

# Inflation Report

February 2008



BANK OF ENGLAND







BANK OF ENGLAND

# Inflation Report

February 2008

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.

## **The Monetary Policy Committee:**

Mervyn King, Governor

Rachel Lomax, Deputy Governor responsible for monetary policy

John Gieve, Deputy Governor responsible for financial stability

Kate Barker

Charles Bean

Tim Besley

David Blanchflower

Andrew Sentance

Paul Tucker

The Overview of this *Inflation Report* is available on the Bank's website at [www.bankofengland.co.uk/publications/inflationreport/infrep.htm](http://www.bankofengland.co.uk/publications/inflationreport/infrep.htm).

The entire *Report* is available in PDF at [www.bankofengland.co.uk/publications/inflationreport/2008.htm](http://www.bankofengland.co.uk/publications/inflationreport/2008.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/2008.htm](http://www.bankofengland.co.uk/publications/inflationreport/2008.htm).



## Contents

<b>Overview</b>	<b>5</b>
<hr/>	
<b>1 Money and asset prices</b>	<b>9</b>
<hr/>	
1.1 Financial markets and asset prices	9
1.2 Credit conditions	13
1.3 Monetary aggregates	15
Box Monetary policy since the November <i>Report</i>	10
Box Terms and conditions on bank lending	16
<b>2 Demand</b>	<b>18</b>
<hr/>	
2.1 Domestic demand	18
2.2 External demand and net trade	23
Box The role of property in the economy	22
<b>3 Output and supply</b>	<b>26</b>
<hr/>	
3.1 Output	26
3.2 Capacity pressures within companies	27
3.3 Labour demand and supply	28
<b>4 Costs and prices</b>	<b>31</b>
<hr/>	
4.1 CPI inflation	31
4.2 Global costs and prices	32
4.3 Business pricing and inflation expectations	34
4.4 Labour costs	34
Box Why have measures of inflation expectations remained elevated?	36
<b>5 Prospects for inflation</b>	<b>39</b>
<hr/>	
5.1 The projections for demand and inflation	39
5.2 Risks to demand	41
5.3 Risks to CPI inflation	44
5.4 The balance of risks	46
5.5 The policy decision	47
Box Financial and energy market assumptions	40
Box Other forecasters' expectations	48
<hr/>	
Index of charts and tables	49
Press Notices	51
Glossary and other information	52



# Overview

---

The disruption to global financial and credit markets continued. Current and expected policy rates fell. Sterling depreciated substantially. In the United Kingdom, output growth moderated to around its long-term historical average rate. Consumer spending growth appeared to soften and the climate for investment deteriorated. International prospects worsened, especially in the United States. Under the assumption that Bank Rate falls in line with market yields, the Committee's central projection is for output growth to slow markedly this year and then gradually start to recover. The risks to growth are weighted to the downside.

CPI inflation was close to the 2% target in December. Pay growth was steady. But some measures of inflation expectations rose. In the central projection, higher energy, food and import prices push inflation up sharply in the near term. Inflation then drops back to a little above the 2% target in the medium term, as the temporary boost from higher energy prices disappears and capacity pressures moderate. The risks to inflation are balanced. The combination of slow growth and above-target inflation poses substantial challenges for policy.

## Financial markets

Global financial markets have been febrile since the November *Report*, and are vulnerable to further shocks. Equity prices declined, reflecting the deterioration in the economic outlook. The market for securitised debt remained virtually closed. Although conditions in money markets improved somewhat, term interest rates remained well above expected policy rates, reflecting heightened concerns about creditworthiness.

Against that background, UK banks tightened the terms offered on new loans to households and businesses. And the potential deterioration in banks' capital ratios as off balance sheet loans are re-intermediated may further restrain new lending. But it is difficult to judge the eventual impact on demand, particularly since falling asset prices could interact with banks' capital requirements and borrowers' collateral limits to amplify the contraction in spending.

Market participants' expectations of the near-term path of policy rates fell. The MPC cut Bank Rate by 0.25 percentage points to 5.5% at its December meeting. Market participants expected Bank Rate to fall to around 4.5% during 2008.

The sterling effective exchange rate depreciated by 6%, the largest three-monthly fall since the exit from the ERM. Market concerns about the size of the UK current account deficit —

the highest relative to GDP in the G7— may have been a factor.

## Domestic demand

Consumers' expenditure rose strongly in the third quarter. But there are signs that household spending growth has since moderated, perhaps reflecting earlier increases in Bank Rate and heightened uncertainty about the outlook. Residential property prices stagnated and indicators of housing activity weakened further. Tighter credit conditions, the desire to rebuild savings and a squeeze on real income growth are likely to check spending growth.

Business investment rebounded in Q3. But investment intentions eased towards the year end. The weaker and more uncertain outlook for demand, reduced access to external finance and falling commercial property prices are all likely to weigh on capital spending over the coming year.

Government spending continued to make a moderate contribution to overall demand growth. According to the fiscal plans set out in October's *Pre-Budget Report*, the public sector's contribution to nominal demand growth is set to decline over the forecast period.

## Overseas trade

International economic prospects have deteriorated since the November *Report*. In the United States, GDP growth fell sharply, the labour market weakened and the weakness in the housing market appeared to be spreading to other parts of the economy. As a result, the Federal Reserve reduced official interest rates substantially. In the euro area, business surveys pointed to some softening in output growth from its recent firm pace. In contrast, the emerging market economies of Asia continued to expand robustly.

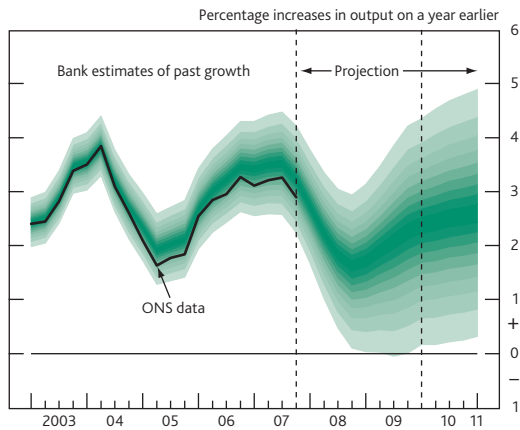
Overall, the Committee expects a modest slowing in the growth of the main UK export markets, though by somewhat more than in November. That is offset by the depreciation of sterling, which can be expected to boost UK competitiveness. Consequently net trade is expected to add to GDP growth over the next few years, contrary to the experience over much of the past decade.

## The outlook for GDP growth

GDP growth moderated to 0.6% in Q4 according to the ONS's preliminary estimate, with the slowdown concentrated in the financial and retail sectors. Business surveys and reports from the Bank's regional Agents point to a further modest deceleration in activity in early 2008.

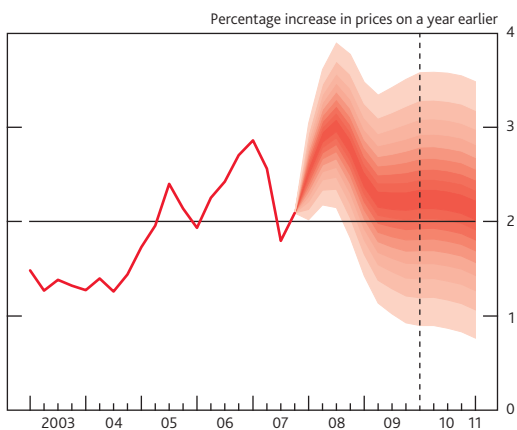


**Chart 1** GDP projection based on market interest rate expectations



The fan chart depicts the probability of various outcomes for GDP growth. To the left of the first vertical dashed line, the distribution reflects the likelihood of revisions to the data over the past; to the right, it reflects uncertainty over the evolution of 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 the mature estimate of GDP would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that downturns are also expected to lie within each pair of the lighter green areas on ten occasions. Consequently, GDP growth is expected to lie somewhere within the entire fan 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 page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents. The second dashed line is drawn at the two-year point of the projection.

**Chart 2** 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 downturns 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.

**Chart 1** shows the Committee's best collective judgement for four-quarter GDP growth, assuming that Bank Rate follows the declining path implied by market yields. The fan also extends into the past, reflecting the present uncertainty about the final estimates of GDP. In the central projection, output growth slows markedly through 2008 as tighter credit conditions and weaker real income growth bear down on domestic demand. Growth then starts to recover, as credit conditions improve and the effects of lower interest rates and weaker sterling work through. The projected slowdown is somewhat deeper and more prolonged than in the November *Report*.

## Costs and prices

CPI inflation remained close to target in December, at 2.1%. Higher prices for energy, food and imports are set to push up inflation again in the near term. The extent to which consumer prices increase will depend on whether businesses and retailers can pass on higher input costs. Suppliers of domestic energy have already announced large retail tariff increases. And survey measures of businesses' pricing intentions remain elevated, suggesting that many businesses intend to pass on cost increases. But there are indications that retailers have been accepting lower profit margins in order to maintain sales volumes. Were this to continue, it would attenuate the pass-through into prices paid by consumers.

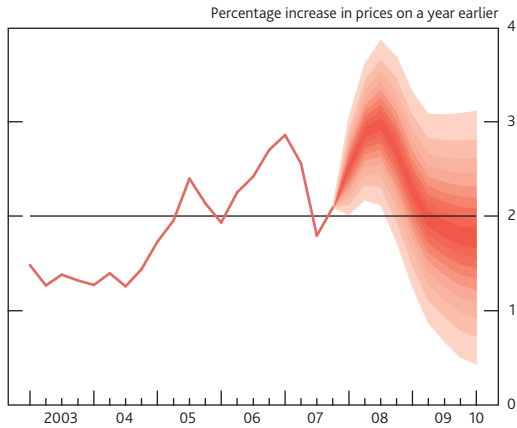
Private sector pay growth was relatively muted last year. There are few pay settlements for 2008 available so far, but according to a survey of contacts of the Bank's regional Agents, companies expect awards to be similar to those in 2007. Measures of labour market tightness based on official data have changed little over the past few months, although survey measures point to some easing.

A central question is whether the episode of above-target CPI inflation during 2006–07 and the prospective repeat this year will prompt a sustained rise in inflation expectations, with a risk of heightened inflationary pressures in the medium term. Survey measures of household inflation expectations have risen over the past year or so. Measures derived from financial market instruments also rose, though that may reflect factors specific to the index-linked gilts market.

## The outlook for inflation

**Chart 2** shows the Committee's best collective judgement of the outlook for CPI inflation, assuming that Bank Rate falls in line with market yields. In the central projection, higher energy, food and import prices push inflation up sharply in the near term. Inflation then eases back to a little above the 2% target in the medium term, as the near-term rise in energy prices drops out of the twelve-month rate and capacity pressures moderate. The profile is higher than in the

**Chart 3** CPI inflation projection based on constant nominal interest rates at 5.25%



See footnote to Chart 2.

November *Report*, particularly in the near term. A similar projection, which assumes that interest rates remain constant at 5.25% (Chart 3), shows the central projection for inflation settling below the target in the medium term.

As usual, there are substantial uncertainties surrounding these projections. The key risks are: on the downside, the potential for a greater tightening in credit conditions, and the associated impact on demand, at home and abroad; and, on the upside, the possibility that the short-term rise in inflation leads to a more persistent rise in medium-term inflation expectations. Overall, the risks around the central projection to growth lie to the downside, while those to inflation are balanced. But there is a range of views among the Committee on both the central projection and the balance of risks.

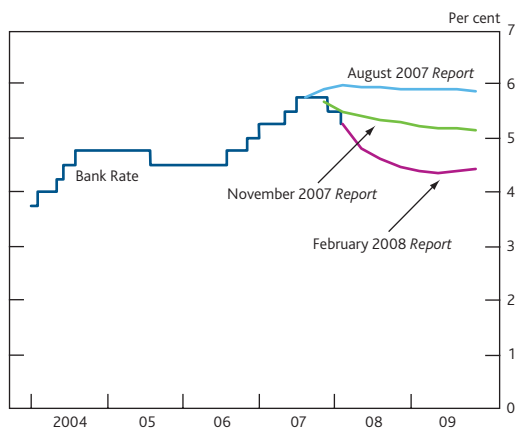
### The policy decision

At its February meeting, the Committee noted that the immediate prospect was for a combination of above-target inflation and sluggish output growth. The Committee also noted that slower demand growth, by reducing the pressure on capacity, was likely to be necessary to return inflation to the target in the medium term. Under market interest rates, the central projection for inflation was a little above the target in the medium term, while under constant interest rates, it was below the target. There were particular uncertainties relating to the severity of the tightening in credit conditions and the future path of inflation expectations. The key challenge for policy was to balance these conflicting risks. The Committee judged that a reduction of 0.25 percentage points in Bank Rate to 5.25% at its February meeting was necessary to meet the target for CPI inflation over the medium term.

# 1 Money and asset prices

The MPC reduced Bank Rate by 0.25 percentage points on 6 December, and by a further 0.25 percentage points on 7 February. Market participants revised down their expected path for short-term interest rates significantly. Term interbank rates moved lower, but remained well above expected policy rates. There have been continued signs of strain in financial markets, and the global financial system remains vulnerable to further shocks. Sterling depreciated substantially and global equity prices fell sharply. Residential property prices stagnated in Q4, while commercial property prices were significantly lower. Credit conditions facing households and businesses tightened further. Broad money growth eased.

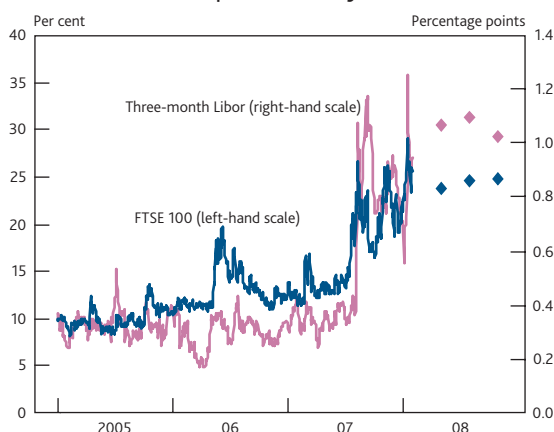
**Chart 1.1** Bank Rate and market interest rate expectations<sup>(a)</sup>



Sources: Bank of England and Bloomberg.

(a) The February 2008 and November 2007 curves are based on fifteen working day averages to 6 February and 7 November respectively. These curves are estimated based on a combination of general collateral gilt repo rates at short maturities and instruments that settle on Libor at longer horizons (see box on page 12 of the November 2007 Report). The August 2007 curve is based on the average of one-day forward rates in the five working days to 1 August; those rates were derived from instruments that settle on Libor, adjusted for credit risk.

**Chart 1.2** Market implied volatility<sup>(a)</sup>



Sources: Bank of England and Euronext.liffe.

(a) Three-month implied volatilities are derived from the prices of options traded on Euronext.liffe for the FTSE 100 and three-month Libor. The lines represent the evolution of uncertainty over the next three months. The diamonds represent uncertainty over a three-month period beginning in three, six and nine months' time respectively.

Over the past three months, financial markets have shown continued signs of strain (Section 1.1). The ability and willingness of commercial banks to finance new lending is likely to be adversely affected in a variety of ways. A key judgement for the MPC is the potential effect of these developments on the price and quantity of credit available to households and businesses (Section 1.2). Section 1.3 assesses recent movements in the monetary aggregates.

## 1.1 Financial markets and asset prices

### Interest rates

Since the November Report, the MPC has reduced Bank Rate twice: by 0.25 percentage points on 6 December; and by a further 0.25 percentage points on 7 February, to 5.25%. The box on page 10 summarises the reasons for the Committee's policy decisions in December and January. In the United States, the Federal Open Market Committee reduced the target federal funds rate by 1.5 percentage points between 7 November and 6 February, including a cut of 0.75 percentage points following an unscheduled meeting on 21 January. Official interest rates were unchanged in the euro area and in Japan.

Over the past six months, market participants have revised down their expected path for UK short-term interest rates significantly (Chart 1.1). In the run-up to the MPC's February meeting, market participants expected Bank Rate to decline to around 4.5% during 2008. But continuing elevated levels of implied volatility (Chart 1.2) suggest that market participants also remained relatively uncertain about the future path of short-term interest rates. Some of that reflected uncertainty about the future path of policy rates. But some reflected uncertainty about the future spread (or difference) between term interbank rates — such as three-month and twelve-month Libor — and expected policy rates.

## Monetary policy since the November Report

The MPC's central projection in the November *Report*, under the assumption that Bank Rate followed a downward path implied by market yields, was for GDP growth to slow during 2008 to below its long-run average rate. CPI inflation was projected to rise above the 2% target during 2008, reflecting the impact of higher energy and food price inflation, and the depreciation of sterling. CPI inflation was projected to ease back to target thereafter.

Expectations of future UK policy rates had declined, particularly in the days running up to the Committee's meeting on 5–6 December. Financial market conditions had deteriorated further, and equity prices had fallen for much of the month. The sterling effective exchange rate index had declined by around 3%, and oil prices had been volatile.

In the United States, output growth in Q3 had been revised up to 1.2%, but monthly indicators pointed to a substantial slowing in the fourth quarter. The US housing market remained weak. The latest euro-area data were broadly consistent with a slight weakening in growth towards the end of 2007. Emerging market economies continued to grow strongly.

In the United Kingdom, data published during the month had provided further evidence that output growth had begun to slow in Q4. Some measures of retail sales, as well as survey measures of consumer confidence, had fallen. Broad money growth had slowed sharply. House prices had declined by almost 1% in November, according to the average of the lenders' indices. Commercial property prices had continued to fall.

Total annual earnings growth had picked up, though growth excluding bonuses had been broadly flat. Many price indicators in business surveys had increased, and CPI inflation had risen to 2.1% in October. Measures of inflation expectations had moved up further.

The Committee discussed a number of policy options. Continued upwards pressure on prices in the near term and elevated inflation expectations suggested that no change in Bank Rate might be required. But the worsening financial market turmoil, and the consequent tightening of credit conditions, had increased the downside risks to activity and inflation in the medium term. The level of interest rates, following a marked tightening in policy last year, was already restrictive, and the expected slowdown in domestic demand should act to dampen inflationary pressures.

Against that background, the Committee voted unanimously for an immediate 0.25 percentage point reduction in Bank Rate, to 5.5%.

By the time of the MPC meeting on 9–10 January, there had been a marked reduction in the spread of term interbank rates over expected policy rates. But concerns about credit risk remained. Market participants attached a high probability to a reduction in Bank Rate in the near term, followed by further cuts during the course of 2008. Equity indices had fallen, and sterling had depreciated.

In the United States, the housing market had continued to deteriorate, consumer confidence had fallen and unemployment had risen. Euro-area growth was 0.8% in Q3, but indicators suggested that growth had slowed into Q4. Japanese GDP growth had been revised down in Q3.

In the United Kingdom, domestic demand growth was estimated to have been very strong in Q3. But the contribution of net trade had been revised down significantly, and the current account deficit was the biggest for 50 years. Indicators for Q4 suggested that the economy was slowing. The housing market had weakened further, and commercial property prices had fallen sharply. The Q4 *Credit Conditions Survey* suggested that banks had been reining in new lending. There was a risk that such tightening would lead to a significant slowing in domestic demand growth.

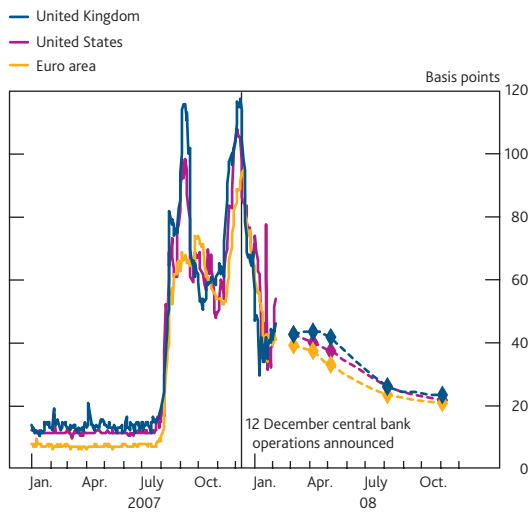
Although CPI inflation had remained at 2.1% in November and December, the near-term outlook for CPI had changed significantly. It now seemed likely that retail gas and electricity prices would rise sooner and by more than previously expected. World food and oil prices were likely to push CPI inflation upwards, and the depreciation of sterling would probably be reflected in import prices in the near term. Although survey-based measures of inflation expectations had changed little, higher near-term inflation could raise expectations, posing an upside risk to inflation over the medium term.

For most members, no change in Bank Rate was yet necessary. The short-term inflation outlook had worsened markedly, and movements in the yield curve and the depreciation of sterling had already provided some monetary easing. Consecutive reductions in Bank Rate might encourage observers to think that the Committee was focused more on stabilising demand than meeting the inflation target. But, for one member, there was little likelihood that wage bargainers would seek higher awards if CPI inflation increased temporarily. And the risks to activity from the worsening outlook for UK-weighted global demand warranted an immediate cut in Bank Rate.

Eight members of the Committee voted to maintain Bank Rate at 5.5%. One member voted for a 0.25 percentage point reduction in Bank Rate.

At its meeting on 6–7 February, the Committee voted to reduce the official Bank Rate paid on commercial bank reserves by 0.25 percentage points to 5.25%.

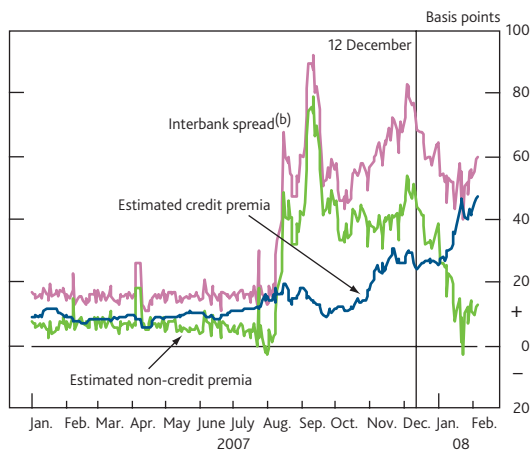
**Chart 1.3** Three-month interbank rates relative to future expected policy rates<sup>(a)</sup>



Sources: Bloomberg and Bank calculations.

(a) Three-month Libor spread over overnight interest rate swaps. Dotted lines show forward spreads derived from forward rate agreements and are based on the fifteen working day average to 6 February. For further details on the central bank operations announced on 12 December, see [www.bankofengland.co.uk/publications/news/2007/158.htm](http://www.bankofengland.co.uk/publications/news/2007/158.htm).

**Chart 1.4** Decomposition of twelve-month interbank spread over future expected policy rates<sup>(a)</sup>



Sources: Bloomberg, British Bankers' Association, Markit and Bank calculations.

(a) Estimates of credit premia are derived from credit default swaps on banks in the Libor panel. Estimates of non-credit premia are derived by residual. The method for decomposing interbank spreads is described in the box on pages 498–99 of the 2007 *Bank of England Quarterly Bulletin*, Vol. 47, No. 4.

(b) Twelve-month Libor spread over overnight interest rate swaps.

Historically, term interbank spreads have usually been relatively small and stable. But that has not been the case since August, amid widespread upheaval in credit and money markets (**Chart 1.3**). Term interbank spreads have narrowed significantly since mid-December, partly reflecting the co-ordinated actions by a number of central banks to promote market liquidity, announced on 12 December. Nonetheless, these spreads remain above historical averages. Market participants expected this spread to fall back during 2008, albeit at a slower pace than at the time of the *November Report*.

