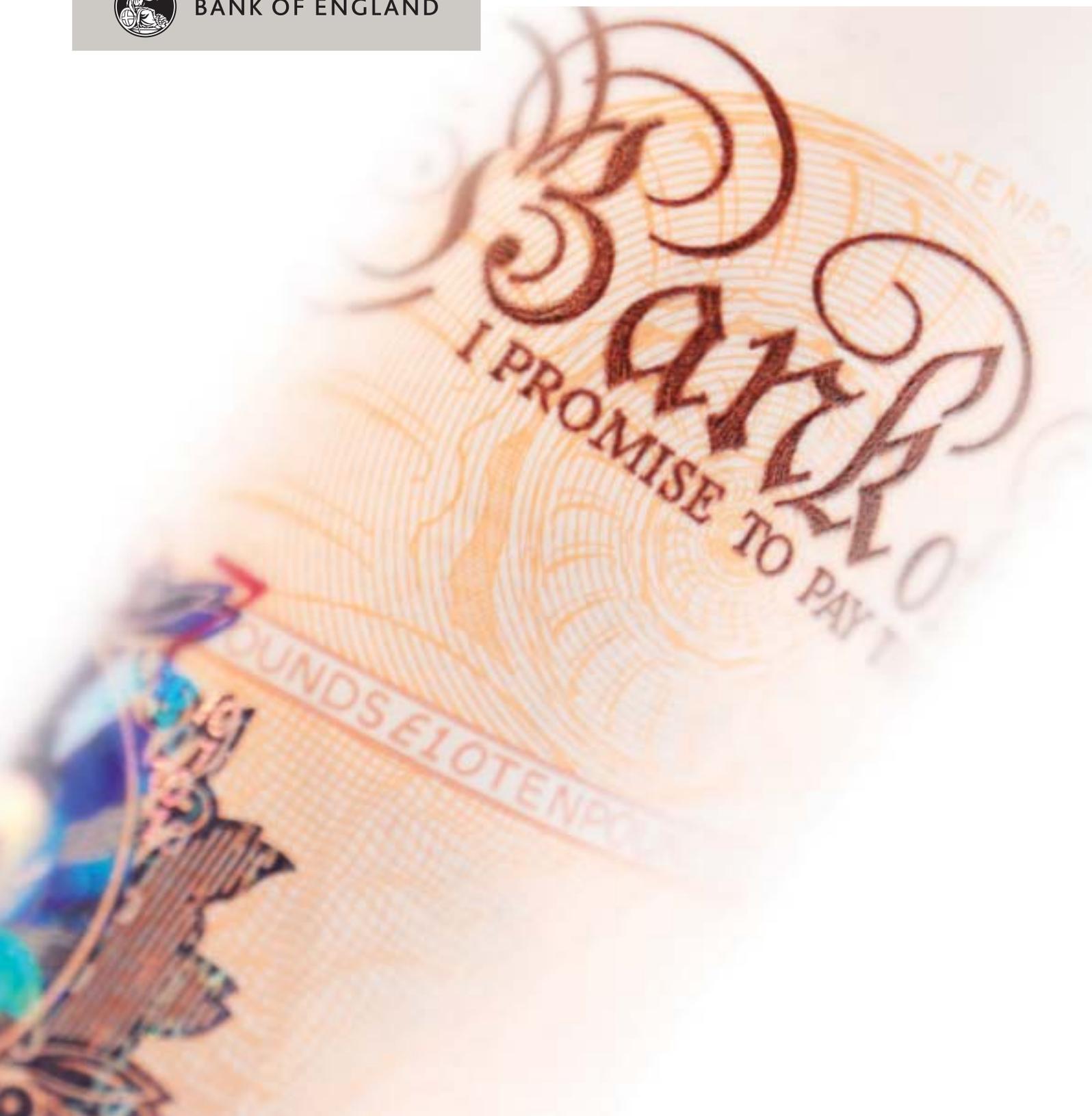


Inflation Report

February 2012



BANK OF ENGLAND





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Inflation Report

February 2012

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

Charles Bean, Deputy Governor responsible for monetary policy

Paul Tucker, Deputy Governor responsible for financial stability

Ben Broadbent

Spencer Dale

Paul Fisher

David Miles

Adam Posen

Martin Weale

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

The entire *Report* is available in PDF at www.bankofengland.co.uk/publications/inflationreport/2012.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/2012.htm.

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Overview

CPI inflation fell sharply from its peak in late 2011. Output contracted slightly at the end of 2011 but seems likely to have increased modestly at the beginning of this year. The pace of expansion in the United Kingdom's main export markets remained muted, with growth in the euro area slowing further. GDP growth in the United Kingdom is likely to remain weak in the near term, before gradually strengthening as households' real incomes recover, supported by continued stimulus from monetary policy. But the drag on domestic spending from tight credit conditions and the fiscal consolidation is likely to persist. And the substantial challenges faced by the euro area continue to pose a significant threat to the domestic recovery.

CPI inflation fell to 4.2% in December, down from 5.2% in September but still well above the 2% target. Inflation should continue to fall sharply at the start of 2012 as the impact of past rises in VAT and petrol prices drop out of the twelve-month comparison. Inflation is likely to decline further thereafter, as the upward pressure from external costs diminishes and spare capacity continues to weigh on wages and prices. Under the assumptions that Bank Rate moves in line with market interest rates and the size of the asset purchase programme remains at £325 billion, inflation is judged somewhat more likely to be below the target than above it for a good part of the forecast period. But by the end of the period those risks are judged to be broadly balanced.

Financial and credit markets

At its February meeting, the MPC increased the size of its asset purchase programme by £50 billion to a total of £325 billion. Since the November *Inflation Report*, the MPC has maintained Bank Rate at 0.5% and market interest rates suggested that the expected timing of the next rise in Bank Rate had been pushed out. The provision by the European Central Bank of three-year loans against a widened pool of collateral significantly eased some of the most immediate funding challenges to the European banking system. But sovereign debt yields in a number of euro-area countries remained elevated. UK equity prices reversed most of the falls seen in the summer of 2011. Conditions in UK bank funding markets improved somewhat, but the cost of credit for households and companies increased. Broad money and credit growth remained weak.

Demand

Global demand expanded at a firm rate, although this masked a divergent pattern of growth across regions. Euro-area GDP was broadly flat in 2011 Q3 and business surveys suggested that activity contracted in Q4, with output likely to have fallen in both Germany and France. Fragile confidence and fiscal tightening are likely to continue to weigh on euro-area

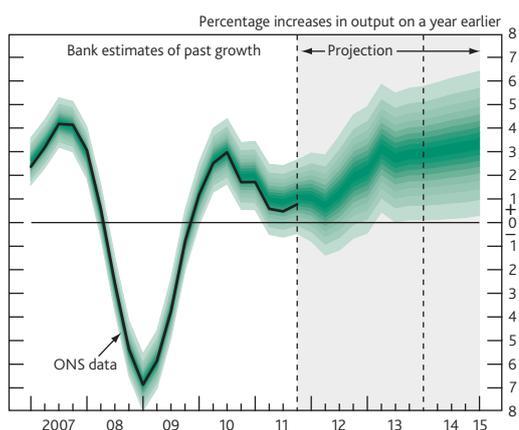
demand. Developments in the United States were more positive: GDP growth increased in Q4 and unemployment fell. But continued domestic headwinds are likely to temper the future pace of growth. The rate of growth in emerging economies slowed. The growth of UK exports softened over much of 2011, although goods exports recovered strongly in the final quarter.

At home, domestic demand expanded relatively briskly in 2011 Q3. But much of that growth was accounted for by unsustainably strong inventory accumulation. Growth in business investment was sluggish. And consumer spending fell for the fourth consecutive quarter, reflecting the sharp squeeze in households' real incomes. The proportion of income saved by households remained considerably higher than in the period leading up to the crisis.

Over the past year, output grew at a rate well below its historical average. The economy was particularly weak in 2011 Q4, with GDP provisionally estimated to have contracted by 0.2%. But some business survey indicators pointed to a pickup in output at the beginning of 2012. The quarterly path of output is likely to be volatile through 2012, reflecting the impact of various one-off factors.

The Committee's projections are conditioned on the tax and spending plans set out in the 2011 Autumn Statement. Overall, the new policy measures announced in the Autumn Statement contained little news for the macroeconomic outlook over the next few years.

Chart 1 GDP projection based on market interest rate expectations and £325 billion asset purchases



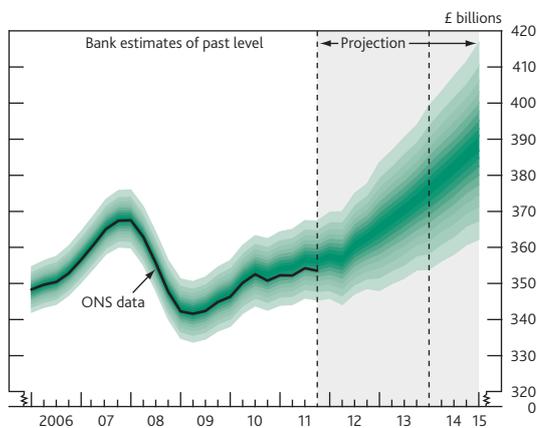
The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £325 billion and remains there throughout the forecast period. To the left of the first vertical 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 growth 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 10 occasions. In any particular quarter of the forecast period, GDP is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions GDP growth can fall anywhere outside the green area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In Chart 1, the probabilities in the lower bands are the same as those in the upper bands at Years 1, 2 and 3. 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.

The outlook for GDP growth

Chart 1 shows the Committee's best collective judgement for four-quarter GDP growth, assuming that Bank Rate follows a path implied by market interest rates and the size of the asset purchase programme stays at £325 billion. GDP growth is likely to remain weak in the near term, before gradually strengthening as households' real incomes recover, supported by continued stimulus from monetary policy. But the weak external environment, tight credit conditions and continuing fiscal consolidation are all likely to act as brakes on growth.

The outlook for growth remains unusually uncertain. The most significant threat to the domestic recovery stems from developments in the euro area, where there remain concerns about the indebtedness and competitiveness of some member countries. Implementation of a credible and effective set of policies there would support UK activity by easing strains within financial markets and reducing uncertainty. But even in this case, the scale of the required adjustments means there is likely to be a prolonged period of sluggish growth in much of the euro area. A failure to implement such policies could have severe implications for the UK economy. To the extent that such a possibility is already reflected in asset prices, bank funding costs and confidence, it is captured in the MPC's

Chart 2 Projection of the level of GDP based on market interest rate expectations and £325 billion asset purchases



Chained-volume measure (reference year 2008). See the footnote to **Chart 1** for details of the assumptions underlying the projection for GDP growth. The width of this fan over the past has been calibrated to be consistent with the four-quarter growth fan chart, under the assumption that revisions to quarterly growth are independent of the revisions to previous quarters. Over the forecast, the mean and modal paths for the level of GDP are consistent with **Chart 1**. So the skews for the level fan chart have been constructed from the skews in the four-quarter growth fan chart at the one, two and three-year horizons. This calibration also takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to GDP growth in one quarter will continue to have some effect on GDP growth in successive quarters. This assumption of path dependency serves to widen the fan chart.

projections. But the MPC sees no meaningful way to quantify the size and likelihood of the most extreme outcomes associated with developments in the euro area and they are therefore excluded from the fan charts, as was the case in recent *Reports*.

Domestically, the strength of the recovery will depend on whether household spending has further to adjust to past falls in real incomes and the more uncertain economic outlook. The path of domestic spending will also depend on: the pace of productivity growth and how that affects households' and businesses' future earnings; the extent to which strains in bank funding markets persist and their impact on the cost and availability of bank credit; and the strengths of the drag from the fiscal consolidation and the stimulus from monetary policy.

There remains a range of views among Committee members about the outlook for GDP growth. On the same assumptions as above, the Committee's best collective judgement is that growth is likely to remain subdued in the near term, but that by the end of the second year of the forecast the risks of growth being above or below its historical average rate are broadly equal.

The recovery to date has been weak. **Chart 2** shows that output is unlikely to return to its pre-crisis level until midway through the forecast period. The weakness of the recovery appears to have been associated with slow growth in potential supply. Even so, there exists a sizable margin of spare capacity, largely concentrated in the labour market. That should diminish towards the end of the forecast period, but is unlikely to close completely.

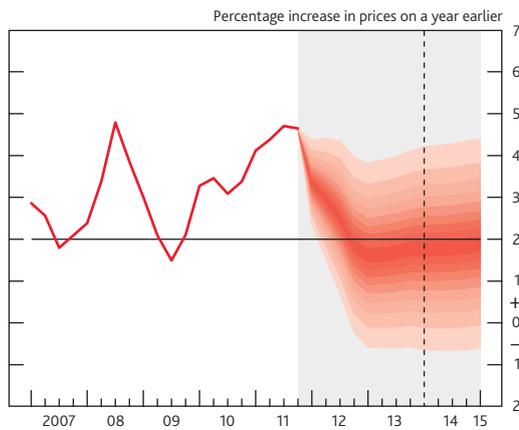
Costs and prices

CPI inflation was 4.2% in December. The sharp decline in inflation from its peak in September was largely accounted for by falling contributions from food and petrol prices. But the effects of the past increase in VAT and in the prices of energy and other imported goods and services continued to keep twelve-month inflation well above the 2% target. Oil prices rose slightly, despite the deterioration in the global outlook.

Although measures of households' expectations of inflation a year ahead declined, they remained elevated and suggested that households expected inflation to return to the target more slowly than in the Committee's central case. Overall, indicators of longer-term inflation expectations were broadly unchanged, at around their series averages.

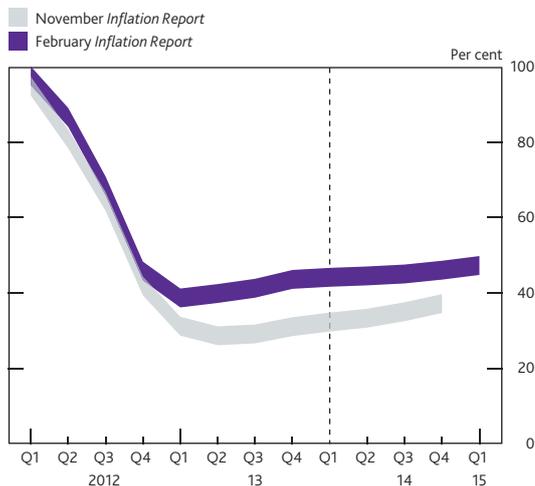
The labour market weakened further. Employment growth slowed markedly during 2011, the Labour Force Survey measure of unemployment edged higher, and most business surveys pointed to falls in employment in the near term. Slack in the labour market continued to bear down on earnings

Chart 3 CPI inflation projection based on market interest rate expectations and £325 billion asset purchases



The fan chart depicts the probability of various outcomes for CPI inflation in the future. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £325 billion and remains there throughout the forecast period. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any particular quarter would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outcomes of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. In any particular quarter of the forecast period, inflation is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions inflation can fall anywhere outside the red area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In **Chart 3**, the probabilities in the lower bands are the same as those in the upper bands at Years 1, 2 and 3. 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 4 An indicator of the probability that inflation will be above the target



The February and November swaths in this chart are derived from the same distributions as **Chart 3** and **Chart 5.7** on page 40 respectively. They indicate the assessed probability of inflation being above target in each quarter of the forecast period. The 5 percentage points width of the swaths reflects the fact that there is uncertainty about the precise probability in any given quarter, but they should not be interpreted as confidence intervals. The dashed line is drawn at the two-year point of the February projection. The two-year point of the November projection was one quarter earlier.

growth, which remained well below its historical average rate. But productivity growth also remained weak, so that companies' labour costs per unit of output grew at a rate closer to their historical average.

The outlook for inflation

Chart 3 shows the Committee's best collective judgement of the outlook for CPI inflation, based on the same assumptions as **Chart 1**. Inflation is likely to decline sharply in the near term, as the impact of past increases in VAT and petrol prices drop out of the twelve-month comparison. Thereafter, inflation is likely to fall further, as upward pressures from external costs diminish and spare capacity continues to weigh on wages and prices.

But the extent to which inflation will decline and the likely pace of that moderation remain uncertain. It is difficult to gauge with precision the current strength of underlying inflationary pressure given the effects of the various factors temporarily raising inflation. Moreover, the degree to which inflation falls back will depend on the evolution of companies' costs. A significant disruption to the supply of oil or gas could lead to another period of rising energy prices. And businesses' domestic costs will be heavily affected by the path of productivity and the degree to which slack in the labour market limits wage growth. The path of inflation will also depend on how companies set prices relative to those costs, and in particular if, and by how much, consumer-facing companies seek to restore their profit margins.

There remains a range of views among Committee members regarding the relative strength of the factors affecting the outlook for inflation. On balance, the Committee's best collective judgement, based on the conditioning assumptions described above, is that inflation is somewhat more likely to be below the target than above it for a good part of the forecast period. But by the end of the period those risks are judged to be broadly balanced (**Chart 4**).

The policy decision

At its February meeting, the Committee noted that GDP growth was likely to remain weak in the near term and to strengthen gradually thereafter. But developments in the euro area continued to pose a significant threat to the domestic outlook. Inflation had declined sharply in the past few months and was expected to fall further. Without further monetary stimulus it was more likely than not that inflation would be below the 2% target in the medium term. The Committee therefore judged it appropriate to increase the size of the asset purchase programme by £50 billion to £325 billion, while maintaining Bank Rate at 0.5%, in order to meet the 2% CPI inflation target over the medium term.

1 Money and asset prices

In February, the MPC expanded the size of its programme of asset purchases, financed by the issuance of central bank reserves, to a total of £325 billion, and maintained Bank Rate at 0.5%. Financial markets continued to be heavily influenced by events in the euro area. Conditions in bank funding markets have improved since the November *Report*, although they remain strained. There is some evidence that past rises in bank funding costs are starting to pass through into higher borrowing costs for businesses and, to a lesser extent, for households.

At its February meeting, the MPC announced that it would increase the size of its asset purchase programme by £50 billion, to a total of £325 billion (Section 1.1). Those asset purchases increase the amount of money in the economy (Section 1.2), and should, over time, support asset prices (Section 1.3) and boost nominal spending (Section 2).

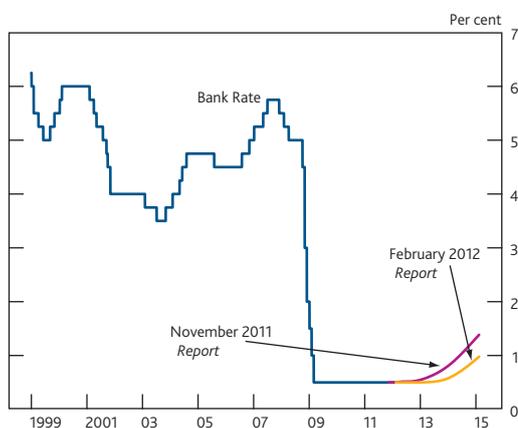
Since the November *Report*, financial markets have continued to be affected by concerns about the indebtedness and competitiveness of some euro-area countries and associated anxieties about the vulnerability of banks. The European Central Bank's (ECB's) longer-term refinancing operations (LTRO) eased the immediate funding challenges confronting European banks (Section 1.3). That contributed to an improvement in funding conditions for UK banks. But there is some evidence that past rises in bank funding costs have led to a tightening in credit conditions in the United Kingdom, particularly for businesses (Section 1.4).

1.1 Monetary policy

At its February meeting, the Committee voted to expand the size of its asset purchase programme, financed by the issuance of central bank reserves, by £50 billion, to a total of £325 billion. A majority of respondents to the Reuters poll conducted on 1 February had expected a further £50 billion of asset purchases to be announced at the MPC's February meeting, although the median expectation for the eventual total size of the asset purchase programme was £350 billion. The reasons behind the MPC's recent policy decisions are discussed in more detail in the box on page 10.

The MPC has maintained Bank Rate at 0.5% since the November *Report*. And the point at which overnight index swap (OIS) rates suggest Bank Rate is expected to start rising has been pushed out (**Chart 1.1**). In the run-up to the February *Report*, a 25 basis point increase in Bank Rate was not fully priced in until 2014 Q3.

Chart 1.1 Bank Rate and forward market interest rates^(a)



Sources: Bank of England and Bloomberg.

(a) The November 2011 and February 2012 curves are estimated using overnight index swap (OIS) rates in the fifteen working days to 9 November 2011 and 8 February 2012 respectively.

Monetary policy since the November Report

The MPC's central projection in the November *Report*, under the assumptions that Bank Rate followed a path implied by market interest rates and that the stock of purchased assets financed by the issuance of central bank reserves remained at £275 billion, was that growth was likely to remain weak over the first year of the forecast before recovering over the second and third years. Under the same assumptions, the MPC judged that CPI inflation was likely to fall sharply over 2012, although the precise speed and extent of that fall were uncertain.

In the run-up to the MPC's meeting on 7–8 December, financial market prices had been volatile, reflecting continued concerns about the vulnerabilities associated with the indebtedness of several euro-area governments and banks. The pace of global expansion appeared to be moderating broadly as the Committee had anticipated. In the United Kingdom, business surveys continued to suggest that the outlook for 2011 Q4 and the first part of 2012 remained one of broadly flat output.

CPI inflation had fallen to 5% in October, from 5.2% in September, and the advance estimate had indicated that it fell further in November, to 4.8%. Although inflation remained well above the 2% target, it was likely to fall sharply in the first part of 2012 as the impact of the increase in the standard rate of VAT in January 2011, and higher energy and import prices dissipated. There was greater uncertainty about the pace at which inflation would fall thereafter, but the MPC's central view remained that downward pressure from elevated unemployment and spare capacity would continue to restrain domestically generated inflation.

There remained risks to inflation in the medium term in both directions. The main upside risk was that, after the impact of the increase in VAT and higher energy and import prices diminished, inflation would persist above target for longer than expected, because of: further commodity price increases; near-term inflation expectations falling more slowly than expected, affecting wage and price-setting behaviour; or the margin of spare capacity in the economy proving to be smaller than thought. The main downside risk to the inflation outlook was that demand growth would be insufficient to absorb the spare capacity in the economy, causing inflation to fall materially below the target in the medium term.

Overall, the Committee judged that there had been little change to the balance of risks to activity and inflation as a result of developments during the month. Some members continued to note that the balance of risks to inflation in the November *Report* projections meant that a further expansion of the asset purchase programme might well become warranted in due course. But some others judged that the risks to inflation around the target were more balanced in the

medium term. All members agreed, however, that there was little merit in changing the path of asset purchases at that meeting given the magnitude of the current uncertainties, in the external environment in particular, relative to the precision with which the appropriate stance of policy could be calibrated. The Committee voted unanimously to continue with the programme of asset purchases totalling £275 billion financed by the issuance of central bank reserves and to maintain Bank Rate at 0.5%.

