CPI inflation back to the target in the medium term.

The Committee's latest inflation and output projections will appear in the *Inflation Report* to be published on Wednesday 15 November.

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

Glossary and other information

Glossary of selected data and instruments

AEI – average earnings index.

CPI – consumer prices index.

CPI inflation – inflation measured by the consumer prices index.

ERI – exchange rate index.

GDP – gross domestic product.

LFS – Labour Force Survey.

Libor – London interbank offered rate.

M4 – UK non-bank, non-building society private sector's holdings of sterling notes and coin, and their sterling deposits (including certificates of deposit, holdings of commercial paper and other short-term instruments and claims arising from repos) held at UK banks and building societies.

RPI – retail prices index.

RPI inflation – inflation measured by the retail prices index.

RPIX – RPI excluding mortgage interest payments.

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

Abbreviations

A8 Accession countries – the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

BCC – British Chambers of Commerce.

BHPS – British Household Panel Survey.

BRC – British Retail Consortium.

CBI – Confederation of British Industry.

CIPS – Chartered Institute of Purchasing and Supply.

CML – Council of Mortgage Lenders.

ECB – European Central Bank.

EU – European Union.

FOMC – Federal Open Market Committee.

FTSE – Financial Times Stock Exchange.

G7 – Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.

GVA – gross value added.

HBF – Home Builders Federation.

HMLR – Her Majesty's Land Registry.

HMRC – Her Majesty's Revenue and Customs.

IMF – International Monetary Fund.

IPS – International Passenger Survey.

MPC – Monetary Policy Committee.

MTIC – missing trader intra-community.

OECD – Organisation for Economic Co-operation and Development.

OFCs – other financial corporations.

ONS – Office for National Statistics.

PNFCs – private non-financial corporations.

RBS – Royal Bank of Scotland.

REC – Recruitment and Employment Confederation.

RICS – Royal Institution of Chartered Surveyors.

S&P – Standard and Poor's.

VAT – value added tax.

WRS – Worker Registration Scheme.

Symbols and conventions

Except where otherwise stated, the source of the data used in charts and tables is the Bank of England or the Office for National Statistics (ONS) and all data, apart from financial markets data, are seasonally adjusted.

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.

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ISSN 1353-6737

Price £3.00

Printed by Park Communications Limited



Printed on recycled paper