The implications of higher interbank spreads for economic activity depend upon the cause of the rise. If the increase primarily reflected transitory factors, then the elevation in spreads would probably prove temporary and the macroeconomic impact would therefore be limited. But if the rise reflected more persistent factors, then that could have a more pervasive effect on banks' costs of capital and hence on lending behaviour, activity and inflation.

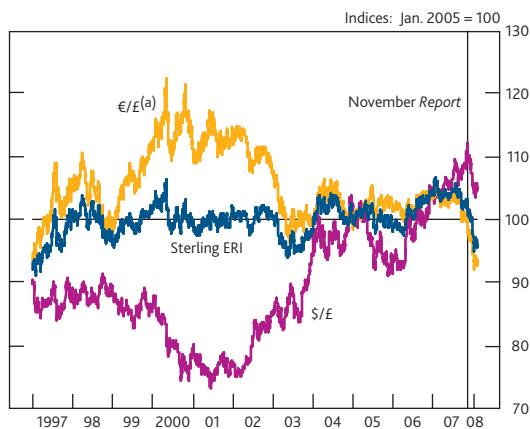
There is some evidence to suggest that market participants have become increasingly concerned about banks' creditworthiness in recent months. For example, an illustrative decomposition attributes most of the autumn rise in interbank spreads to non-credit premia, but most of the more recent pickup to credit premia — that is, the compensation banks require for assuming credit risk on loans to one another (**Chart 1.4**). The rise in credit premia may have been prompted in part by bank write-downs. But the impact of ratings downgrades to some bond insurers, known as monolines, could also have had an effect. For example, downgrades to monolines would reduce the value of the assets they had guaranteed, leading to higher losses on bank balance sheets, when marked to market. Until the uncertainty about the location and magnitude of financial market losses is resolved, credit premia — and hence interbank spreads — may remain elevated.

Over the past three months, there has been continued strong demand for safer assets. As a result, nominal and real forward rates on UK government bonds with maturities up to ten years continued to decline. Inflation breakevens — the differences between nominal and real forward rates — may contain information about market participants' inflation expectations, as discussed in the box on pages 36–37.

### Exchange rates

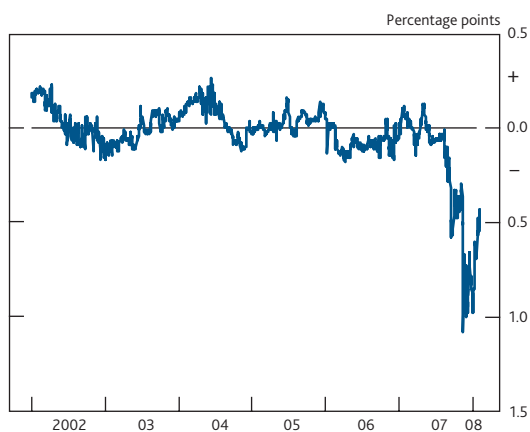
Over the past decade, the sterling ERI has been relatively stable, with large movements in the main sterling bilateral rates tending to offset each other (**Chart 1.5**). But since November, sterling has fallen sharply. In the fifteen working days to 6 February, the sterling ERI averaged 96.4, a fall of 6.1% relative to the starting point for the *November Report*. That was the largest three-month fall since sterling's exit from the ERM in 1992.



**Chart 1.5** Sterling exchange rates

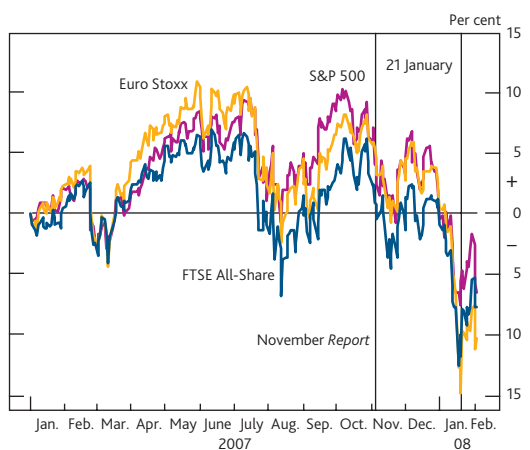
Sources: Bank of England and Thomson Datastream.

(a) Prior to 1999, the euro-sterling rate is based on synthetic euro data.

**Chart 1.6** Twelve-month sterling risk reversal<sup>(a)</sup>

Sources: Reuters and Bank calculations.

(a) Data are based on a trade-weighted index of the US dollar and the euro. Risk reversals show the difference between the prices of insuring against equal-sized rises and falls in the exchange rate. Negative risk reversals mean that it is more expensive to insure against currency depreciations than appreciations.

**Chart 1.7** Cumulative changes in equity prices since 4 January 2007<sup>(a)</sup>

Source: Thomson Datastream.

(a) In local currency terms.

There are a number of possible explanations for the fall in sterling. Some part of it probably reflected changes in relative interest rates. Because exchange rates should move to equalise the expected risk-adjusted returns on assets denominated in different currencies, an unanticipated fall in UK interest rates relative to those elsewhere should, other things being equal, lead to a fall in the value of sterling. But only a small part of the cumulative decline in the sterling ERI since the *November Report* can be attributed to this factor.

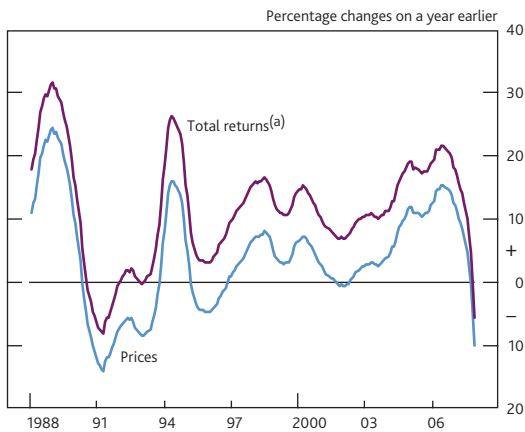
Another candidate explanation for sterling's weakness is that market participants have reassessed their view about the sustainable value of the currency. Market participants may have become increasingly concerned about the size of the UK current account deficit (Section 2.2). The overseas borrowing required to fund this deficit has become more expensive in the recent past, reflecting the higher cost and lower availability of credit (associated, for example, with the retrenchment in securitised debt markets). By encouraging exports and reducing imports, a lower level of the real exchange rate reduces the need for future overseas borrowing.

The fall in sterling may also reflect an increase in the risk premium investors require for holding the currency. Sterling implied volatility — a measure of uncertainty about the future path of the exchange rate — has picked up since last summer. And measures of the asymmetry of views on future currency moves — known as 'risk reversals' — show that market participants have become increasingly concerned about a depreciation in sterling since Summer 2007 (**Chart 1.6**).

### Equity prices

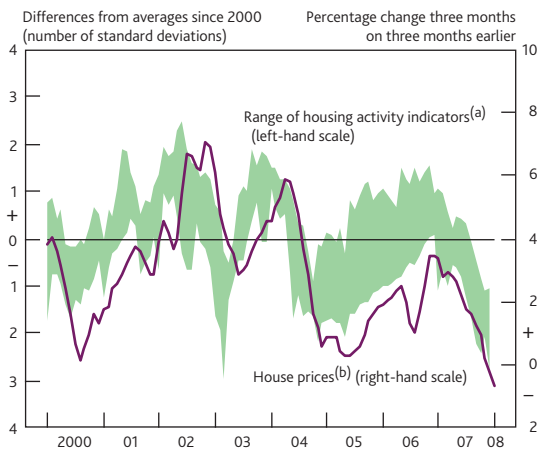
There has been significant volatility in equity prices since the *November Report*, reflecting widespread uncertainty about the impact of credit market developments. Global equity price indices fell sharply in the second half of January (**Chart 1.7**), with the FTSE All-Share index falling 5.3% on 21 January, the largest daily decline for 20 years. In subsequent days, the index recovered, but overall the FTSE All-Share index averaged 2982 in the fifteen working days to 6 February, 11.5% lower than the starting point for the *November Report*.

Recent falls in equity prices are likely to reflect, in part, growing pessimism among investors about growth prospects. The outlook for growth in the advanced economies has deteriorated since the *November Report* (Section 2.2), although this has yet to be reflected in full in surveys of analysts' earnings forecasts. In addition, investors may have become more risk-averse, or more uncertain about the economic environment, raising the premium that they require to hold equities. That is consistent with the pickup in equity implied volatility — a measure of uncertainty about future equity prices (**Chart 1.2**).

**Chart 1.8 Commercial property**

Sources: Investment Property Databank and Thomson Datastream.

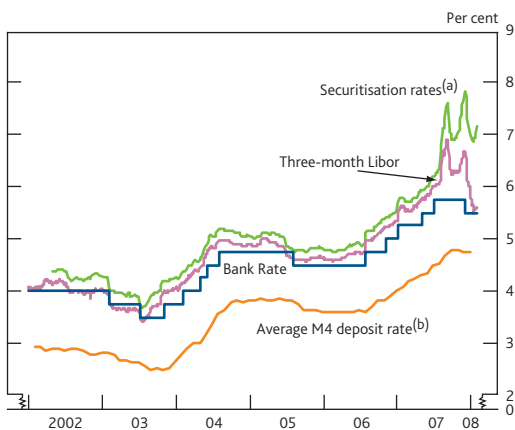
(a) Total returns are defined as the sum of monthly capital growth and net income, expressed as a percentage of capital employed.

**Chart 1.9 Residential property market activity and prices**

Sources: Bank of England, Halifax, Home Builders Federation (HBF), Nationwide and Royal Institution of Chartered Surveyors (RICS).

(a) The green area shows the range between the minimum and maximum readings of five indicators: HBF site visits, HBF net reservations and RICS new buyer enquiries net balances; the RICS sales to stock ratio; and the number of loan approvals for house purchase. HBF data are seasonally adjusted by Bank staff.

(b) Average of Halifax and Nationwide. The published Halifax index has been adjusted in 2002 by the Bank of England to account for a change in the method of calculation.

**Chart 1.10 Lenders' funding costs**

Sources: Bank of England, Bloomberg, Lehman Brothers and Bank calculations.

(a) Calculated using three-month Libor rates and spreads on a range of asset-backed securities, weighted together by annual issuance.

(b) Average of effective deposit rates for households, private non-financial corporations and other financial corporations, weighted by their shares in M4. Data are only available to December.

## Property prices

Property price inflation has slowed over the past year, and activity has weakened. Commercial property prices have fallen sharply since the November *Report* (Chart 1.8). According to the Investment Property Databank, prices declined by around 4% in both November and December — the largest monthly falls since the start of the series in 1987 — and were 10% lower than in January 2007. Derivative contracts implied a further sharp fall in commercial property prices during 2008.

Residential property prices stagnated in Q4 — the average of the Nationwide and Halifax house price indices rose by just 0.1% on the quarter, and were broadly flat in January. Most residential housing market activity indicators have also weakened since the November *Report* (Chart 1.9). For example, loan approvals for house purchase fell to 73,000 in December, the lowest level since June 1995. The box on pages 22–23 discusses the various channels through which changes in property markets can affect activity and inflation.

## 1.2 Credit conditions

### Bank lending behaviour

Commercial banks play a key role in the economy by intermediating funds from savers to borrowers. The continuing upheaval in financial markets may affect banks' ability and willingness to lend in several ways. First, changes in banks' funding costs will influence the rates lenders charge on their products. Although money market rates such as Libor have fallen back over the past three months (Chart 1.10), the primary securitised debt market has remained virtually closed. Given the importance of securitisation to funding loan growth in recent years, banks' funding costs are likely to remain elevated, and that is likely to bear down on bank lending growth.

A second key transmission channel is via banks' capital. A number of factors associated with the events in financial markets since the summer have put downward pressure on banks' capital ratios (capital relative to risk-weighted assets). For example, some international banks have written down valuations across a wide range of asset classes, and some have been obliged to provide liquidity support to off balance sheet vehicles. But with many banks still to report, there is considerable uncertainty about the full impact on banks' capital ratios.

Looking ahead, continuing uncertainty about counterparty credit risk, the possibility of higher default rates in credit markets, the location and magnitude of any further credit losses and the introduction of the new Basel II regulatory regime at the beginning of 2008,<sup>(1)</sup> may all provide banks with a precautionary incentive to build cushions of capital. Banks

(1) For more information, see Benford, J and Nier, E (2007), 'Monitoring cyclicalities of Basel II capital requirements', Bank of England *Financial Stability Paper No. 3*.

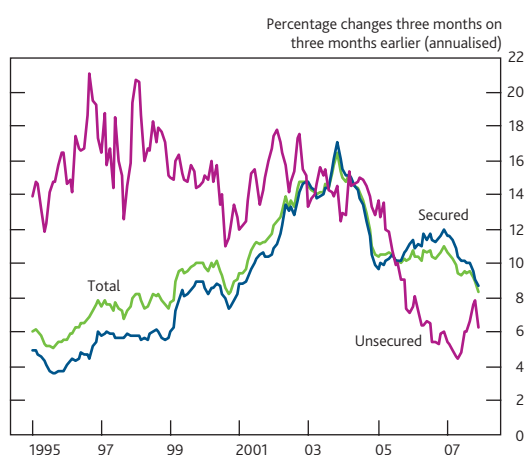
**Table 1.A** Household credit: effective interest rates

Per cent	December 2007	Change between August–December (basis points)
<b>Rate on outstanding stock<sup>(a)</sup></b>	<b>6.90</b>	<b>4</b>
<i>of which:</i>		
Secured	5.93	2
– fixed	5.36	11
– variable	6.44	-15
Unsecured	10.87	-3
<b>Rate on new business<sup>(b)</sup></b>	<b>6.48</b>	<b>14</b>
<i>of which:</i>		
Secured	5.95	7
– fixed	5.95	21
– variable	5.96	-14
Unsecured	9.26	15
Memo:		
Bank Rate <sup>(c)</sup>	5.50	-25
Two-year swap rate	5.38	-77

(a) Weights together the secured and unsecured effective stock rates by the outstanding balances.

(b) Weights together the secured and unsecured effective new business rates by the amount of new lending.

(c) End-month rate.

**Chart 1.11** Lending to individuals

may do this by reducing dividends, or tapping new sources of capital. But they could also cut back on new lending.

Overall, the continued pressure on banks' funding costs and the growing incentives for banks to bolster their capital ratios are likely to bear down on their ability and willingness to lend in the near term. This, in turn, will affect the price and availability of credit to households and businesses (see below). The risks to this outlook are discussed in Section 5.

### Price and quantity of household credit

The effective interest rate on new household credit rose a little between August and December 2007 (Table 1.A). That may reflect the time it takes for changes in Bank Rate and swap rates, which are closely related to the price of fixed-rate loans, to be reflected in retail rates. The average household rate on the stock of borrowing was little changed over the same period, reflecting the significant proportion of fixed-rate loans that have not yet been renewed.

These aggregate figures are likely to mask differing experiences among households. For example, quoted interest rates on secured lending to borrowers with particularly adverse credit histories have risen further since the November Report. There are also signs that banks have been tightening other terms and conditions, particularly for higher-risk borrowers (see the box on pages 16–17). Looking ahead, the Q4 *Credit Conditions Survey* suggested that lenders expected spreads between retail interest rates and wholesale funding costs to widen further over the three months to mid-March.<sup>(1)</sup>

One risk associated with tighter credit conditions is that some households whose fixed-rate mortgage deals are expiring may face higher interest rates when they refinance their mortgages. While this may pose difficulties for a minority of borrowers, the aggregate macroeconomic impact is likely to be small. If all borrowers whose fixed-rate mortgages expire in 2008 refinance onto fixed-rate products of similar maturity, then household sector interest payments would rise by around 0.2% of annual household post-tax income.<sup>(2)</sup> In a more extreme case, where all borrowers with high loan to value or loan to income ratios have to move onto the standard variable rate (SVR), household sector interest payments would still only increase by around 0.4% of households' aggregate annual post-tax income.<sup>(3)</sup>

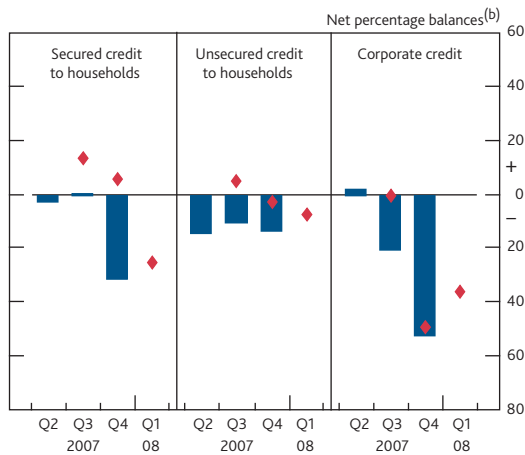
Over the past three months, the growth rate of total lending to individuals has continued to ease. That was mainly

(1) The *Credit Conditions Survey* reports are available at [www.bankofengland.co.uk/publications/other/monetary/creditconditions.htm](http://www.bankofengland.co.uk/publications/other/monetary/creditconditions.htm).

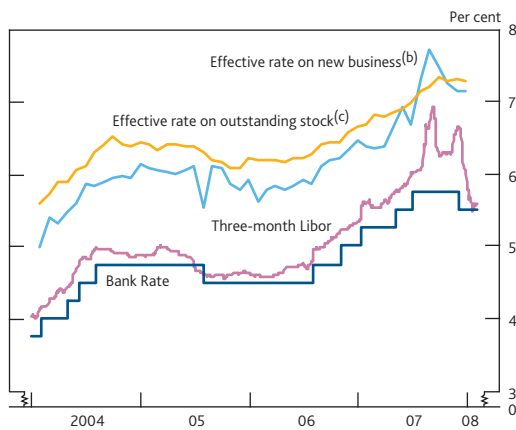
(2) This calculation assumes that two thirds of the stock of secured lending to individuals is on fixed rates. Within that, it assumes that 70% of borrowers have two-year fixes, and 30% of borrowers have three-year fixes. It also assumes that all these borrowers successfully refinance their mortgages, at the 1–5 year effective new business rate in December 2007.

(3) This calculation assumes that all those borrowers with loan to value ratios over 90% or with loan to income ratios over 3.5 cannot refinance their expiring fixed-rate mortgage deals, and have to pay the quoted December 2007 SVR.



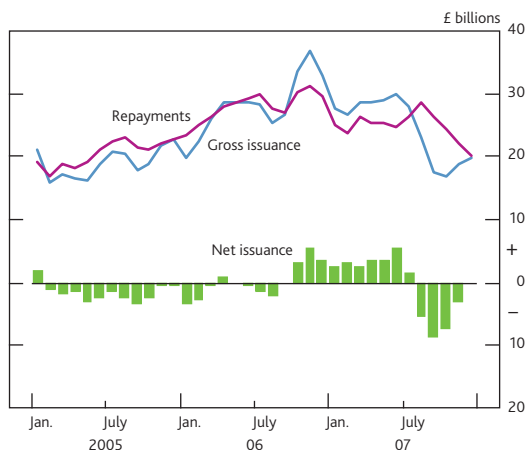
**Chart 1.12 Credit Conditions Survey: credit availability<sup>(a)</sup>**

- (a) The blue bars show responses over the previous three months. The red diamonds show expectations over the next three months. Expectations balances have been moved forward one quarter so that they can be compared with the actual outcomes in the following quarter.  
 (b) A positive balance indicates higher credit availability.

**Chart 1.13 Interest rates facing businesses<sup>(a)</sup>**

Sources: Bank of England and Bloomberg.

- (a) Bank Rate and three-month Libor series show daily data to 6 February. Monthly effective rates data are available to December 2007.  
 (b) Average rate paid by new borrowers on loans, calculated using data on interest rate flows and the stock of new borrowing. Excludes overdrafts due to data availability.  
 (c) Average rate paid by existing borrowers on overdrafts and other loans, calculated using data on interest rate flows and the outstanding stock of borrowing.

**Chart 1.14 Private non-financial corporations' capital issuance<sup>(a)</sup>**

- (a) Three-month rolling sum of sterling and foreign currency bond, equity and commercial paper issuance. Data are non seasonally adjusted.

accounted for by a further easing in secured lending growth (Chart 1.11). The Q4 *Credit Conditions Survey* suggested that lenders expected to restrict secured credit availability to households further over the three months to mid-March. Unsecured credit availability was also expected to be lower (Chart 1.12).

### Price and quantity of corporate credit

There has been little change in borrowing costs for most businesses since the November *Report*. The effective rate on the stock of borrowing has remained elevated, despite falls in Bank Rate and interbank rates (Chart 1.13). And although the effective rate on new business has fallen since its peak in August, this decline may be misleading, as it is likely to reflect the changing composition of new lending, rather than an underlying easing of credit conditions. For example, as banks cut back on riskier, higher-rate loans, the average rate on new lending falls.

There are signs that some lenders have tightened other, non-interest rate, terms on corporate credit. For example, growth in new credit facilities extended to the corporate sector has eased since the summer (see Chart C in the box on pages 16–17). And the results of the Q4 *Credit Conditions Survey* show that lenders reported a tightening of credit supply to the sector in Q4, and expected to tighten supply further in the coming months (Chart 1.12).

Despite this tightening, measured bank lending growth to corporates only slowed a little in Q4 (Table 1.B). However, interpreting these data is complicated by developments in financial markets. For example, since the summer, some banks have been forced to hold loans originally intended for distribution in the debt markets on their balance sheets. And some businesses may have become increasingly reliant on bank borrowing following weaker gross capital issuance associated with the hiatus in global capital markets (Chart 1.14). Both these factors have supported measured M4 lending to businesses, but do not necessarily imply an increase in overall credit availability to the corporate sector.

## 1.3 Monetary aggregates

Since 2002, money and bank lending have increased much more rapidly than nominal GDP (Chart 1.15). Most of the rise in broad money growth can be accounted for by higher deposits from other financial corporations (OFCs), a diverse group including special purpose vehicles set up by banks to facilitate securitisation of loan portfolios. To the extent that the widespread increase in securitisation activity contributed to the acceleration in money growth since 2002,<sup>(1)</sup> the

(1) See, for example, Tucker, P (2007), 'Money and credit: banking and the macroeconomy', speech at the Monetary Policy and the Markets conference. Available at [www.bankofengland.co.uk/publications/speeches/2007/speech331.pdf](http://www.bankofengland.co.uk/publications/speeches/2007/speech331.pdf).

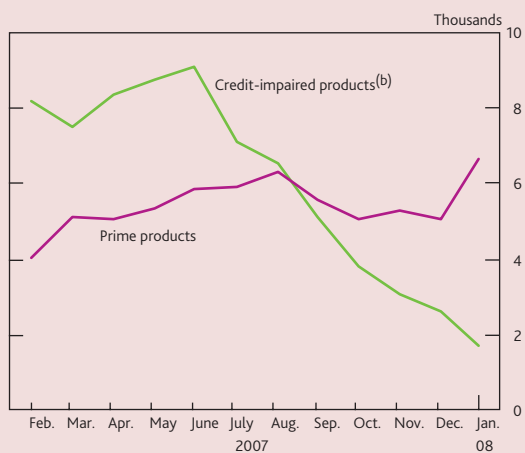
## Terms and conditions on bank lending

The most visible way lenders can tighten credit conditions is by increasing retail interest rates. However, focusing on interest rates alone gives an incomplete picture. As this box discusses, there is tentative evidence that lenders are also tightening credit conditions in other ways. Much of that appears to be targeted at higher-risk borrowers.