At its meeting on 11–12 January, the MPC agreed that, on balance, there had been some positive developments over the month that had moderated some of the most serious near-term downside risks from the global economy. In particular, the immediate risk of a severe dislocation in the euro area arising from banking sector difficulties appeared to have been mitigated by the ECB's three-year longer-term refinancing operation on 21 December 2011. Data from the rest of the world, including the United States, had also been slightly stronger. These factors had helped to support financial markets and wider global confidence. In the United Kingdom, there was little to alter the view that output was likely to be broadly flat in 2011 Q4 and 2012 Q1.

The advance estimate of CPI inflation had suggested that inflation had fallen to 4.2% in December, broadly as expected. That was encouraging, and reduced the risk that inflation expectations would rise above a level consistent with meeting the target in the medium term.

While the near-term risks of either a sharp contraction of output or of persistently high inflation appeared to have moderated, there was little change to the balance of risks in the medium term. To the extent that inflation continued to fall sharply over the next few months, the MPC could be slightly more confident in its judgements about the recent drivers of inflation. But it would be some time before the uncertainties around the other key risks were resolved. These included: whether euro-area governments would be able to continue to refinance their debts and tackle their economic imbalances successfully; how strongly UK output growth would recover in 2012 H2; and how far and fast CPI inflation would continue to fall after the first quarter.

Against this background, the MPC agreed that a decision to change policy at that meeting was not warranted. The Committee voted to continue with the programme of asset purchases totalling £275 billion financed by the issuance of central bank reserves and to maintain Bank Rate at 0.5%.

At its meeting on 8–9 February, the MPC voted to finance a further £50 billion of asset purchases by the issuance of central bank reserves, implying a total quantity of £325 billion of such purchases. The Committee also voted to maintain Bank Rate at 0.5%.

The Bank's asset purchases initially increase investors' money holdings and should, over time, boost asset prices and support nominal spending.⁽¹⁾ Investors who sell gilts to the Bank may subsequently use the money to acquire other assets, such as equities or corporate bonds, putting upward pressure on the prices of those assets. That should push down borrowing costs and make it easier for companies to raise funds from the capital markets. The asset purchases may also boost market liquidity and support confidence.

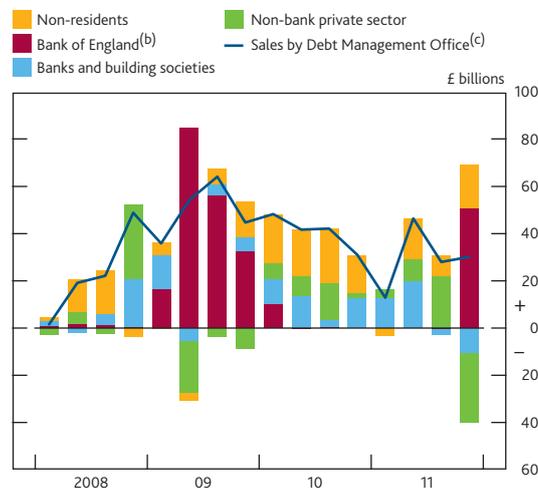
The effects of the MPC's asset purchases are, however, uncertain and difficult to identify with precision. In part, that is because market participants have become more familiar with the use of such purchases as a monetary policy tool, and so expectations of the likelihood and size of future asset purchases are likely to change in response to news about the economy. As a consequence, asset prices may move in anticipation of asset purchase announcements. That makes it more difficult to isolate the effects of asset purchases. And it will take time before the extent to which asset purchases have stimulated nominal spending can be evaluated. To help assess the impact of asset purchases, the MPC monitors developments in a range of indicators, including: money; gilt yields; other asset prices; and capital market issuance.

Table 1.A Broad money^(a)

	Averages ^(b)		2011			
	1999–2008	2009–10	Q1	Q2	Q3	Q4
Percentage changes:						
On a quarter earlier (annualised)	7.3	1.7	0.6	0.7	5.0	-0.8
On a year earlier	7.4	2.1	1.6	1.6	2.4	1.3

(a) M4 growth excluding intermediate OFCs. Intermediate OFCs are: mortgage and housing credit corporations; non-bank credit grantors; bank holding companies; securitisation special purpose vehicles; and other activities auxiliary to financial intermediation. In addition to the deposits of these five types of OFCs, sterling deposits arising from transactions between banks or building societies and 'other financial intermediaries' belonging to the same financial group are excluded from this measure of broad money.
(b) Averages of quarterly data.

Chart 1.2 Quarterly changes in gilt holdings by sector^(a)



Sources: Bank of England and Debt Management Office.

(a) Non seasonally adjusted.
(b) Changes in the Bank of England's sterling holdings of all securities issued by the public sector.
(c) Net issuance by the Debt Management Office.

1.2 Money

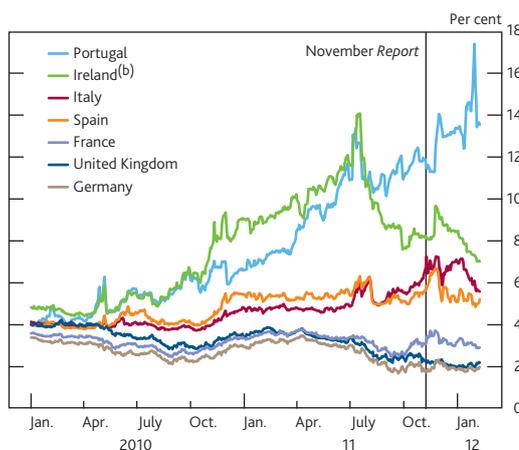
Money growth was weak in Q4. On an annualised basis, the stock of broad money fell by 0.8% (Table 1.A). That was below the average growth rate of 2.1% in the first three quarters of 2011, and was the first quarterly fall in the stock of money since 2009 Q3.

It is difficult to account for the weakness in money in Q4. The MPC's purchases of gilts in Q4 were associated with some reduction in the holdings of gilts in the non-bank private sector (Chart 1.2), which should have boosted the deposits of those investors and, therefore, broad money.

There are a number of factors that could have reduced money growth in Q4. First, market contacts suggest that some investors have chosen to reinvest the proceeds of gilt sales in other liquid assets, which would reduce money if such assets were ultimately purchased from outside the non-bank private sector. Perhaps consistent with that, the non-bank private sector increased its net holdings of Treasury bills by £11 billion in Q4. Second, some financial institutions in the non-bank private sector may have borrowed money from banks to buy gilts in Q3 in anticipation of further asset purchases being announced by the MPC. That would have boosted money growth in Q3 and reduced it in Q4 when the gilts were sold and the loans were repaid. Third, large intragroup movements

(1) The transmission mechanism of asset purchases is described in more detail in the box on pages 12–13 of the November 2011 Report.

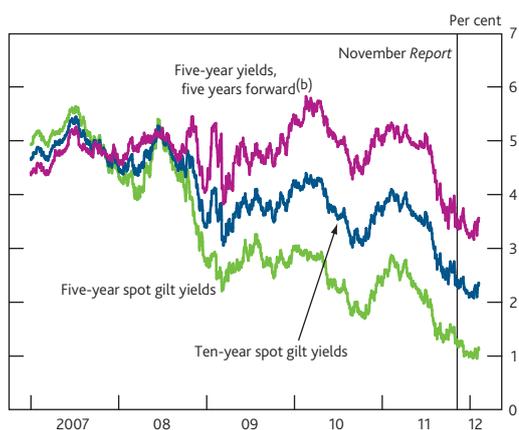
Chart 1.3 Selected European ten-year spot government bond yields^(a)



Source: Bloomberg.

(a) Yields to maturity on ten-year benchmark government bonds, unless otherwise stated.
(b) Yield to maturity on the nine-year benchmark government bond from 12 October 2011 onwards.

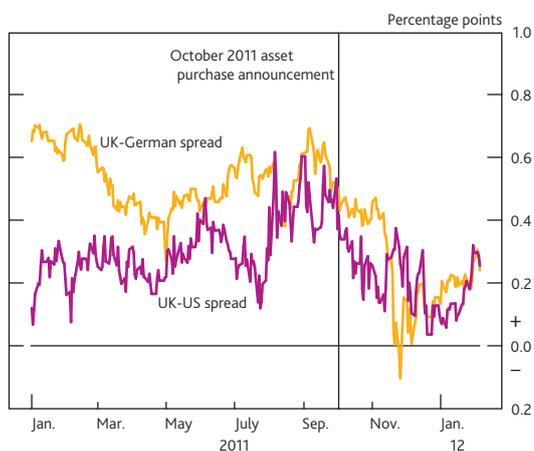
Chart 1.4 UK five-year and ten-year nominal spot gilt yields and five-year yields, five years forward^(a)



Sources: Bloomberg and Bank calculations.

(a) Zero-coupon yield.
(b) Derived from the Bank's government liability curves.

Chart 1.5 UK gilt yields relative to yields on German and US government debt^(a)



Sources: Bloomberg and Bank calculations.

(a) Spread between ten-year spot zero-coupon yields.

of capital by some banks at the end of the year are likely to have reduced money growth, relative to its rate in the absence of those transfers.

Overall, it is difficult to assess the impact that the MPC's latest asset purchases have had on the money supply. It is impossible to know how weak money growth would have been in the absence of asset purchases. And volatility in the recent money data makes it hard to judge how much news there is in a single quarterly outturn.

1.3 Financial markets and the banking sector

Financial markets have been affected by a variety of factors, but they continue to be particularly sensitive to developments in the euro area.

European government bonds

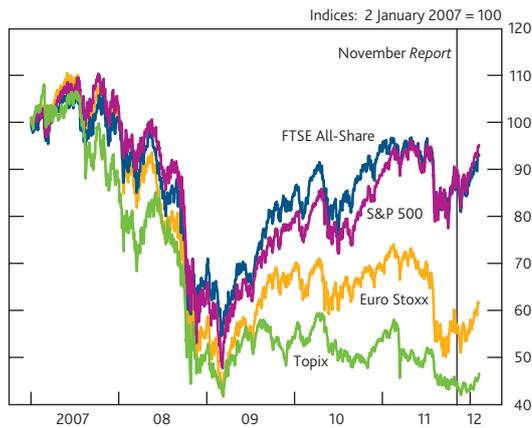
Since the *November Report*, concerns about the indebtedness and competitiveness of some euro-area countries, and their possible implications for the banking system, have persisted. Indeed, ten-year government bond yields have risen further in Greece and Portugal as concerns surrounding those countries have intensified. In contrast, although ten-year yields in Ireland, Italy and Spain rose during November, they have since fallen back, to slightly below where they were at the time of the *November Report* (Chart 1.3). There were also larger falls in government bond yields at shorter maturities in these countries. Those falls may partly reflect the easing of strains in bank funding markets following the ECB's LTRO.

UK government bonds

Gilt yields have fallen to historically low levels since the summer (Chart 1.4). That partly reflects international factors. For example, persistent euro-area concerns have increased investors' demand for government bonds that are perceived as more liquid or carrying less credit risk, including those of the UK government: higher demand for gilts puts downward pressure on gilt yields.

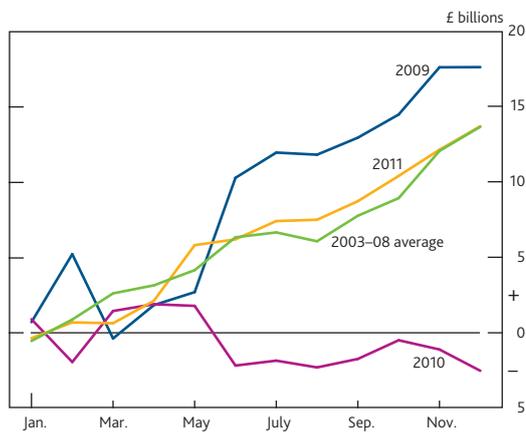
Lower UK yields could also reflect domestic factors, including an increased likelihood of lower output growth over the longer term: the implied cost of government borrowing for five years in five years' time has fallen since the summer (Chart 1.4), largely reflecting falls in real rates. That could indicate either lower expectations of the most likely outcome for growth, or an increase in the perceived risk that weak growth will persist.

A key domestic influence on gilt yields is, however, likely to have been the lower expected path for policy rates and expectations of a further expansion in the size of the MPC's asset purchase programme, both of which would have pushed down UK yields. The precise effects of those asset purchases on gilt yields are hard to isolate. In part, that is because it is difficult to know when market participants began to anticipate

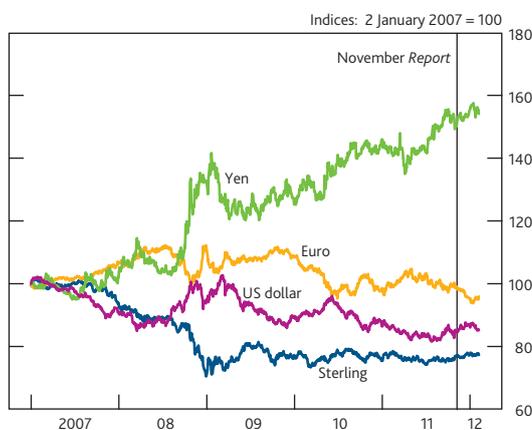
Chart 1.6 International equity prices^(a)

Source: Thomson Reuters Datastream.

(a) In local currency terms.

Chart 1.7 Cumulative net corporate bond issuance by PNFCs over calendar years^(a)

(a) Monthly net issuance of sterling and foreign currency stand-alone and programme bonds. Data are non seasonally adjusted.

Chart 1.8 International nominal effective exchange rates

an expansion in the programme. But it is also difficult because of those other influences on yields. One way to identify UK-specific factors is to look at differences between yields on gilts and other governments' bonds. Spreads over yields on German government debt did fall back a little in the run-up to, and on the day of, the 6 October announcement, consistent with downward pressure from the Bank's asset purchases (**Chart 1.5**). And, although they picked up a little in the run-up to the February Report, these spreads remain below their 6 October levels, perhaps reflecting market participants' anticipation of the further expansion of the asset purchase programme, which was subsequently announced at the February MPC meeting.

Equities and corporate bonds

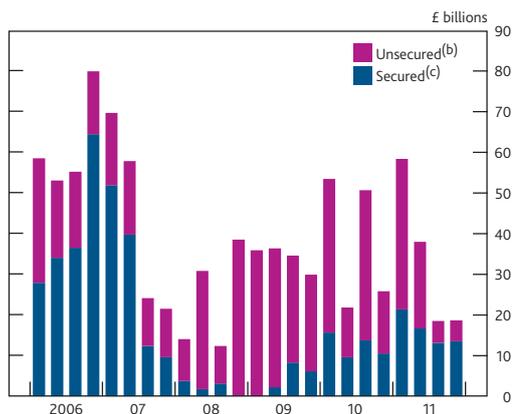
Equity prices have risen over the past six months in the United Kingdom and the United States, and to a lesser extent in the euro area (**Chart 1.6**). Those increases have reversed much of the sharp falls seen in August 2011, although the FTSE All-Share index was still around 5% lower in the run-up to the February Report than it was in early July. The recovery in equity prices since the summer has occurred despite a significant deterioration in Consensus forecasts for GDP growth in those regions, although it is possible that equity markets had already incorporated a weaker outlook for activity before those forecasts were updated.

Yields on corporate bonds for investment-grade non-financial companies were slightly lower in the run-up to the February Report than at the time of the November Report. Those falls reflected lower gilt yields: spreads between corporate and government bond yields were little changed, although those spreads have increased since the summer.

Net capital market issuance by private non-financial corporations (PNFCs) was similar in 2011 to 2010.⁽¹⁾ Lower equity issuance in 2011 was broadly offset by stronger corporate bond issuance. Gross equity issuance was relatively weak throughout 2011, reflecting volatile market conditions and the high cost of equity finance given the falls in equity prices. Share buybacks by some large companies also weighed on net equity issuance. Despite volatility in financial markets, net bond issuance continued steadily in 2011 Q4 and was higher over 2011 as a whole than in 2010, and broadly in line with its average in the period prior to the crisis (**Chart 1.7**).

The MPC's asset purchases should support corporate bond and equity issuance. A small net balance of respondents to the 2011 Q4 *Deloitte CFO Survey* expected bond issuance to increase over the next twelve months, although equity issuance was expected to fall further.

(1) For further discussion of recent trends in companies' capital market issuance, see the box on pages 8–9 of *Trends in Lending*, January 2012, available at www.bankofengland.co.uk/publications/other/monetary/TrendsJanuary12.pdf.

Chart 1.9 Public term issuance by the major UK lenders^(a)

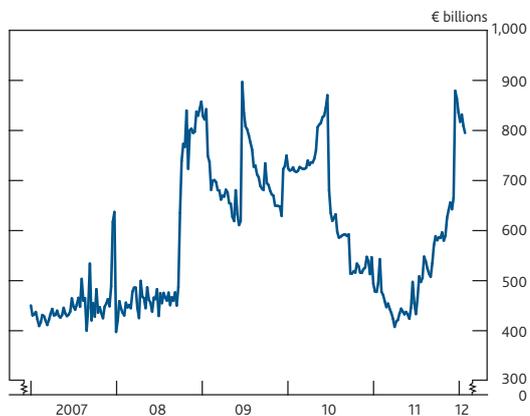
Sources: Bank of England, Dealogic and Bank calculations.

- (a) Data are as at 8 February 2012. Data are shown at a quarterly frequency, the final observation is 2011 Q4. Includes debt issued by Banco Santander, Bank of Ireland, Barclays, Co-operative Financial Services, HSBC, Lloyds Banking Group, National Australia Bank, Nationwide, Northern Rock and Royal Bank of Scotland. Term issuance refers here to securities with an original contractual maturity or earliest call date of at least 18 months.
- (b) Comprises medium-term notes, subordinated debt, unguaranteed senior debt and guaranteed senior debt issued under HM Treasury's Credit Guarantee Scheme.
- (c) Comprises covered bonds, CMBS, RMBS and other ABS.

Chart 1.10 UK banks' indicative longer-term funding spreads

Sources: Bank of England, JPMorgan Chase & Co., Markit Group Limited and Bank calculations.

- (a) The data show a simple average of the five-year CDS premia of Barclays, HSBC, Lloyds Banking Group, Nationwide, Royal Bank of Scotland and Santander UK.
- (b) From January 2012 onwards, the data show a weighted average of the spread between covered bonds of any maturity issued by UK banks and equivalent-maturity swap rates, weighted by the outstanding value of each bond. Before January 2012, the data show a simple average and include bonds with a maturity of between three and five years only.

Chart 1.11 Loans to euro-area credit institutions by the ECB and euro-area countries' national central banks^(a)

Source: ECB.

- (a) Includes loans extended through: main refinancing operations; longer-term refinancing operations; fine-tuning reverse operations; structural reverse operations; the marginal lending facility; and credits related to margin calls.

Exchange rates

The sterling effective exchange rate has been broadly unchanged since the *November Report* (**Chart 1.8**). A rise of just under 4% in the value of sterling against the euro was partly offset by a depreciation of around 2% against the dollar. Sterling has been broadly stable since the start of 2009, following the depreciation over the preceding 18 months.

The banking sector

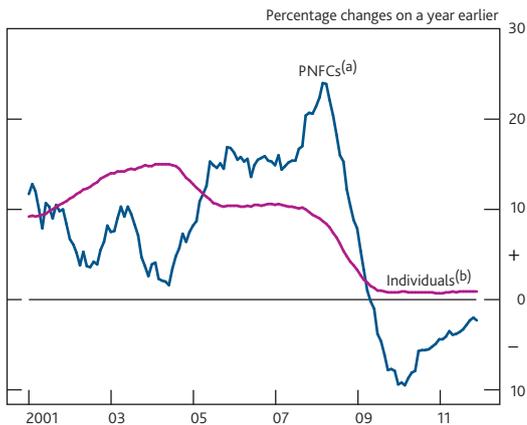
Bank funding conditions were strained in the second half of 2011. That was reflected in a very low level of unsecured term debt issuance in public markets by UK banks (**Chart 1.9**). UK banks' five-year credit default swap (CDS) premia suggested elevated unsecured wholesale funding costs over this period (**Chart 1.10**). And for some banks, public unsecured markets were effectively closed. Banks were able to issue secured debt in the second half of 2011, but indicators such as covered bond spreads suggest that the cost of that issuance also rose (**Chart 1.10**).

Conditions in European bank funding markets have, however, improved since the turn of the year. That followed the ECB's LTRO in late December. The LTRO provided just under €500 billion of loans to European banks, although that was partially offset by repayments of other loans, such that the net increase in loans was about €200 billion. That took total loans to banks by the ECB and the national central banks of the euro-area countries to almost €900 billion (**Chart 1.11**). Banks may also participate in a second operation in late February, which will allow the use of a wider range of collateral than the December operation.

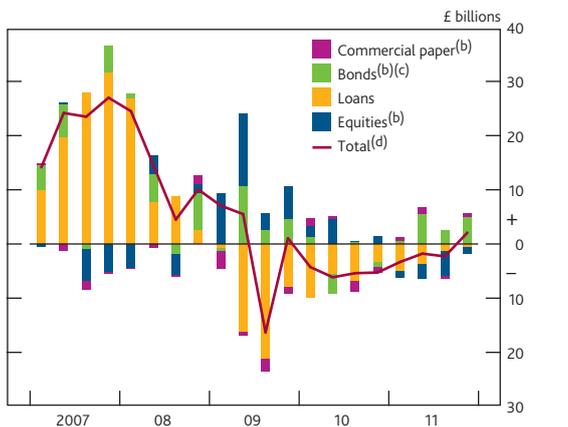
The improvement in European bank funding markets was reflected in greater debt issuance by UK banks. The major banks issued almost three times as much debt with a maturity of at least 18 months in public markets in January 2012 than the monthly average in the second half of 2011. And within that there was a resumption in public unsecured issuance. January is, however, a month in which banks typically raise a greater-than-average amount of funding. Indicators of funding costs fell back during January (**Chart 1.10**), although the price paid for the debt that was issued was still higher than in 2011 H1.

Despite recent improvements, conditions in bank funding markets are still more difficult than in the first half of 2011. For UK banks that reflects continuing concerns about the risk of losses, particularly on exposures to euro-area countries, either directly or indirectly through exposures to banks, companies and households whose prospects are linked to developments in the euro area.

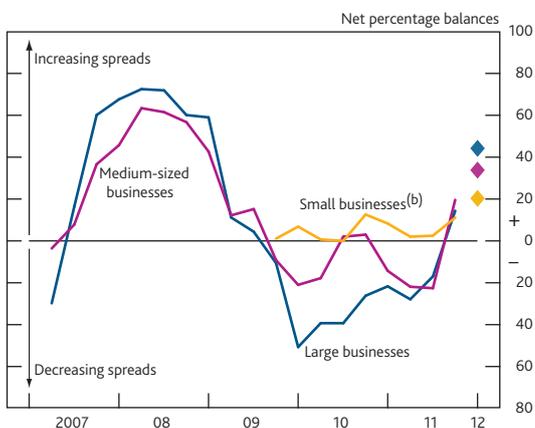
Conditions in bank funding markets will affect banks' capacity to lend and the terms on loans to businesses and households. The degree to which banks pass through increases in funding

Chart 1.12 Loans to individuals and PNFCs

(a) Sterling and foreign currency loans.
(b) Sterling loans.

Chart 1.13 PNFCs' net external finance raised^(a)

(a) Includes sterling and foreign currency funds.
(b) Non seasonally adjusted.
(c) Includes stand-alone and programme bonds.
(d) As component series are not all seasonally adjusted, the total may not equal the sum of its components.

Chart 1.14 *Credit Conditions Survey*: spreads on corporate loans by company size^(a)

(a) Weighted responses of lenders. A positive balance indicates that spreads over reference rates had risen and a negative balance indicates spreads had fallen over the past three months. The diamonds show lenders' expectations for the next three months, reported in the 2011 Q4 survey.
(b) Data are only available from 2009 Q4.

costs will partly depend on the amount of funding that they have to raise at these elevated costs. And whether banks raise loan rates or instead accept lower mark-ups on new lending will also depend on whether they expect funding conditions to improve or not.

1.4 Credit conditions

There is evidence of a recent tightening in credit conditions for businesses and, to a lesser extent, for households, probably reflecting the strains in bank funding markets in the second half of 2011. Spreads on loans to companies and interest rates on household mortgages rose in Q4, and there may be further increases this year if elevated funding costs continue to be passed through to customers. Section 5 contains further discussion of the outlook for credit conditions.

Bank lending to companies

In aggregate, companies continued to repay bank debt during 2011, but at a decreasing rate over the year (**Chart 1.12**). And with robust net bond issuance, total finance raised over the quarter as a whole was positive in Q4 for the first quarter since 2009 Q3 (**Chart 1.13**).

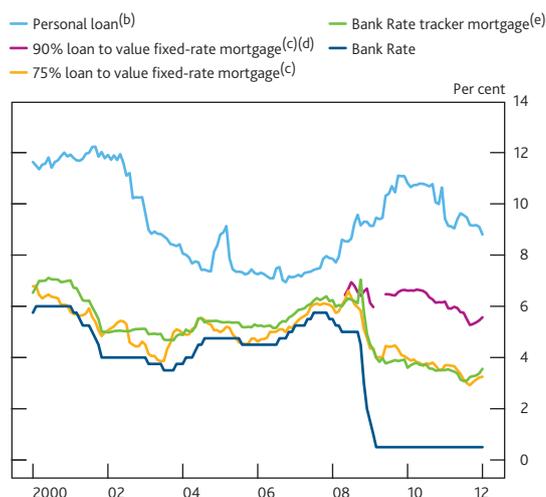
The past rises in bank funding costs are starting to feed through into the cost of borrowing for companies. That is apparent across a range of indicators. Lenders responding to the 2011 Q4 *Credit Conditions Survey* reported a rise in spreads over reference rates — such as three-month Libor or Bank Rate — on corporate loans, and further increases are expected in the first quarter of this year (**Chart 1.14**). The Bank's Agents reported that credit conditions had tightened for some companies, and spreads on syndicated loans to businesses also increased in 2011 Q4. That tightening in credit conditions reversed some of the earlier improvements seen for large and medium-sized businesses during most of 2010 and the first three quarters of 2011 (**Chart 1.14** shows that spreads fell over this period, for example).

There appears to have been little improvement in credit conditions for small businesses since the end of the recession. For example, according to the *Credit Conditions Survey*, there has been no fall in spreads over reference rates on bank loans to small companies since 2009 Q4 (**Chart 1.14**). Many small businesses are more reliant on bank borrowing because they are unable to substitute away from bank lending by accessing alternative sources of capital market finance. A package of interventions, including a National Loan Guarantee Scheme, was announced by the Chancellor in the 2011 Autumn Statement with the aim of improving the flow of credit to small businesses.

Bank lending to households and the housing market

Growth in the stock of loans to individuals has been close to zero since 2009, and remained weak in 2011 Q4 (**Chart 1.12**).

Chart 1.15 Bank Rate and average quoted interest rates on new household borrowing^(a)



- (a) Sterling-only end-month average quoted rates. The Bank's quoted interest rates series are weighted averages of rates from a sample of banks and building societies with products meeting the specific criteria (see www.bankofengland.co.uk/mfsd/iadb/notesiadb/household_int.htm). Data are non seasonally adjusted.
 (b) Quoted interest rate on a £10,000 personal loan.
 (c) Two-year fixed-rate mortgage.
 (d) Series is only available on a consistent basis back to May 2008, and is not published for March to May 2009 as fewer than three products were offered in that period.
 (e) On mortgages with a loan to value ratio of 75%.

Table 1.B Housing market indicators

	Averages since 2000 ^{(a)(b)}	2011 ^(a)				
		Q1	Q2	Q3	Q4	
Activity						
Property transactions (000s) ^(c)	97	71	70	71	78	
Mortgage approvals (000s) ^(d)	87	47	47	51	53	
RICS sales to stock ratio ^(e)	0.36	0.22	0.21	0.21	0.22	
		Average monthly changes				
	Change 2007 Q4– 2011 Q4	2011				2012
		Q1	Q2	Q3	Q4	Jan.
Prices^(f)						
Halifax	-17.8	-0.2	0.2	-0.4	-0.3	0.6
Nationwide	-10.3	0.3	0.0	-0.1	0.2	-0.2
Communities and Local Government ^(g)	-5.1	0.1	-0.5	0.1	0.3	n.a.
Land Registry ^(h)	-12.1	-0.2	-0.2	0.1	-0.2	n.a.

Sources: Bank of England, Department for Communities and Local Government, Halifax, HM Revenue and Customs, Land Registry, Nationwide, Royal Institution of Chartered Surveyors (RICS) and Bank calculations.

- (a) Averages of monthly data.
 (b) Except for property transactions, which is an average since April 2005.
 (c) Number of residential property transactions with value £40,000 or above.
 (d) Loan approvals for house purchase.
 (e) Ratio of sales recorded over the past three months to the level of stock on estate agents' books at the end of the month.
 (f) Percentage changes.
 (g) 2011 Q4 estimate is an average of data for October and November.
 (h) Data relate to England and Wales only.

That reflects subdued growth in both mortgage debt and unsecured loans.

There are some signs that banks are starting to pass through higher funding costs into higher mortgage rates. For example, the average interest rate charged on a new Bank Rate tracker mortgage with a loan to value ratio of 75% has risen by 0.5 percentage points since August (Chart 1.15). But the increases in mortgage rates so far only reverse the falls seen earlier in 2011: quoted rates for variable-rate mortgages in January 2012 were similar to those seen a year earlier, and they were lower for fixed-rate mortgages. Moreover, market contacts suggest that there had been some rise in the availability of secured loans at high loan to value ratios in Q4. There is less evidence that higher funding costs have been passed through into interest rates on unsecured loans to households. Indeed, the interest rate on a £10,000 personal loan has fallen since the summer (Chart 1.15).

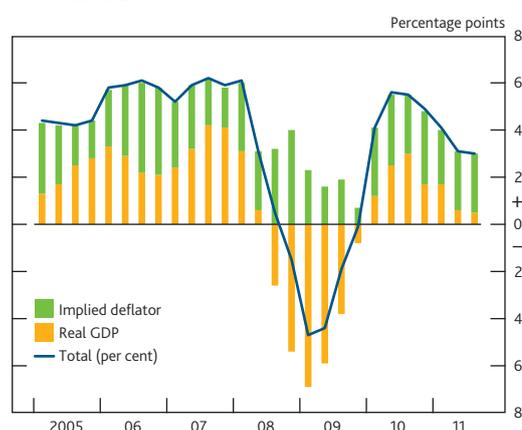
Tighter household credit conditions in recent years, relative to pre-crisis conditions, have contributed to weakness in housing market activity. The number of housing transactions has fallen significantly since mid-2007, although there was a modest pickup during 2011 (Table 1.B). The box on page 20 discusses the links between housing market activity and GDP.

House prices (Table 1.B) have been broadly unchanged over the past two years, having fallen during the recession. But rising consumer prices and average earnings imply that real house prices have continued to decline.

2 Demand

GDP growth was muted in the year to 2011 Q3 and output is provisionally estimated to have fallen by 0.2% in Q4. A squeeze in households' real income, the effects of the fiscal consolidation and tight credit conditions continued to weigh on domestic spending. Recently, weaker global growth and heightened concerns about the indebtedness and competitiveness of several euro-area countries may also have depressed UK activity.

Chart 2.1 Contributions to four-quarter growth in nominal GDP^(a)



(a) At market prices. Contributions may not sum to total due to rounding.

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

Percentage changes on a quarter earlier	Averages				2011	
	1998–2007	2008 Q2–2009 Q2	2009 Q3–2010 Q3	2010 Q4–2011 Q3	Q2	Q3
Household consumption ^(b)	0.9	-1.2	0.4	-0.2	-0.2	-0.1
Private sector investment	1.1	-4.7	0.8	0.1	5.2	0.3
<i>of which, business investment</i>	1.2	-2.6	-0.5	1.2	9.5	0.3
<i>of which, private sector dwellings investment</i>	1.1	-8.2	3.9	-2.2	-2.9	0.3
Change in inventories ^{(c)(d)}	0.0	-0.4	0.3	-0.1	-0.1	0.7
Private sector domestic demand	0.9	-2.3	0.9	-0.3	0.5	0.9
Government consumption and investment	0.9	-0.2	0.6	0.0	-2.4	0.8
Alignment adjustment ^(d)	0.0	0.0	0.0	-0.1	0.3	-0.1
Domestic demand	0.9	-1.8	0.9	-0.3	0.1	0.8
'Economic' exports ^(e)	1.1	-2.2	1.8	0.7	-1.5	-0.7
'Economic' imports ^(e)	1.4	-3.2	2.2	-0.1	-0.6	0.5
Net trade^{(d)(e)}	-0.1	0.4	-0.2	0.3	-0.3	-0.4
Real GDP at market prices	0.8	-1.5	0.6	0.1	0.0	0.6

(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) Excluding the impact of missing trader intra-community (MTIC) fraud.

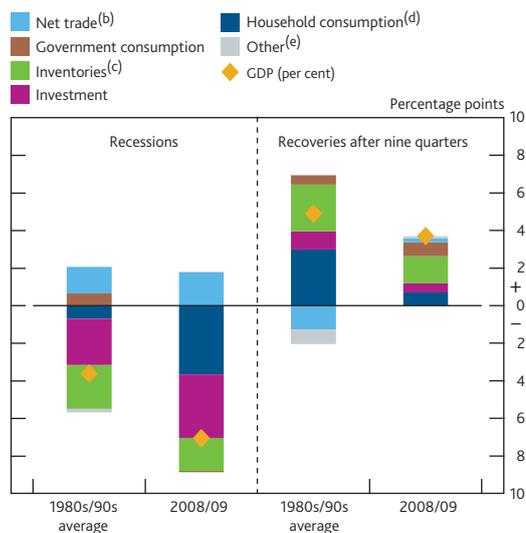
Four-quarter nominal spending growth has fallen back somewhat since the latter part of 2010 (**Chart 2.1**). Nominal GDP increased by 3% in the year to 2011 Q3, over 2 percentage points below its average rate of growth in the decade before the recession. Most of that rise in nominal spending was accounted for by increases in the prices of goods and services, in part reflecting the rise in VAT in January 2011.

In large part, the slowing in nominal GDP growth was associated with a weakening in real activity. While real GDP increased at a reasonable pace over the first year of the recovery, growth has moderated since mid-2010 (**Table 2.A**). Quarterly GDP growth averaged only 0.1% in the four quarters to 2011 Q3, although the pattern of growth within that period was volatile, owing to the effects of temporary factors such as heavy snow in December 2010 and the additional bank holiday associated with the royal wedding in April 2011.

Given the subdued growth since mid-2010, the recovery in real activity since the end of the recession has been weaker than the recoveries from the recessions of the early 1980s and 1990s (**Chart 2.2**). That largely reflects the weakness of domestic demand, and, within that, household consumption (Section 2.1): spending by UK households and businesses is likely to have been restrained by falling household real incomes, tight credit conditions and the effects of the fiscal consolidation.

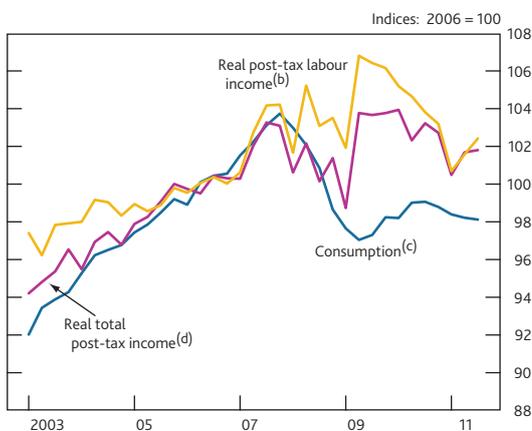
Output is provisionally estimated to have contracted by 0.2% in Q4. It is likely that domestic demand continued to be restrained by existing headwinds. But activity may also have been influenced by developments in the world economy (Section 2.2). The pace of four-quarter global demand growth slowed during 2011 and concerns about the indebtedness and competitiveness of several euro-area countries intensified. Those developments may be inhibiting UK export growth (Section 2.2), although evidence on this has so far been mixed. They may also be weighing on domestic demand, through their effects on business and consumer confidence and credit conditions (Section 1).

Chart 2.2 Contributions of expenditure components to changes in demand in recessions and recoveries^(a)



- (a) Chained-volume measures at market prices. Recessions are defined as at least two consecutive quarters of falling output (at constant market prices) estimated using the latest data. The recessions are assumed to end, and the recoveries are assumed to begin, in the quarter that follows the trough in output.
- (b) Excluding the estimated impact of MTIC fraud.
- (c) Excludes the alignment adjustment.
- (d) Includes non-profit institutions serving households.
- (e) 'Other' includes the alignment adjustment and a statistical discrepancy.

Chart 2.3 Household consumption and real income^(a)



- (a) Includes non-profit institutions serving households.
- (b) 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), deflated by the consumer expenditure deflator.
- (c) Chained-volume measure.
- (d) Total available household resources, deflated by the consumer expenditure deflator.

2.1 Domestic demand

Household spending

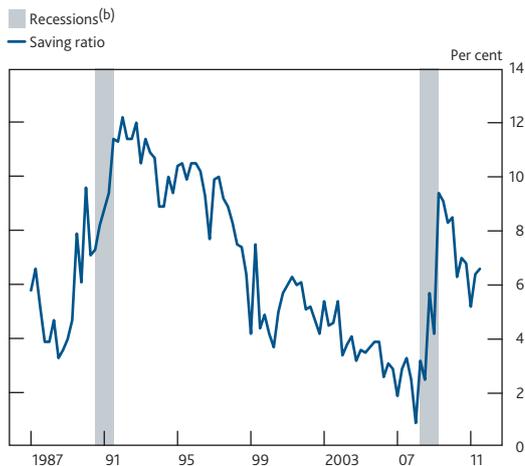
After falling sharply during the recession, household spending rose modestly during the first year of the recovery. But it fell back over the four quarters to 2011 Q3 (**Chart 2.3**). The level of consumption in Q3 is currently estimated to have been only 1% above its 2009 Q2 trough.

Muted growth in household spending since the end of the recession is likely, in part, to reflect weak household real income growth over that period (**Chart 2.3**). Subdued wage growth (Section 4) weighed on nominal labour income and rises in VAT, energy prices and import prices eroded the real purchasing power of that income. The squeeze on real income growth is likely to have persisted in 2011 Q4, following rises in utility prices in the autumn. But, absent further rises in energy and import prices, real income growth should gradually begin to recover during 2012, supporting consumption growth (Section 5).

In addition, households have saved a greater proportion of income than immediately before the recession (**Chart 2.4**). The household saving ratio increased sharply during the recession, peaking at 9.4% in 2009 Q2. Although it has subsequently fallen back, the saving ratio is estimated to have been 6.6% in 2011 Q3, almost 4 percentage points above its 2007 average.

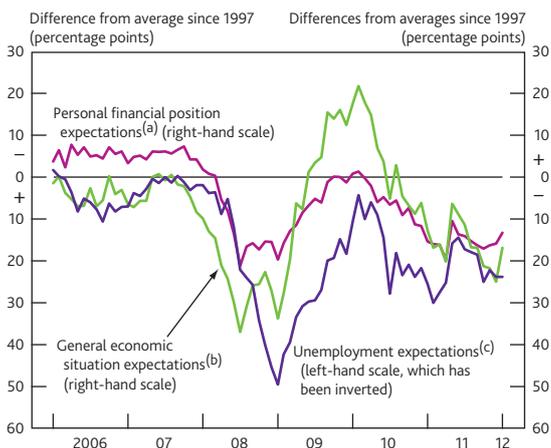
In addition to the squeeze in real income growth, households have, over the past four years, faced three other significant adverse shocks. First, the recession is likely to have resulted in a marked reduction in their future earnings prospects. Households will need to reduce their spending to reflect that. Some households may also want to reduce their indebtedness, because, given lower expected incomes, those debts leave them more vulnerable to future adverse shocks. Second, uncertainty about future incomes may have risen as a result of the recession and, particularly for those employed in the public sector, the fiscal consolidation. That may have made households increase their saving rate temporarily, in order to build up a greater buffer as a precaution against any unexpected weakness in future income. Third, credit conditions have tightened. That is likely to have boosted some households' saving, for example because they need to raise a larger deposit in order to purchase a property.

Households may not yet have fully adjusted to these shocks, especially since falls in real incomes over the past two years will have made it harder to accumulate savings or to pay down debt. Moreover, households may want to increase the amount that they save due to other factors, such as the need to save more for future retirement provision. The greater the adjustment that households still have to make, the weaker the outlook for consumption is likely to be.

Chart 2.4 Household saving ratio^(a)

(a) Percentage of household post-tax income (not adjusted to account for the impact of Financial Intermediation Services Indirectly Measured).

(b) Recessions are defined as in Chart 2.2.

Chart 2.5 Survey measures of household expectations

Source: Research carried out by GfK NOP on behalf of the European Commission.

(a) Net balance of respondents reporting that they expect their personal financial situation to get better over the next twelve months.

(b) Net balance of respondents reporting that they expect the general economic situation in the United Kingdom to get better over the next twelve months.

(c) Net balance of respondents reporting that they expect the number of unemployed people to rise over the next twelve months.

Table 2.B Stockbuilding and surveys of stock adequacy

	Averages			2011			2012
	1998–2007	2008–09	2010	Q2	Q3	Q4	Jan.
Stockbuilding^(a)							
£ billions (reference year 2008)	1.4	-1.3	1.2	-0.3	2.3	n.a.	n.a.
Percentage point contributions to quarterly real GDP growth	0.0	-0.2	0.3	-0.1	0.7	n.a.	n.a.
Surveys of stock adequacy^(b)							
Manufacturing	14	19	8	7	16	18	14
Distribution	16	21	13	20	24	19	16

Sources: CBI and ONS.

(a) Chained-volume measures. Excluding the alignment adjustment.

(b) Averages of monthly data. Net percentage balances of companies that say that their present stocks of finished goods are more than adequate (manufacturing) or are high in relation to expected sales (distribution).

Offsetting those factors, the stimulative stance of monetary policy should help to support consumption, for example by boosting asset prices and, therefore, household wealth (Section 1) and by encouraging some households to bring forward consumption.

It is possible that the weakening in global prospects and events in the euro area may adversely affect households' expectations. The GfK survey provides mixed evidence on the extent to which that has happened so far. Over the second half of 2011, households' confidence about the general economic situation deteriorated, and unemployment expectations rose. But households' confidence about their own financial situation — which is likely to be more relevant for spending — was little changed, although the level remained low (Chart 2.5).

The latest indicators provide mixed evidence on household spending in 2011 Q4. Retail sales volumes suggest that spending on goods picked up. But the *CBI Service Sector Survey*, one of the few available indicators of services consumption, suggests that consumption of services fell sharply.

Dwellings investment

Dwellings investment plummeted during the recession. That was mostly driven by private sector dwellings investment, which accounts for over 90% of total dwellings investment. Although private sector dwellings investment increased somewhat during the first year of the recovery (Table 2.A), in 2011 Q3 it stood around 40% below its pre-recession peak. The weakness in private sector dwellings investment has also been associated with a decline in housing market transactions. The box on page 20 discusses some of the links between housing market activity and GDP.

Business spending

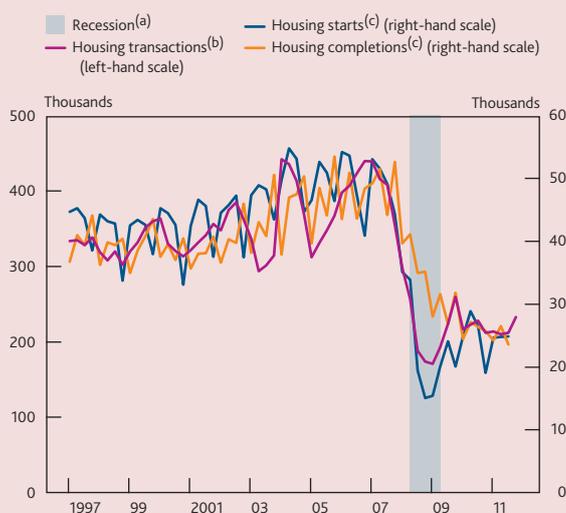
Businesses' spending on stocks provided a significant boost to GDP growth in 2011 Q3 (Table 2.B). That might, in part, have been due to a rebuilding of stock levels following disruptions to global supply chains in Q2. But it may also have reflected unexpected weakness in demand that led some companies to increase stocks by more than they had planned. Surveys indicate that stock adequacy levels were broadly unchanged in Q4 (Table 2.B), suggesting that stockbuilding may have provided little support to growth in that quarter.