### Lending to households

Lenders may choose to tighten credit conditions by restricting the quantity of credit they are willing to extend at any given price. One proxy for this may be the number of products offered, which has fallen significantly since the summer for those borrowers with an impaired credit history (Chart A). In addition, lenders may tighten the credit scoring criteria used to decide whether to approve loan applications. The results of the Bank's Q4 *Credit Conditions Survey* (CCS) showed that lenders had significantly tightened these criteria for secured lending to households. Lenders expected to tighten credit scoring criteria further, for both secured and unsecured lending, in the three months to mid-March.

Chart A Number of mortgage products offered<sup>(a)</sup>



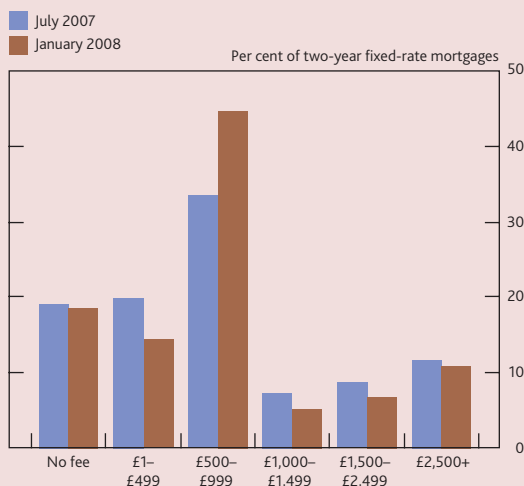
Source: Moneyfacts Group.

- (a) Includes owner-occupied and buy-to-let mortgages.
- (b) Credit-impaired products are defined as those which grant credit to borrowers who have a county court judgement of £1,000 or more.

Lenders may also choose to reduce the maximum loan to value (LTV) and loan to income (LTI) ratios they offer on their mortgage products. That could lead to an effective tightening of credit conditions for some more highly leveraged borrowers: some may no longer be able to obtain credit, while others may be forced to accept worse terms. Data from the Council of Mortgage Lenders suggest little change in median LTV and LTI ratios between July and November 2007. But these data may mask changes in the distribution. The Q4 CCS suggested that lenders had reduced their maximum LTV ratios in the three months to mid-December. And anecdotal evidence suggests that some mortgage providers have withdrawn their high LTV products.

Lenders can also tighten credit conditions by increasing the fees that they charge on new lending. However, Chart B suggests that there has not been a substantial change in average mortgage arrangement fees since July 2007. That is consistent with the results of the Q3 and Q4 CCS, which suggested that mortgage fees have been largely unchanged over the past six months.

Chart B Mortgage arrangement fees<sup>(a)</sup>



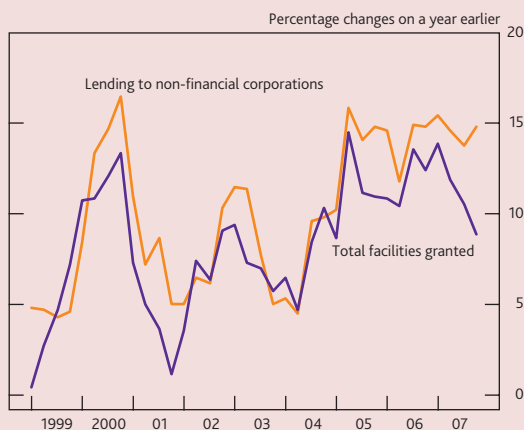
Source: Moneyfacts Group.

- (a) The data are based on arrangement fees listed in Moneyfacts for each fixed-rate product offered by banks in the British Bankers' Association Major British Banking Group with a maturity of, or close to, two years. For those products whose fee is a proportion of the mortgage balances, the fee has been calculated based on a £150,000 loan. No adjustment has been made for other fees and promotions.

### Lending to businesses

The latest CCS suggested that lenders had also tightened conditions on corporate lending. Collateral requirements were reportedly higher, and loan covenants stronger, over the three months to mid-December. Lenders expected conditions to tighten further into Q1.

Chart C Corporate borrowing and facilities granted<sup>(a)</sup>

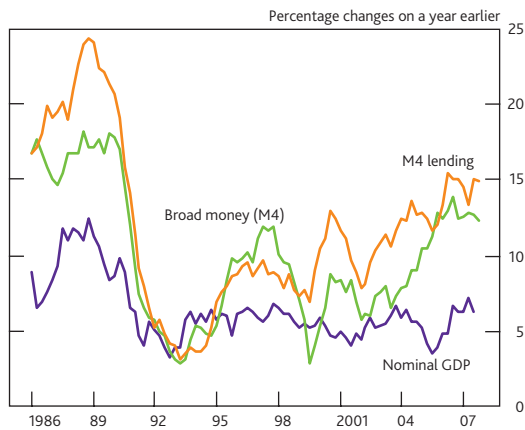


(a) Non seasonally adjusted.

Utilisation rates of pre-arranged corporate sector credit lines also provide an indication of borrowing constraints. Over the past six months, there has been a pickup in utilisation rates in a wide range of industries. That reflected continued robust growth in lending to businesses. But the rate at which banks

are extending new facilities to the corporate sector has eased sharply since the summer (Chart C). Looking ahead, the results of the Bank's Q4 CCS showed that lenders expected to reduce credit lines in the three months to mid-March.

Chart 1.15 Money, credit and nominal GDP<sup>(a)</sup>



(a) Quarterly growth rates are for the last month in each period. M4 lending data exclude the effects of securitisations and loan transfers.

Table 1.B Broad money and M4 lending<sup>(a)</sup>

Percentage changes on a year earlier	2007		
	H1	Q3	Q4
Broad money (M4)	12.9	12.7	12.3
of which:			
Households	8.2	8.3	9.0
Private non-financial corporations	13.4	10.8	9.2
Other financial corporations (OFCs)	23.6	23.5	21.2
M4 lending	14.5	15.1	14.9
of which:			
Households	10.1	9.5	8.5
Private non-financial corporations	18.6	16.7	16.0
Other financial corporations (OFCs)	21.3	26.3	28.1

(a) M4 lending data exclude the effects of securitisations and loan transfers. The 2007 H1 growth rate is the average of annual growth rates in the six months to June. Quarterly growth rates are for the last month in each period.

near-closure of the securitisation market since the summer should push down on OFCs' M4 growth.

Over the past three months, annual OFCs' M4 growth has slowed a little (Table 1.B). That contributed to an overall slowing in broad money growth in Q4. Previous Bank publications have discussed how deposits of some OFCs — such as those engaged in the intermediation of funds across the banking sector — have little implications for spending in the economy.<sup>(1)</sup> When these institutions' deposits are excluded from the aggregate data, the slowdown in OFCs' M4 is even more pronounced.

As investors' demand for securitised debt has fallen sharply over the past six months, lenders have increasingly had to rely on alternative ways to finance their lending activities. One alternative is retail deposits. Annual households' M4 growth picked up to 9% in Q4, its joint-highest rate since the series began in September 1998. That partly reflected an increase in the interest rate that lenders pay on their deposit accounts — the household effective new time deposit rate picked up by around 20 basis points in December. But stronger household deposits may also reflect a build-up in precautionary savings, in light of heightened uncertainty about the economic outlook (Section 2).

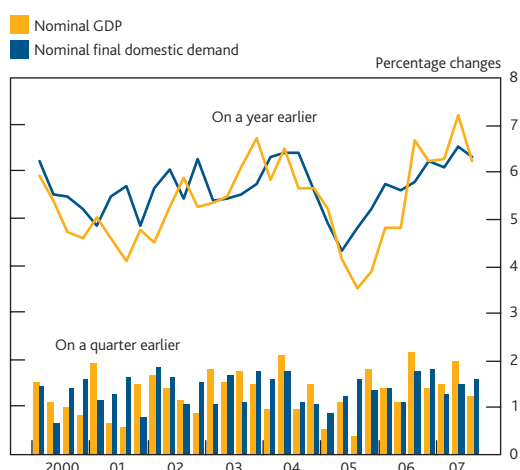
Annual M4 lending growth (excluding the effects of securitisations) remained robust, at 14.9% in Q4. But, as discussed earlier (page 15), a number of factors suggest that the underlying trend is weaker than the headline measure implied.

(1) See Burgess, S and Janssen, N (2007), 'Proposals to modify the measurement of broad money in the United Kingdom: a user consultation', *Bank of England Quarterly Bulletin*, Vol. 47, No. 3, pages 402–14.

## 2 Demand

Consumers' expenditure rose strongly in 2007 Q3, but there are signs that household spending growth has since moderated. Official investment data have been volatile, but investment intentions eased towards the year end. The near-term outlook for growth in the advanced economies has deteriorated since the November *Report*, particularly in the United States. But growth in the rest of the world has, so far, remained relatively robust. As a share of GDP, the current account deficit increased to its highest on record in 2007 Q3.

**Chart 2.1** Nominal demand<sup>(a)</sup>



(a) At current market prices.

**Table 2.A** Expenditure components of demand<sup>(a)</sup>

	Averages		2007		
	2005	2006	Q1	Q2	Q3
Household consumption <sup>(b)</sup>	0.3	0.7	0.7	0.7	1.1
Government consumption	0.6	0.4	0.6	0.5	0.3
Investment	1.0	2.4	1.0	-0.8	2.4
<i>of which, business investment</i>	0.7	3.0	-0.5	0.5	2.0
<b>Final domestic demand</b>	<b>0.5</b>	<b>0.9</b>	<b>0.8</b>	<b>0.5</b>	<b>1.1</b>
Change in inventories <sup>(c)(d)</sup>	-0.1	-0.1	0.6	-0.4	0.5
Alignment adjustment <sup>(d)</sup>	-0.1	0.0	-0.4	0.5	0.0
<b>Domestic demand</b>	<b>0.2</b>	<b>0.9</b>	<b>1.0</b>	<b>0.6</b>	<b>1.5</b>
'Economic' exports <sup>(e)</sup>	2.0	0.9	-0.1	0.4	2.0
'Economic' imports <sup>(e)</sup>	1.2	1.1	0.5	-0.4	4.7
Net trade <sup>(d)</sup>	0.2	-0.1	-0.1	0.2	-0.9
<b>Real GDP at market prices</b>	<b>0.5</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>0.7</b>

(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) Goods and services, excluding the estimated impact of missing trader intra-community (MTIC) fraud.

Since November, asset prices have fallen and credit conditions have tightened (Section 1). A key question for the MPC is the extent to which these developments have changed the outlook for demand. This section discusses the pace of economic growth over the recent past and the outlook for the near term; medium-term prospects are discussed in Section 5.

Four-quarter nominal GDP growth fell back sharply to around 6% in 2007 Q3, though the slowing in nominal final domestic demand growth — which excludes net trade and changes in inventories — was less marked (Chart 2.1). Both growth rates remained above their ten-year averages.

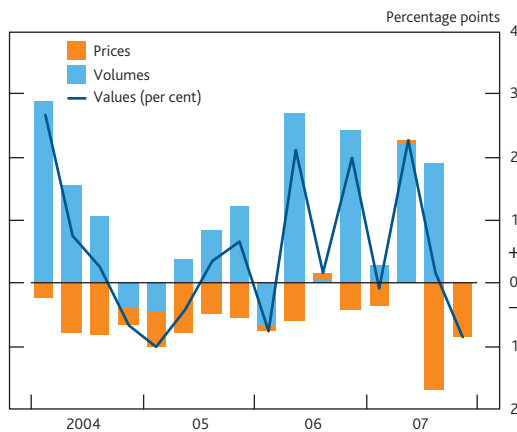
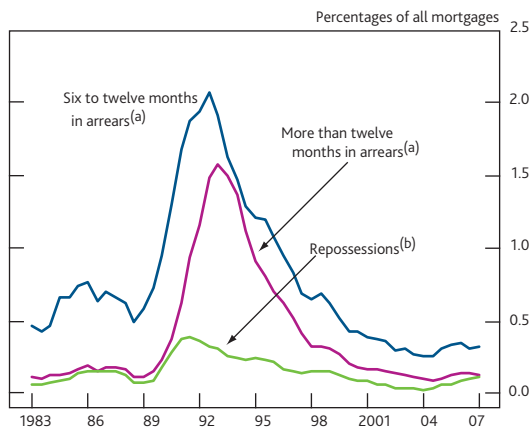
The latest official estimates suggest that real GDP increased by 0.7% in 2007 Q3 (Table 2.A). Within that, domestic demand was particularly strong, expanding by 1.5%, its highest rate since 1998. Real GDP was provisionally estimated by the ONS to have grown by 0.6% in 2007 Q4.

### 2.1 Domestic demand

#### Household consumption

Consumer spending grew by 1.1% in 2007 Q3, well above its ten-year average rate. However since then, there are signs that spending growth has eased. Retail sales volumes rose by only 0.4% in 2007 Q4, down from 1.4% in Q3. And that growth is likely to have been supported by discounting: prices fell in non-food stores (Chart 2.2), perhaps in response to an unexpected slowing in demand. Both the *CBI Distributive Trades Survey* and reports from the Bank's regional Agents pointed to subdued retail sales growth at the start of 2008.

Retail goods spending accounts for only around 40% of total consumer expenditure. But household spending on other goods and services may also have slowed around the turn of the year. For example, reports from the Bank's regional Agents indicated that annual growth in spending on consumer services slowed in January, although growth was similar in Q4

**Chart 2.2** Contributions to quarterly growth in non-food retail sales values**Chart 2.3** Mortgage arrears and repossessions

Source: Council of Mortgage Lenders.

(a) Mortgages in arrears at half-year end.  
(b) Repossessions per half year.

**Table 2.B** Indicators of income expectations

	Averages <sup>(a)</sup>	2007				2008
	1997–2006	Q1	Q2	Q3	Q4	Jan.
<i>Percentage change on a quarter earlier</i>						
Real post-tax labour income <sup>(b)</sup>	0.7	0.0	2.1	0.7	n.a.	n.a.
<i>Percentage of nominal consumer spending</i>						
Spending on durables	12.0	11.2	11.2	11.1	n.a.	n.a.
<i>Balance</i>						
GfK NOP consumer confidence <sup>(c)</sup>	-1	-8	-3	-6	-10	-15
GfK NOP climate for major purchases <sup>(d)</sup>	14	2	5	-1	-4	-20
<i>Memo:</i>						
<i>Percentage change on a quarter earlier</i>						
Consumer spending <sup>(e)</sup>	0.8	0.7	0.7	1.1	n.a.	n.a.

Sources: ONS, research carried out by GfK NOP on behalf of the European Commission and Bank calculations.

- (a) Averages of quarterly data unless otherwise stated.  
(b) Real post-tax labour income is defined as nominal post-tax labour income deflated using the consumer expenditure deflator (including non-profit institutions serving households). Nominal post-tax labour income is defined as wages and salaries plus mixed income less taxes (including income taxes and Council Tax) plus net transfers (general government benefits minus employees' National Insurance contributions).  
(c) Headline measure. Averages of monthly data, seasonally adjusted by Bank staff.  
(d) Net balance of respondents thinking that, in view of the general economic situation, it is a good time for people to make major purchases. Averages of monthly data, seasonally adjusted by Bank staff.  
(e) Chained-volume measure. Includes non-profit institutions serving households.

to that in Q3. Private new car registrations fell by 1.5% in the three months to January compared with a year earlier, weaker than in 2007 Q4.

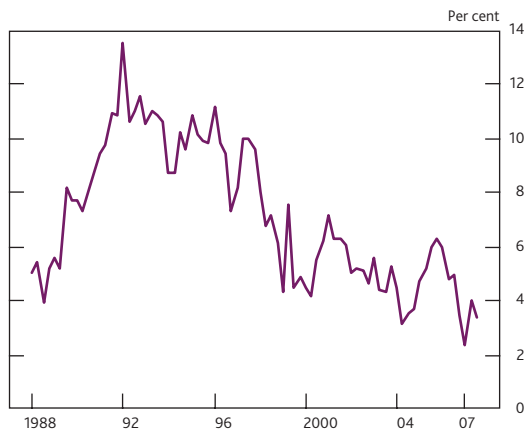
A key influence on consumer spending is the cost and availability of household credit. Credit conditions for households have tightened somewhat since August, particularly for highly leveraged borrowers and those with poor credit records. On average, the effective lending rate on the stock of outstanding household debt was little changed between August and December, but the effective rate on new borrowing rose a little (Section 1). And while mortgage arrears have been rising over the past few years, they have remained low relative to historical standards, as have repossessions (Chart 2.3).

Consumer spending may also be influenced by developments in the housing market. House price inflation has slowed over the past year, and activity has weakened (Section 1). Consumer spending and house prices are often affected by common factors, for example, income expectations. So although consumer spending and house prices may at times move together, that need not imply a causal link from one to the other. However, at the current juncture, developments in property markets may amplify the impact of credit market events on consumption, as discussed in the box on pages 22–23.

Other influences on consumer spending include households' current and expected future income. Official data on income were recently revised, and now suggest that current income may have been more supportive of consumer spending in the recent past than previously thought. Smoothing through recent volatility, quarterly real post-tax labour income growth averaged 0.9% in the three quarters to 2007 Q3, above its average rate over the past decade.

For some households, particularly those with easy access to credit, expectations about future income may have more of a bearing on spending decisions than current income. Although income expectations cannot be observed directly, a number of measures may serve as a guide.<sup>(1)</sup> One approach is to look at spending on durable goods, such as cars and televisions, which may be more sensitive to changes in expectations about future income than other types of spending. The share of durables in nominal spending was relatively stable in the first three quarters of 2007. However, more timely surveys of consumer confidence moved lower around the turn of the year. For example, according to the GfK NOP survey, households have become much less confident about making major purchases (Table 2.B).

(1) For some examples, see Benito, A, Thompson, J, Waldron, M and Wood, R (2006), 'House prices and consumer spending', *Bank of England Quarterly Bulletin*, Summer, pages 142–54.

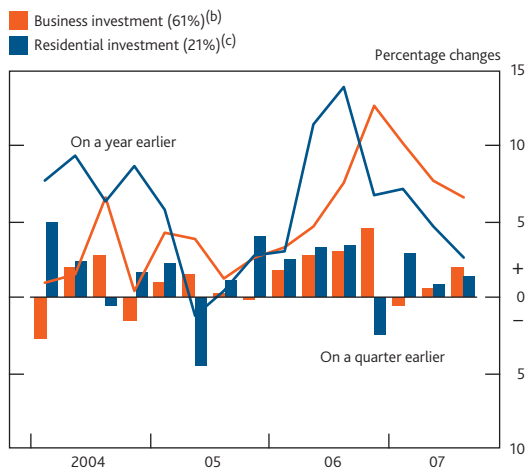
**Chart 2.4 Household saving ratio<sup>(a)</sup>**

Sources: ONS and Bank calculations.

(a) Percentage of households' post-tax income.

Over the past decade, the household sector has consumed an increasing share of its income, pushing down on the saving ratio (**Chart 2.4**). The saving ratio remained low relative to historic standards in 2007 Q3, at 3.4%. And national saving, which additionally takes into account saving by companies and the government, has also been low in recent years.

Previous Bank work suggested several reasons for the past decline in household savings.<sup>(1)</sup> First, households may have interpreted past asset price increases as a permanent increase in their wealth, reducing the perceived need to accumulate other assets. Second, households facing unexpectedly lower income may have found it easier to draw on credit, reducing the need to hold precautionary savings. And third, lower volatility in the macroeconomic environment may have further discouraged households from holding savings as a precaution against unexpected fluctuations in future income. The current economic climate could affect all three of these considerations, and as a result households may increase the amount of saving that they hold. Indeed, the recent deterioration in consumer confidence surveys suggests that households may have begun to reappraise their desired saving levels. Prospects for household savings are discussed further in Section 5.

**Chart 2.5 Business and residential investment<sup>(a)</sup>**

(a) Chained-volume measures. The figures in parentheses show shares of total gross fixed capital formation in 2006. Other components of investment include government (10%) and the costs associated with the transfer of ownership of buildings, dwellings and non-produced assets (8%).

(b) Adjusted for the transfer of nuclear reactors from the public corporation sector to central government in 2005 Q2.

(c) Includes new dwellings and improvements of dwellings by the private and public sector.

## Investment

Recent official investment data have been volatile.

Whole-economy investment is estimated to have picked up sharply to 2.4% in 2007 Q3, following weaker growth during the first half of the year (**Table 2.A**). In part, that reflected an increase in government investment. But quarterly growth in both residential and business investment also increased (**Chart 2.5**).

Early official estimates of investment are frequently revised. Surveys of investment intentions can provide an alternative and timely guide to the underlying strength of investment. For most of 2007, these surveys were consistent with relatively strong investment growth. But most suggest that the outlook for investment weakened a little towards the end of the year (**Table 2.C**). The softening in intentions was broadly based across the manufacturing and service sectors, although there was a more marked weakening in the distribution sector.

The weaker outlook for demand may act to dampen investment growth in the near term. In the past, when companies have become more pessimistic or uncertain about demand prospects, they have tended to reduce or postpone their investment plans (**Chart 2.6**).<sup>(2)</sup> According to the latest CBI surveys, the proportions of companies citing demand

(1) See Whitaker, S (2007), 'National saving', *Bank of England Quarterly Bulletin*, Vol. 47, No. 2, pages 224–31.

(2) See also Baumann, U and Price, S (2007), 'Understanding investment better: insights from recent research', *Bank of England Quarterly Bulletin*, Vol. 47, No. 2, pages 232–43.

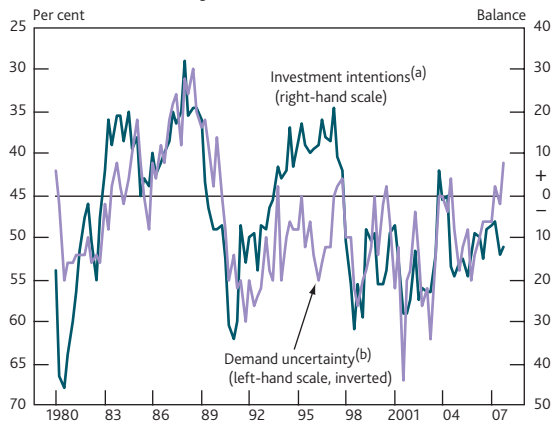


**Table 2.C** Investment indicators

	Averages <sup>(a)</sup>			2007	
	1999–2005	2006	2007 H1	Q3	Q4
<b>BCC<sup>(b)</sup></b>					
Manufacturing <sup>(c)</sup>	8	19	23	33	21
Services	15	18	20	17	14
<b>CBI<sup>(d)</sup></b>					
Manufacturing	-16	-11	-7	-14	-12
Consumer, business and professional services	-7	-3	-3	0	11
Financial services	-16	3	7	-5	4
Distributive trades	-2	-10	-10	6	-23
<b>Agents' scores<sup>(e)</sup></b>					
Manufacturing	-0.1	0.5	1.7	1.8	1.4
Services	1.6	2.1	3.4	2.8	2.1
Memo: business investment <sup>(f)</sup>	0.4	3.0	0.0	2.0	n.a.