Business investment fell sharply during the recession, in part reflecting the weaker and more uncertain demand outlook and a tightening in credit conditions. It has risen modestly over the past two years, increasing by 4% over the year to Q3 (Chart 2.6), as some businesses reinstated investment projects placed on hold or initiated new projects. Despite that pickup, the level of business investment in Q3 remained about 15% below its pre-recession peak.

Housing market activity and GDP

The number of housing market transactions fell sharply during 2007 and 2008. And despite some recovery in 2009, transactions have remained subdued. Indeed, HM Revenue and Customs (HMRC) data suggest that there were a little under one million residential property transactions in 2011, roughly half the number recorded in 2006 (**Chart A**). This box discusses some of the links between housing market activity and GDP.

Chart A Housing transactions and house building



Sources: Department for Communities and Local Government, HMRC, ONS and Bank calculations.

- (a) Recession is defined as in **Chart 2.2**.
 (b) Number of residential property transactions in the United Kingdom with a value of £40,000 or above per quarter from 2005 Q2. Prior to that date, the series has been assumed to grow in line with quarterly HMRC data on transactions in England and Wales.
 (c) Number of permanent dwellings in the United Kingdom started/completed by private enterprises up to 2011 Q1. Data for 2011 Q2 and Q3 have been grown in line with permanent dwelling starts/completions by private enterprises in England. Data are non seasonally adjusted.

A key link between the housing market and GDP is dwellings investment. Dwellings investment, as recorded in the National Accounts, comprises investment in new homes, investment in existing dwellings, and spending on services associated with the sale and purchase of property — for example, fees paid to lawyers and surveyors, commission paid to estate agents or auctioneers, and taxes such as stamp duty.

The reduction in housing market transactions is likely to have been associated with changes in all three components of private sector dwellings investment. Most directly, spending on services associated with home moves will have fallen as the number of transactions declined. The fall in transactions has also been associated with a decline in the number of housing starts (**Chart A**). That has gradually fed through into fewer housing completions, which will have been reflected in lower investment in new dwellings. Investment in existing properties may also have been affected by the reduction in transactions,

but it is difficult to say in which direction. On the one hand, households tend to make improvements after they move to a new home, suggesting that the decline in transactions may have pushed down dwellings investment. But, on the other hand, some households that have been unable to move may have made improvements to their current home instead.

Overall, there has been a significant reduction in private sector dwellings investment since early 2007. The level of investment halved between 2007 Q1 and 2009 Q1 and, despite some increase subsequently, in 2011 Q3 still stood around 40% below its pre-crisis peak. Although it accounts for only a small share of total demand, private sector dwellings investment accounted for around one quarter of the fall in GDP during the recession (**Table 1**).

Table 1 Contributions to GDP of spending related to housing^(a)

	Share in GDP, 2008 (per cent)	Average contributions to quarterly GDP growth (percentage points)		
		1988–2007	Recession: 2008 Q2–2009 Q2	Recovery: 2009 Q3–2011 Q3
Private sector dwellings investment	5	0.05	-0.41	0.04
Household spending on furnishings and major appliances ^(b)	2	0.02	-0.06	-0.01
Memo: average quarterly GDP growth	n.a.	0.8	-1.5	0.4

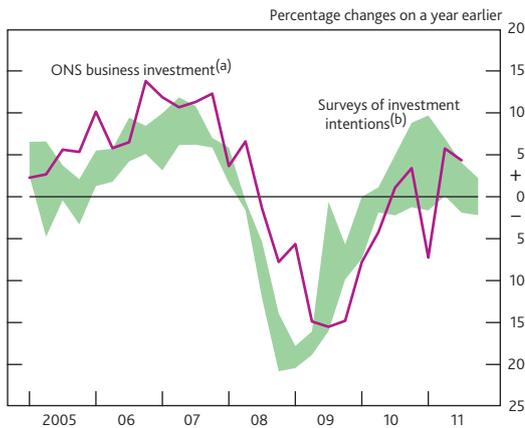
(a) Chained-volume measures at market prices.

(b) Includes spending on: furniture and furnishings; carpets and other floor coverings; household textiles; and major appliances (electrical or otherwise).

The weakness in demand may have been linked to the decline in housing market transactions through other channels too. For example, the fall in transactions may have led to a reduction in household spending on durables, such as white goods. Past Bank work suggests that households are more likely to purchase these goods when they move home.⁽¹⁾ But that effect is likely to have been small relative to the movements in overall demand (**Table 1**).

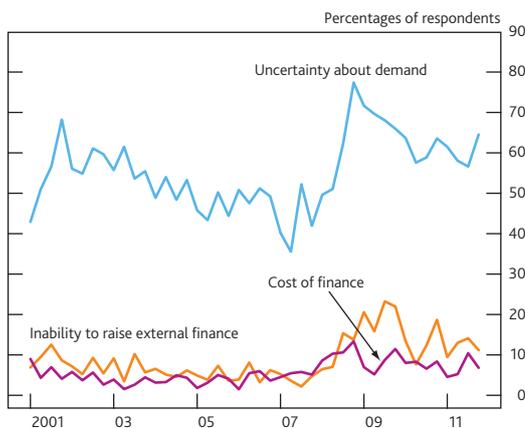
The fall in spending related to housing accounts for a significant proportion of the weakness in GDP over the recession. In turn, that may reflect the effects of other developments, most notably the tightening in credit conditions (Section 1). For example, reduced credit availability, alongside falls in house prices, may have made some households less willing or able to move, and may also have led some construction companies to cut back on house building.

(1) Benito, A and Wood, R (2005), 'How important is housing market activity for durables spending?', *Bank of England Quarterly Bulletin*, Summer, pages 153–59.

Chart 2.6 Business investment and surveys of investment intentions

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

- (a) Chained-volume measure.
 (b) Data are to 2011 Q4. Includes survey measures of investment intentions from the Bank's Agents (companies' intended changes in investment over the next twelve months), BCC (net percentage balance of companies who say they have increased planned investment in plant and machinery over the past three months) and CBI (net percentage balance of companies who say they have revised up planned investment in plant and machinery over the next twelve months), scaled to match the mean and variance of four-quarter business investment growth since 1999. Measures weight together sectoral surveys using shares in real business investment. Bank's Agents' data cover the manufacturing and services sectors. BCC data are non seasonally adjusted and cover the non-services and services sectors. CBI data cover the manufacturing, distribution, financial services and consumer/business services sectors.

Chart 2.7 Factors likely to hold back investment^(a)

Sources: CBI, CBI/PwC and ONS.

- (a) Manufacturing, financial services, consumer/business services weighted by shares in real business investment. Companies are asked for their twelve-month forecast of factors likely to limit capital expenditure authorisations. Financial services companies are not asked to distinguish between a shortage of internal finance and an inability to raise external finance, so their single response is used for the question on inability to raise external finance.

Table 2.C Public sector net borrowing^(a)

Percentages of nominal GDP							
	2009	2010	2011	2012	2013	2014	2015
Data	11.1	9.2	n.a.	n.a.	n.a.	n.a.	n.a.
OBR projections							
November 2011 EFO	n.a.	n.a.	8.4	7.6	6.0	4.5	2.9
March 2011 EFO	n.a.	n.a.	7.9	6.2	4.1	2.5	1.5
Change	n.a.	n.a.	0.5	1.4	1.9	2.0	1.4
of which, due to policy measures announced in the Autumn Statement 2011	n.a.	n.a.	0.0	0.0	0.0	0.0	-0.5

Sources: HM Treasury, OBR *Economic and Fiscal Outlooks (EFO)* and ONS.

- (a) Measures exclude the temporary effects of financial interventions. Data are for financial years, for example 2009 refers to the financial year 2009/10.

Survey indicators of businesses' investment intentions fell back over 2011 (**Chart 2.6**). That may, in part, have reflected the weaker demand outlook. And it might also have reflected businesses' uncertainty about the outlook: contacts of the Bank's Agents increasingly reported that heightened uncertainty about the demand outlook had weighed on investment plans over the second half of 2011; and CBI surveys indicated that uncertainty about demand remained more of a brake on investment than before the recession (**Chart 2.7**).

Businesses' investment plans may also have been affected by concerns about credit conditions (Section 1). The proportion of businesses reporting to the CBI that the cost and availability of finance was a constraint on investment remained low in Q4 (**Chart 2.7**). But reports from the Bank's Agents indicated that some businesses were focusing on building up cash reserves, rather than investing, due to concerns that developments in the euro area might trigger a marked tightening in UK credit conditions. Perhaps, in part, reflecting those concerns, private non-financial corporations continued to run a financial surplus in Q3.

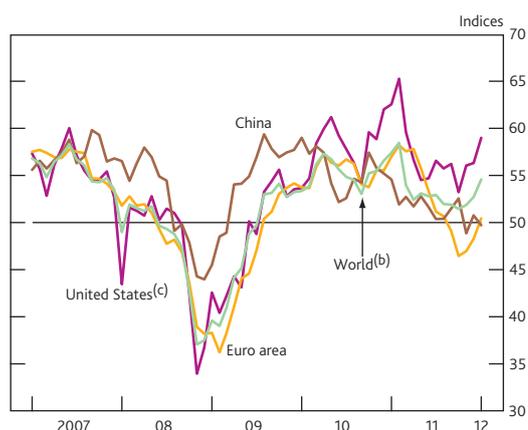
Government spending and fiscal policy

A substantial fiscal consolidation is taking place. The MPC's projections are conditioned on the fiscal plans set out in the 2011 Autumn Statement, supplemented by the composition of government spending underlying the Office for Budget Responsibility's (OBR's) associated *Economic and Fiscal Outlook*.

The OBR's latest estimates suggest that public sector net borrowing will fall from a peak of 11% of nominal GDP in 2009/10 to 2.9% in 2015/16 (**Table 2.C**). The pace at which borrowing is projected to decline is, however, slightly slower than the OBR estimated in March 2011. In large part, that reflects the OBR's judgement that growth is likely to be weaker over the next few years than previously forecast, which reduces tax revenues and raises components of government spending such as benefits. The effects of the new policy measures announced in the Autumn Statement were projected to be small and offsetting before 2015/16 and there was consequently little news for the MPC's own projections.

2.2 External demand and UK trade

The pace of four-quarter global demand growth slowed in 2011. But, within that, there was some divergence in growth rates across different regions. And business surveys suggest that activity may have picked up a little in some countries at the beginning of this year (**Chart 2.8**). Against the backdrop of subdued global demand growth, world trade rose only modestly in the year to November 2011.

Chart 2.8 Survey measures of global output growth^(a)

Sources: HSBC, JPMorgan Chase & Co., Markit Economics, Thomson Reuters Datastream, US Bureau of Economic Analysis and US Institute for Supply Management (ISM).

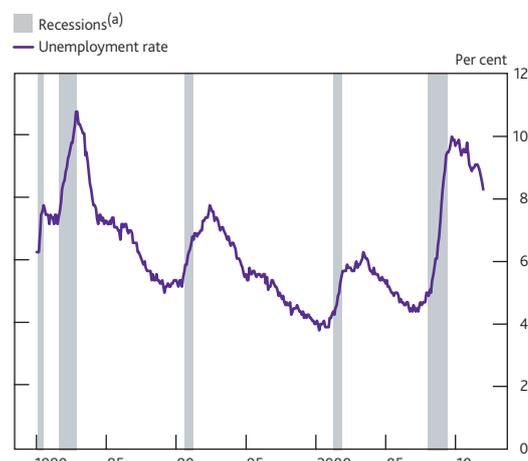
- (a) Published composite indices of manufacturing and service sectors, unless otherwise stated. A figure over 50 indicates rising output compared with the previous month, and a figure below 50 indicates falling output.
 (b) Based on the results of surveys in 30 countries, accounting for an estimated 86% of global GDP.
 (c) Manufacturing production and non-manufacturing business activity ISM survey indices, weighted together using their nominal shares in value added.

Table 2.D Euro-area survey measures of confidence and bank credit conditions

	Averages		2011			2012
	1999–2007 ^(a)	2008–09	Q2	Q3	Q4	Jan.
Confidence^(b)						
Consumer	-9	-22	-11	-16	-21	-21
Business ^(c)	2	-14	4	-2	-7	-7
Bank credit conditions^(d)						
Mortgage lending	3	26	9	18	29	n.a.
Business lending	10	37	2	16	35	n.a.

Sources: ECB and European Commission.

- (a) Bank credit conditions averages are calculated since 2002 Q4.
 (b) Averages of monthly data.
 (c) Weighted average of the industrial confidence indicator, the services confidence indicator, the retail confidence indicator and the construction confidence indicator, based on the weights of those indicators in the economic sentiment indicator.
 (d) Weighted net percentage balances of banks reporting that their credit standards as applied to the approval of loans to households for house purchase/loans to businesses had tightened over the past three months. Weights reflect national shares in total outstanding euro-area lending to euro-area residents.

Chart 2.9 US unemployment rate

Sources: Bureau of Labor Statistics and National Bureau of Economic Research (NBER).

- (a) Recession bars use NBER dating methodology.

The euro area

Euro-area GDP increased by 0.1% in 2011 Q3. Growth in Germany was a little above its historical average. But that was offset by below-average growth in several other member countries, with output falling in many of the periphery countries.

Euro-area business activity indices rose between October and December (**Chart 2.8**). But, based on the historical relationships between those indices and output growth, they suggested that euro-area GDP contracted in Q4 as a whole, with output likely to have fallen in Germany and France as well as in the periphery countries. Business activity indices rose further in January, but only to levels consistent with broadly flat output in the euro area overall.

The weakness in euro-area demand, in part, reflects the actions necessary to resolve indebtedness and competitiveness concerns in some member countries. Substantial fiscal consolidations are under way in many countries, especially those in the periphery, with Italy and Spain announcing additional fiscal tightening in December. In addition, measures of consumer and business confidence continued to fall in Q4 and the ECB's *Bank Lending Survey* suggested that credit conditions had tightened further in that quarter (**Table 2.D**). The ECB's longer-term refinancing operation in December led to an improvement in European bank funding markets (Section 1) and may mitigate some of that tightening. But many euro-area banks still face pressures to raise their capital ratios, and that may weigh on credit availability.

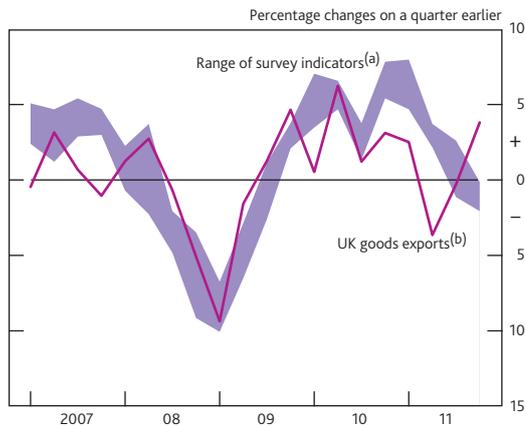
The United States

There have been some positive developments in US economic indicators in the past three months. US GDP increased by 0.7% in Q4. The unemployment rate dropped to 8.3% in January 2012, 1.7 percentage points below its October 2009 peak (**Chart 2.9**). And the University of Michigan consumer sentiment index rose, to around its January 2011 level. But substantial headwinds to growth remain, including muted household income growth, weakness in the housing market and fiscal consolidation.

Emerging economies

Growth in emerging economies gradually slowed in 2011. Some of that slowing may reflect past policy actions taken to reduce inflationary pressures. But part of the slowdown may also reflect the effects of weaker global demand: business surveys indicate that emerging market export orders have fallen since mid-2011. In addition, an Institute of International Finance survey indicated that conditions in international bank funding markets deteriorated substantially in Q4 and, in part related to that, bank credit conditions tightened across a range of emerging economies, particularly in emerging Europe.

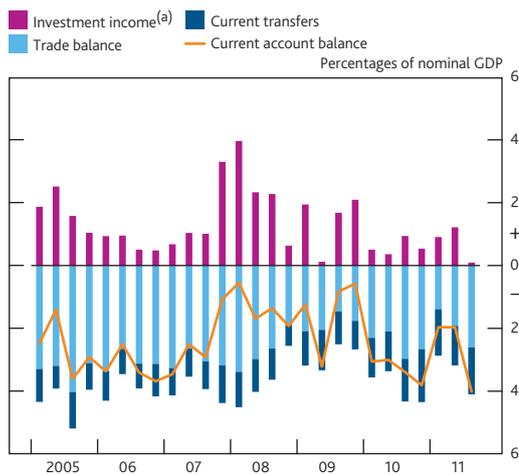
Chart 2.10 UK goods exports and surveys of export orders



Sources: BCC, CBI, CIPS/Markit and ONS.

- (a) Includes measures of manufacturing export orders from BCC, CBI and CIPS/Markit scaled to match the mean and variance of quarterly goods export growth since 2000. BCC data are non seasonally adjusted.
 (b) Excluding the estimated impact of MTIC fraud.

Chart 2.11 UK current account



(a) Includes compensation of employees.

UK trade

UK exports fell by an average of 1.1% in 2011 Q2 and Q3. But, despite the weakness in global demand growth, goods exports rose by almost 4% in Q4, primarily reflecting increases in exports to non-EU countries. That strength may indicate that the weakness in global growth has, so far, had a limited effect on UK exports, or that it is taking time to feed through. Some of the strength may, however, also prove erratic: trade data are prone to revision and surveys point to a gradual slowing in goods export growth during 2011 (Chart 2.10).

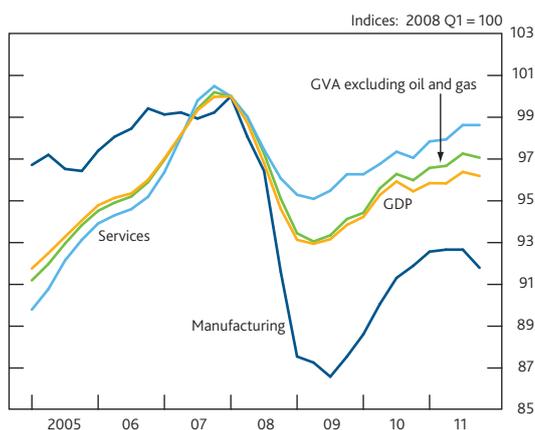
Imports fell by 0.6% over the four quarters to 2011 Q3 and more timely data indicate that goods imports increased by just 0.7% in Q4. In part, subdued imports are likely to reflect the weakness in domestic demand (Section 2.1). But the depreciation of sterling that began in mid-2007 may also have led to some switching of expenditure away from imports.

The current account deficit widened in Q3. In part, that reflected a widening of the trade deficit. But around half was accounted for by a fall in net investment income (Chart 2.11), as a fall in UK residents' earnings from investments abroad was compounded by a moderate rise in non-residents' earnings on investments in the United Kingdom. Current account data tend to be volatile, so some of those developments may reverse over subsequent quarters. Indeed, more timely data show that the trade deficit almost halved in Q4, narrowing to around £6 billion from £10 billion in Q3. Over the medium term, the depreciation of sterling that began in mid-2007 should continue to support UK net trade and the current account.

3 Output and supply

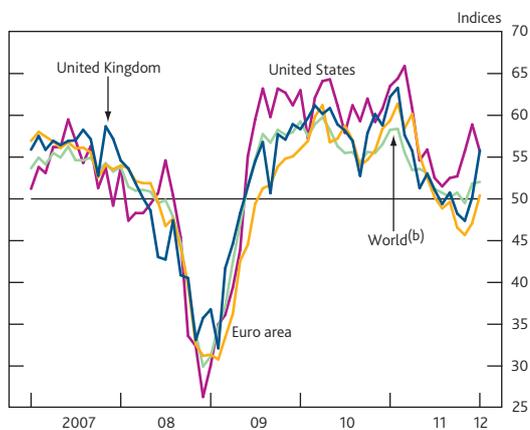
Output is estimated to have contracted by 0.2% in 2011 Q4. But output is likely to have increased a little at the beginning of this year. Private sector employment growth appears to have dropped back from the rates seen earlier in the recovery. And public sector employment continued to fall. Reflecting those developments, unemployment rose further. The margin of spare capacity within companies appears to have increased slightly over the second half of 2011. There remains considerable uncertainty around the overall extent of spare capacity in the economy.

Chart 3.1 GDP and sectoral output^(a)



(a) Chained-volume measures. GDP is at market prices. Indices of sectoral output are at basic prices.

Chart 3.2 Survey measures of global manufacturing output growth^(a)



Sources: JPMorgan Chase & Co., Markit Economics, Thomson Reuters Datastream and US Institute for Supply Management (ISM).

(a) A figure over 50 indicates rising output, compared with the previous month, and a figure below 50 indicates falling output.

(b) Based on the results of surveys in 30 countries, accounting for an estimated 86% of global manufacturing output.

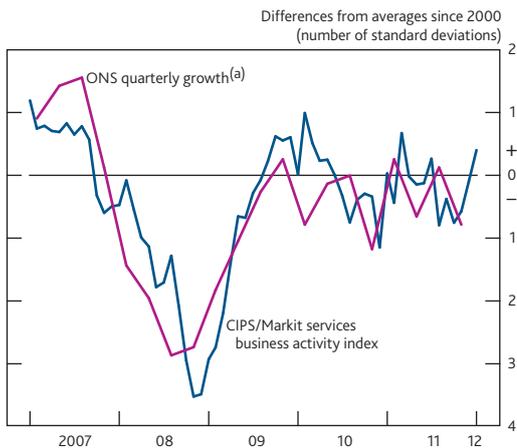
Output is estimated to have fallen slightly in 2011 Q4 (Section 3.1), probably reflecting both global influences and persistent domestic headwinds (Section 2). Monthly CIPS/Markit business surveys suggest that output growth recovered somewhat at the beginning of 2012 but there is uncertainty around the extent of that pickup.

Employment growth has been weak in recent months (Section 3.2). The unemployment rate rose and inactivity was broadly flat, pointing to greater labour market slack. Labour productivity growth remained very weak in some subsectors. Business surveys suggest that spare capacity within companies was broadly unchanged in Q4, having increased a little in Q3 (Section 3.3). But considerable uncertainty around the overall degree of slack in the economy remains.

3.1 Output

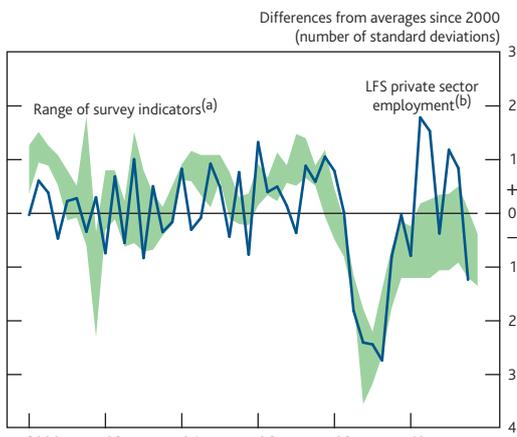
According to the ONS's preliminary estimate, output fell by 0.2% in 2011 Q4 (Chart 3.1) as manufacturing and utilities output fell and service sector output was unchanged. GDP growth during 2011 has been volatile owing to a number of special factors (Section 2), but over the year as a whole output has risen only a little. Some of that weakness was due to a significant fall in oil and gas extraction, which has been contracting for several years but experienced a particularly marked decline during 2011. Over 2011 as a whole, GDP excluding oil and gas is estimated to have grown 0.5 percentage points more rapidly than headline GDP.

The fall in manufacturing output in Q4 follows a period of weakening growth (Chart 3.1), which probably in part reflected the slowing in global activity during 2011. Indeed there was a fairly synchronised slowing internationally in manufacturing output growth during the first half of 2011 (Chart 3.2). More recently, some indicators of output growth have diverged somewhat — for example, the ISM indicator for the United States has remained markedly stronger than the

Chart 3.3 Service sector output growth

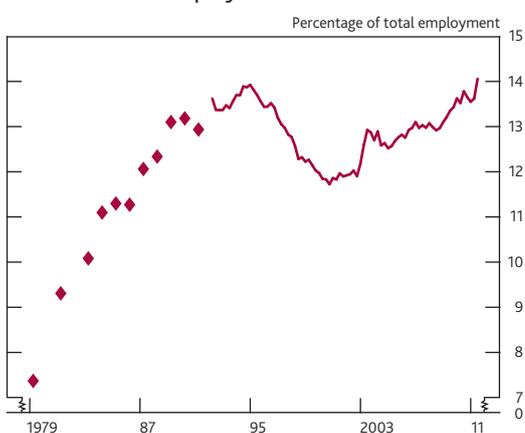
Sources: Markit Economics and ONS.

(a) Chained-volume measure at basic prices.

Chart 3.4 Private sector employment and surveys of employment intentions

Sources: Bank of England, BCC, CBI, CBI/PwC, Manpower, ONS (including the Labour Force Survey) and Bank calculations.

- (a) Data are to 2011 Q4. Measures for the Bank's Agents (manufacturing and services), the BCC (non-services and services) and the CBI (manufacturing, financial services and business/consumer services) are weighted together using employee shares from Workforce Jobs. The BCC data are non seasonally adjusted. The Manpower data cover the whole economy.
- (b) Percentage change on a quarter earlier. Data are to 2011 Q3. Calculated as the difference between LFS whole-economy employment and total public sector employment from the ONS public sector employment release, adjusted to be on a calendar-quarter basis.

Chart 3.5 Self-employment^(a)

Source: Labour Force Survey.

- (a) Data from 1992 Q2 are at quarterly frequency. Data between 1984 and 1991 are seasonally adjusted annual data. Data between 1979 and 1983 are non seasonally adjusted biennial data. Annual and biennial observations correspond to the three months to May but are plotted in line with Q2.

euro-area PMI indicator. It is possible that, towards the end of the year, UK manufacturers were affected by heightened uncertainty stemming from developments in the euro area (Section 2). But the CIPS/Markit output index for January suggests a marked turnaround in UK manufacturing output growth in 2012 Q1, as euro-area manufacturing output growth appeared to tick up (Chart 3.2).

The weakness in service sector output growth in Q4 followed a period of only modest expansion since the end of the recession (Chart 3.1). Although the service sector is less directly exposed to global demand than the manufacturing sector, some of that weakness in activity may also have reflected the global slowdown during 2011 and uncertainty surrounding the outlook for the euro area. But the weakness is also likely to have reflected substantial domestic headwinds (Section 2). The monthly CIPS/Markit business activity index has, however, rebounded over December and January, and points to expansion in Q1 (Chart 3.3).

Overall, monthly CIPS/Markit output indicators for January point to renewed GDP growth and the MPC judges that it is likely that output grew modestly at the beginning of this year. But there is uncertainty about both the extent and persistence of that pickup. Section 5 discusses the growth outlook.

3.2 Labour demand and supply

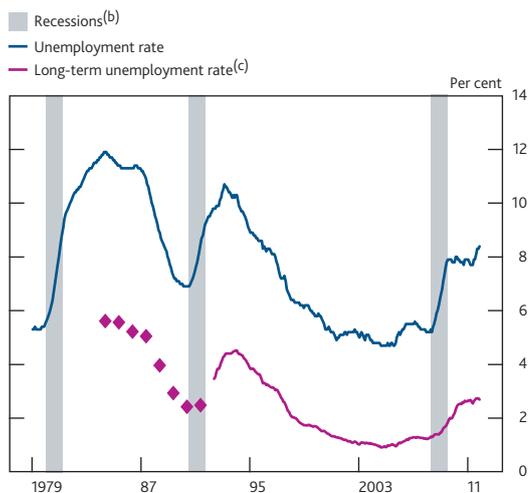
Solid private sector employment growth, on average, will be needed just to keep the unemployment rate constant in the face of falls in public sector employment and the continuing expansion of the labour force. But recent weakness in output growth, and any associated margin of spare capacity within businesses, in conjunction with continued uncertainty about the economic outlook may cause employers to reduce hiring or shed labour. That would raise unemployment and increase the downward pressure on wages.

Labour demand

Following a large fall over the summer, the whole-economy employment rate was broadly flat in the three months to November, according to the Labour Force Survey (LFS). In contrast, the Workforce Jobs survey showed a rise in employment in Q3.

Falling public sector jobs continued to bear down on whole-economy employment in Q3. General government employment fell by 61,000 between June and September 2011 and was 327,000 lower than in December 2009. In November, the Office for Budget Responsibility projected further large falls in public sector employment over coming years.

In addition to the fall in public sector employment, the pace of private sector labour demand growth appears to have slowed (Chart 3.4). LFS data suggest that private sector employment grew strongly during much of the recovery, but that it fell

Chart 3.6 Unemployment rates^(a)

Source: ONS (including the Labour Force Survey).

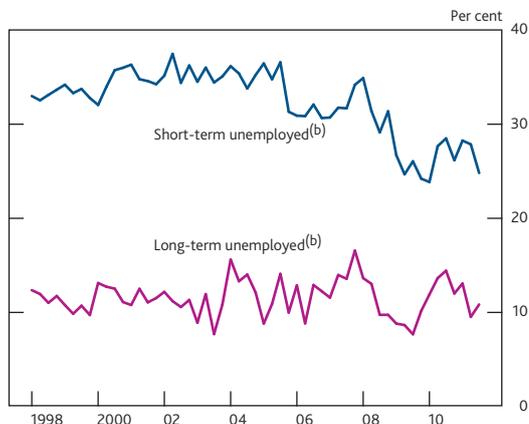
- (a) Rolling three-month measures unless otherwise stated.
 (b) Recessions are defined as at least two consecutive quarters of falling output (at constant market prices) estimated using the latest data. The recessions are assumed to have ended once output began to rise.
 (c) Defined as those people who have been unemployed for more than twelve months divided by the economically active population. Data prior to 1992 are based on non seasonally adjusted, annual LFS microdata. These annual observations correspond to the March-May quarter.

Table 3.A Changes in part-time employment by reason for working part-time

	Changes on a year earlier, thousands				
	Averages	2008	2009	2010	2011 ^(a)
Could not find full-time job	-1	26	250	153	136
Did not want full-time job	47	19	-83	65	-30
Other ^(b)	31	31	-48	3	-79
Total^(c)	76	76	119	221	27

Source: Labour Force Survey.

- (a) Based on the average of quarterly data for 2011 Q1 to Q3 and data for the three months to November.
 (b) Includes those who are ill or disabled, students and those who gave no reason.
 (c) Numbers may not sum to totals due to rounding.

Chart 3.7 Flows from unemployment to employment^(a)

Sources: Labour Force Survey and Bank calculations.

- (a) Based on LFS microdata that have been seasonally adjusted by Bank staff. Data are to 2011 Q3 and based on the 16–64 population.
 (b) Flows into LFS employment by those who had been unemployed for fewer (more) than twelve months divided by the number of people who were unemployed for fewer (more) than twelve months in the previous quarter.

markedly in Q3. Survey measures of companies' employment intentions also weakened in Q3.

Within employment, self-employment rose markedly in Q3. Self-employment has accounted for around a quarter of the rise in private sector employment since 2010 Q1. But as a fraction of total employment, in 2011 Q3 it was only slightly higher than its 1990s' peak (Chart 3.5).

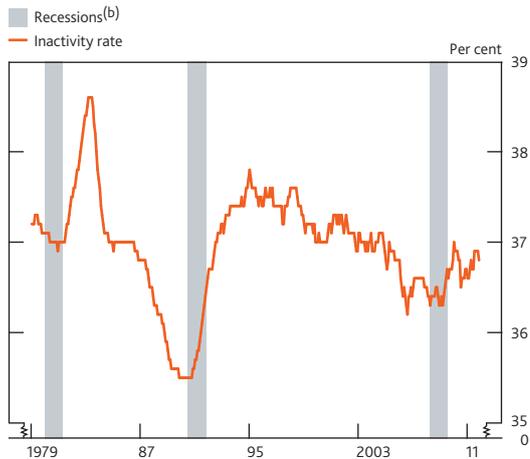
The stabilisation in whole-economy employment in the three months to November suggests that private sector employment growth may have picked up a little over Q4. But business surveys of employment intentions point to continued weakness in private sector employment growth in the near term (Chart 3.4). That could reflect the slowing in output growth that has already occurred (Section 3.1). And, for some businesses, heightened uncertainty around the outlook for demand may lead them to hold off hiring.

Labour supply and labour market tightness

One indicator of the extent to which weak employment growth has fed through into labour market slack is the unemployment rate. According to the LFS, the unemployment rate rose to 8.4% in the three months to November (Chart 3.6). In addition, those employed part-time may also put downward pressure on wages if they are actively seeking a full-time job. The number of people employed part-time who reported that they would prefer, but could not find, a full-time job has risen sharply since 2008 (Table 3.A) and increased further in the three months to November 2011.

The amount of downward pressure that those seeking jobs place on wages will depend on a number of factors, including whether they have the appropriate skills. If people are out of work for a long time, they may miss opportunities to develop skills that they need to compete effectively for jobs. The lower rate at which the long-term unemployed find jobs (Chart 3.7) suggests that they are likely to exert less downward pressure on wages than the short-term unemployed. In addition, a shift in production between sectors could mean some of the unemployed do not have the required skills, or are not in the right place, to fill vacancies. Unless those people retrain or relocate, elevated unemployment may, therefore, place less downward pressure on wages. Moreover, those out of work may also cease seeking work completely.

Long-term unemployment and economic inactivity (those who are not actively seeking work) have changed little recently. The proportion of the active population in long-term unemployment increased following the recession but has been broadly unchanged recently (Chart 3.6). And the rate at which the long-term unemployed find jobs remains close to its pre-recession average. Moreover, although the inactivity rate has increased since the recession (Chart 3.8), for those aged 16–64 the increase is almost entirely accounted for by an

Chart 3.8 Inactivity rate^(a)

Source: ONS (including the Labour Force Survey).

- (a) Those aged 16 or above who are economically inactive as a proportion of the total population aged 16+. Rolling three-month measure.
 (b) Recessions are defined as in Chart 3.6.

increase in students. And both the long-term unemployment and inactivity rates remain lower than following the 1990s recession.

There is, however, some tentative evidence that companies are finding it harder to find suitable employees. Since 2011 Q2, the number of vacancies has been broadly stable but unemployment has increased (Chart 3.9), suggesting that the unemployed are less suited to those vacancies. And some surveys suggest that recruitment difficulties for businesses have increased recently, though recruitment remains easier than on average in the past (Table 3.B).

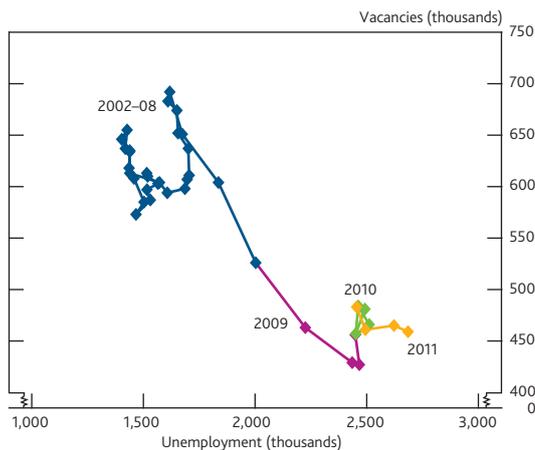
Overall, it is likely that the degree of labour market slack has increased over the past six months. Moreover, it may increase further in the near term, if demand growth remains weak, putting greater downward pressure on wages (Section 4).

3.3 Productivity and companies' spare capacity

Business surveys suggest that capacity pressures were little changed in 2011 Q4, having fallen a little in Q3 (Chart 3.10). There is, however, considerable uncertainty about the absolute amount of spare capacity within companies at the current juncture. During the recession, measured productivity fell and has subsequently grown only sluggishly. Absent a change in underlying productivity, that would point to a large margin of spare capacity within companies. In contrast, although surveys indicated a widening in spare capacity in the recession, they now suggest that there is considerably less (Chart 3.10). That in turn suggests that underlying productivity, and therefore the supply capacity of the economy, has grown only slowly at best.

The box on page 28 shows that there have been considerable differences in the evolution of productivity across industries since the start of the financial crisis. For some sectors, productivity growth has continued at around or above the rates seen prior to the recession. But, for other sectors, productivity growth has been substantially weaker than before the recession, or even negative. Output, and hence productivity, in some sectors is hard to measure accurately.⁽¹⁾ So some of the recent weakness could reflect mismeasurement. But mismeasurement is unlikely to explain all of the differences between sectors.

For some sectors, some of the weakness in productivity may be transitory, meaning that there is ample spare capacity available. That would be the case if some companies were particularly reluctant to lay off employees — for example, if output had been expanding rapidly prior to the recession or if

Chart 3.9 Unemployment and vacancies^(a)

Source: ONS (including the Labour Force Survey).

- (a) Quarterly data except for the final data point, which shows data for the three months to November 2011. Vacancies exclude agriculture, forestry and fishing.

Table 3.B Survey indicators of recruitment difficulties

	Averages since 1998 ^(a)	2010	2011			
			Q1	Q2	Q3	Q4
Agents' scores ^(b)	0.6	-1.8	-0.7	-0.5	-0.6	-1.0
BCC ^(c)	59	49	47	49	49	56
CBI skilled staff ^(d)	23	12	17	16	16	18
CBI unskilled staff ^(d)	6	2	3	2	2	2

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

- (a) Unless otherwise stated.
 (b) End-quarter observations on a scale of -5 to +5, with positive scores indicating greater recruitment difficulties in the most recent three months compared with the situation a year earlier.
 (c) Percentage of respondents reporting recruitment difficulties over the past three months. Non seasonally adjusted. Services and non-services balances are weighted using employee jobs shares from Workforce Jobs.
 (d) Balances of respondents expecting skilled/unskilled labour to limit output/business over the next three months (in the manufacturing sector) or over the next twelve months (in the financial, business and consumer services sectors), weighted using employee jobs shares from Workforce Jobs. Averages are since 1998 Q4.

(1) For example, for the difficulties in measuring output in the financial sector, see Burgess, S (2011), 'Measuring financial sector output and its contribution to UK GDP', *Bank of England Quarterly Bulletin*, Vol. 51, No. 3, pages 234–46.

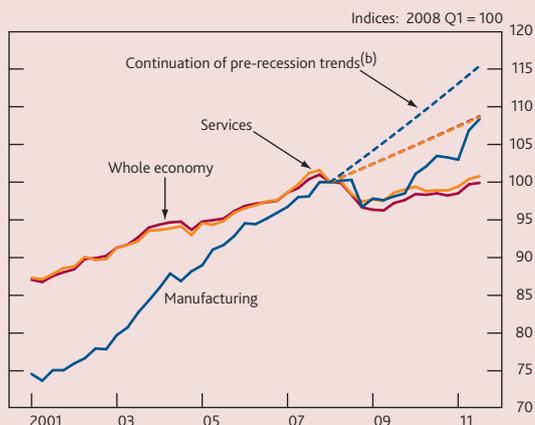
How widespread has the weakness in productivity growth been?

Whole-economy measured productivity has been weak since the recession and remains substantially below a continuation of its pre-recession trend. But sectoral productivity data show that there have been large differences in the evolution of productivity both between sectors and subsectors.

The ONS published sectoral productivity data on a 2007 standard industrial classification basis for the first time in October 2011. There is some uncertainty around the measurement of labour productivity, but the data suggest that some sectors have experienced bigger and more persistent falls in productivity, relative to their pre-recession trends, than others. At face value, that suggests that companies in the former sectors have a greater amount of spare capacity, on average, than those in the latter.

While both manufacturing and service sector productivity fell during the recession and remain substantially below a continuation of their pre-recession trends, the evolution of productivity in these sectors has been quite different (Chart A). Productivity in manufacturing, which makes up around 10% of UK output, has grown at around its pre-recession average rate during the recovery. In contrast, productivity in the service sector, which makes up around 75% of UK output, has grown unusually weakly during the recovery. And within different service subsectors there have also been very different experiences (Chart B).

Chart A Whole-economy and sectoral labour productivity^(a)



(a) Output per hour.
 (b) Continuations of pre-recession trends are calculated by projecting forward labour productivity from 2008 Q2 using the average quarterly growth rate between 1997 Q2 and 2008 Q1.

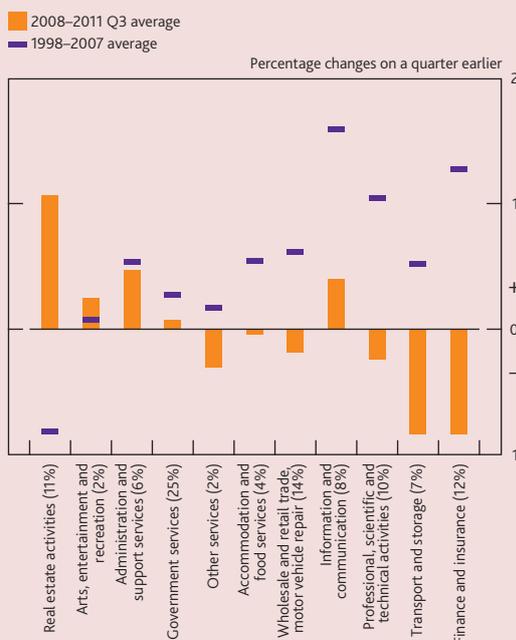
Some service subsectors (as shown towards the left-hand side of Chart B) have, since the start of the recession, experienced rates of productivity growth close to or above their pre-recession averages. In these subsectors, the levels of productivity are around or higher than those consistent with a continuation of their pre-recession trends.

Other subsectors (as shown towards the right-hand side of Chart B) have seen productivity growth significantly weaker than their pre-recession averages. Indeed for some subsectors — such as ‘Finance and insurance’, and ‘Transport and storage’ — productivity has, on average, contracted each quarter since the start of the financial crisis.

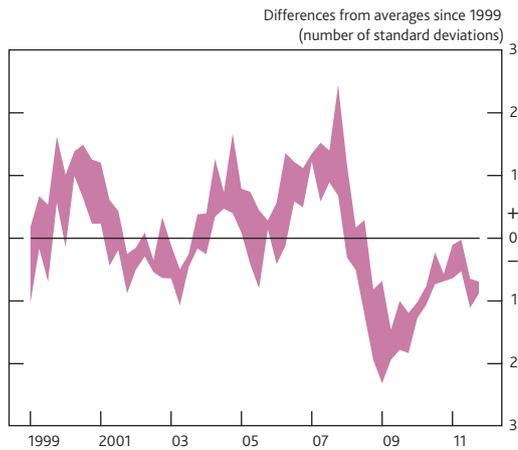
It is not obvious that those subsectors that have exhibited similar patterns in productivity growth have done so for similar reasons. But it is striking that some of those subsectors that had particularly strong measured productivity growth prior to the crisis — shown by the purple lines in Chart B — are also those where productivity has grown particularly slowly, or even fallen, following the crisis.

Overall, the data suggest that developments in whole-economy productivity mask very different developments within particular subsectors. In evaluating the amount of spare capacity within the economy, the Committee will continue to monitor developments in sectoral productivity.

Chart B Services labour productivity by subsector^(a)

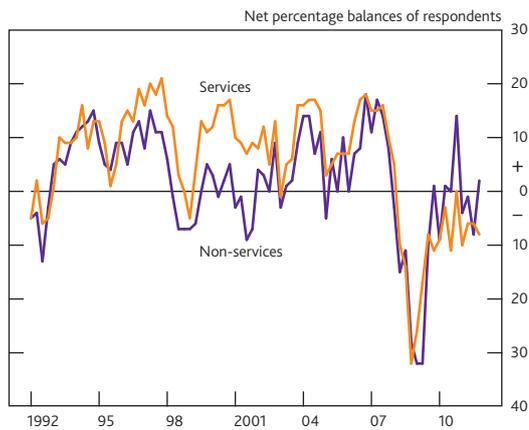


(a) Output per hour. Subsectors are ordered by the difference between 1998–2007 average productivity growth and 2008–2011 Q3 average productivity growth. The number in parentheses is each sector’s nominal share in 2008 services value added. Shares do not sum to 100 due to rounding.

Chart 3.10 Survey measures of capacity utilisation^(a)

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

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

Chart 3.11 Survey measures of companies' cash flow^(a)

Source: BCC.

(a) The net percentage balance of respondents reporting that cash flow had 'improved' relative to 'worsened' over the past three months. The data are non seasonally adjusted.

their staff had particular skills that are in short supply. Measured productivity in those sectors could then increase rapidly, either as demand in those sectors recovers or if employers decide to cut back employment.

There are, however, reasons why underlying productivity growth in some sectors may have been persistently impaired. For instance, unemployment has risen and the average hours worked by those in employment has fallen, reducing the scope for people to acquire skills on the job.

It is also likely that capital stock growth has weakened, restraining capacity growth. Investment in fixed capital has been low in recent years (Section 2). And company insolvencies have risen, albeit by less than they did after previous recessions: the associated capital scrapping will also have depressed the growth rate of the capital stock.