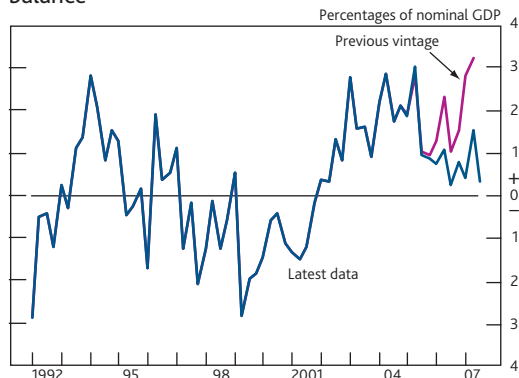
Sources: Bank of England, BCC, CBI, CBI/Grant Thornton, CBI/PwC and ONS.

- (a) Averages of quarterly data.  
 (b) Net percentage balance of companies who say they have revised up their planned investment in plant and machinery over the next twelve months. Balances are non seasonally adjusted.  
 (c) Includes construction and energy companies.  
 (d) Net percentage balance of companies who plan to increase investment in vehicles, plant and machinery over the next twelve months, except manufacturing, which excludes vehicles.  
 (e) Companies' intended changes in investment over the next twelve months.  
 (f) Percentage change on previous quarter. Chained-volume measure.

**Chart 2.6** Manufacturing investment intentions and demand uncertainty

Source: CBI.

- (a) Net percentage balance of companies who plan to increase investment in plant and machinery over next twelve months.  
 (b) Percentage of companies reporting demand uncertainty as a factor constraining investment.

**Chart 2.7** Private non-financial corporations' financial balance

uncertainty as a constraint on investment were still below their recent averages. But the surveys will not capture any recent increases in uncertainty: in particular, the latest CBI/Grant Thornton service sector survey was conducted up to early November.

Tighter credit conditions will also tend to bear down on investment growth (Section 1), though it may take time for this to become apparent in the data. In part, that is because most companies only raise new borrowing for investment on an infrequent basis. That may explain why, outside the financial sector itself, only a small percentage of companies had reported in CBI surveys that either the cost or availability of external finance had held back investment in recent months. And even if companies do find it more difficult or expensive to borrow, projects can take many months, if not years, to complete. So the current investment data will include projects initiated some time ago.

Instead of borrowing, some companies may find it cheaper or easier to use internally generated funds to finance investment spending. Corporate profits have been relatively buoyant in recent years; non-oil companies' net rate of return (net profits relative to their capital stock) rose to 15.4% in 2007 Q3. Another measure of companies' internal resources is their financial balance (defined as total income net of outgoings). The corporate sector had a small positive financial balance during 2007 (Chart 2.7). But that balance now appears less supportive of investment than it did at the time of the *November Report*, as UK companies' earnings on overseas investments have been revised downwards and income flows overseas have been revised upwards. Those revisions also increased the size of the United Kingdom's current account deficit (Section 2.2).

Developments in property markets have been a significant influence on investment in recent years. Residential property markets have been strong for most of the current decade, and residential investment has also been robust. Moreover, around one third of business investment spending is on buildings, which has been supported in recent years by strong increases in commercial property prices.

More recently, property price inflation has slowed and activity has weakened (Section 1). As the box on pages 22–23 discusses, these factors may, over time, bear down on construction activity and so pull down on investment. And developments in commercial property markets may also amplify the tightening of credit conditions facing some companies.

### Government spending

In 2007 Q3, annual growth in nominal government consumption fell to 5.8%, a little below its average rate over the past decade. Between April 2007 and December 2007,

## The role of property in the economy

The UK private sector owned more than £4 trillion of residential and commercial property in 2006, the bulk of which was residential. Residential property prices stagnated in 2007 Q4, and commercial property prices fell sharply (Section 1). This box assesses the role that both markets play in the economy.

Property prices and economic activity are often affected by common drivers — for example, income expectations and credit conditions. So activity and property prices may often be correlated without implying any causal link from one to the other. At times, however, property can also amplify the impact of wider macroeconomic developments: for example by affecting household and corporate balance sheets, and banks' lending decisions. **Chart A** sets out these linkages in more detail.

### Construction activity

Developments in property markets can affect activity via their influence on production in the construction sector, which accounts for around 6% of GDP. In the near term, construction activity is likely to be supported by developments still in the pipeline. But, over time, the recent weakening in property markets will bear down on construction activity (Section 3). Weaker construction activity will initially be reflected in slower growth in construction work-in-progress (recorded as stocks in the National Accounts), but should eventually also dampen both dwellings and business investment (Section 2).

### Household and corporate balance sheets

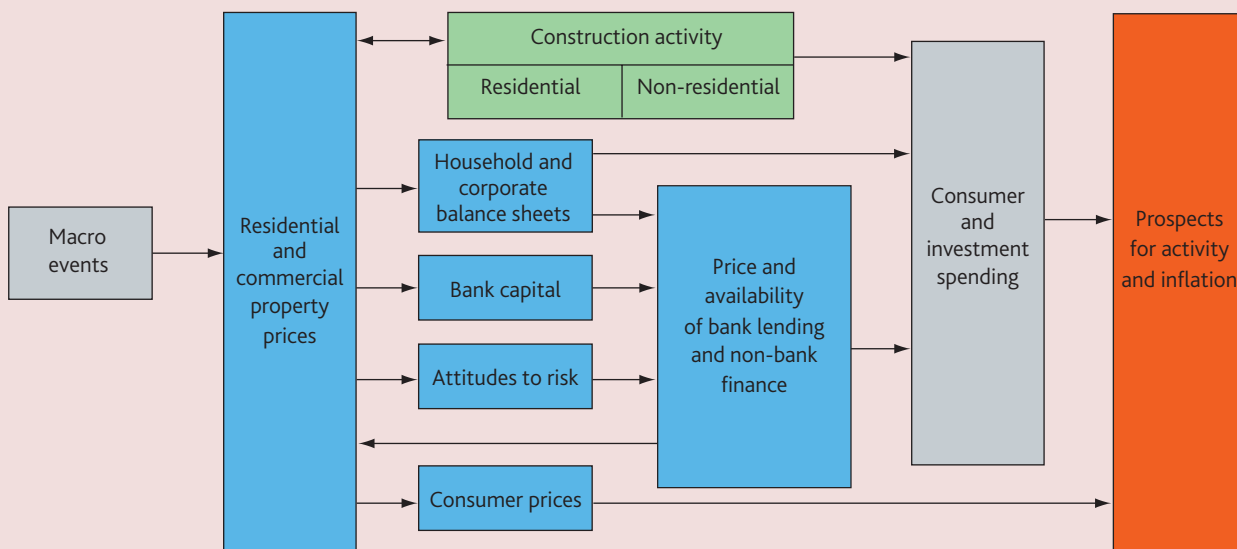
Another potential transmission channel is via household and corporate balance sheets. In this channel, weaker property markets can affect consumer and investment spending in two ways: first, by affecting asset values and hence private sector net wealth; and second, by affecting collateral, and hence credit conditions.

### Balance sheets and assets

In the household sector, a weaker outlook for house prices would affect asset values, but the impact on lifetime wealth is complex. In part, that is because different households are at different stages of their life cycle. For homeowners who plan to sell up or trade down, weaker house prices would reduce their lifetime wealth. However, those looking to trade up and prospective first-time buyers would be better off. And some homeowners may plan to assist their children with future housing costs. So any negative wealth impact of weaker house prices would be at least partly offset by the reduction in the financial assistance that their children may need. Overall, though some households would see their lifetime wealth adversely affected, the aggregate impact on household sector net wealth is likely to be small.<sup>(1)</sup>

In the commercial property sector, lower prices would lead to lower asset values for property-owning companies, for example specialist real estate companies. But, unlike in the household sector, the potential offsets to this are not likely to be significant. Many companies rent premises rather than own them, and in principle could gain if lower commercial property prices were associated with lower rents. But, as rents did not rise by as much as commercial property prices in the recent

**Chart A** The role of property in the economy: a stylised framework





upswing, it is far from clear that lower prices would be accompanied by lower rents. Even if rents were to fall, numerous companies have 'upwards only' rental agreements. And for companies not covered by these agreements, rents are renegotiated only infrequently, so any benefit from lower rents would take time to come through.

### Balance sheets and credit conditions

Both residential and commercial property can be used as collateral for loans. So one way in which weakening property markets may amplify any wider downturn in consumer and investment spending is by reducing the amount of collateral that households and companies have at their disposal. This reduction in collateral would typically lead to a tightening in credit terms — a process sometimes known as the 'financial accelerator'.

Rising house prices over the past decade have significantly increased the amount of collateral available to existing homeowners by raising their housing equity. According to the latest NMG survey carried out for the Bank,<sup>(2)</sup> over two thirds of mortgagors had more than £100,000 of equity in their homes in September 2007. This cushion of housing equity should mean that the majority of homeowners would still be able to access credit at reasonable terms. Households with higher loan to value ratios may face a more significant tightening of credit conditions (Section 1).

Weaker commercial property prices could reduce the collateral that some companies have available to them for raising finance. The likely strength of this channel depends upon the importance of property in corporate balance sheets: property accounted for only around 10% of private non-financial corporations' assets in 2006, significantly lower than in 1990. However, for groups of companies with greater exposure to property — in particular, commercial property companies, which typically have both higher capital gearing and a greater than average exposure to property — weaker commercial property prices could have a material impact.

### Bank capital

Weaker property markets can also amplify wider macroeconomic developments via their impact on banks' willingness and ability to lend. In the same way that weaker property markets would adversely affect the value of households' and companies' collateral, they would also reduce the quality of banks' secured loan portfolios. One way to judge the potential impact of weaker commercial property prices on banks' balance sheets is to consider how much they have lent to property companies. In 2007 Q3, banks' outstanding lending to real estate companies stood at around £190 billion. That represented one third of all lending to private non-financial corporations — a greater share than in the 1990s — and around one sixth of all lending to the private non-financial sector (companies and households). Lower values for commercial property have not yet had a large impact on corporate default rates: the write-off rate for non-financial companies is still low relative to its 1990s peak of around 3%. But increases in the probability of default would increase banks' capital requirements under the new Basel II capital regulations. That may cause banks to cut back on new lending to relieve some of this pressure. The bank capital channel is discussed further in Section 1.

### Consumer prices

The transmission channels discussed above would affect inflation via their influence on activity. But developments in property markets may also affect inflation more directly. Neither residential nor commercial property prices themselves are included in CPI inflation. But CPI inflation does include residential rents and some mortgage fees. So if a slowing in the residential property market were accompanied by a fall in rents, then that would tend to push down on CPI inflation. RPI inflation also includes a measure of housing depreciation; that measure is closely linked to house price inflation.

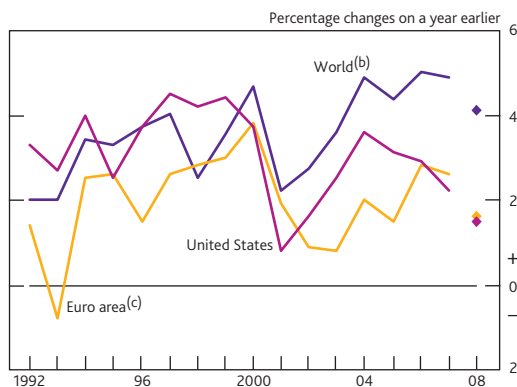
(1) See Benito, A, Thompson, J, Waldron, M and Wood, R (2006), 'House prices and consumer spending', *Bank of England Quarterly Bulletin*, Summer, pages 142–54.

(2) See Waldron, M and Young, G (2007), 'Household debt and spending: results from the 2007 NMG Research survey', *Bank of England Quarterly Bulletin*, Vol. 47, No. 4, pages 512–21.

the public sector recorded a deficit of £28.1 billion, compared with a deficit of £18.4 billion at the same stage of the previous financial year. As in November, the Committee has based its projections on the plans set out in the 2007 *Pre-Budget Report*.

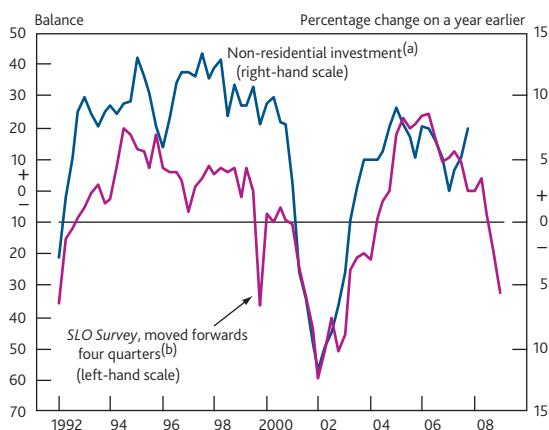
## 2.2 External demand and net trade

The near-term outlook for growth in the advanced economies has deteriorated since the November *Report*, particularly in the United States. But, so far, growth in the rest of the world appears to have been relatively well-insulated from these developments (**Chart 2.8**).

**Chart 2.8** World, US and euro-area GDP<sup>(a)</sup>

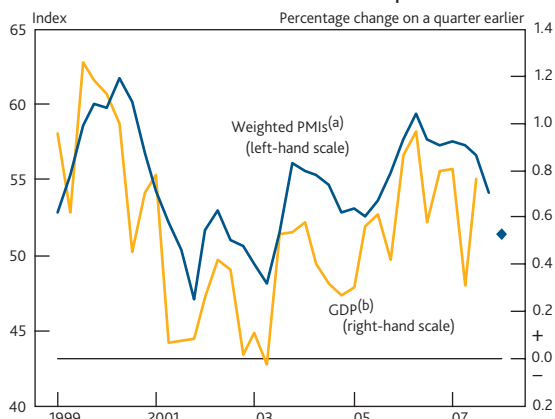
Source: IMF.

- (a) Volume measures. The diamonds show IMF forecasts for 2008. These 2008 forecasts, and data back to 2005, are taken from the IMF's *World Economic Outlook Update*, released on 29 January 2008.
- (b) Calculated using purchasing power parity exchange rates.
- (c) Euro area up to 2006 defined as: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Slovenia and Spain. 2007 and 2008 estimates include Cyprus and Malta.

**Chart 2.9** US corporate credit standards and non-residential investment

Sources: Board of Governors of the Federal Reserve System and Bureau of Economic Analysis.

- (a) Chained-volume measure.
- (b) Percentage of respondents to the Federal Reserve's *Senior Loan Officer Opinion Survey* reporting that their bank's credit standards for commercial and industrial loans or credit lines to large and middle-market firms had loosened over the past three months less than those that reported they had tightened. A decrease in the balance suggests a tightening in credit standards.

**Chart 2.10** Indicators of euro-area output

Sources: Eurostat and Reuters.

- (a) Quarterly averages of monthly manufacturing and services business activity indices weighted together using nominal shares of industrial production and services in gross value added. A reading of above 50 indicates increasing output and a reading below 50 indicates decreasing output. The diamond shows the observation for January 2008.
- (b) Chained-volume measure.

## The United States

Conditions in the United States have deteriorated since the *November Report*, and there are signs that the weakness in the US housing market has spread to other sectors of the economy. As a result, the Federal Reserve has reduced official interest rates substantially. US GDP growth slowed to 0.2% in 2007 Q4, down from 1.2% in Q3. And business surveys suggest that growth may slow further in Q1 — in January the non-manufacturing ISM activity index recorded its largest monthly fall since the survey began in 1997. Credit conditions continued to tighten for both companies and households in the three months to January, according to the *Senior Loan Officer Opinion Survey*. In the past, tighter corporate credit conditions have been followed by weak investment growth (**Chart 2.9**). And tighter conditions for households — alongside the weak housing market, softening labour market and sharp falls in consumer confidence — suggest a subdued outlook for consumption.

## The euro area

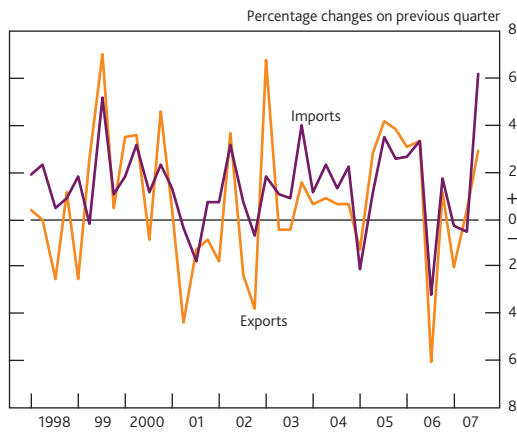
Euro-area growth was relatively robust in the third quarter at 0.8%. But more recent PMI surveys point to a moderation in growth in the fourth quarter and into January (**Chart 2.10**). Credit conditions for both households and companies have tightened further in the euro area according to the ECB's January *Bank Lending Survey*. In part reflecting that, retail sales fell by 1% in Q4, compared with growth of 0.6% in Q3. In the corporate sector, the tightening in credit conditions has so far been concentrated in loans for mergers and acquisitions; as such the implications for business investment growth are less clear. Furthermore, investment spending may also be underpinned by relatively healthy corporate balance sheets.

## Rest of the world

In Japan, GDP growth remained subdued. But in the emerging Asian economies, growth continued at a relatively robust pace. In 2007 Q4, China's economy expanded at an annual rate of 11.2%. Other activity indicators suggest that Asian growth has been relatively insulated so far from the slowdown in the advanced countries. In recent years, rising commodity prices have supported rapid growth in commodity-rich countries in the Middle East and South America.

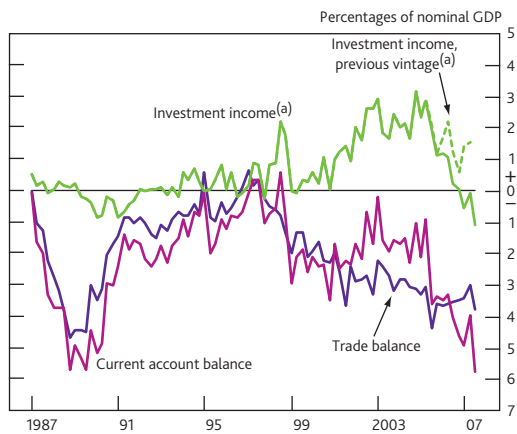
## Net trade

In 2007 Q3, net trade made its largest negative contribution to quarterly GDP growth since 1995. That largely reflected increased demand for imports (**Chart 2.11**), consistent with the ongoing strength of domestic spending at that time. But the trade data are volatile, and remain uncertain due to adjustments for missing trader intra-community (MTIC) fraud. For some time, surveys have suggested more buoyant export growth than the official data, though some point to a weakening around the turn of the year.

**Chart 2.11** 'Economic' imports and exports of goods<sup>(a)</sup>

(a) Chained-volume measures. Excludes the estimated impact of missing trader intra-community (MTIC) fraud.

A sharp widening of the current account deficit in 2007 Q3, together with revisions to the back data, pushed the deficit to its highest share of GDP since quarterly records began in 1955 (**Chart 2.12**). The rising cost of financing this deficit may have been one factor behind the recent decline in sterling (Section 1). By encouraging exports and reducing imports, a lower real exchange rate reduces the need for future overseas borrowing.

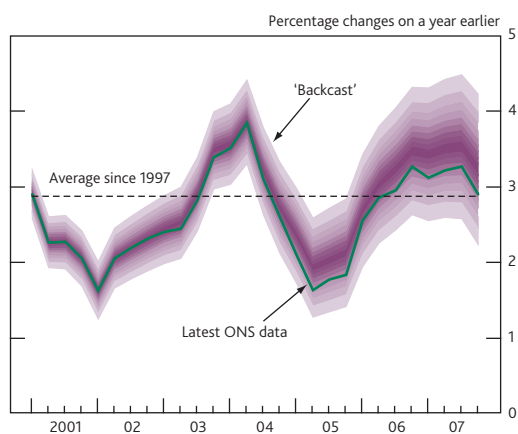
**Chart 2.12** UK current account

(a) Includes compensation of employees.

# 3 Output and supply

Output growth moderated towards the end of 2007, and survey indicators suggested that growth was likely to slow further in 2008 Q1. Capacity pressures within companies remained elevated, although there were signs that pressures may have started to ease. Official data pointed to little change in labour market pressure in Q4, but survey measures suggested that the market loosened around the turn of the year.

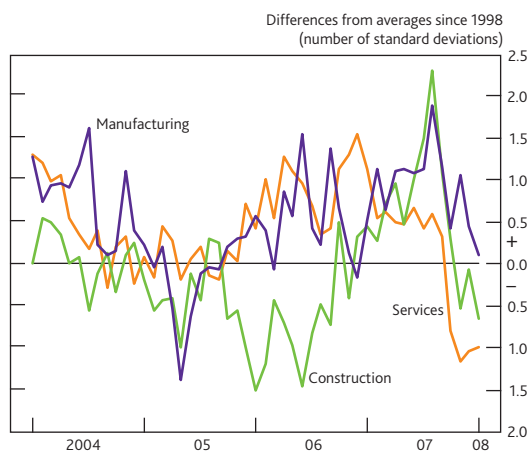
**Chart 3.1** GDP at market prices<sup>(a)</sup>



Sources: ONS and Bank calculations.

(a) Chained-volume measures. The fan chart depicts an estimated probability distribution for GDP growth over the past. It can be interpreted in the same way as the fan charts in Section 5 and forms the first part of the fan chart shown in Chart 5.1 on page 39. A description of the model used to calculate the MPC's GDP fan chart is provided in the Annex to Cunningham and Jeffery (2007). The backcast is informed by business surveys and past patterns in the data, including how previous estimates have been revised. When calculating growth rates, the level of output prior to 2003 is set to equal the ONS data. The post-1997 average shown is calculated using the latest ONS data.

**Chart 3.2** CIPS/NTC output indicators



Source: CIPS/NTC.

The balance between output and supply is a central influence on inflationary pressure. Output growth appears to have eased towards the end of the year (Section 3.1). An important issue for policy is whether that apparent easing has materially altered two key aspects of the balance between output and supply: capacity pressures within companies (Section 3.2) and the degree of tightness in the labour market (Section 3.3).

## 3.1 Output

Quarterly GDP growth eased to 0.6% in 2007 Q4, according to the ONS preliminary estimate, around its long-term historical average rate. Four-quarter growth edged down to 2.9%. The sectoral breakdown suggests that growth in market sector output — the output of sectors for which there is a market-determined price — also slowed on the quarter.

Early estimates of output are subject to revision, so in assessing the pace of growth in the recent past, the MPC also places weight on information from business surveys and past patterns in the data, including how previous estimates have been revised.<sup>(1)</sup> Based on that information, upward revisions to growth since 2005 are judged to be more likely than downward revisions (Chart 3.1). The MPC's 'backcast' nevertheless incorporates a slowing in four-quarter growth in Q4 similar to that in the ONS data. More recent surveys point to a further slowing in Q1 (Chart 3.2).

### Sectoral trends

Sectoral trends can help cast light on why growth has begun to ease. Services growth appears to have slowed in 2007 Q4, according to the ONS, driven by the retail and financial sectors. Retail sector output growth slowed sharply in Q4, driven by developments in consumer spending (Section 2). And in financial services, the credit market turmoil appears to have triggered a marked easing in activity. Weaker growth in

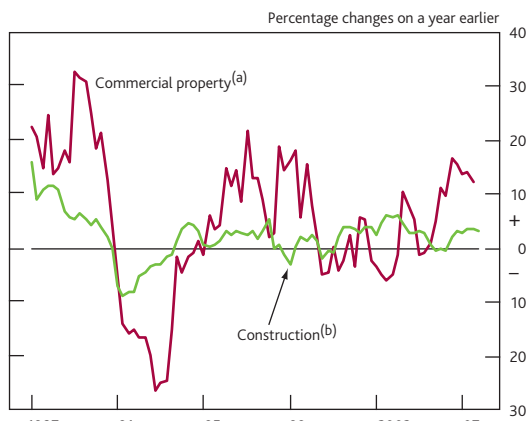
(1) See Cunningham, A and Jeffery, C (2007), 'Extracting a better signal from uncertain data', *Bank of England Quarterly Bulletin*, Vol. 47, No. 3, pages 364–75.

**Table 3.A** Indicators of near-term output growth<sup>(a)</sup>

	Averages since 1997	2007		2008
		Q3	Q4	Jan.
<b>Services</b>				
BCC orders <sup>(b)</sup>	21	26	18	n.a.
CBI/Grant Thornton business and professional services expected volume of business <sup>(c)</sup>	22	27	20	n.a.
CBI/Grant Thornton consumer services expected volume of business <sup>(c)</sup>	8	5	18	n.a.
CBI distributive trades expected sales <sup>(d)</sup>	13	20	2	-18
CBI/PwC financial services expected volume of business <sup>(c)</sup>	19	-11	-23	n.a.
CIPS/NTC orders <sup>(e)</sup>	55.8	57.7	53.0	52.3
<b>Manufacturing</b>				
BCC orders <sup>(b)</sup>	9	27	27	n.a.
CBI expected output <sup>(c)</sup>	5	10	9	n.a.
CIPS/NTC orders <sup>(e)</sup>	52.3	56.2	53.0	49.7

Sources: BCC, CBI, CBI/Grant Thornton, CBI/PwC and CIPS/NTC.

- (a) Dates refer to the period in which the survey was conducted. Expected output balances used when available, otherwise reported orders balances are used as a proxy for future output.  
 (b) Percentage balance of respondents reporting domestic orders to be 'up' relative to 'down' over the past three months.  
 (c) Percentage balance of respondents expecting volume of output/business to be 'up' relative to 'down' over the next three months. The CBI/Grant Thornton survey average is since 1998 Q4.  
 (d) Expected volume of sales over next month compared with same period a year ago. Quarterly data are averages of monthly balances.  
 (e) A reading above 50 indicates increasing orders/new business this month relative to the situation one month ago. Quarterly data are averages of monthly indices.

**Chart 3.3** Construction and commercial property output

Sources: Department for Business Enterprise and Regulatory Reform and ONS.

- (a) Volume of private sector commercial new work in Great Britain excluding infrastructure and new housing, measured at constant (2000) prices. This sector accounts for close to 20% of overall construction output and includes investment under the PFI scheme. The data are available to 2007 Q3.  
 (b) Chained-volume measure.

stock market transactions was one reason why GDP growth slowed in Q4, according to the ONS. The December *CBI/PwC Financial Services Survey* also pointed to a slowdown in financial market activity in Q4, and suggested a further easing in growth in 2008 Q1 (**Table 3.A**).

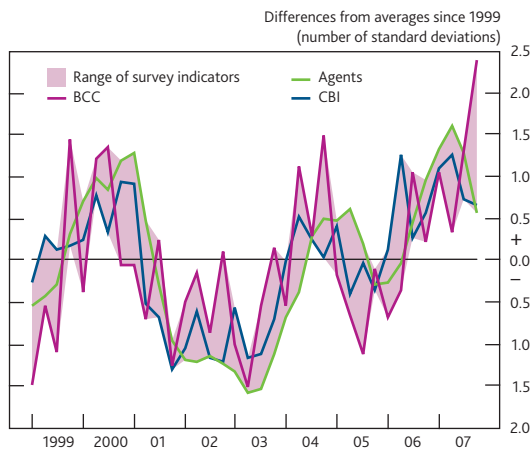
Beyond the retail and financial sectors, official data do not suggest a more generalised slowing in services growth up to Q4. But forward-looking survey indicators are consistent with a broader-based, albeit modest, slowing in service sector growth in 2008 Q1 (**Table 3.A**). The Bank's regional Agents report that developments in financial and property markets (Section 1) have impacted on activity elsewhere in the services sector, with legal and accountancy businesses most affected.

As in the service sector, surveys indicate a moderation in construction output growth in 2007 H2. But construction surveys have not always been a particularly good indicator of movements in official data in the past. The official data suggest that construction output grew robustly between mid-2006 and the end of 2007, driven in part by a rapid expansion in commercial property construction (**Chart 3.3**). Looking ahead, the developments in property markets are likely to bear down on construction activity in due course (see the box on pages 22–23). However, that downward pressure may partly be offset by other factors: for example, government spending plans imply continued strength in public investment over the next three years.

Relative to developments in the service and construction sectors, surveys suggest that activity in the manufacturing sector held up reasonably well in the second half of 2007 (**Table 3.A**). That is a slightly stronger picture than that given by the official data (which suggested flat activity in Q3 and Q4). But, in January, the CIPS/NTC survey showed a marked slowing in output growth. In part, that slowing reflected a material weakening in export orders, which came despite the fall in the sterling ERI.

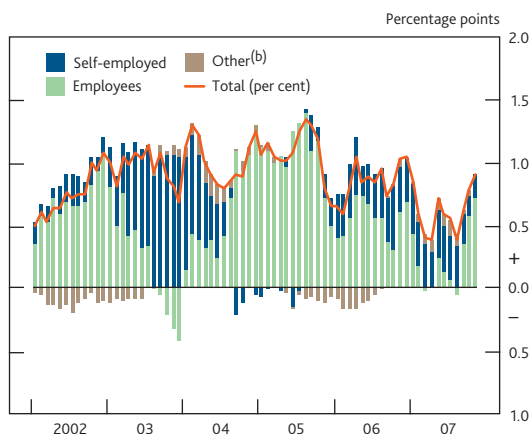
### 3.2 Capacity pressures within companies

Previous *Inflation Reports* have highlighted the potential upward pressure on prices from above-average capacity utilisation. Survey measures indicate that overall capacity utilisation remains elevated. Both the CBI and the Bank's regional Agents reported an easing in capacity pressures at the end of 2007 (**Chart 3.4**). By contrast, the BCC reported a near-record proportion of companies operating at full capacity in 2007 Q4, reflecting very high utilisation rates in both the manufacturing and service sectors. These high utilisation rates in Q4 appear somewhat at odds with weakness in BCC output and orders indicators, however. So, based on past relationships, the BCC measure of utilisation may also fall back in Q1.

**Chart 3.4 Measures of capacity utilisation<sup>(a)</sup>**

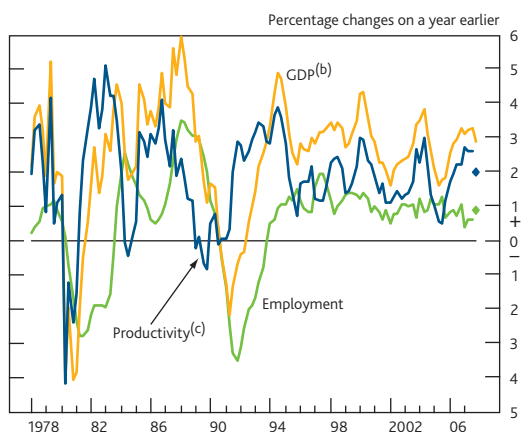
Sources: Bank of England, BCC, CBI, CBI/Grant Thornton, CBI/PwC and ONS.

(a) Three measures are produced by weighting together surveys from the Bank's regional Agents (manufacturing, services), the BCC (manufacturing, services), and the CBI (manufacturing, financial services, business/consumer services, distributive trades), using nominal shares in value added. The BCC data are non seasonally adjusted.

**Chart 3.5 Contributions to annual employment growth<sup>(a)</sup>**

Source: Labour Force Survey.

(a) Three-month moving average measures. Contributions may not sum to total due to rounding.  
(b) Unpaid family workers and people on government-supported training and employment programmes.

**Chart 3.6 GDP, employment and productivity<sup>(a)</sup>**

Source: ONS (including Labour Force Survey).

(a) Diamonds for employment and productivity in 2007 Q4 are based on employment in the three months to November and Q4 GDP.  
(b) Chained-volume measure, at market prices.  
(c) GDP divided by LFS employment.

In the first instance, slowing output growth will increase the amount of spare capacity within companies. But the impact on spare capacity in the longer term will depend on whether companies change the size of their operations (in terms of both staff and physical assets) in response to weaker demand. There is some evidence that companies have revised down their planned investment in physical capacity in recent months (Section 2). In time that will reduce capital stock growth, offsetting some of the impact of slower output growth on capacity pressures. The next part of this section considers companies' staffing decisions.

### 3.3 Labour demand and supply

#### Companies' demand for labour

Employment growth recovered in late 2007 following a period of relative weakness in the preceding twelve months. Data for the three months to November suggest that the pickup in the number of employees was particularly marked (Chart 3.5). That is likely to have been concentrated among private sector employees, as public sector employment has been subdued for some time. As discussed in past *Reports*, the weakness in private sector employment in early 2007 contrasted with relatively strong demand growth at that time and is likely to have reflected factors such as higher energy prices and difficulties in finding suitably skilled staff.

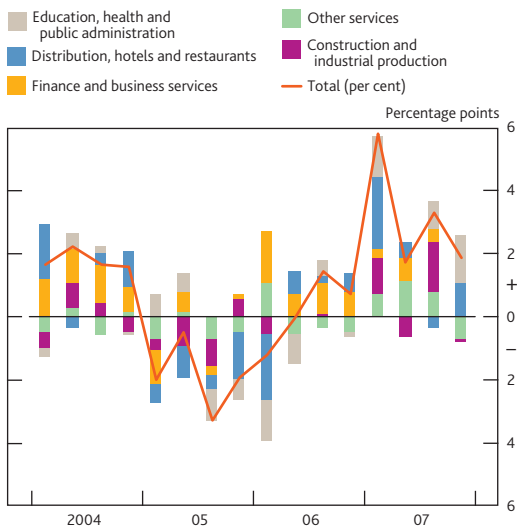
The impact of slower demand growth on companies' demand for staff will depend on their expectations about economic activity in the medium term. It is costly to lay off staff on permanent contracts when demand slows and then rehire them when it recovers. So companies are unlikely to make significant changes to their permanent staff levels if they believe that the slowdown will be relatively mild and short-lived. But it is less costly for companies to reduce the size of their workforce by not replacing staff when they leave (for example, retirees) or by reducing their use of temporary labour.

Over the past ten years, demand slowdowns have not been characterised by large changes in overall employment growth (Chart 3.6). But these slowdowns in demand were relatively shallow and short-lived. If companies come to believe that demand for their products will be subdued for a more sustained period, then there may be a more noticeable impact on overall employment growth.

Alongside slower output growth, an additional influence on near-term labour demand will be the renewed rise in energy prices (Section 4). As discussed in previous *Reports*, the increase in unemployment over 2005–06 may have been, in part, a response to the impact of higher energy prices on companies' costs.<sup>(1)</sup> The implications for unemployment of the

(1) See, for example, page 30 of the November 2007 *Inflation Report*.



**Chart 3.7** Contributions to quarterly vacancies growth<sup>(a)</sup>

(a) Based on three-month averages of monthly data. Contributions may not sum to total due to rounding.

**Table 3.B** Employment intentions<sup>(a)</sup>

	Averages since 1997	2007	
		Q3	Q4
<b>Services</b>			
BCC <sup>(b)</sup>	22	24	29
CBI/Grant Thornton business and professional services <sup>(b)</sup>	19	25	31
CBI/Grant Thornton consumer services <sup>(b)</sup>	7	11	27
CBI distributive trades <sup>(c)</sup>	0	3	-23
CBI/PwC financial services <sup>(b)</sup>	4	10	4
Agents <sup>(d)</sup>	1.3	1.5	0.9
<b>Manufacturing</b>			
BCC <sup>(b)</sup>	7	19	8
CBI <sup>(b)</sup>	-17	-9	-19
Agents <sup>(d)</sup>	-0.9	0.0	-0.1
<b>Whole economy</b>			
Manpower <sup>(b)</sup>	14	12	10

Sources: Bank of England, BCC, CBI, CBI/Grant Thornton, CBI/PwC, Manpower and ONS.

- (a) Dates refer to the period in which the survey was conducted.  
 (b) Net percentage balances of companies expecting their workforce to increase over the next three months. BCC balances are non seasonally adjusted. The CBI/Grant Thornton average is since 1998 Q4.  
 (c) Net percentage balance of companies expecting their workforce to increase over the next month.  
 (d) End-quarter observation. These scores began in July 1997 and refer to companies' employment intentions over the next six months. Prior to January 2005, the scores reflected the current employment situation. A score of above (below) zero indicates rising (falling) employment. From January 2005, the scores for business and consumer services are weighted together using employment shares.

most recent rise in energy costs will depend on the extent to which employees are willing to accept lower real take-home pay.

One indicator of changes in the demand for labour is demand for new staff. Vacancies growth eased a little in 2007 Q4 (**Chart 3.7**). Within that, vacancies in the finance and business sector were unchanged in Q4, the weakest quarterly growth rate since 2005 Q3. Survey measures of employment intentions showed a mixed picture (**Table 3.B**). Most remained close to or above their post-1997 averages (**Table 3.B**). However, some measures, notably the Bank's Agents' score for the service sector and the *CBI Distributive Trades Survey* balance, fell sharply in Q4 to below their post-1997 average levels.

### Labour supply

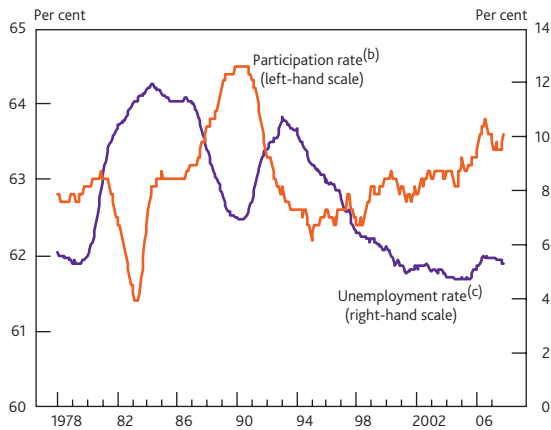
An important determinant of labour market pressure is the number of people working or seeking work. This varies for structural reasons, such as changes in the proportion of women choosing to work. But it also changes for cyclical reasons — more people tend to look for work when jobs are plentiful than when they are scarce. Such cyclical changes in labour supply may affect how wages respond to changes in demand. Cyclical effects have been seen in the past when there have been significant changes in unemployment. For example, in the early 1980s and early 1990s, large rises in unemployment discouraged potential entrants to the labour force, causing falls in the proportion of the population participating in the workforce (**Chart 3.8**). So if labour demand were to slow markedly again that could lead to lower participation.

An important influence on labour supply growth over the past four years has been the increase in migrants, particularly from the A8 Accession countries. A number of factors are likely to have made the United Kingdom an attractive destination, including a higher level of wages than in migrants' home countries. But strong demand for labour, particularly in certain sectors such as construction, is also likely to have been a key factor. If the demand for labour in those sectors slowed, that would affect the relative attractiveness of the United Kingdom over other destinations or the migrants' home countries.

### Labour market tightness

Measures of labour market pressure based on official data indicated little change in tightness over the second half of 2007 (**Table 3.C**). The unemployment rate fell back a little. And the weighted non-employment rate (which weights together the different groups of the unemployed and inactive by the probability that they move into employment)<sup>(1)</sup> was steady, although it remained high relative to the levels seen in

(1) See Jones, J, Joyce, M and Thomas, J (2003), 'Non-employment and labour availability', *Bank of England Quarterly Bulletin*, Autumn, pages 291–303.

**Chart 3.8** Unemployment and participation<sup>(a)</sup>

Source: Labour Force Survey.

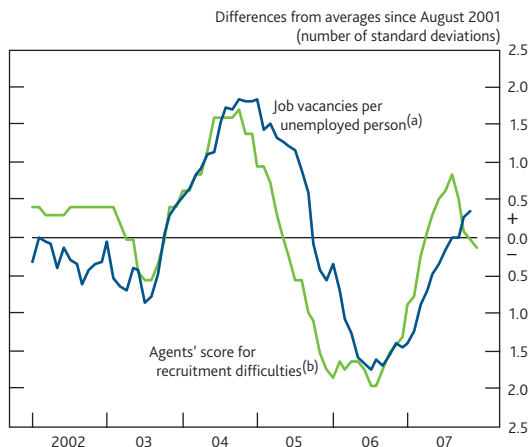
- (a) Three-month moving average measures.  
 (b) Percentage of the 16+ population.  
 (c) Percentage of the economically active population.

**Table 3.C** Selected indicators of labour market pressure<sup>(a)</sup>

	Averages		2007		
	H1	Q3	Oct.	Nov.	Dec.
LFS unemployment rate <sup>(b)</sup>	5.5	5.4	5.3	5.3	n.a.
Claimant count <sup>(c)</sup>	2.8	2.6	2.5	2.5	2.5
Weighted non-employment rate <sup>(d)</sup>	7.7	7.7	7.7	7.7	n.a.
Temporary workers <sup>(e)</sup>	26.4	27.0	26.0	25.7	n.a.
Part-time workers <sup>(f)</sup>	9.1	9.5	9.5	9.4	n.a.

Source: ONS (including Labour Force Survey).

- (a) Based on three-month moving average measures, unless otherwise stated.  
 (b) Percentage of the economically active population.  
 (c) Percentage of the sum of the claimant count and workforce jobs, monthly data.  
 (d) Percentage of the working-age population. This measure 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.  
 (e) Percentage of temporary workers who could not find a permanent job.  
 (f) Percentage of part-time workers who could not find a full-time job.

**Chart 3.9** Labour market tightness

Sources: Bank of England and ONS (including Labour Force Survey).

- (a) Job vacancies (excluding agriculture, forestry and fishing) divided by the LFS measure of unemployment, three-month moving averages.  
 (b) Recruitment difficulties in the most recent three months compared with the same period a year earlier. This score was referred to as skill shortages prior to 2005.

the first half of this decade. However, the ratio of vacancies to unemployment suggested that labour market conditions tightened over 2007 (**Chart 3.9**).

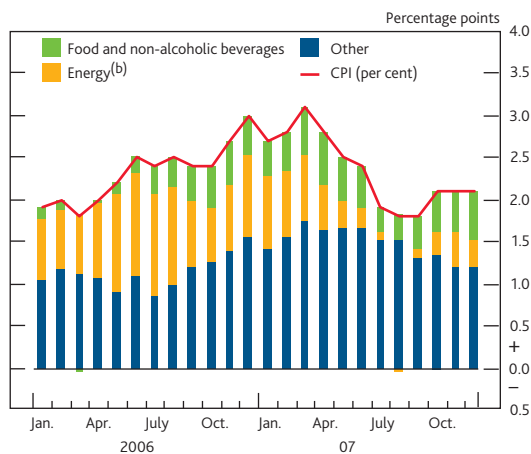
In contrast to the official data, surveys suggested an easing in labour market pressures. Recruitment difficulties fell back according to the Bank's regional Agents (**Chart 3.9**). And CBI surveys indicated that it became easier to find skilled staff. That suggests that companies might be less willing to accede to higher wage demands. Households also appear to have become more pessimistic about the prospects for employment. The January Nationwide survey of consumer confidence showed a rise in the proportion of respondents believing that jobs would be scarce in six months' time, which may restrain wage demands. The near-term outlook for wages is discussed in Section 4.



# 4 Costs and prices

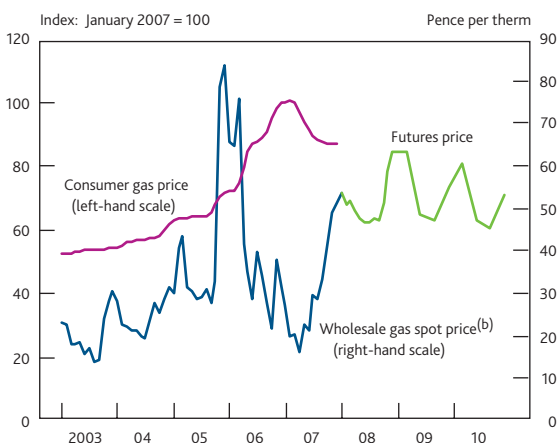
CPI inflation was close to the 2% target in December, but is expected to rise in the near term as a result of increases in domestic energy, food and import prices. The past three months have seen further rises in commodity prices, with oil and some agricultural foods reaching record highs. Import prices increased, as did manufacturers' input and output prices. Measures of inflation expectations remained elevated, and some rose further. Private sector pay growth was relatively muted over the past year, and companies expect pay settlements in 2008 to be similar to those in 2007, according to a recent survey by the Bank's regional Agents.

**Chart 4.1** Contributions to CPI inflation<sup>(a)</sup>



(a) Contributions to annual (non seasonally adjusted) CPI inflation.  
 (b) Energy includes electricity, gas, liquid and solid fuels and vehicle fuels and lubricants.

**Chart 4.2** UK wholesale and consumer gas prices<sup>(a)</sup>



Sources: Bloomberg, International Exchange ([www.theice.com](http://www.theice.com)), ONS and Reuters.

(a) Futures price and spot price for February 2008 are averages during the fifteen working days to 6 February. Wholesale spot price data, and futures prices to late 2008, are monthly averages of daily data. Thereafter, futures prices have been interpolated from quarterly data.  
 (b) One-day forward price of UK natural gas.

## 4.1 CPI inflation

Consumer price inflation — the measure targeted by the MPC — was 2.1% in December, the same as in October and November (**Chart 4.1**). In an accounting sense, much of the rise and subsequent fall in CPI inflation over 2006–07 was associated with movements in domestic energy and food price inflation. These components are again expected to play a significant role in the coming months.

One key factor will be household energy prices. Wholesale gas prices have more than doubled since the middle of 2007 (**Chart 4.2**). In part, that reflects the close links between the gas markets on the Continent, an important source of gas for the United Kingdom, and the oil market. But the rise in UK wholesale gas prices has been more marked than that for oil (Section 4.2). In part, that may reflect a smaller-than-expected increase in supply following the opening in late 2006 of the Langeled pipeline between Norway and the United Kingdom. Market participants expect much of the recent rise in gas prices to persist. In the fifteen working days to 6 February, the wholesale gas futures curve was, on average, around 11% higher than at the time of the *November Report*.

The recent increase in wholesale gas prices is likely to put upward pressure on CPI inflation in the near term. In January and February, the majority of large gas and electricity providers announced significant increases in their tariffs (**Table 4.A**). In the absence of any other changes, these announcements should add a little under ½ percentage point to CPI inflation. The pass-through of these increases into CPI inflation will be more rapid than in the past, reflecting a change in the way that the ONS treats retail gas and electricity price changes. In the past, the ONS phased in price rises over a period of four months. However, from February 2008, retail

**Table 4.A** Announced changes in gas and electricity prices<sup>(a)</sup>

	Price increases (per cent)		Dates effective	Market shares <sup>(b)</sup> (per cent) (Gas/electricity)
	Gas	Electricity		
British Gas	15	15	18 Jan.	46/21
E.ON	15	9.7	8 Feb.	13/19
npower	17.2	12.7	5 Jan.	12/16
ScottishPower	15	14	2 Feb.	9/12
EDF Energy	12.9	7.9	18 Jan.	7/14

Sources: Company press releases and Ofgem.