Tight credit conditions in the aftermath of the banking crisis may also have impaired productivity growth by impeding the flow of finance to new or dynamic companies, as there is evidence that new businesses are more productive than existing ones.⁽¹⁾ Tight credit conditions are also likely to have reduced the availability of working capital, restricting the ability of some businesses to produce. One indicator of this is cash flow, which the BCC survey suggests has remained relatively weak since the end of the recession (**Chart 3.11**). To the extent that credit conditions remain tighter than prior to the crisis, working capital constraints may persistently reduce some businesses' productive capacity.

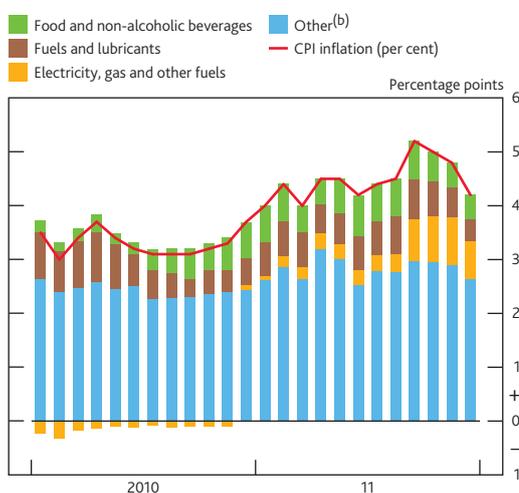
Overall, the MPC judges that underlying productivity growth is likely to have been weaker than usual since the start of the recession, although there is considerable uncertainty in any evaluation of underlying productivity growth. It is, however, likely that, alongside substantial spare capacity within the labour market, the margin of spare capacity remaining within companies is wider than normal. Section 5 discusses the prospects for future productivity growth.

(1) Disney, R, Haskel, J and Heden, Y (2003), 'Restructuring and productivity growth in UK manufacturing', *Economic Journal*, Vol. 113, Issue 489, pages 666–94.

4 Costs and prices

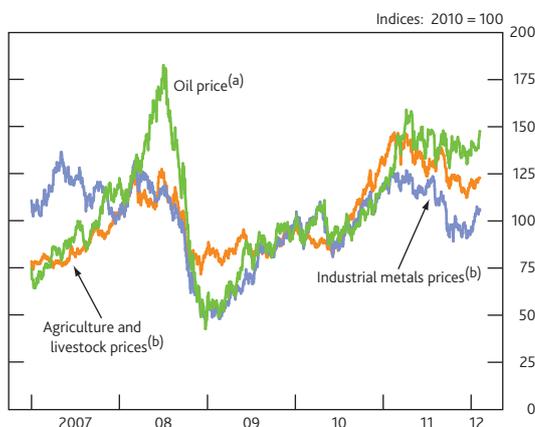
CPI inflation fell to 4.2% in December 2011, down 1 percentage point from its September peak. Inflation should continue to fall sharply in the near term as the impact of past rises in VAT and petrol prices drop out of the twelve-month comparison. Earnings growth has continued to be subdued. Consumer-facing companies' profit margins appear to be below their pre-recession level. Indicators of inflation expectations have been mixed.

Chart 4.1 Contributions to CPI inflation^(a)



(a) Contributions to annual CPI inflation. Data are non seasonally adjusted.
 (b) Includes a rounding residual.

Chart 4.2 US dollar oil and commodity prices



Sources: Bloomberg, S&P indices and Thomson Reuters Datastream.

(a) Brent forward prices for delivery in 10–21 days' time in US dollars.
 (b) Calculated using S&P (US dollar) commodity price indices.

CPI inflation fell sharply between September and December 2011. That fall in inflation was largely accounted for by lower contributions from food and petrol prices (Section 4.1). Inflation is likely to carry on falling in early 2012 as the impact of the rise in the standard rate of VAT to 20% in January 2011 drops out of the twelve-month comparison and the contribution of petrol prices continues to diminish.

The evolution of inflation further ahead depends, in part, on commodity and import prices (Section 4.2). It also depends on domestic influences: labour costs, companies' pricing behaviour and inflation expectations (Section 4.3).

4.1 Consumer prices

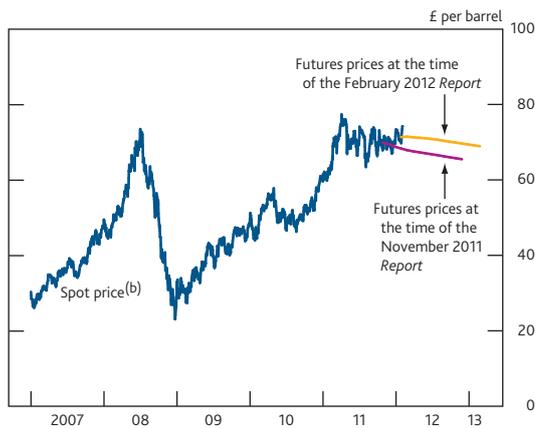
As discussed in previous *Reports*, inflation has been elevated over the past few years, reflecting the impact of increases in VAT, energy prices and import prices. The contribution of energy prices to CPI inflation declined during late 2011 and is likely to continue to fall further in the near term, as will the contribution from VAT. The remainder of this subsection outlines recent developments and the near-term outlook for inflation in more detail.

Recent developments in CPI inflation

Inflation fell from 5.2% in September to 4.2% in December.⁽¹⁾ That fall was largely accounted for by a decrease in the direct contributions from food and petrol prices (Chart 4.1).

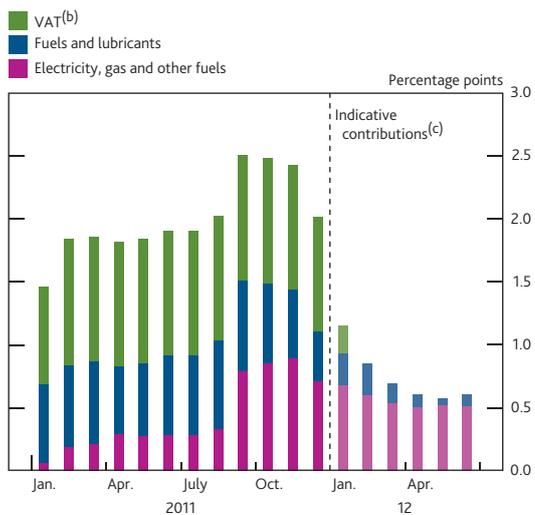
The fall in consumer food price inflation between September and December in part probably reflected the impact of price reductions by several supermarkets in an attempt to boost their market share. It may also have reflected lower food commodity prices (Chart 4.2).

(1) With October's CPI outturn of 5.0% lying more than 1 percentage point away from the target, the Governor, on behalf of the Committee, wrote an open letter to the Chancellor. The letter is available at www.bankofengland.co.uk/monetarypolicy/pdf/cpiletter111115.pdf.

Chart 4.3 Sterling oil prices^(a)

Sources: Bank of England, Bloomberg and Bank calculations.

- (a) The futures prices shown are averages during the fifteen working days to 8 February 2012 and 9 November 2011. Each futures curve assumes that the sterling-dollar exchange rate remains constant at its average during those periods.
 (b) Brent forward prices for delivery in 10–21 days' time converted into sterling.

Chart 4.4 Direct contribution of energy prices to CPI inflation and Bank staff's central estimate of VAT contribution^(a)

Sources: Bloomberg, Department of Energy and Climate Change, ONS and Bank calculations.

- (a) Contributions to annual CPI inflation. Data are non seasonally adjusted.
 (b) The estimate is based on Bank staff's assessment that three quarters of the increase in VAT in January 2011 was passed into consumer prices by the end of 2011 Q1. The VAT contribution is adjusted to allow for the fact that changes in VAT are already incorporated in the fuels and lubricants contribution.
 (c) Bank staff estimates. Electricity, gas and other fuels estimates are based on current price changes announced by utility companies. Fuels and lubricants estimates use Department of Energy and Climate Change petrol price data for January 2012 and are then based on the February 2012 sterling oil futures curve shown in Chart 4.3.

The contribution of petrol prices to CPI inflation fell, largely reflecting oil price developments. Oil prices, and therefore petrol prices, rose sharply during late 2010 and early 2011 (Chart 4.3). Those rises began to drop out of the twelve-month comparison during late 2011 and as a result the contribution of petrol prices to inflation fell back.

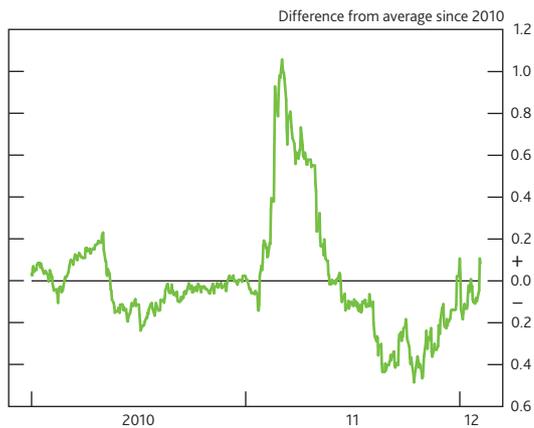
The near-term outlook for CPI inflation

During early 2012 the contribution of petrol prices to inflation is likely to continue to fall. Unlike in January 2011, fuel duty did not rise in January 2012, as a previously proposed increase was delayed until August 2012 in the 2011 Autumn Statement. The contribution of fuel duty to CPI inflation will consequently fall in January 2012. Although there is considerable uncertainty about the outlook for oil prices (Section 4.2), if they evolve in line with the futures curve (Chart 4.3), both twelve-month oil price inflation and the contribution of petrol prices to CPI inflation should carry on falling in the near term (Chart 4.4).

The contribution of retail gas and electricity prices to inflation is also likely to decline in the near term. The major domestic energy companies have recently announced cuts to some of their retail energy prices that will begin to affect CPI inflation in early 2012. The contribution of retail gas and electricity prices to inflation is nevertheless likely to remain sizable during early 2012, because of the large utility price rises that came into effect in late 2011. The contribution of these rises will drop out of the twelve-month inflation rate during the second half of 2012.

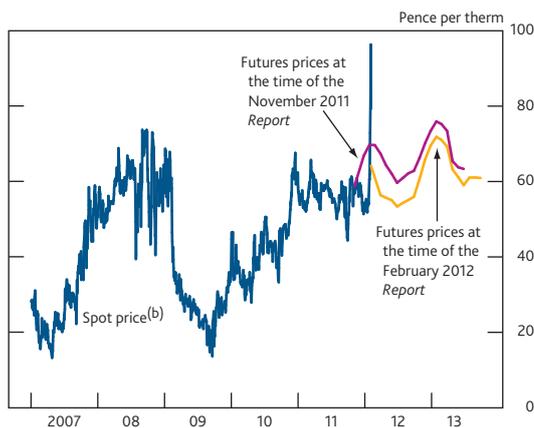
In addition to a waning contribution from energy prices, the impact of the rise in VAT in January 2011 will drop out of the twelve-month inflation calculation in early 2012. VAT is levied on around two thirds of the basket of goods and services covered by the consumer prices index. And Bank staff's central estimate is that around three quarters of the increase in the standard rate of VAT to 20% had been passed into consumer prices by the end of 2011 Q1. CPI inflation is therefore likely to have been boosted by about 1 percentage point during most of 2011 (Chart 4.4). But there is uncertainty about both the timing and magnitude of that effect. For example, it is possible that the rise in VAT was passed through into consumer prices over a longer period. In that case, CPI inflation might fall more gradually over 2012. It is also possible that the amount of pass-through, and so the contribution of VAT to CPI inflation, was different to that assumed in Bank staff's central estimate. For example, alternative assumptions of 50% or 100% pass-through would imply contributions of VAT to inflation of 0.7 and 1.4 percentage points respectively.

Overall, the contribution of VAT and energy prices to CPI inflation is likely to fall by around 1½ percentage points between December 2011 and early 2012 (Chart 4.4).

Chart 4.5 Oil price option-implied asymmetry^(a)

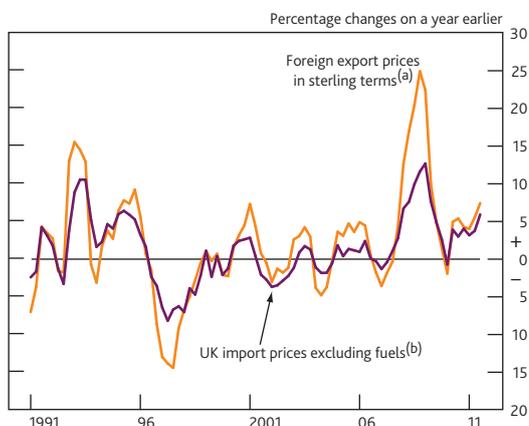
Sources: Bloomberg, New York Mercantile Exchange and Bank calculations.

(a) Three-month measure. Option-implied asymmetry is measured by the skewness of the distribution of returns on West Texas Intermediate light sweet crude oil in US dollars implied by options price data. These calculations assume that investors are risk-neutral. For more details, see Clews, R, Panigirtzoglou, N and Proudman, J (2000), 'Recent developments in extracting information from options markets', *Bank of England Quarterly Bulletin*, February, pages 50–60.

Chart 4.6 Sterling wholesale gas prices^(a)

Sources: Bloomberg, Thomson Reuters Datastream and Bank calculations.

(a) The futures prices shown are averages during the fifteen working days to 8 February 2012 and 9 November 2011.
 (b) One-day forward price of UK natural gas.

Chart 4.7 UK import prices and foreign export prices in sterling terms

Sources: Bank of England, CEIC, Eurostat, ONS, Thomson Reuters Datastream and Bank calculations.

(a) Domestic currency export prices of goods and services of 45 countries weighted according to their shares in UK imports, divided by the sterling effective exchange rate index. The sample does not include major oil exporters.
 (b) Goods and services deflator, excluding the impact of MTIC fraud.

4.2 External influences on inflation

In the long run, inflation is determined by monetary policy. But over shorter horizons, developments in external costs such as energy and import prices can influence the path of inflation. These developments affect CPI inflation directly. For example, some goods and services consumed by households are produced overseas. Changes in energy and import prices also affect inflation indirectly through their impact on businesses' production costs.

Energy prices

The outlook for oil prices is uncertain. As discussed in the *November Report*, oil prices have not fallen substantially despite the deterioration in the outlook for global growth since last summer. That contrasts with developments in the prices of other commodities (**Chart 4.2**). The resilience of oil prices could reflect, in part, unexpectedly weak production and concerns about future oil supply, relating to political developments in Iran and potential disruption to Nigerian output, for example. If concerns about future oil supply are realised, or intensify, oil prices could rise sharply. Recent movements in the prices of option contracts suggest that the relative weight market participants attach to a rise in oil prices over the next three months may have increased (**Chart 4.5**). But oil prices could also fall if world demand weakens sharply.

Prospects for retail gas and electricity prices are also uncertain. Developments in wholesale gas markets are a key determinant of retail prices, as gas accounts for a significant proportion of utilities suppliers' costs. Wholesale gas spot prices were extremely volatile in the period running up to the MPC's February meeting. Gas spot prices rose sharply, largely reflecting the impact of cold weather in Europe, before falling somewhat (**Chart 4.6**). But gas futures prices, particularly for the first half of 2012, were a little lower in the fifteen working days to 8 February than three months earlier (**Chart 4.6**).

Non-energy import prices

CPI inflation has been boosted over the past few years by a substantial rise in import prices. Four-quarter import price inflation excluding fuels picked up in 2008–09, following the depreciation of sterling between mid-2007 and the end of 2008. More recently, import price inflation has increased as foreign export price inflation has risen (**Chart 4.7**).

Import price inflation is likely to decline over 2012, as world export price inflation slows. In part, the evolution of foreign export prices reflects past developments in commodity prices. Following earlier rises in commodity prices, and hence world export price inflation, many commodity prices have fallen back over the past six months (**Chart 4.2**), probably reflecting the weaker prospects for global demand. That should put downward pressure on world export prices.

The outlook for foreign export prices, and so import price inflation, is, however, uncertain. And there is also uncertainty about how much more pass-through of past increases in import prices into consumer prices is still to come. While most of the increase in import prices that occurred in the aftermath of sterling's depreciation in 2007–08 has probably already passed through, it is likely that the most recent rises have not yet been fully reflected in consumer prices. Nevertheless, the upward pressure from import prices on CPI inflation is likely to wane over the first half of the MPC's forecast period (Section 5).

4.3 Domestic influences on inflation

In addition to those external influences, the outlook for inflation depends on domestic factors. One such factor is the cost of labour, which in aggregate accounts for a significant part of companies' costs. Companies' mark-ups over costs will also matter. And both wages and prices will be influenced by households' and businesses' inflation expectations.

Labour costs

Total private sector average weekly earnings (AWE) growth remains well below its pre-recession average, and has decreased a little since the middle of 2011 (Table 4.A). The decline in earnings growth towards the end of the year reflects a fall in the bonus contribution. And the contribution of bonuses to wage growth may well fall further in 2012 Q1: market contacts suggest that financial services bonuses will be substantially lower in that quarter than they were a year earlier. Although financial services account for a relatively small part of the economy, bonuses in that sector can account for a large proportion of total bonus payments, and therefore of changes in the aggregate bonus contribution. But such movements probably contain little information about future total AWE growth.

Excluding bonuses, wage growth has been broadly stable during 2011, at around 2%. Private sector settlements drifted up over the year, in part reflecting the increase in the National Minimum Wage in October 2011. But settlements remained low relative to their historical average (Table 4.A), despite elevated inflation. Wage growth not accounted for by settlements or bonuses — referred to as regular pay drift — also remained weak. The weakness of settlements and pay drift is likely to reflect both the downward pressure from unemployment, and also continued subdued productivity growth.

Survey evidence from the Bank's Agents suggested that earnings in 2012 are likely to rise at a broadly similar rate to 2011. But the factors driving wage growth this year were expected to be somewhat different to those in 2011. For example, the survey suggested that changes in productivity will exert upward pressure on wage growth this year, rather

Table 4.A Private sector earnings^(a)

	Percentage changes on a year earlier				2011		
	Averages 2001–07	2008	2009	2010	H1	Q3	Nov. ^(b)
(1) AWE regular pay	3.9	3.7	1.2	1.5	2.1	1.7	2.1
(2) Pay settlements ^(c)	3.3	3.5	2.5	1.7	2.0	2.2	2.3
(1)–(2) Regular pay drift ^(d)	0.6	0.2	-1.3	-0.2	0.1	-0.5	-0.3
(3) Total AWE	4.3	3.5	-0.9	2.1	2.7	2.4	2.2
(3)–(1) Bonus contribution ^(d)	0.4	-0.2	-2.1	0.6	0.6	0.7	0.1

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

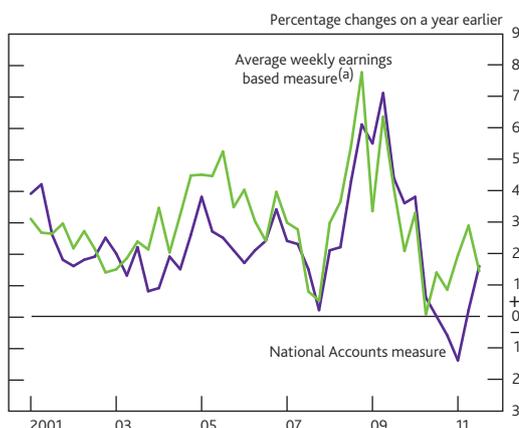
(a) Based on quarterly data unless otherwise stated.

(b) Data in the two months to November.

(c) Average over the past twelve months, based on monthly data.

(d) Percentage points.

Chart 4.8 Measures of unit labour costs



Sources: ONS and Bank calculations.

(a) Calculated using average weekly earnings data, adjusted using the ratio of National Accounts compensation and wages and salaries data, and divided by output per worker.

Recent developments in consumer-facing companies' profit margins

One important determinant of changes in inflation is companies' pricing decisions. Companies typically set their prices as a mark-up over costs. Changes in these mark-ups are therefore central to the outlook for inflation.

The profit margins that are likely to be most important for the outlook for consumer prices are those of consumer-facing companies.⁽¹⁾ But robust, timely data on such companies' margins are not readily available. This box uses what data are available to shed light on how those margins are likely to have evolved over the recent past and discusses how future changes might affect CPI inflation.

Recent developments in companies' profit margins

One indicator of companies' profit margins in aggregate is the corporate profit share. The latest National Accounts data suggest that the corporate profit share was below its pre-recession average level in 2011 Q3 (**Chart 4.9**). But, within that aggregate measure, it is likely that different businesses' profits have developed in different ways: some companies' profit margins will have risen relative to the aggregate, while others may be further below their pre-recession level.

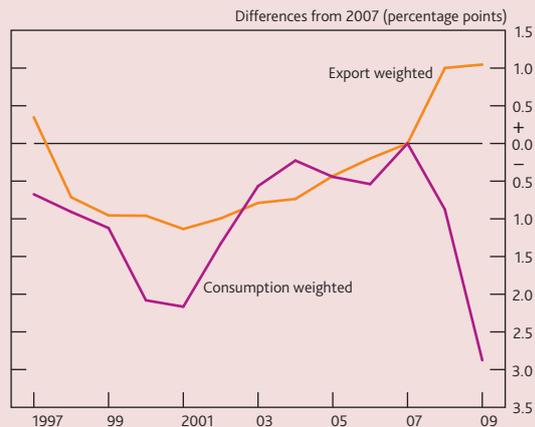
Broad indicators of profit margins in different expenditure sectors can be constructed using data from the Supply and Use tables. For example, the measures shown in **Chart A** weight together profit margins in each of over 100 industries by the importance of each industry's output in household consumption and exports. These data suggest that a measure of profit margins weighted by industry shares of consumption fell sharply between 2007 and 2009 (**Chart A**), and was below its pre-recession average in 2009. In contrast, the equivalent indicator weighted by industry shares of exports rose.

Those movements are likely, in large part, to reflect different developments in the prices charged by each sector. Between 2007 and 2009, sterling export prices rose much more quickly than domestic consumer prices (**Chart B**), as exporters did not appear to pass through in full the fall in sterling in 2007–08 into their foreign currency prices.

Supply and Use tables covering the period since 2009 are unfortunately not yet available. But data on how the prices charged by each sector are likely to have changed relative to their costs shed some light on the evolution of margins since then.