(a) Headline increases in gas and electricity prices as announced by domestic energy suppliers. These may differ slightly from the average actual changes in retail energy prices.

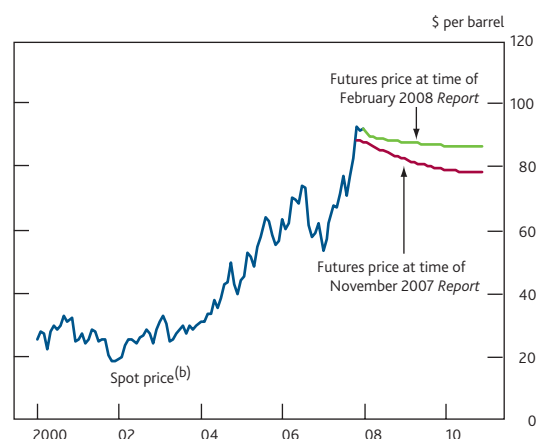
(b) Market shares for Great Britain in March 2007, taken from Ofgem's *Domestic Retail Market Report* – June 2007.

energy price increases will be fully captured in the month that the change is implemented by the utility company — reflecting the way that the changes affect customers' bills.

Another key component of CPI over coming months will be food, which comprises around 9% of the CPI basket. Annual retail food price inflation reached almost 6% in December. Looking ahead, anecdotal evidence gathered by the Bank's regional Agents suggests that upward pressure on retail food prices is likely to continue into the early part of 2008. That largely reflects previous increases in agricultural food prices (Section 4.2).

However, movements in individual components of the index do not necessarily give an indication of how underlying inflationary pressure will evolve. Higher inflation in one sector may be offset by lower inflation elsewhere. Non-food retail goods prices fell by 3.2% in the year to December, the weakest since records began in 1987. And contacts of the Bank's regional Agents have reported more aggressive discounting in recent months on non-food items, perhaps in response to weaker demand. That downward pressure on prices may well offset some of the increased contribution from food and energy. Looking ahead, an important influence on CPI inflation in the coming year will be the extent to which retailers adjust their mark-ups in the face of expected rising cost pressures and weaker demand.

The November *Report* highlighted a number of risks to the inflation outlook relating to the sharp increase in commodity prices in 2007 and the possible responses of business pricing decisions and pay growth. The remainder of this section examines recent developments in each of these factors.

**Chart 4.3** Brent crude oil prices<sup>(a)</sup>

Sources: Bloomberg and Thomson Datastream.

(a) Futures prices and spot data for February are averages during the fifteen working days to 6 February. The equivalent data for the November *Report* are averages during the fifteen working days to 7 November.

(b) Monthly averages of daily data. Forward price for delivery in 10 to 21 days' time.

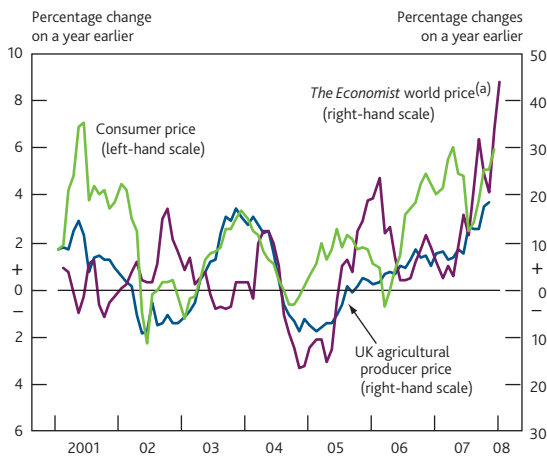
## 4.2 Global costs and prices

### Commodity prices

Over the past three months, Brent crude oil prices have been volatile, reaching nearly \$100 a barrel in early January, before falling back later in the month. In the fifteen working days to 6 February, the oil price averaged \$90 a barrel (Chart 4.3).

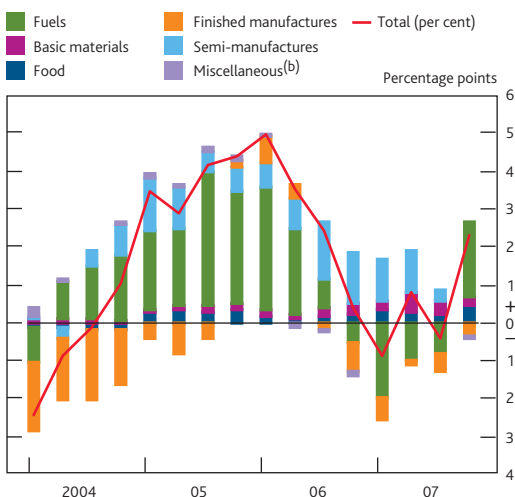
Over the past year, oil prices have risen by around 60% in dollar terms. That increase reflects a combination of demand and supply factors, including geopolitical concerns. On the demand side, strong growth in the emerging economies has continued to fuel demand for oil, despite the weakening in growth prospects in advanced countries (Section 2.2). As noted in the November 2007 *Report*, around one third of the growth in world oil demand in 2005–07 came from China alone.

Supply factors have also contributed to the rise in prices. As the demand for oil has risen, a lack of investment in earlier

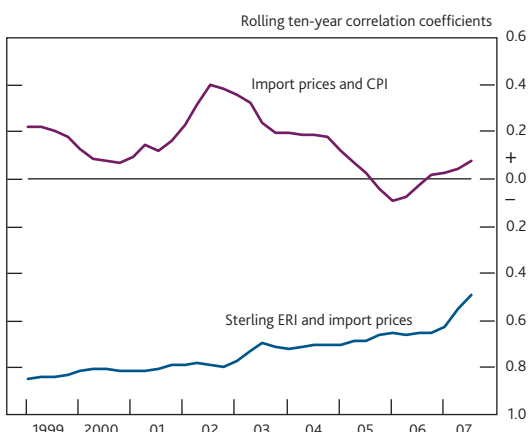
**Chart 4.4** Sterling food price indices

Sources: Bank of England, Department for Environment, Food and Rural Affairs (Defra), ONS and *The Economist*.

(a) Monthly average of weekly US dollar data, converted into sterling using monthly average of market exchange rates. The largest food components include wheat, coffee, soya beans, maize, soya meal, rice and sugar.

**Chart 4.5** Contributions to annual imported goods price inflation<sup>(a)</sup>

(a) The 2007 Q4 observation shows the three months to November.  
(b) Includes a small rounding difference.

**Chart 4.6** Sterling ERI, import prices and CPI<sup>(a)</sup>

(a) Based on backward-looking ten-year rolling correlations of annual percentage changes in each quarter of the year. Import prices are based on the National Accounts goods and services import price deflator, excluding estimates of missing trader intra-community (MTIC) fraud.

years has made it difficult to increase production. The International Energy Agency (IEA) estimates that investment in new oil and gas projects doubled in nominal terms between 2000 and 2005. But much of that increase was due to a higher cost of investment, with the rise in real investment being substantially lower. Meanwhile, OPEC producers have not raised their production quotas significantly since 2005.

The slow supply response has resulted in capacity remaining tight. OECD commercial oil inventories have fallen markedly, with the IEA predicting further reductions in 2008. Market participants judge that this is likely to support prices for some time: the futures curve has been close to the current spot price and was, on average, around 8% higher in the fifteen working days to 6 February than at the time of the November *Report* (Chart 4.3). That view is shared by professional forecasters, who expect only a small reduction in prices over the coming year.

World agricultural prices rose by over 40% in the year to January (Chart 4.4). Historically, agricultural producer prices for the United Kingdom have tended to move in a similar way to world prices. As with other commodities, the rise in global agricultural prices has been, in part, due to strong demand growth from emerging economies. But supply has also been an important factor, with poor harvests in North America, Europe and Australia in 2007.<sup>(1)</sup>

### Import prices

Import prices are an important channel through which global commodity prices affect costs and prices in the United Kingdom: on average, imports of goods and services account for around one third of businesses' input costs. The rise in commodity prices made a material contribution to import price inflation at the end of 2007 (Chart 4.5). For example, in the three months to November, imported fuel prices rose by around 14% compared with the same period a year earlier.

Another key influence is the exchange rate. In the fifteen working days to 6 February, the sterling ERI was 6.1% below the starting point for the November *Report* (Section 1). The speed and magnitude of the pass-through into import prices will in part depend on whether the fall in sterling is perceived to be temporary or permanent. If importers believe that the depreciation is only temporary, they may choose to absorb the exchange rate change in lower profits rather than to allow the sterling price of imports to rise. However, if importers expect the depreciation to be long-lived, then they are more likely to allow their sterling prices to rise in response. Over the past,

(1) The box on page 34 of the November 2007 *Report* provides a more detailed description of the recent demand and supply developments in primary commodity markets.

**Table 4.B** Official and survey measures of prices<sup>(a)</sup>

	Averages since 1997 <sup>(b)</sup>	2007				2008
		Sep.	Oct.	Nov.	Dec.	Jan.
<b>Services</b>						
CBI/Grant Thornton – expected	3	8	–	–	19	–
BCC – expected	24	28	–	–	40	–
CIPS/NTC – reported	52.3	53.5	54.0	54.2	54.5	55.3
Agents' scores – reported	2.5	2.5	2.5	2.5	2.5	n.a.
<b>Manufacturing</b>						
ONS input prices <sup>(c)</sup>	0.4	1.8	2.6	5.4	5.8	n.a.
ONS output prices <sup>(d)</sup>	0.3	0.9	1.1	1.4	1.8	n.a.
CBI – expected	–4	16	14	21	15	21
BCC – expected	14	32	–	–	41	–
CIPS/NTC – reported	51.9	57.8	57.0	57.5	55.6	57.9
Agents' scores – reported	0.4	2.4	2.2	2.3	2.3	n.a.

Sources: Bank of England, BCC, CBI, CBI/Grant Thornton, CIPS/NTC and ONS.

- (a) The BCC and CBI surveys ask about prices over the next three months. The CIPS/NTC surveys ask about prices over the past month and the Agents' scores refer to prices over the past three months compared with a year earlier. The quarterly BCC and CBI/Grant Thornton surveys have been allocated to the final month in each quarter. BCC data are non seasonally adjusted.
- (b) The averages for the CIPS/NTC manufacturing, BCC and CBI/Grant Thornton surveys are since the series began in November 1999, 1997 Q2 and 1998 Q4 respectively. The averages for the Agents' scores are since July 1997 for manufacturing and January 2005 for services.
- (c) Including Climate Change Levy. Percentage change three months on three months earlier.
- (d) Excluding excise duties. Percentage change three months on three months earlier.

falls in the sterling ERI have typically fed through into UK import prices fairly rapidly, as reflected in the strong negative correlation between them (**Chart 4.6**). The correlation between import prices and CPI inflation has been more variable, and will reflect the extent to which retailers' margins and other prices in the CPI adjust.

### 4.3 Business pricing and inflation expectations

The sharp rise in global commodity prices led to a marked pickup in UK manufacturing input prices in late 2007 (**Table 4.B**). Raw material inputs make up a significant share of manufacturers' overall costs, and as such, can strongly influence manufacturing output prices. That can be seen in the most recent data. Output price inflation in the three months to December picked up to its highest rate since 1990. Upward pressure on output prices is also evident in business surveys. The BCC expected price balances for both manufacturing and services reached their highest values on record in Q4, while the January manufacturing CBI balance was close to the high seen in early 2007.

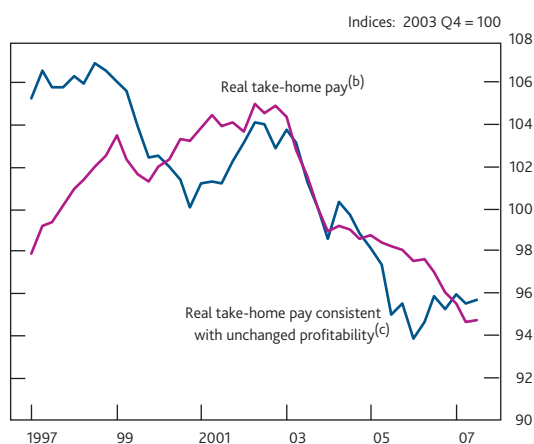
A central question for the MPC is whether another episode of above-target CPI inflation will prompt a sustained rise in inflation expectations, with a risk of heightened inflationary pressures in the medium term (Section 5). Most measures of inflation expectations have risen in the recent past, and remain elevated. The box on pages 36–37 considers possible explanations, and whether recent increases in inflation expectations measures pose medium-term risks.

### 4.4 Labour costs

#### Influences on earnings

Another key issue facing the MPC is how employees and businesses will respond to the latest rise in energy prices. As in 2004–06, a further round of energy price rises would require a renewed downward adjustment of real take-home pay relative to productivity.<sup>(1)</sup> But the manner in which that adjustment occurs is important: if employees resisted further downward adjustment to real pay growth, that could place upward pressure on inflation and lead companies to pare back employment.

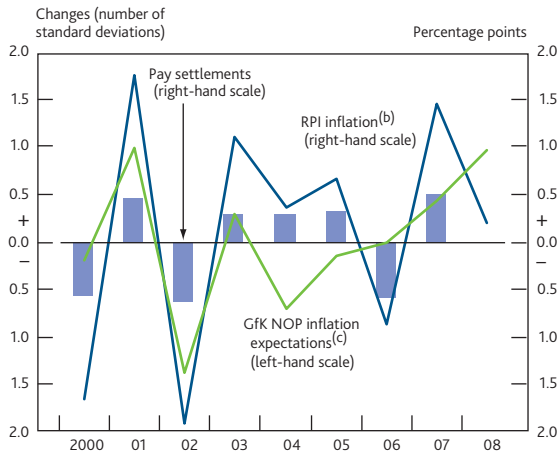
Such 'real wage resistance' may have occurred to some degree in 2005–06, when higher energy prices coincided with higher unemployment (Section 3). By the start of 2007, however, real take-home pay had fallen back, returning business profitability to its 2003 Q4 level (**Chart 4.7**). That suggests the required real wage adjustment to the 2004–06 rise in energy prices

**Chart 4.7** Real take-home pay relative to productivity<sup>(a)</sup>

- (a) 1997 Q1–2007 Q3.
- (b) Households' post-tax wages and salaries divided by the consumption deflator. Includes non-profit institutions serving households. Productivity is calculated from ONS data on non-oil and gas market sector output divided by private sector employees.
- (c) Ratio of market sector non-oil and gas output prices to the consumption deflator, multiplied by the ratio of one minus the effective rate of tax on employees to one plus the effective rate of employers' social contributions. Profitability defined as the ratio of profits to value-added output.

(1) The box on pages 30–31 of the November 2006 Report discusses why this adjustment needs to take place.

**Chart 4.8** Factors influencing changes in pay settlements<sup>(a)</sup>



Sources: Bank of England, GfK NOP, Incomes Data Services, Industrial Relations Services, the Labour Research Department, ONS and research carried out by GfK NOP on behalf of the European Commission.

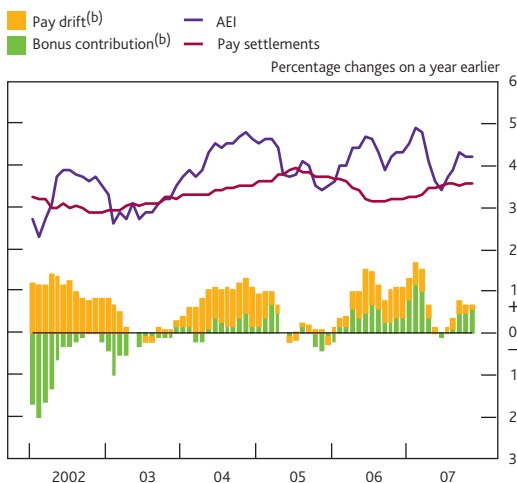
- (a) Change on the previous year, based on private sector settlements in the first four months of the year.  
 (b) Change on the previous year, based on the average annual inflation rate in the final four months of the preceding year.  
 (c) Inflation expectations over the next twelve months. Change on previous year, based on difference from its average in 1997–2007 (number of standard deviations) in the final four months of the preceding year.

came to an end during the past year. The magnitude of the necessary downward adjustment to real wages following the latest rise in energy prices is not yet clear: in particular, it depends upon the persistence of the rise in energy prices.

One source of information about the extent of any renewed real wage resistance will be the pay settlement period at the start of 2008. Around half of private sector deals are agreed in the first four months of the year. One factor that is frequently cited in pay negotiations is the rate of RPI inflation. This has risen on a year ago, although by less than in the corresponding period in 2007. **Chart 4.8** shows that, in the past, changes in RPI inflation in the later part of the year have provided a guide to the change in pay settlements in the early part of the subsequent year. Employees are also likely to place weight on their expectations of inflation over the coming year when negotiating their settlement. Therefore the rise in survey measures of households' inflation expectations in 2007 may suggest some upward pressure on settlements.

However, one factor likely to mitigate the risk of higher pay settlements and facilitate a more rapid adjustment in real take-home pay is the outlook for demand. If businesses and employees believe that demand growth will slow over 2008, that may reduce profitability and increase concerns about job security. The combination of those factors could lead to more subdued pay settlements. Crucially, it may also bear down on other, more flexible, forms of pay, such as bonuses and overtime.

**Chart 4.9** Private sector earnings<sup>(a)</sup>



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

- (a) Three-month averages based on the average earnings index. Private sector pay settlements are averages over the past twelve months, based on Bank calculations.  
 (b) Percentage points. The bonus contribution is calculated as the difference between overall AEI and regular pay growth. Pay drift is calculated as the difference between regular pay growth and pay settlements.

### Latest developments in earnings

According to the official average earnings index — which is only available with a lag — private sector pay growth remained muted in late 2007, rising by 4.2% in the three months to November, compared with a year earlier (**Chart 4.9**). That contrasts with the experimental average weekly earnings measure, which rose by 5.4% over the same period. The discrepancy between the AEI and AWE measures remains the subject of an ONS investigation. One feature of both earnings measures is that they exclude the self-employed, whose earnings may be more sensitive to the economic cycle.

Another important measure of pay pressure is regular pay drift. This captures elements such as merit pay increases and overtime payments, and tends to be related to movements in output and productivity. Through much of 2007, private sector pay drift was below its post-1997 average. That is perhaps surprising given the strength of demand during that period, but probably reflects some combination of labour market slack and businesses' attempts to offset pressures on other costs.

The contribution to earnings from private sector bonus payments picked up in the three months to November.



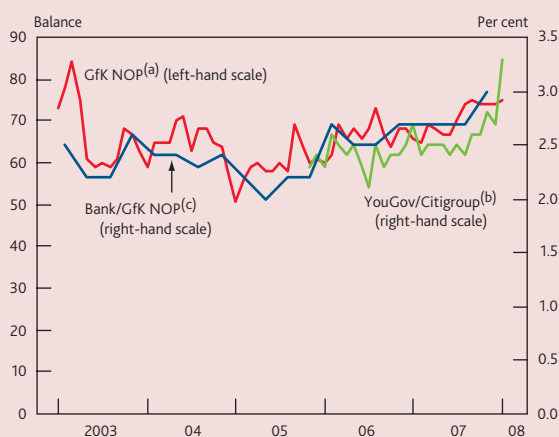
## Why have measures of inflation expectations remained elevated?

A key concern for the MPC is the outlook for medium-term inflation expectations. These cannot be observed directly. But a number of measures — including surveys of households, companies and professional forecasters, as well as financial market instruments — can act as a guide. Although these measures all have their drawbacks, most have risen in the recent past. Against this background, and with CPI inflation expected to pick up again in the near term, there is a risk that wage and price-setters will place some weight on the possibility that CPI inflation will be persistently above the 2% target. As Section 5 discusses, if that risk were to materialise, it would raise medium-term inflationary pressures.

### Recent trends in measures of inflation expectations

Most household surveys of inflation expectations focus on the next twelve months. The quarterly survey carried out by GfK NOP for the Bank has picked up over the past two years, as has an alternative survey by GfK NOP for the European Commission (Chart A). And in January, there was a marked rise in expectations over the next twelve months in the survey carried out by YouGov for Citigroup. The same survey also asks respondents about their views on inflation five to ten years ahead. Changes in this longer-term measure of expectations have typically been similar to those one year ahead; however, the change in January was less striking than that on the shorter-term measure.

**Chart A** Survey measures of households' inflation expectations over the next twelve months



Sources: Bank of England, Citigroup, GfK NOP, YouGov and research carried out by GfK NOP on behalf of the European Commission.

- (a) Net balance expecting prices to increase. The question asks: 'In comparison with the past twelve months, how do you expect consumer prices will develop in the next twelve months?'  
 (b) Median of respondents' expected change in consumer prices of goods and services over the next twelve months.  
 (c) Median of respondents' expected change in shop prices over the next twelve months.

Financial market instruments and the Bank's regular survey of professional forecasters provide a medium-term perspective

on inflation expectations. The latter suggests that, on average, CPI inflation is expected to remain around the 2% target from 2009 onwards (see the box on page 48 in Section 5). On the other hand, market-based measures have risen since 2005 at the five and ten-year horizons, and remain elevated. But at shorter horizons they have been broadly unchanged (Chart B). The remainder of the box discusses the interpretational issues associated with the various measures of inflation expectations.

**Chart B** Forward inflation rates<sup>(a)</sup>



Sources: Bank of England and Bloomberg.

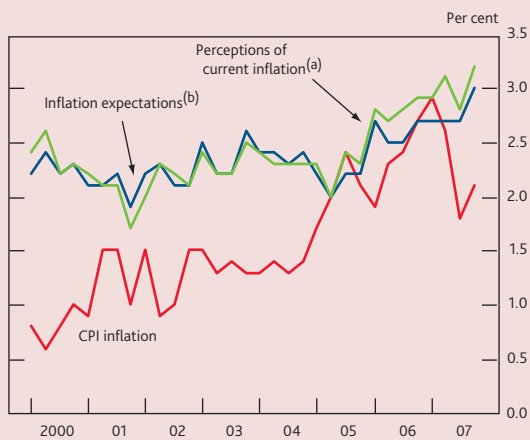
- (a) The measures show the implied instantaneous inflation rates two, five and ten years ahead. The five and ten year ahead measures are based on inflation breakevens (the difference between the interest rates prevailing on nominal and index-linked government bonds). The two year ahead measure is based on inflation swaps. All instruments are linked to RPI, rather than CPI.

### Interpreting measures of inflation expectations

An important issue surrounding the interpretation of measures of near-term inflation expectations (for example, household surveys) is whether these contain information about inflation beliefs over the medium term: if they do not, then their relevance to policy is limited.

Historically, movements in household survey measures of expectations tend to follow both perceptions of current inflation and trends in CPI inflation itself relatively closely. But recently movements in both inflation perceptions and expectations have diverged markedly from movements in CPI inflation (Chart C). In part, that could reflect a potential link between inflation perceptions and prices of 'high-visibility' items such as food and energy bills.<sup>(1)</sup> However, as electricity and gas prices declined through much of the past year, price trends in high-visibility items during 2007 cannot be the only explanation for the continued elevation of these measures.

Although the decline in the inflation rates of some 'high-visibility' items had little effect on expectations in 2007, the continuing divergence between expectations and CPI inflation in the latest data may reflect the recent surge in energy and food prices. More generally, it is possible that households believe that past above-target inflation outturns,

**Chart C** Inflation: actual, perceptions and expectations

Sources: Bank of England, GfK NOP and ONS.

- (a) Median of respondents' view on how prices have changed over the past twelve months.  
 (b) Median of respondents' expected changes in shop prices over the next twelve months.

combined with the prospect of further increases in inflation in the near term, are indicative of monetary policy being less restrictive in the future. If that were the case, then the rise in these short-term measures of inflation expectations would contain information about medium-term beliefs, and that in turn could have significant implications for wage and price-setting.

Another important interpretational issue with both the survey and financial market measures of inflation expectations is the measure of actual inflation to which they are most closely related. Household surveys typically ask about views on price changes generally, rather than CPI inflation — the measure targeted by the MPC. These surveys may be heavily influenced by developments in RPI inflation — the basis for annual increases in many government benefits, and often cited as an

influence on pay settlements. Though RPI inflation has eased since its peak in March 2007, the fall has been less marked than for CPI inflation. That in part reflects the impact of past increases in Bank Rate on mortgage costs, which are included in the RPI measure but not CPI.

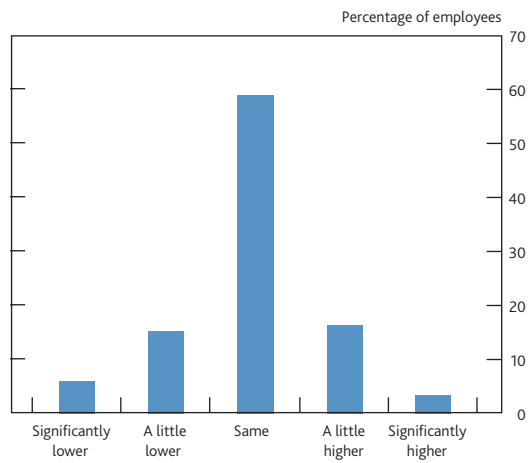
Financial market measures are derived from instruments linked to RPI rather than CPI inflation. So movements could simply reflect changes in market estimates of the wedge between the two inflation rates,<sup>(2)</sup> rather than any change in the markets' assessment of future inflation trends more generally. The interpretation of market-based measures is further complicated by two issues. First, these instruments also reflect risk premia associated with uncertainty about future inflation and liquidity. So if future inflation uncertainty had risen, that could push up market-based measures, without implying any rise in genuine inflation expectations. Second, financial market measures could be influenced by institutional factors. For example, if large institutional investors such as pension funds attach a higher value to inflation protection, that could push up forward inflation rates, again with no implications for genuine inflation expectations.

Despite the issues surrounding interpretation, there remains a risk that the rise in many inflation expectations measures indicates a genuine change in medium-term inflation beliefs. Section 5 discusses the challenges that this risk poses for policy.

- (1) See Driver, R and Windram, R (2007), 'Public attitudes to inflation and interest rates', *Bank of England Quarterly Bulletin*, Vol. 47, No. 2, pages 208–23.  
 (2) For a discussion of the measurement differences between CPI and RPI inflation, see pages 29–30 of the November 2005 *Inflation Report*.

However, as noted in the November *Report*, the recent financial market turbulence is likely to impact on bonus payments this year. Over the past few years, financial sector bonuses have contributed around 0.4–0.7 percentage points to annual average earnings growth. Even if bonus payments in the financial sector were the same this year as last, that contribution would fall to zero.

Initial indications for pay settlements effective in January suggest a small increase relative to 2007. However, that estimate is based on a relatively small proportion of the settlements that will eventually become effective in January, so may not be a good guide to the overall pattern of settlements in 2008 Q1. Indeed, a survey by the Bank's regional Agents, conducted in December and January, found that, on average, contacts expected little change in

**Chart 4.10** Agents' survey: pay settlements<sup>(a)</sup>

(a) Based on 355 responses (covering nearly 840,000 employees) to a survey of companies by the Bank of England's regional Agents in December 2007 and January 2008, weighted by respondents' number of employees. The survey asked respondents: 'How does your likely average pay settlement in the next pay round compare with your average settlement in 2007?'

settlements this year compared with 2007 (**Chart 4.10**). Contacts cited lower profit expectations as a key downside influence, in part offset by skill shortages in selected areas and expectations of higher inflation.

The outlook for earnings is discussed in Section 5.



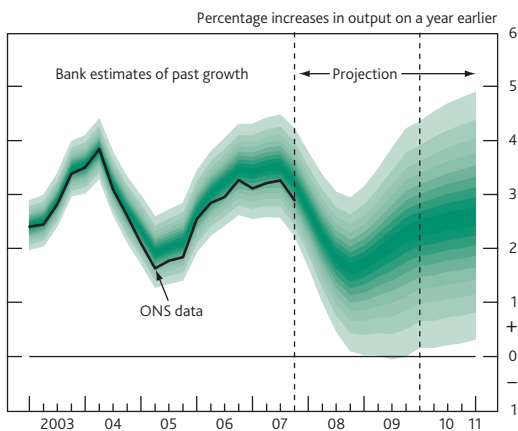
# 5 Prospects for inflation

On the assumption that Bank Rate falls in line with market yields, the MPC's central projection is for GDP growth to slow markedly in the near term and then gradually start to recover. By contrast, CPI inflation rises sharply in the near term, before falling back as capacity pressures moderate, ending the forecast period slightly above the target. The slowdown in GDP growth is deeper and more persistent than in the November 2007 *Report* but the near-term pickup in inflation is more marked, a combination that poses substantial challenges for monetary policy. The key risks to inflation are, on the downside, the potential for a greater tightening in credit conditions, and the associated impact on demand, at home and abroad; and, on the upside, the possibility that the short-term rise in inflation leads to a more persistent rise in medium-term inflation expectations. Overall, the risks to growth lie to the downside, while those to inflation are balanced.

## 5.1 The projections for demand and inflation

The MPC's projections have been shaped by two key developments, with potentially significant but conflicting implications for inflation in the medium term. The tightening in credit conditions is expected to bear down on demand and inflation over time. But inflation is set to rise sharply in the near term, posing risks to the medium-term inflationary outlook if inflation expectations become de-anchored from the target. With the economy starting from a position of relatively limited spare capacity, the key challenge for monetary policy is to judge the appropriate balance between these risks.

**Chart 5.1** GDP projection based on market interest rate expectations



The fan chart depicts the probability of various outcomes for GDP growth. To the left of the first vertical dashed line, the distribution reflects the likelihood of revisions to the data over the past; to the right, it reflects uncertainty over the evolution of 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 the mature estimate of GDP would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outcomes are also expected to lie within each pair of the lighter green areas on ten occasions. Consequently, GDP growth is expected to lie somewhere within the entire fan 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 page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents. The second dashed line is drawn at the two-year point of the projection.

**Chart 5.1** shows the Committee's outlook for GDP growth, on the assumption that Bank Rate follows market yields, which fall to around 4.5% by the end of 2008 (see the box on page 40). In the central case, growth falls back markedly in the early part of the projection as tighter credit conditions induce higher household saving and weaker investment growth, and higher energy and import prices bear down on real income growth. Output growth picks up later in the forecast period, as the effects of lower interest rates and sterling work through, and credit conditions ease somewhat. The projected slowdown is nevertheless deeper and more persistent than in the November *Report*, despite the lower paths for both sterling and Bank Rate. That reflects the weaker outlook for world activity, real incomes and credit conditions. The relatively subdued path of growth creates a margin of spare capacity over the course of the forecast period. The outlook for GDP growth is somewhat weaker if Bank Rate remains constant, as shown in **Chart 5.2**.

## Financial and energy market assumptions

As a benchmark assumption, 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**).<sup>(1)</sup>

**Table 1** Expectations of Bank Rate implied by market yields<sup>(a)</sup>

Per cent	2008				2009				2010				2011
	Q1 <sup>(b)</sup>	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
February	5.3	4.8	4.6	4.5	4.4	4.4	4.4	4.4	4.5	4.5	4.6	4.6	4.7
November	5.5	5.4	5.3	5.3	5.2	5.2	5.2	5.1	5.1	5.1	5.1	5.1	

(a) The data are fifteen working day averages of one-day forward rates to 6 February 2008 and 7 November 2007 respectively. They have been derived from general collateral (GC) gilt repo rates at maturities up to a year and instruments that settle on Libor (including futures, swaps, interbank loans and forward rate agreements) further out, adjusted for credit risk.

(b) February figure for 2008 Q1 is an average of realised spot rates to 6 February, and forward rates thereafter.

In the period leading up to the MPC's February decision, financial market participants expected Bank Rate to fall by around 1 percentage point during 2008, and to remain significantly lower than the path expected in November throughout the forecast period. But these are only central estimates: market uncertainty about future short-term market interest rates remains elevated (see Section 1).

The starting point for sterling's effective exchange rate index (ERI) in the MPC's projections was 96.4, the average for the fifteen working days to 6 February. That was 6.1% below the

starting point for the November projections. Under the MPC's usual convention,<sup>(2)</sup> the exchange rate is assumed to depreciate to 95.0 by 2010 Q1, and is lower throughout the forecast period than assumed in November.

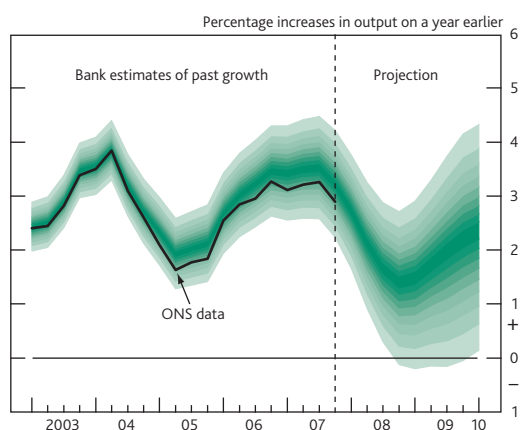
The starting point for UK equity prices in the MPC's projections was 2982 — the average of the FTSE All-Share for the fifteen working days to 6 February. That was 11.5% below the starting point for the November projections. In the long run, equity wealth is assumed to grow in line with nominal GDP; in the short run, it also reflects changes in the share of profits in GDP.

Energy prices are assumed to evolve broadly in line with the paths implied by futures markets over the medium term. Average Brent oil futures prices for the next three years were 8% higher (in US dollar terms) than at the time of the November *Report*, and the wholesale gas futures curve was up by an average of 11%. The central projection for CPI inflation also reflects the tariff increases already announced by gas and electricity suppliers, together with an assumption that the remaining producers announce increases of similar magnitude in due course. Those increases are assumed to feed through into CPI inflation more rapidly than in the past, reflecting a change in ONS methodology (Section 4).

(1) Given the continuing disruption in financial markets, these expectations have been derived using the alternative estimation method set out in the box on page 12 of the November 2007 *Report*.

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

**Chart 5.2** GDP projection based on constant nominal interest rates at 5.25%



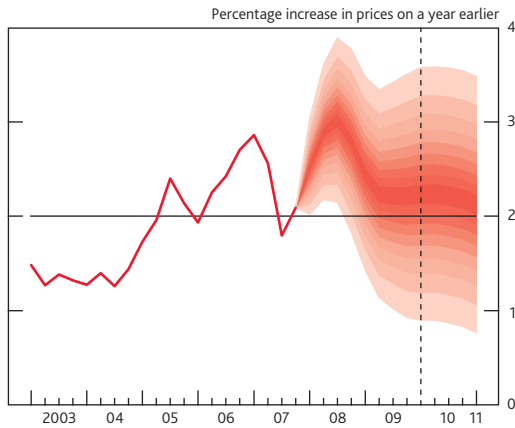
See footnote to Chart 5.1.

The balance of risks to growth lies to the downside, and reaches a peak some 18 months into the forecast period, reflecting the potential for tighter credit conditions and further falls in asset prices at home and abroad. Thereafter the risks become progressively more balanced, as the downside risks of a more persistent slowdown are offset by the possibility of a more rapid recovery. The factors shaping the GDP projection are discussed in more detail in Section 5.2.

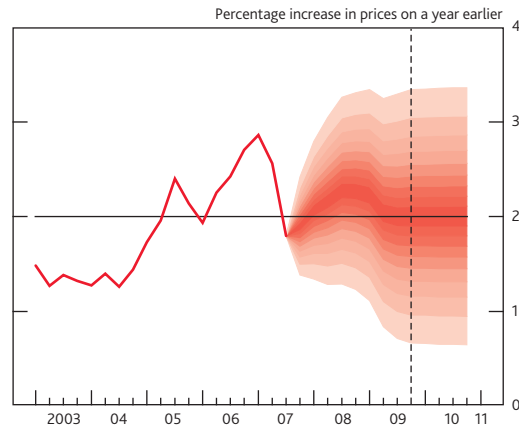
The outlook for CPI inflation if Bank Rate follows market yields is shown in **Chart 5.3**. In the central projection, inflation picks up sharply in the near term, rising to around the threshold at which the Governor would need to write an open letter to the Chancellor. That reflects: higher prices for domestic gas and electricity, petrol and food; and the lower level of sterling, which pushes up on import prices. Further out, inflation falls back as higher energy prices drop out of the twelve-month comparison, and slower demand growth reduces pressures on capacity. The profile for inflation is higher than in the November *Report*, particularly in the near term (**Chart 5.4**).

The risks around the central projection for inflation are judged to be balanced, but there are marked uncertainties in both

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

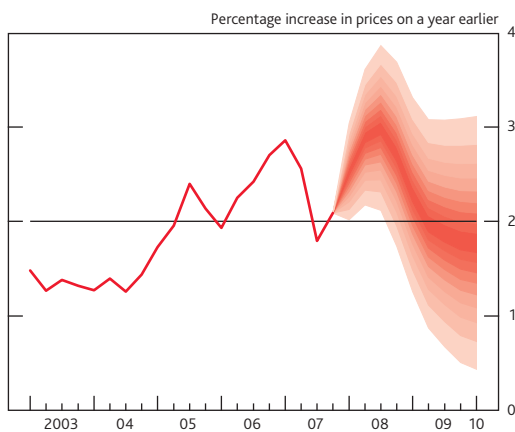


**Chart 5.4** CPI inflation projection in November based on market interest rate expectations



**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 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 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.

**Chart 5.5** CPI inflation projection based on constant nominal interest rates at 5.25%



See footnote to Charts 5.3 and 5.4.

directions. Risks to the downside include the possibility that demand will slow more sharply as credit conditions tighten. Risks to the upside include the possibility that the rise in inflation will be more persistent if inflation expectations become de-anchored. The balance of those risks depends on the path of monetary policy. If Bank Rate follows the path implied by market yields, the MPC's best collective judgement is that CPI inflation is more likely to lie slightly above the 2% target than below it (**Chart 5.3**). But if Bank Rate is held constant, CPI inflation is more likely to undershoot the target (**Chart 5.5**). The factors shaping the inflation projection are discussed in Section 5.3.

## 5.2 Risks to demand

### Can the world economy weather a sharper US slowdown?

Near-term growth prospects for the United States have worsened since the November *Report*, with GDP growth falling sharply and the weakness in the housing market spreading to other parts of the economy. The relaxation in macroeconomic policy and the further weakening in the dollar over the past six months should mitigate the slowdown. But the scale and pace of any recovery are highly uncertain, and the risks are to the downside. Tighter credit conditions and weaker US demand are also likely to weigh on activity elsewhere in the world. So far, however, economic conditions in the euro area, the United Kingdom's largest trading partner, remain consistent with steady, if subdued, growth. And prospects remain robust in commodity-rich countries, China and other emerging markets.

In the central projection, UK-weighted world growth is assumed to slow from the strong rate of expansion in recent years, and by a little more than in the November *Report*. But, with global growth remaining well above the lows seen in

2001–02 throughout the forecast period, the profile is still one of gradual slowdown rather than a sharp retrenchment, helping to support UK exports. The risks to this outlook are to the downside, however, particularly in the near term, reflecting the possibility of: a sharper US slowdown; stronger spillovers to other parts of the global economy, including the euro area and Asia; and steeper falls in global asset prices.

### How sharply will domestic financial conditions tighten?

In the MPC's projections, credit conditions are assumed to tighten further over the forecast period, bearing down on demand growth. The tightening is expected to be deeper and more persistent than in the November *Report*, reflecting continued uncertainties over the scale and location of financial sector losses, and the evidence of a more pervasive tightening in terms offered on new loans to households and businesses (Section 1). It is difficult to quantify the ultimate extent of that tightening with any great precision. But with financial markets remaining vulnerable to further shocks, the risks are firmly to the downside.

There are a number of possible transmission channels to demand, including the price and availability of credit, asset prices and heightened uncertainty.<sup>(1)</sup> All are assumed to play some role over the forecast period. The average premium over Bank Rate for lending to households and companies is assumed to increase further in the early part of the central projection, unwinding the fall since 2003. Later in the forecast period, spreads are assumed to fall back somewhat as uncertainties dissipate, but they remain above their pre-turbulence levels. The near-term tightening is somewhat greater than that assumed in the November *Report*.

Tighter financial conditions have also weighed on a number of asset prices (Section 1), which will bear down on activity in a number of ways: by reducing private sector net wealth; by reducing the collateral available to households and companies, impairing their borrowing capacity; and by depleting banks' capital bases, reducing their ability and willingness to lend. With market participants anticipating further declines in prices of key assets, such as commercial property, and continuing uncertainty over the extent to which losses have depleted the capital of financial intermediaries, the MPC's central projection for demand assumes some further decline in the availability of credit.

A more serious downside risk to activity would be posed if credit conditions tightened sufficiently to bring about an adverse feedback loop in which weaker demand triggered falls in asset prices, which then prompted a further tightening in credit conditions, and so on. In normal times, such feedback loops are unlikely to be significant, because part of the reduction in asset prices will be absorbed by adjustments in

---

(1) See the box on pages 14–15 of the November 2007 *Report*.

the balance sheets of banks, households and companies, cushioning the impact on activity. But if balance sheets become constrained — by capital minima in the case of banks, or collateral or net worth limits in the case of households and businesses — the reduction in activity can be much larger as banks rein in lending and companies and households increase saving sharply. Once established, such episodes have been associated with prolonged periods of slow growth, pulling down on capacity utilisation and inflation. The MPC believes such a scenario is unlikely to occur over the forecast period. But the risk, though small, has increased since last August.

Some of the impact of tighter credit conditions on output growth will be cushioned by the sharp decline in the trade-weighted value of sterling. The precise implications for demand and inflation depend on the cause of this decline and on the extent to which it is perceived to be permanent, both of which are uncertain. Some part of it probably reflects changes in relative interest rates (as discussed in Section 1). But with the United Kingdom's current account deficit now the largest in the G7 as a proportion of GDP, the MPC attaches weight to the possibility that much of the fall in sterling reflects a more persistent decline in the real exchange rate, consistent with a rebalancing in growth away from domestic demand and towards net trade. The sterling ERI is assumed to depreciate further over the forecast period, in line with the MPC's usual convention (see the box on page 40).

### How will demand growth adjust?

In the central projection, demand growth slows markedly in the early part of the forecast period as consumption and private investment growth both fall back. But there is also a rebalancing in the composition of demand, as the deceleration in domestic spending is partly offset by a recovery in net trade, boosted by the fall in the real exchange rate.

Part of the anticipated decline in consumption growth is caused by weak growth in real incomes, reflecting higher energy and import prices and a loosening in labour market conditions over the forecast period. But spending is also restrained by a pickup in the desired rate of saving, as households adjust to weaker asset prices, a rise in uncertainty and an expectation that they will find it harder to obtain credit. Further out, consumption growth begins to recover as lower levels of Bank Rate feed through, income growth picks up and credit conditions ease somewhat. The period of slower growth is both deeper and more persistent than in the November *Report*, primarily reflecting the further tightening in credit conditions. But the projected pickup in the saving ratio remains relatively modest by historical standards, so a sharper pickup in saving, perhaps triggered by more severe financial market developments, poses a downside risk to consumption.

Investment growth also falls back in the early part of the central projection. Investment in dwellings and commercial

property is assumed to decline as weaker conditions reduce the incentive for new construction. And growth in overall business investment falls back, consistent with a weaker and more uncertain outlook for demand. There are risks on both sides of this projection. On the upside, many measures of companies' investment intentions still remain above their historical averages, despite the easing in recent quarters (Section 2). But on the downside, weaker demand growth or tighter credit conditions could reduce investment growth more sharply.

According to the fiscal plans set out in October's *Pre-Budget Report*, the public sector's contribution to nominal demand growth is set to decline over the forecast period.

### 5.3 Risks to CPI inflation

#### How far will inflation rise in the short term?

In the central projection, CPI inflation picks up sharply in the near term, reflecting higher energy, food and import prices. Some increase in these prices was anticipated in the November *Report*. But since then, a number of domestic gas and electricity suppliers have announced substantial tariff rises, oil and food prices have risen further and sterling has depreciated, putting upward pressure on import prices (Section 4). The extent to which these raise overall CPI inflation in the near term will depend on what happens to other prices, and on the extent to which domestic producers and retailers absorb higher input costs in lower mark-ups. Retail discounting was reported to be extensive for non-food items over the Christmas period (Section 2). But survey measures of businesses' short-term pricing intentions have risen considerably. The central projection assumes that CPI inflation will pick up sharply in the near term as many of these costs are passed on, and the falls in retail energy prices of a year ago drop out of the twelve-month comparison.

There is little that monetary policy can do to prevent these near-term movements in inflation, given the lags in the transmission of changes in interest rates. The key question for the MPC is whether the short-term pickup increases the chances of inflation remaining above target in the medium term. Ultimately that will depend on monetary policy. But that policy judgement depends on three further considerations: the extent to which input costs continue to rise; the extent to which people build the short-term rise in prices into their medium-term inflation expectations; and the responsiveness of wages and prices to changes in costs, inflation expectations and demand. The remainder of Section 5.3 considers these questions in turn.

#### Will input costs continue to rise?

In the central projection, the recent sharp increases in input prices are assumed not to be repeated. Oil and gas prices are assumed to remain broadly flat at their new higher levels, in



line with futures curves (see the box on page 40). Food supply pressures should relax somewhat if global harvests recover this year and higher prices induce increases in capacity. And import price inflation is assumed to ease back later in the projection as the effects of sterling's depreciation wane.

But there are risks on both sides of this central case. On the upside, further weakness in sterling could give another boost to import prices, and tighter supply constraints in commodity markets could put more upward pressure on raw material prices. In recent years, commodity prices have persistently overshoot market expectations as the pressure of global demand, particularly from Asia, has placed strains on existing supply capacity. On the downside, however, a sharper world slowdown, or a more rapid increase in energy supply capacity, could see world prices fall back more rapidly than in the central case.