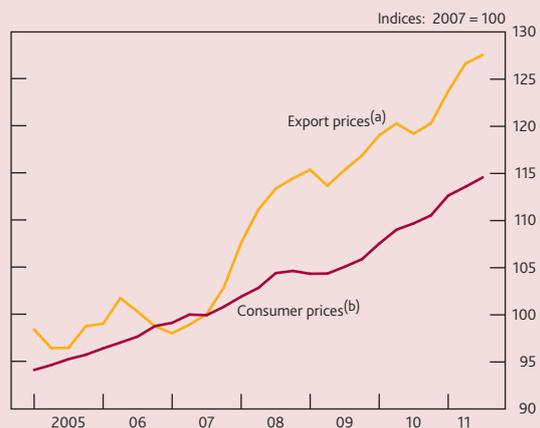
Since 2009, export prices have continued to increase at a somewhat faster rate than consumer prices (**Chart B**). If

Chart A Indicative sectoral profit margins^(a)



(a) Profit margins are calculated for each of 110 SIC 2007 industries, as gross operating surplus and mixed income divided by total output at basic prices. These margins are then weighted together by the share of each industry's principal product in total private final consumption and total exports to give sectoral margins for consumption and exports respectively.

Chart B Export and consumer prices



(a) National Accounts export deflator, excluding the estimated impact of MTIC fraud.
(b) National Accounts consumer expenditure deflator.

exporters' and consumer-facing companies' unit costs have both increased at a similar rate, then those sectors' margins will have diverged further.

There are no direct measures of each sector's unit costs. It is possible that raw material costs have risen more quickly for exporters than for consumer-facing companies, as their production tends to be more import and energy-intensive. But labour costs, which account for a significant proportion of business costs, may have, if anything, grown less quickly for exporters than for consumer-facing companies. For example, unit wage costs in manufacturing, which accounts for a greater proportion of exports than consumption, appear to have risen by less than those in the service sector over the past couple of years. Overall, there is little evidence that exporters' costs have risen significantly more rapidly than those of consumer-facing companies.

Given that National Accounts data suggest that the aggregate corporate profit share has not yet recovered to its pre-recession level, and the evidence at a sectoral level presented above, it seems likely that consumer-facing companies' margins are still well below their average pre-recession level.

The outlook for consumer-facing companies' profit margins

Consumer-facing companies' profit margins can remain lower than usual for a period, but eventually they are likely to need to rise in order to maintain a sustainable rate of return on capital. How margins are restored is important for the inflation outlook. If companies restore margins by raising their prices rapidly that could put upward pressure on CPI inflation. Alternatively, profit margins could be restored if the growth of costs, in particular labour costs, is subdued. That would be associated with little upward pressure on inflation.

The recovery in consumer-facing companies' margins could occur as part of a rebalancing of resources towards the export sector. Some consumer-facing companies with relatively low productivity and narrow margins may shift supply towards foreign markets, or might go out of business, with their resources absorbed by the export-facing sector. In that case, the average profit margin in the consumer-facing sector would rise. But to the extent that those businesses were exerting relatively little competitive pressure on the prices of other

companies, the increase in average margins might not be associated with significant upward pressure on CPI inflation.

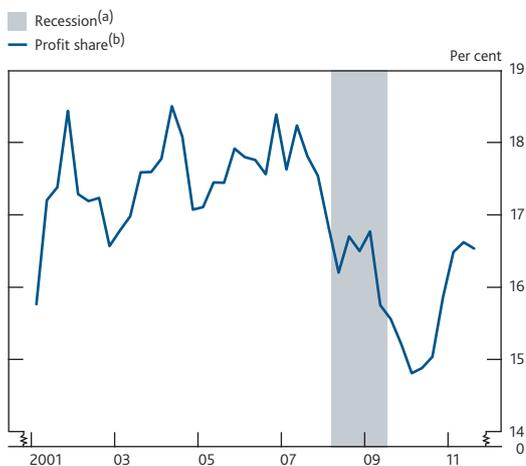
A shift in resources towards the export sector could alter the degree of competition in each sector, lowering it in the consumer-facing sector and increasing it in the export-oriented sector. That would tend to increase the market power of consumer-facing businesses relative to exporters, so could lead to a rise in relative mark-ups, and prices, in the consumer-facing sector. But, in addition, the shift towards exports would change the sectoral demand for labour. In that case, labour costs could grow more slowly for companies in the consumer-facing sector relative to the export-oriented sector.

Conclusion

It is likely that consumer-facing companies' margins remain below their pre-recession average level, and may need to be rebuilt at some point. If margins are restored through weak labour cost growth in the consumer sector that might exert little upward pressure on CPI inflation. But if businesses raise their prices rapidly in order to restore margins that could put upward pressure on inflation.

(1) The mark-up and profit margin are not identical. Companies can directly alter the mark-up that they charge over their costs, but not profit margins, which will be determined by demand for the business's output, given its choice of mark-up. But mark-ups are hard to measure, and profit margins can serve as useful indicators of mark-ups. For more details, see Macallan, C and Parker, M (2008), 'How do mark-ups vary with demand?', *Bank of England Quarterly Bulletin*, Vol. 48, No. 2, pages 167–73.

Chart 4.9 Corporate profit share (excluding financial corporations and the oil sector)



Sources: ONS and Bank calculations.

(a) A recession is defined as at least two consecutive quarters of falling output (at constant market prices) estimated using the latest data. The recession is assumed to end once output began to rise.

(b) PNFs' (excluding continental shelf companies) gross trading profits (excluding the alignment adjustment), divided by gross value at factor cost.

than the downward pressure expected in 2011. And, on balance, inflation expectations were not judged likely to raise earnings growth in 2012, in contrast to 2011 when they were widely cited as a factor that would exert upward pressure.

Although earnings growth has recently remained low, growth of labour costs per unit of output has been less weak. Because this measure reflects developments in both earnings and labour productivity, it is more relevant for companies' pricing decisions. Alternative available measures of unit labour cost growth diverged somewhat during 2010 and 2011 H1, but were similar in 2011 Q3 (Chart 4.8). That leaves their growth rates below their 2001–07 averages, but by less than measures of nominal earnings growth, reflecting the recent weakness of productivity growth (Section 3).

Profit margins

The share of profits in national income — a measure of profit margins — remains below its pre-recession average (Chart 4.9). And evidence presented in the box on pages 34–35 suggests that consumer-facing industries' margins — which are most directly relevant for the outlook for consumer prices — remain even further below their

Table 4.B Indicators of longer-term inflation expectations^(a)

Per cent	Averages ^(b) since 2006	2010	2011		2012 Q1 ^(c)
			H1	H2	
Expectations (number of years ahead)					
Households					
Bank/NOP (5) ^(d)	3.2	3.2	3.4	3.5	n.a.
Barclays Basix (5) ^(d)	3.9	3.8	3.7	4.0	n.a.
YouGov/Citigroup (5–10) ^(d)	3.4	3.3	3.6	3.6	3.2
Professional forecasters					
Bank forecasters' survey (3)	2.0	2.0	2.2	2.2	2.1
HMT forecasters' survey (4) ^(e)	2.1	2.2	2.1	2.2	n.a.
Market-based					
RPI implied from swaps (5–10) ^(f)	3.4	3.5	3.4	3.3	3.4

Sources: Bank of England, Barclays Capital, Bloomberg, Citigroup, GfK NOP, HM Treasury, YouGov and Bank calculations.

(a) Data are non seasonally adjusted.

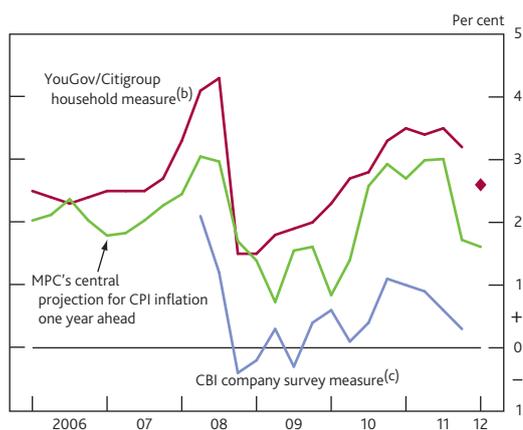
(b) Since 2009 Q1 for Bank/NOP data. Since 2008 Q3 for Barclays Basix data.

(c) YouGov/Citigroup data are for January. RPI implied from swaps data are the average from 1 January to 8 February.

(d) The questions ask about expected changes in prices, but do not reference a specific price index. Measures are based on the median estimated price change.

(e) Taken from *Forecasts for the UK economy: a comparison of independent forecasts*. Based on the average of medium-term projections.

(f) Five-year, five-year forward RPI inflation implied from swaps.

Chart 4.10 Inflation expectations for a year ahead^(a)

Sources: Bank of England, CBI (all rights reserved), Citigroup, ONS and YouGov.

(a) Data are non seasonally adjusted.

(b) Measure of households' median inflation expectations one year ahead. The question asks about expected changes in prices, but does not reference a specific price index. The diamond shows data for January.

(c) Manufacturing, business/consumer services and distribution sector data are weighted together using nominal shares in value added. Companies are asked about the expected percentage price change over the coming twelve months in the markets in which they compete.

pre-recession average level. It is likely that companies will seek to restore those margins at some point. If they are restored through weak unit labour cost growth in the consumer sector, then that would exert little upward pressure on CPI inflation. But if businesses increase the rate at which they raise prices in order to restore margins, then that could put upward pressure on inflation. The outlook for profit margins is discussed in Section 5.

Inflation expectations

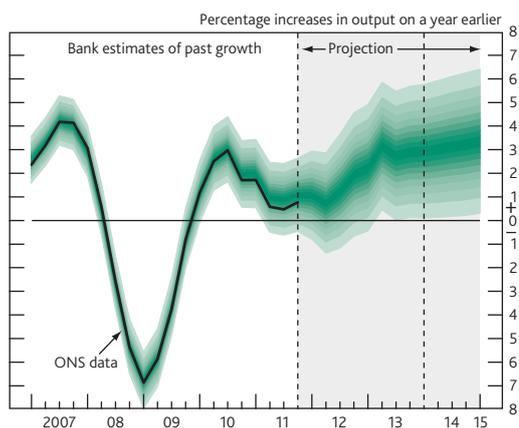
How domestic wages and prices evolve depends, in part, on developments in inflation expectations. Over the recent past, movements in measures of longer-term inflation expectations have been somewhat mixed, but most indicators have remained relatively close to their series averages (Table 4.B).

But even if longer-term inflation expectations remain well anchored, there could be upward pressure on wages and prices if households and companies expect inflation to return to the target relatively slowly. Households' expectations for inflation a year ahead remained elevated in 2011 Q4. And the CBI measure of companies' inflation expectations only fell a little (Chart 4.10). That is in contrast to the MPC's central projection for inflation, which fell sharply between August and November 2011. Households and companies might take time to revise their inflation expectations. For example, if they use past inflation outturns as indicators of future inflation, inflation expectations for a year ahead should fall back over the coming months as inflation declines. Consistent with that, households' year-ahead inflation expectations in the monthly YouGov/Citigroup survey fell by 0.5 percentage points between December 2011 and January 2012 (Chart 4.10).

5 Prospects for inflation

Inflation has fallen from its peak in late 2011. It is likely to decline further during 2012 as the contributions of the past rises in VAT and energy prices dissipate, and spare capacity weighs on wages and prices. But how fast and how far inflation will fall remain uncertain, and will depend, in part, on the strength of demand. Output contracted a little in the final quarter of 2011. Growth is likely to be volatile in the near term but strengthen gradually thereafter, supported by a recovery in households' real income growth and the expansionary stance of monetary policy. But headwinds from the weak external environment, tight credit conditions and the fiscal consolidation are likely to continue to drag on spending. Those headwinds mean that some margin of economic slack is likely to weigh on inflation over the forecast period. Under the assumptions that Bank Rate moves in line with market interest rates and the stock of purchased assets remains at £325 billion, inflation is judged somewhat more likely to be below the target than above it for a good part of the forecast period. But by the end of the period those risks are judged to be broadly balanced.

Chart 5.1 GDP projection based on market interest rate expectations and £325 billion asset purchases



The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £325 billion and remains there throughout the forecast period. 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 growth 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 10 occasions. In any particular quarter of the forecast period, GDP is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions GDP growth can fall anywhere outside the green area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In Chart 5.1, the probabilities in the lower bands are the same as those in the upper bands at Years 1, 2 and 3. 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.

5.1 The projections for demand and inflation

Inflation has declined from its peak in September 2011, but remains above the MPC's 2% target. Inflation should fall further this year, but the pace and extent of that moderation will depend on the balance between demand and potential supply, on the extent of external price pressures, and on households' and businesses' expectations of future inflation. The challenge for the MPC is judging how those factors affect the balance of risks to inflation around the target in the medium term.

Chart 5.1 shows the outlook for real GDP growth, on the assumption that Bank Rate follows a path implied by market interest rates. Along with all the other charts displaying the MPC's latest projections in this section, Chart 5.1 assumes that the stock of purchased assets financed by the issuance of central bank reserves remains at £325 billion throughout the forecast period.

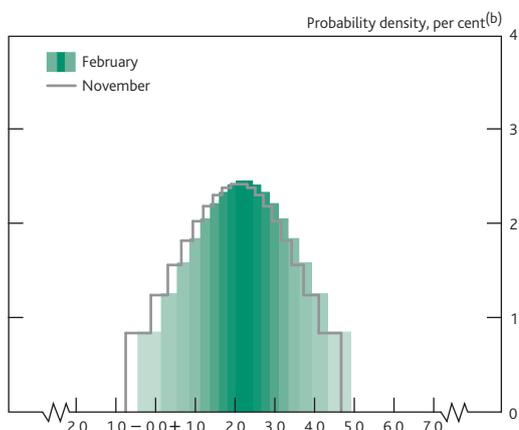
Output is estimated by the ONS to have contracted slightly in the final quarter of 2011. That followed a period of sluggish growth, as falling real incomes, tight credit conditions and subdued household and business confidence weighed on spending. But monthly indicators for January point to a pickup in output at the beginning of this year. And households' real income growth should recover during 2012 as inflation falls back. Quarterly GDP growth is likely to be volatile over 2012, given one-off factors including the additional bank holiday associated with the Queen's Diamond Jubilee. Four-quarter

GDP growth is projected to remain weak in the near term, before strengthening gradually as consumption growth picks up, and, further ahead, business investment rebounds from its current depressed level. The outlook for growth is judged to be broadly similar to that in the November *Report* (Charts 5.2 and 5.3).

There continue to be substantial uncertainties surrounding the outlook for growth. The most significant threat to the domestic recovery stems from developments in the euro area, where there remain concerns about the indebtedness and competitiveness of some member countries. The reforms necessary to deal with those concerns are likely to weigh on euro-area growth throughout the forecast period. But a failure to undertake those reforms could trigger a disorderly outcome and result in sharply lower euro-area growth. That would not only affect UK exports, but would also have substantial depressing effects on UK activity through financial sector linkages and through its effects on confidence. To the extent that such risks have already adversely affected asset prices, bank funding costs and confidence, they are incorporated in the MPC's projections. But, as was the case in the past two *Reports*, the MPC sees no meaningful way to quantify the size and likelihood of the most extreme risks associated with developments in the euro area and they are therefore excluded from the fan charts.

Growth will also depend on a range of domestic factors, including: the extent to which households have still to adjust their spending in response to lower incomes and greater uncertainty; the evolution of productivity; the cost and availability of credit to households and businesses; and the

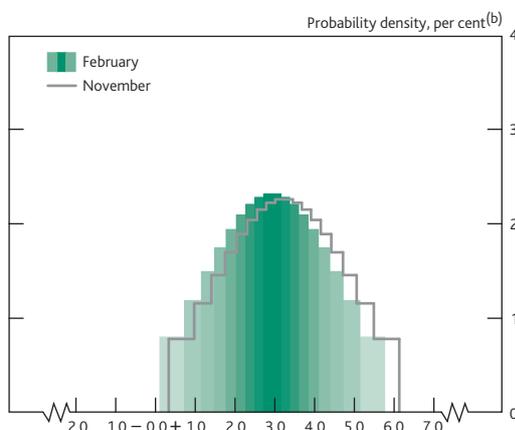
Chart 5.2 Projected probabilities of GDP growth in 2013 Q1 (central 90% of the distribution)^(a)



(a) Charts 5.2 and 5.3 represent cross-sections of the GDP growth fan chart in 2013 Q1 and 2014 Q1 for the market interest rate projection. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £325 billion and remains there throughout the forecast period. The coloured bands in Charts 5.2 and 5.3 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 GDP growth in 2013 Q1 and 2014 Q1 would lie somewhere within the range covered by the histogram on 90 occasions. GDP growth would lie outside the range covered by the histogram on 10 out of 100 occasions. The grey outlines in Charts 5.2 and 5.3 represent the corresponding cross-sections of the November 2011 *Inflation Report* fan chart, which was conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remained at £275 billion throughout the forecast period.

(b) Average probability within each band; the figures on the y-axis indicate the probability of growth being within ± 0.05 percentage points of any given growth rate, specified to one decimal place. As the heights of identically coloured bars on either side of the central projection are the same, the ratio of the probability contained in the bars below the central projection, to the probability in the bars above it, is given by the ratio of the width of those bars.

Chart 5.3 Projected probabilities of GDP growth in 2014 Q1 (central 90% of the distribution)^(a)



Financial and energy market assumptions

As a benchmark assumption, the projections for CPI inflation and GDP growth described in **Charts 5.1** and **5.6** are conditioned on a path for Bank Rate implied by market interest rates (**Table 1**). In the period leading up to the MPC's February decision, the path implied by forward market interest rates was for Bank Rate to remain at 0.5% until 2013 Q3 and to rise gradually thereafter. The path for Bank Rate at the time of the February *Report* was, on average, 0.2 percentage points lower than that assumed in the November *Report*.

Table 1 Conditioning path for Bank Rate implied by forward market interest rates^(a)

Per cent	2012				2013				2014				2015
	Q1 ^(b)	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
February	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0
November	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	

(a) The data are fifteen working day averages of one-day forward rates to 8 February 2012 and 9 November 2011 respectively. The curves are based on overnight index swap (OIS) rates.

(b) February figure for 2012 Q1 is an average of realised spot rates to 8 February, and forward rates thereafter.

The February projections are conditioned on an assumption that the total stock of asset purchases financed by the creation of central bank reserves increases to £325 billion and then remains at that level throughout the forecast period, higher than the conditioning assumption of £275 billion of purchases underlying the November projections.

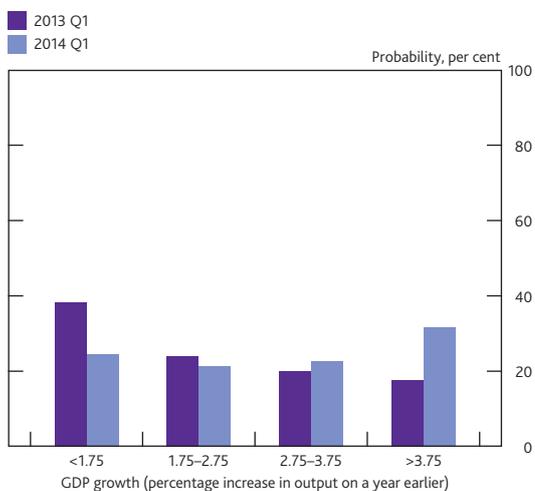
The starting point for sterling's effective exchange rate index (ERI) in the MPC's projections was 81.1, the average for the fifteen working days to 8 February. That was 1.3% above the starting point for the November projections. Under the MPC's usual convention,⁽¹⁾ the exchange rate is assumed to remain broadly flat, and is a little higher throughout the forecast period than assumed in November.

The starting point for UK equity prices in the MPC's projections was 2984 — the average of the FTSE All-Share for the fifteen working days to 8 February. That was 4.6% above the starting point for the November projection.

Energy prices are assumed to evolve broadly in line with the paths implied by futures markets over the forecast period. Average Brent oil futures prices for the next three years were around 4% higher (in US dollar terms) than at the time of the November *Report*. Wholesale gas futures prices were around 5% lower over the forecast period. The outlook for energy prices is uncertain, but the central projection is conditioned on a benchmark assumption of no changes in domestic gas and electricity prices beyond those already announced.

(1) The convention is that the sterling exchange rate follows a path which is half way between the starting level of the sterling ERI and a path implied by interest rate differentials.

Chart 5.4 Frequency distribution of GDP growth based on market interest rate expectations and £325 billion asset purchases^(a)



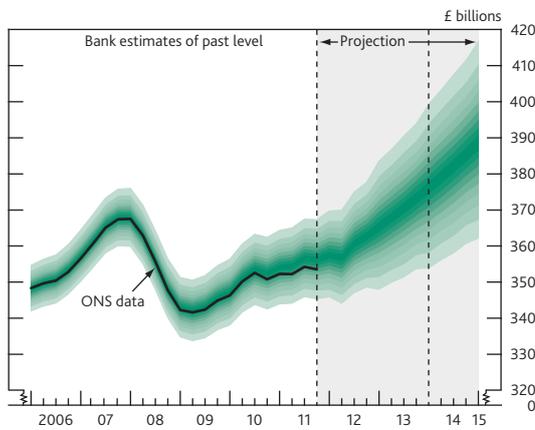
(a) These figures are derived from the same distribution as **Chart 5.1**. They represent the probabilities that the MPC assigns to GDP growth lying within a particular range at a specified time in the future.

impact of the Committee's asset purchases on demand. There remains a range of views among Committee members about the likely effects of those factors on GDP. Based on the conditioning assumptions described above, the Committee's best collective judgement is that by the end of the second year of the forecast, the risks of growth being above or below its historical average rate are roughly equal (**Chart 5.4**). The risks around the most likely path for growth are judged to be broadly balanced.

Despite the projected recovery in growth, output is unlikely to surpass its pre-recession level until midway through the forecast period (**Chart 5.5**) — some five years after the onset of recession. Since the start of the crisis, the supply capacity of the economy appears to have grown unusually slowly. Nonetheless, there is likely to be a sizable margin of spare capacity in the UK economy, largely concentrated in the labour market. That should diminish towards the end of the forecast period, but is unlikely to close completely.