### **Will inflation expectations remain elevated?**

The near-term pickup in inflation should not pose medium-term inflationary risks if monetary policy is set appropriately and inflation expectations remain anchored around the 2% target. But it comes soon after the previous period of above-target inflation in 2006–07. If households' and businesses' medium-term inflation expectations are heavily influenced by their recent experience, then repeated above-target outturns may cause them to place weight on the assumption that inflation will be persistently above 2%. If those expectations were built into higher wages and prices, that would raise medium-term inflationary pressures. Reducing inflation expectations from persistently high levels has in the past required prolonged periods of tighter policy and lower growth.

The probability of a similar outcome over the forecast period remains small. Inflation has been low and stable in recent years, and the MPC is committed to keeping it close to target. Nevertheless, the upside risks have increased somewhat in recent months as short-term inflation prospects have deteriorated and a range of inflation expectations measures have remained elevated or picked up further (Section 4).

### **How responsive will wages and prices be?**

Higher inflation expectations may feed into inflation through a pickup in nominal wage growth. But wages are also influenced by developments in companies' other costs and by the balance of demand and supply in labour and product markets, both of which are likely to reduce the willingness of businesses to accede to higher wage demands over the forecast period. Judging the balance between these influences is an important aspect of this projection.

The increases in companies' input costs will ultimately lead to a downward adjustment in real take-home pay relative to productivity, as occurred in 2004–06 (Section 4). Slower

demand growth should also reduce tightness in the labour market, further easing the pressures on real pay growth. The speed with which such effects occur will depend on a number of factors, however, including companies' expectations about the scale of the demand slowdown (Section 3) and the extent of any 'real wage resistance' on the part of employees (Section 4). In the central projection, real take-home pay growth is subdued for much of the forecast period, as labour market conditions ease and companies seek to offset their higher costs. Nominal wage growth remains broadly stable, consistent with preliminary indications on this year's pay settlements (Section 4).

Demand conditions are also relevant to companies' pricing decisions over the forecast period. The central projection assumes that companies begin the forecast period with only a limited margin of spare capacity, consistent with the indications from business surveys (Section 3). But the slowdown in demand growth is assumed to increase spare capacity substantially over the forecast period, putting downward pressure on prices.

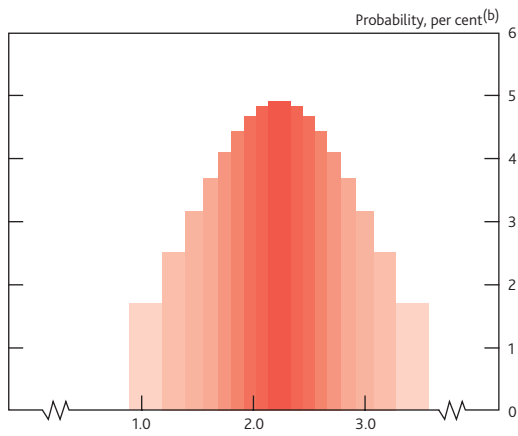
There are risks on both sides of this central case. On the upside, employees may seek to resist further reductions in real pay growth; or capacity pressures may remain relatively tight, for example if inward migration or other factors that have boosted labour supply growth fall back. But on the downside, a deeper slowdown in growth could see a much larger degree of spare capacity open up, pulling wages and prices down more sharply than in the central case and further increasing unemployment.

## 5.4 The balance of risks

Taking the factors discussed in Sections 5.2 and 5.3 together, there are significant risks to inflation in both directions. On the downside, there is considerable uncertainty about the extent to which demand will slow, reflecting the risks of a further tightening in credit conditions, both at home and abroad. Weaker demand growth implies downside risks to inflation in the medium term through a higher margin of slack in the economy. But on the upside, there is a risk that another period of above-target inflation, coming so soon after the previous one in 2006–07, may raise medium-term inflation expectations. The most likely spread of outcomes is shown in **Charts 5.6 to 5.9**, but there is a range of views among the Committee on both the central projection and the balance of risks. In present circumstances, both upside and downside risks could affect the outlook beyond the horizon of the fan charts.

In judging the shifting balance of risks, the MPC will be monitoring a range of data. In gauging the extent of tightening in credit conditions and its impact on demand at home and abroad, the Committee will focus particularly on:

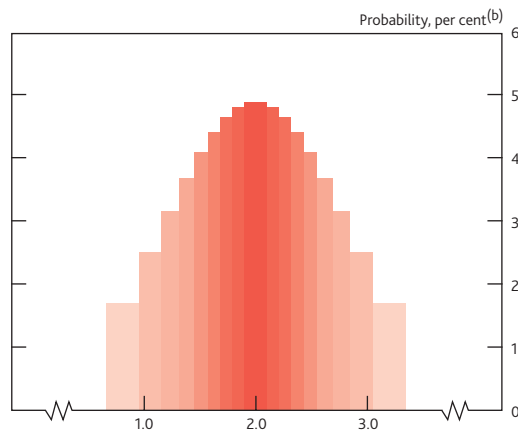
**Chart 5.6** Projected probabilities of CPI inflation outturns in 2010 Q1 (central 90% of the distribution)<sup>(a)</sup>



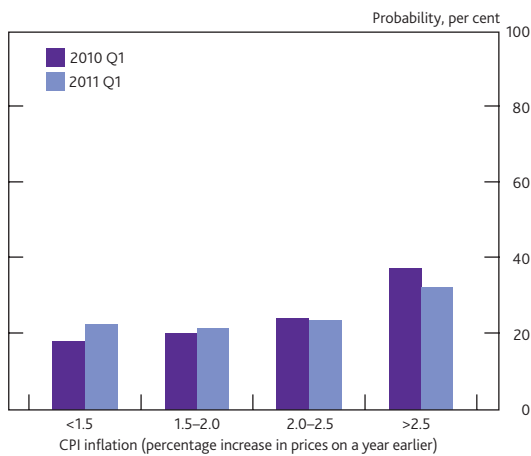
(a) Chart 5.6 represents a cross-section of the CPI inflation fan chart in 2010 Q1 for the market interest rate projection. The coloured bands have a similar interpretation to those on the fan charts. Like the fan charts, they portray the central 90% of the probability distribution. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in 2010 Q1 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 November 2007 *Inflation Report* fan chart.

(b) Average probability within each band. The figures on the y-axis indicate the probability of inflation being within  $\pm 0.05$  percentage points of any given inflation rate, specified to one decimal place.

**Chart 5.7** Projected probabilities in November of CPI inflation outturns in 2010 Q1 (central 90% of the distribution)<sup>(a)</sup>

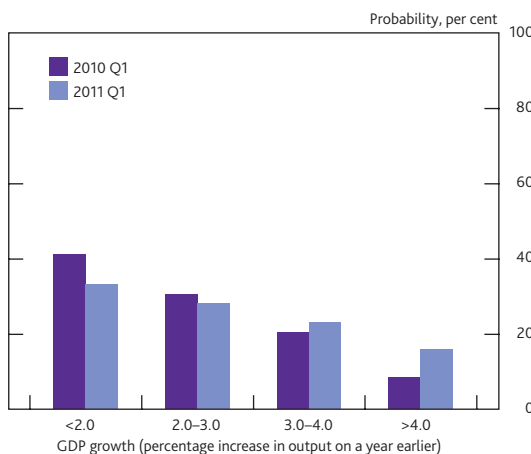


**Chart 5.8** Frequency distribution of CPI inflation based on market interest rate expectations<sup>(a)</sup>



(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 5.9** Frequency distribution of GDP growth based on market interest rate expectations<sup>(a)</sup>



(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.

the price and quantity of credit, including banks' balance sheets; asset prices, including residential and commercial property prices; and timely indicators of household and corporate spending, including forward-looking surveys and reports from the Bank's Agents. In assessing the impact of global developments on the near-term inflation outlook, the Committee will look at: global commodity prices, UK import prices and the exchange rate. And in judging whether above-target inflation is becoming embedded in inflation expectations, the Committee will concentrate on: surveys of household inflation expectations and companies' pricing intentions; and data on wages and earnings.

## 5.5 The policy decision

At its February meeting, the Committee noted that the immediate prospect was for a combination of above-target inflation and sluggish output growth. The Committee also noted that slower demand growth, by reducing the pressure on capacity, was likely to be necessary to return inflation to the target in the medium term. Under market interest rates, the central projection for inflation was a little above the target in the medium term, while under constant interest rates, it was below the target. There were particular uncertainties relating to the severity of the tightening in credit conditions and the future path of inflation expectations. The key challenge for policy was to balance these conflicting risks. The Committee judged that a reduction of 0.25 percentage points in Bank Rate to 5.25% at its February meeting was necessary to meet the target for CPI inflation over the medium term.

## Other forecasters' expectations

Every three months, the Bank asks a sample of external forecasters for their latest economic projections. In the most recent survey, carried out in January, the average central projection was for CPI inflation to be around the target from 2009 onwards (**Table 1**). That was similar to the average central expectation reported in the previous survey.

**Table 1** Averages of other forecasters' central projections<sup>(a)</sup>

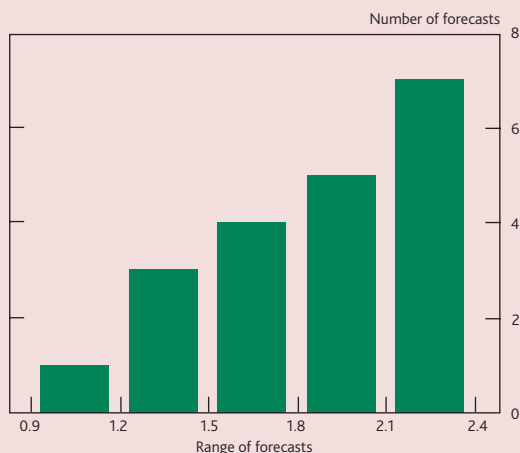
	2009 Q1	2010 Q1	2011 Q1
CPI inflation <sup>(b)</sup>	2.1	1.9	2.0
GDP growth <sup>(c)</sup>	1.8	2.4	2.7
Bank Rate (per cent)	4.8	4.9	5.0
Sterling ERI <sup>(d)</sup>	97.2	96.7	96.7

Source: Projections of outside forecasters as of 25 January 2008.

- (a) For 2009 Q1, there were 20 forecasts for CPI inflation, GDP growth and Bank Rate, and 18 for the sterling ERI. For 2010 Q1, there were 19 forecasts for CPI inflation, GDP growth and Bank Rate, and 16 for the sterling ERI. For 2011 Q1, there were 18 forecasts for CPI inflation, GDP growth and Bank Rate, and 15 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.

For GDP, the average central projection for four-quarter growth was 1.8% in 2009 Q1, rising to 2.4% in 2010 Q1, and 2.7% in 2011 Q1. That was slightly weaker in the near term than three months previously, despite a lower expected level for Bank Rate and the sterling ERI. The distribution of central projections for 2009 Q1 is shown in **Chart A**.

**Chart A** Distribution of GDP growth central projections for 2009 Q1



Source: Four-quarter GDP growth projections of 20 outside forecasters as of 25 January 2008 for 2009 Q1.

The Bank also asks forecasters for an assessment of the risks surrounding their central projections. **Table 2** shows that forecasters on average judged there to be a greater risk of growth being below 2% than above in the near term, and that risk had increased slightly since the previous survey. But in the medium term, forecasters continued to judge that GDP growth

was more likely to be above 2%. For CPI inflation, in the near term forecasters on average judged there to be a greater risk of inflation being above the 2% target than below. The balance of risks to inflation had shifted up a little since the previous survey.

**Table 2** Other forecasters' probability distributions for CPI inflation and GDP growth<sup>(a)</sup>

CPI inflation	Range:					
	<1%	1-1.5%	1.5-2%	2-2.5%	2.5-3%	>3%
Probability, per cent						
2009 Q1	5	14	28	30	16	8
2010 Q1	7	15	28	28	15	7
2011 Q1	7	14	26	29	16	9

GDP growth	Range:			
	<1%	1-2%	2-3%	>3%
Probability, per cent				
2009 Q1	17	43	32	8
2010 Q1	10	28	40	22
2011 Q1	10	23	41	26

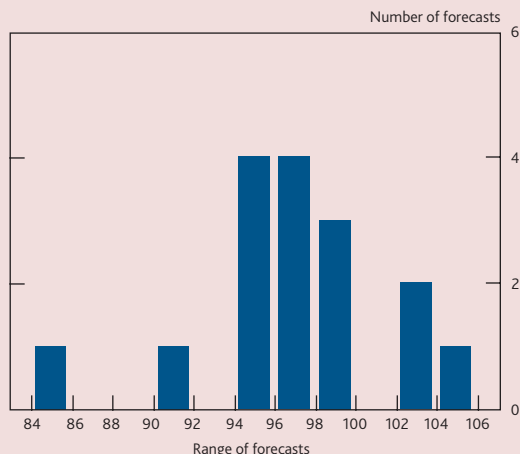
Source: Projections of outside forecasters as of 25 January 2008.

- (a) For 2009 Q1, 20 forecasters provided the Bank with their assessment of the likelihood of twelve-month CPI inflation and four-quarter GDP growth falling in the ranges shown above; for 2010 Q1, 19 forecasters provided assessments; for 2011 Q1, 18 provided assessments. The table shows the average probabilities across respondents. Rows may not sum to 100 due to rounding.

The average central expectation for Bank Rate was lower than three months previously across the forecast period, but is higher than the path implied by market yields (see the box on page 40).

On average, external forecasters expected the sterling ERI to remain around its average level in January 2008, when the survey was conducted. The distribution of average expectations two years ahead (**Chart B**) was wider than in the previous survey.

**Chart B** Distribution of sterling ERI central projections for 2010 Q1



Source: Projections of 16 outside forecasters as of 25 January 2008 for 2010 Q1. Where necessary, the responses were adjusted to take account of the difference between the old and new ERI measures, based on comparative outturns for 2006 Q1.

# Index of charts and tables

## Charts

<b>Overview</b>	<b>5</b>		
1 GDP projection based on market interest rate expectations	7		
2 CPI inflation projection based on market interest rate expectations	7		
3 CPI inflation projection based on constant nominal interest rates at 5.25%	8		
<b>1 Money and asset prices</b>	<b>9</b>		
1.1 Bank Rate and market interest rate expectations	9		
1.2 Market implied volatility	9		
1.3 Three-month interbank rates relative to future expected policy rates	11		
1.4 Decomposition of twelve-month interbank spread over future expected policy rates	11		
1.5 Sterling exchange rates	12		
1.6 Twelve-month sterling risk reversal	12		
1.7 Cumulative changes in equity prices since 4 January 2007	12		
1.8 Commercial property	13		
1.9 Residential property market activity and prices	13		
1.10 Lenders' funding costs	13		
1.11 Lending to individuals	14		
1.12 <i>Credit Conditions Survey</i> : credit availability	15		
1.13 Interest rates facing businesses	15		
1.14 Private non-financial corporations' capital issuance	15		
1.15 Money, credit and nominal GDP	17		
<b>Terms and conditions on bank lending</b>	<b>16</b>		
A Number of mortgage products offered	16		
B Mortgage arrangement fees	16		
C Corporate borrowing and facilities granted	16		
<b>2 Demand</b>	<b>18</b>		
2.1 Nominal demand	18		
2.2 Contributions to quarterly growth in non-food retail sales values	19		
2.3 Mortgage arrears and repossessions	19		
2.4 Household saving ratio	20		
2.5 Business and residential investment	20		
2.6 Manufacturing investment intentions and demand uncertainty	21		
2.7 Private non-financial corporations' financial balance	21		
2.8 World, US and euro-area GDP	24		
2.9 US corporate credit standards and non-residential investment	24		
2.10 Indicators of euro-area output	24		
2.11 'Economic' imports and exports of goods	25		
2.12 UK current account	25		
<b>The role of property in the economy</b>	<b>22</b>		
A The role of property in the economy: a stylised framework	22		
<b>3 Output and supply</b>	<b>26</b>		
3.1 GDP at market prices	26		
3.2 CIPS/NTC output indicators	26		
3.3 Construction and commercial property output	27		
3.4 Measures of capacity utilisation	28		
3.5 Contributions to annual employment growth	28		
3.6 GDP, employment and productivity	28		
3.7 Contributions to quarterly vacancies growth	29		
3.8 Unemployment and participation	30		
3.9 Labour market tightness	30		
<b>4 Costs and prices</b>	<b>31</b>		
4.1 Contributions to CPI inflation	31		
4.2 UK wholesale and consumer gas prices	31		
4.3 Brent crude oil prices	32		
4.4 Sterling food price indices	33		
4.5 Contributions to annual imported goods price inflation	33		
4.6 Sterling ERI, import prices and CPI	33		
4.7 Real take-home pay relative to productivity	34		
4.8 Factors influencing changes in pay settlements	35		
4.9 Private sector earnings	35		
4.10 Agents' survey: pay settlements	38		
<b>Why have measures of inflation expectations remained elevated?</b>	<b>36</b>		
A Survey measures of households' inflation expectations over the next twelve months	36		
B Forward inflation rates	36		
C Inflation: actual, perceptions and expectations	37		
<b>5 Prospects for inflation</b>	<b>39</b>		
5.1 GDP projection based on market interest rate expectations	39		
5.2 GDP projection based on constant nominal interest rates at 5.25%	40		
5.3 CPI inflation projection based on market interest rate expectations	41		
5.4 CPI inflation projection in November based on market interest rate expectations	41		
5.5 CPI inflation projection based on constant nominal interest rates at 5.25%	41		
5.6 Projected probabilities of CPI inflation outturns in 2010 Q1 (central 90% of the distribution)	47		
5.7 Projected probabilities in November of CPI inflation outturns in 2010 Q1 (central 90% of the distribution)	47		
5.8 Frequency distribution of CPI inflation based on market interest rate expectations	47		
5.9 Frequency distribution of GDP growth based on market interest rate expectations	47		
<b>Other forecasters' expectations</b>	<b>48</b>		
A Distribution of GDP growth central projections for 2009 Q1	48		
B Distribution of sterling ERI central projections for 2010 Q1	48		

## Tables

---

<b>1</b>	<b>Money and asset prices</b>	<b>9</b>
1.A	Household credit: effective interest rates	14
1.B	Broad money and M4 lending	17
<b>2</b>	<b>Demand</b>	<b>18</b>
2.A	Expenditure components of demand	18
2.B	Indicators of income expectations	19
2.C	Investment indicators	21
<b>3</b>	<b>Output and supply</b>	<b>26</b>
3.A	Indicators of near-term output growth	27
3.B	Employment intentions	29
3.C	Selected indicators of labour market pressure	30
<b>4</b>	<b>Costs and prices</b>	<b>31</b>
4.A	Announced changes in gas and electricity prices	32
4.B	Official and survey measures of prices	34
<b>5</b>	<b>Prospects for inflation</b>	<b>39</b>
	<b>Financial and energy market assumptions</b>	<b>40</b>
1	Expectations of Bank Rate implied by market yields	40
	<b>Other forecasters' expectations</b>	<b>48</b>
1	Averages of other forecasters' central projections	48
2	Other forecasters' probability distributions for CPI inflation and GDP growth	48



## **Text of Bank of England press notice of 6 December 2007**

### **Bank of England reduces Bank Rate by 0.25 percentage points to 5.5%**

The Bank of England's Monetary Policy Committee today voted to reduce the official Bank Rate paid on commercial bank reserves by 0.25 percentage points to 5.5%.

Although output in the United Kingdom has expanded at a brisk pace for the past two years, there are now signs that growth has begun to slow. Forward-looking surveys of households and businesses suggest spending is moderating, broadly in line with the projections contained in the November *Inflation Report*. But conditions in financial markets have deteriorated and a tightening in the supply of credit to households and businesses is in train, posing downside risks to the outlook for both output and inflation further ahead.

CPI inflation was 2.1% in October. Higher energy and food prices are expected to keep inflation above the target in the short term. Although upside risks to inflation remain, which the Committee will continue to monitor carefully, slowing demand growth should ease the pressures on supply capacity, bringing inflation back to target in the medium term.

Against that background, the Committee judged that a decrease in Bank Rate of 0.25 percentage points to 5.5% was necessary to meet the 2% target for CPI inflation in the medium term.

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

## **Text of Bank of England press notice of 10 January 2008**

### **Bank of England maintains Bank Rate at 5.5%**

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 5.5%.

The minutes of the meeting will be published at 9.30 am on Wednesday 23 January.

## **Text of Bank of England press notice of 7 February 2008**

### **Bank of England reduces Bank Rate by 0.25 percentage points to 5.25%**

The Bank of England's Monetary Policy Committee today voted to reduce the official Bank Rate paid on commercial bank reserves by 0.25 percentage points to 5.25%.

The prospects for output growth abroad have deteriorated and the disruption to global financial markets has continued. In the United Kingdom, credit conditions for households and businesses are tightening. Consumer spending growth appears to have eased. Although the substantial fall in the sterling exchange rate is likely to promote re-balancing of total demand, output growth has moderated to around its historical average rate and business surveys suggest that further slowing is in prospect. These developments pose downside risks to the outlook for inflation.

CPI inflation, at 2.1% in December, was close to the 2% target, but higher energy and food prices are expected to raise inflation, possibly quite sharply, in the coming months. And the lower level of sterling will boost import costs. The impact on inflation should begin to fade later in the year, but measures of inflation expectations are currently elevated. These developments pose upside risks to the outlook for inflation further ahead.

Given this outlook for inflation, some slowing of demand growth, by reducing the pressure on capacity, is likely to be necessary to return inflation to target in the medium term. The Committee needs to balance the risk that a sharp slowing in activity pulls inflation below the target in the medium term against the risk that elevated inflation expectations keep inflation above target.

Against that background, the Committee judged that a reduction in Bank Rate of 0.25 percentage points to 5.25% was necessary to meet the 2% target for CPI inflation in the medium term.

The Committee's latest inflation and output projections will appear in the *Inflation Report* to be published on Wednesday 13 February.

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

## Glossary and other information

### Glossary of selected data and instruments

**AEI** – average earnings index.

**AWE** – average weekly earnings.

**CPI** – consumer prices index.

**CPI inflation** – inflation measured by the consumer prices index.

**ERI** – exchange rate index.

**ERM** – exchange rate mechanism.

**GC** – general collateral.

**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.

**PMI** – purchasing managers' index.

**SVR** – standard variable rate.

**RICS** – Royal Institution of Chartered Surveyors.

**S&P** – Standard and Poor's.

**SLO** – Senior Loan Officer.

### 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.

### Abbreviations

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

**BCC** – British Chambers of Commerce.

**CBI** – Confederation of British Industry.

**CCS** – Credit Conditions Survey.

**CIPS** – Chartered Institute of Purchasing and Supply.

**Defra** – Department for Environment, Food and Rural Affairs.

**ECB** – European Central Bank.

**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.

**HBF** – Home Builders Federation.

**IEA** – International Energy Agency.

**IMF** – International Monetary Fund.

**ISM** – Institute for Supply Management.

**LTI** – loan to income.

**LTV** – loan to value.

**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.

**OPEC** – Organization of the Petroleum Exporting Countries.

**PwC** – PriceWaterhouseCoopers.



© Bank of England 2008

ISSN 1353-6737

Printed by Park Communications Limited



**Mixed Sources**

Product group from well-managed  
forests, controlled sources and  
recycled wood or fiber  
[www.fsc.org](http://www.fsc.org) Cert no. SGS-COC-2842  
© 1996 Forest Stewardship Council