Chart 5.6 shows the outlook for CPI inflation, on the same conditioning assumptions. As was expected in November

Chart 5.5 Projection of the level of GDP based on market interest rate expectations and £325 billion asset purchases

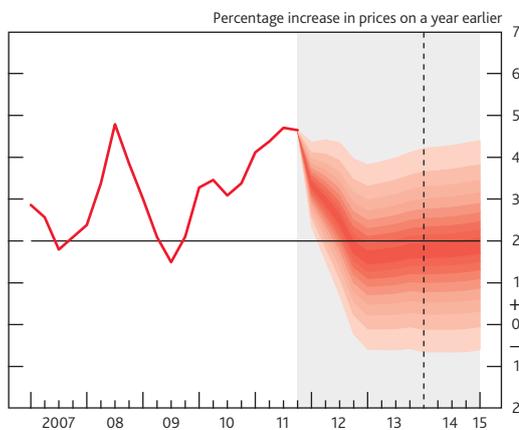


Chained-volume measure (reference year 2008). See the footnote to Chart 5.1 for details of the assumptions underlying the projection for GDP growth. The width of this fan over the past has been calibrated to be consistent with the four-quarter growth fan chart, under the assumption that revisions to quarterly growth are independent of the revisions to previous quarters. Over the forecast, the mean and modal paths for the level of GDP are consistent with Chart 5.1. So the skews for the level fan chart have been constructed from the skews in the four-quarter growth fan chart at the one, two and three-year horizons. This calibration also takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to GDP growth in one quarter will continue to have some effect on GDP growth in successive quarters. This assumption of path dependency serves to widen the fan chart.

(Chart 5.7), inflation has fallen from its recent peak, and is likely to fall further in early 2012, as the effects of past increases in energy prices continue to wane and the increase in the standard rate of VAT a year ago drops out of the calculation. The Committee's central forecast is for inflation to continue to decline during 2012 to below the 2% target by the beginning of next year. That partly reflects a further diminution in the upward pressure from past rises in energy and import prices. But it also rests on a reduction in domestically generated inflation, as slack in the labour market continues to restrain wage growth, and productivity growth picks up. Further ahead, inflation is projected to rise slowly back towards the target, as the margin of economic slack gradually diminishes, and businesses continue to restore profit margins that were squeezed during and after the recession.

There are substantial uncertainties around this likely path of inflation. The effects of the factors temporarily raising inflation make it difficult to gauge the current strength of underlying inflationary pressure with precision. Moreover, the degree to which inflation falls back will depend on the evolution of companies' costs. Any significant disruption to the supply of oil or gas could lead to further increases in energy prices. Businesses' costs will also depend on the path of productivity, and on the degree to which slack in the labour market continues to hold down wage growth. And inflation will be sensitive to the timing and pace of any restoration in businesses' profit margins. There remains a range of views among Committee members over the likely impact of these various influences.

Chart 5.6 CPI inflation projection based on market interest rate expectations and £325 billion asset purchases



Charts 5.6 and 5.7 depict the probability of various outcomes for CPI inflation in the future. Chart 5.6 is conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £325 billion and remains there throughout the forecast period. Chart 5.7 was conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remained at £275 billion throughout the forecast period. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any particular quarter 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. In any particular quarter of the forecast period, inflation is therefore expected to lie somewhere within the fans on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions inflation can fall anywhere outside the red area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In Charts 5.6 and 5.7 the probabilities in the lower bands are the same as those in the upper bands at Years 1, 2 and 3. 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 5.7 CPI inflation projection in November based on market interest rate expectations and £275 billion asset purchases

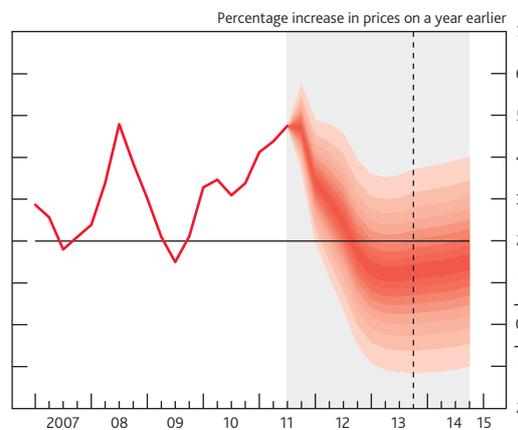
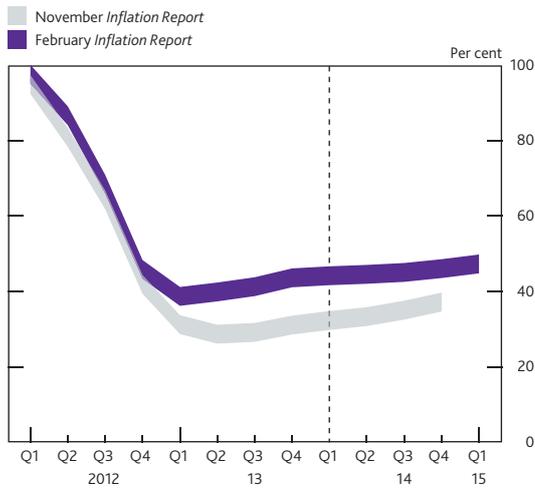


Chart 5.8 An indicator of the probability that inflation will be above the target



The February and November swathes in this chart are derived from the same distributions as Charts 5.6 and 5.7 respectively. They indicate the assessed probability of inflation being above target in each quarter of the forecast period. The 5 percentage points width of the swathes reflects the fact that there is uncertainty about the precise probability in any given quarter, but they should not be interpreted as confidence intervals. The dashed line is drawn at the two-year point of the February projection. The two-year point of the November projection was one quarter earlier.

Chart 5.8 shows the Committee’s best collective judgement of the probability of inflation being above the 2% target, and the corresponding probability from the November Report projection. On balance, the Committee judges that, based on the conditioning assumptions described above, inflation is somewhat more likely to be below the target than above it for a good part of the forecast period. By the end of the period, however, those risks are judged to be broadly balanced.

Charts 5.9 and 5.10 show the projected spread of outcomes for CPI inflation in the final quarters of 2013 and 2014, and their equivalents at the time of the November Report. The inflation projection is somewhat higher than in November, partly reflecting the larger stock of asset purchases on which the forecast is conditioned, but also reflecting a higher path for oil and some other commodity prices. Chart 5.11 shows frequency distributions for inflation: at the end of the forecast period, there is judged to be a roughly three-in-four chance that inflation will be half a percentage point or more away from the target, with roughly equal probabilities to the upside and downside.

5.2 Key judgements and risks

Will a continued global recovery support UK growth?

The outlook for global demand is a key uncertainty around the likely pace of the UK recovery. Growth appears to have strengthened somewhat in the United States, and business surveys in many countries picked up around the turn of the year. Nonetheless, those surveys point to only broadly flat output in the euro area, the United Kingdom’s largest export market (Section 2). The ECB’s longer-term refinancing

Chart 5.9 Projected probabilities of CPI inflation outturns in 2013 Q4 (central 90% of the distribution)^(a)

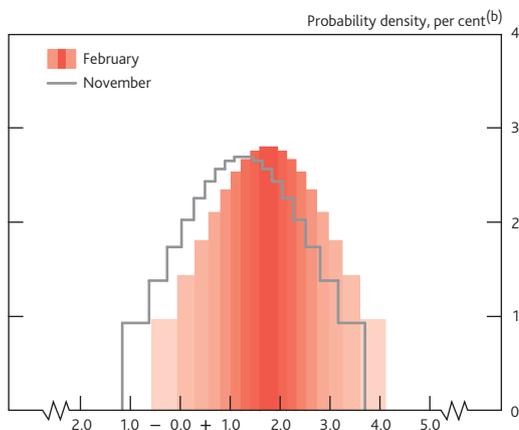
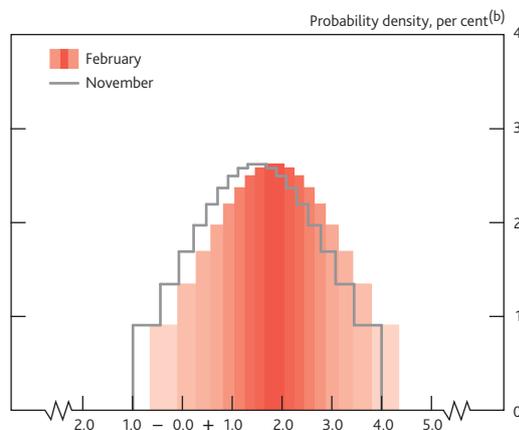


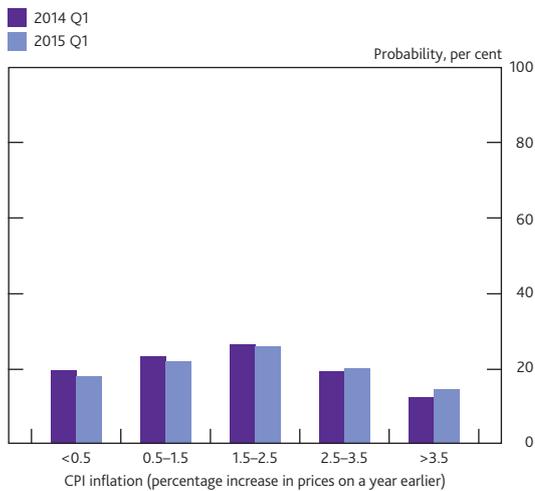
Chart 5.10 Projected probabilities of CPI inflation outturns in 2014 Q4 (central 90% of the distribution)^(a)



(a) Charts 5.9 and 5.10 represent cross-sections of the CPI inflation fan chart in 2013 Q4 and 2014 Q4 for the market interest rate projection. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £325 billion and remains there throughout the forecast period. The coloured bands in Charts 5.9 and 5.10 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 2013 Q4 and 2014 Q4 would lie somewhere within the range covered by the histogram on 90 occasions. Inflation would lie outside the range covered by the histogram on 10 out of 100 occasions. The grey outlines in Charts 5.9 and 5.10 represent the corresponding cross-sections of the November 2011 Inflation Report fan chart, which was conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remained at £275 billion throughout the forecast period.

(b) Average probability within each band; the figures on the y-axis indicate the probability of inflation being within ± 0.05 percentage points of any given inflation rate, specified to one decimal place. As the heights of identically coloured bars on either side of the central projection are the same, the ratio of the probability contained in the bars below the central projection, to the probability in the bars above it, is given by the ratio of the width of those bars.

Chart 5.11 Frequency distribution of CPI inflation based on market interest rate expectations and £325 billion asset purchases^(a)



(a) These figures are derived from the same distribution as Chart 5.6. They represent the probabilities that the MPC assigns to CPI inflation lying within a particular range at a specified time in the future.

operations have reduced some of the most immediate risks facing European banks (Section 1). But concerns remain about the indebtedness and competitiveness of some euro-area countries. The adjustments required to deal with those concerns are likely to result in continued marked divergences in growth across the euro area, and to act as a drag on overall euro-area demand throughout the forecast period.

In part reflecting that sluggish recovery in the euro area, the Committee's central judgement is that net trade will make a modest contribution to UK growth over the forecast period. There are substantial risks, in both directions, around that judgement. To the upside, continued robust growth in the United States, or significant progress by UK businesses in increasing their exports to emerging economies, could lead to a stronger contribution to growth from net exports. But to the downside, a failure to tackle the challenges facing the euro area would not only reduce demand for UK exports, but could also depress UK demand through financial market linkages and by lowering confidence.

Will demand be supported by a loosening in credit conditions?

Credit conditions for many businesses and households remain tight. And the intensification of strains in bank funding markets during the second half of 2011 has begun to feed through into further increases in the cost of credit for some borrowers (Section 1).

Conditions in bank funding markets have, however, improved since the turn of the year. The Committee's central judgement is that, over time, conditions in those markets will improve further. That should enable spreads on interest rates paid by UK households and businesses over risk-free rates to decline somewhat, although spreads are unlikely to fall to the levels seen just before the onset of the financial crisis. But the pace at which credit conditions will loosen is uncertain. And there remains a risk that a further period of financial market stress, for example associated with renewed uncertainty over developments in the euro area, could stymie any improvement in credit conditions over the forecast period.

Have households further to go in adjusting to lower real incomes and greater uncertainty?

UK domestic demand has barely grown since mid-2010. Within that, household consumption has been particularly subdued (Section 2). That largely reflects the squeeze in households' real incomes imposed by higher import and energy prices and VAT. These factors are not projected to recur during the forecast period, leading to a resumption in real income growth which should in turn provide increasing support to household consumption.

Other forces also appear, however, to have played a role in holding back household spending during the recovery. One

important influence is likely to have been heightened uncertainty, prompting households to build up a larger buffer stock of assets. Furthermore, to the extent that households have revised down their expectations of future incomes, some may have felt that their debts left them too vulnerable to future shocks. That may have provided another reason to increase saving.

The outlook for household spending therefore depends on the extent to which households have completed their adjustment to lower expected real incomes and greater uncertainty. The Committee's central judgement is that there is some further adjustment still to come, so that the household saving rate may rise somewhat in the near term. With consumption growing broadly in line with real incomes over the second and third years of the forecast, the saving rate is likely to remain well above its level in the years leading up to the recession. There are, however, risks on both sides of those judgements. It is possible that households have now largely accumulated their desired precautionary stock of assets, and will save somewhat less of their incomes in future. But it is also possible that households feel that their current rate of saving is still inadequate, given other factors such as the need to save more for future retirement provision. In that case, households may take the opportunity to increase their saving more substantially as real income growth recovers, so that consumption grows more slowly than incomes throughout the forecast period.

Domestic demand will also depend on business and housing investment, both of which remain well below their pre-recession peaks (Section 2). The level of business investment is projected to recover only gradually in the near term, given the degree of slack within businesses, continuing uncertainty about future demand, and restricted access to credit. As those influences subsequently wane, business investment is judged likely to grow more rapidly, providing a significant impetus to demand by the end of the forecast period. Similarly, dwellings investment is anticipated to recover, particularly over the second half of the period. But the precise timing and extent of the recovery in investment, and therefore its contribution to GDP growth, are uncertain.

Will productivity growth recover?

Productivity is estimated to have fallen sharply during the recession, and to have grown only sluggishly since (Section 3). As there is considerable uncertainty over why productivity has grown so weakly, its future evolution is also highly uncertain.

It is plausible that productivity could grow more rapidly than usual over the forecast period. That would be most likely if some of the current weakness reflects a substantial margin of spare capacity within companies. But even then, a recovery in productivity could occur in two very different ways. On the one hand, a recovery in demand would enable businesses to

raise productivity by making use of that margin of slack. That would boost households' and businesses' earnings, and enable the economy to grow more rapidly than usual without generating additional inflationary pressure. On the other hand, persistently weak demand could instead bring about a recovery in the level of productivity through more extensive labour shedding.

It is also possible, however, that productivity could continue to grow more slowly than in the past. That is more likely if its weakness over the past four years reflects slow growth in underlying productivity, rather than the opening up of a significant margin of spare capacity within businesses. That could, for example, be related to restricted credit availability for some businesses, and a resulting inefficiency in the allocation of capital across businesses and sectors. If that has been a major factor and credit conditions remain tight, then that suggests a given outlook for GDP growth would be consistent with higher inflation in the medium term.

The Committee's central judgement is that productivity growth is likely to recover over the forecast period. In the near term, that is likely to reflect a narrowing of the margin of spare capacity within businesses, as demand strengthens but also as some businesses cut employment further. Further ahead, underlying productivity growth is projected to move back towards its historical average rate. Nonetheless, the level of productivity is projected to remain significantly below a continuation of its pre-recession trend throughout the forecast period. But there is a high degree of uncertainty around that projection, and therefore also around the pace of GDP growth consistent with inflation meeting the target in the medium term.

Will labour market slack keep wage growth subdued?

Wage growth has been subdued over the past three years. In part, that is likely to have been linked to weak productivity growth, as businesses and employees agreed to reduce pay growth rather than shed jobs. But it is also likely to have reflected the dampening influence of rising unemployment on employees' wage demands. A key determinant of how rapidly businesses' costs grow will be the relative importance of those two factors for pay growth, and their likely evolution.

The Committee's central judgement is that pay growth is likely to remain low over the first half of the forecast period, as the support to wages from a recovery in productivity growth is more than offset by the impact of slack in the labour market. Further ahead, wage growth is likely to rise as the margin of labour market slack diminishes, partly due to the recovery in demand, but also as some of the unemployed withdraw from the labour market or lack the skills to compete for work.

But there are significant risks, in both directions, around those judgements. To the upside, it is possible that more of the

recent weakness in wages has been linked to weak productivity, and that rising unemployment has had less influence. In that case, wage growth could pick up more rapidly as productivity growth recovers even if unemployment rises further. Further, labour market slack could put less downward pressure on wages because more of the unemployed withdraw from the labour market. But in the opposite direction, labour market slack could exert a greater degree of downward pressure on inflation than in the Committee's central forecast, particularly if unemployment rises more sharply as companies respond to sluggish demand and a persistent margin of spare capacity.

By how much, and how rapidly, will companies rebuild their profit margins?

In addition to the path of companies' costs, a further key uncertainty for inflation stems from the evolution of businesses' profit margins. Despite subdued wage growth, those margins appear to have been squeezed by a combination of substantial increases in other costs and weak productivity growth (Section 4). Consumer price inflation will be highly sensitive to the pace at which companies restore those margins, and how that process occurs.

The Committee's central judgement is that, with businesses' costs of production growing only slowly, a gradual recovery in profit margins is likely. But the pace of that restoration of margins is likely to be dampened, particularly over the next year or so, by companies with a significant margin of spare capacity keeping their prices low in order to boost demand.

There are material risks in both directions around those judgements. To the downside, profit margins in the consumer-facing sector could be restored with less upward pressure on prices. Margins could instead recover as a consequence of especially weak wage growth in the consumer-facing sector, or through a reallocation of resources from less efficient, and less profitable, businesses in the consumer-facing sector towards other sectors. But, to the upside, spare capacity may have less effect on businesses' pricing decisions, so that they raise prices more rapidly in order to rebuild margins, particularly once growth strengthens and the recovery appears more secure.

How much will external price pressures decline?

Global price pressures have been a major recent influence on CPI inflation (Section 4). But import price inflation appears likely to decline during 2012. That should mean that the upward pressure on CPI inflation from external price pressures diminishes markedly over the first half of the forecast period.

It is possible, however, that elevated external price pressures could prove more persistent. The Committee's central forecast is conditioned on futures prices for oil, and consequently assumes that the oil price remains broadly stable (Section 4).

But any significant curtailment of the supply of oil, for example due to events in Iran or Nigeria, could lead to another sharp increase in energy prices, and result in a more prolonged period of above-target inflation. That would increase the risk that businesses and households come to expect inflation to remain above the target further ahead, and set prices and wages accordingly.

Even without a sharp increase in energy prices stemming from such supply disruption, there are other upside risks to the Committee's central forecast for external price pressures. These stem from the risk that elevated rates of inflation in emerging economies persist, and the possibility that continued strong growth in those countries puts additional upward pressure on the prices of scarce raw materials.

5.3 Summary and the policy decision

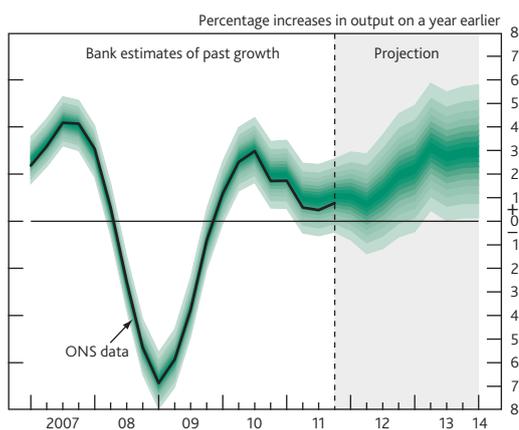
Inflation has fallen from its peak in late 2011, and is likely to fall further over the coming year. But how fast and how far inflation falls will depend on: the balance between demand and potential supply in the UK economy; the degree to which any persistent spare capacity weighs on wages and prices; and the paths of energy and import prices. There remains a range of views among Committee members about the likely evolution of those various factors, and around the overall outlook for inflation. The Committee's best collective judgement is that, conditioned on the assumptions described above, inflation is somewhat more likely to be below the target than above it for a good part of the forecast period. But by the end of the period those risks are judged to be broadly balanced.

Charts 5.12 and 5.13 show the GDP and CPI inflation projections for the next two years under the alternative assumption that Bank Rate is held constant at 0.5%. As that path for Bank Rate is only marginally lower than the path implied by market interest rates over the next two years, these projections are very similar to the fan charts conditioned on market interest rates.

In evaluating the outlook for growth, the Committee will focus on indicators of: the prospects for the world economy, and in particular developments in the euro area; the implications of those developments for the banking system and credit conditions; the willingness of households and businesses to spend; the evolution of underlying productivity growth and household incomes; and the impact of the MPC's asset purchases on demand.

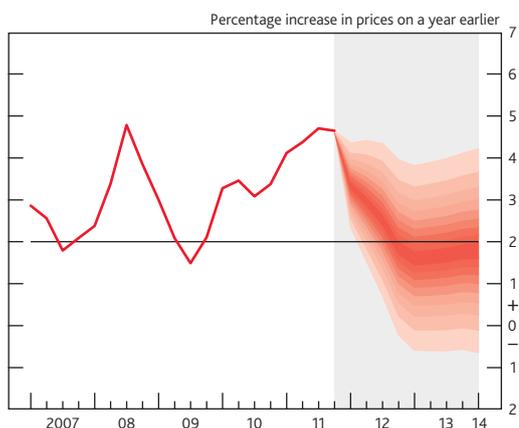
In evaluating the outlook for inflation, the Committee will in addition focus on indicators of: the rate of domestically generated inflation, and its likely evolution; the degree of spare capacity in the economy, and its effect on prices and

Chart 5.12 GDP projection based on constant nominal interest rates at 0.5% and £325 billion asset purchases



See footnote to Chart 5.1.

Chart 5.13 CPI inflation projection based on constant nominal interest rates at 0.5% and £325 billion asset purchases



See footnote to Chart 5.6.

wages; commodity and other global trade prices; and inflation expectations, and their impact on prices.

At its February meeting, the Committee noted that GDP growth was likely to remain weak in the near term and to strengthen gradually thereafter. But developments in the euro area continued to pose a significant threat to the domestic outlook. Inflation had declined sharply in the past few months and was expected to fall further. Without further monetary stimulus it was more likely than not that inflation would be below the 2% target in the medium term. The Committee therefore judged it appropriate to increase the size of the asset purchase programme by £50 billion to £325 billion, while maintaining Bank Rate at 0.5%, in order to meet the 2% CPI inflation target over the medium term.

Other forecasters' expectations

Every three months, the Bank asks a sample of external forecasters for their latest economic projections. This box reports the results of the most recent survey, carried out during January. The near-term profile for both annual GDP growth and CPI inflation is marginally weaker than that reported three months ago. On average, forecasters expected four-quarter GDP growth to be 1.1% in 2013 Q1, with growth expected to pick up over the following two years (Table 1). At the same time, the average central projection was for annual CPI inflation to fall back to 1.8% by 2013 Q1 and to pick up gradually to slightly above the target by 2015 Q1 (Table 1).

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

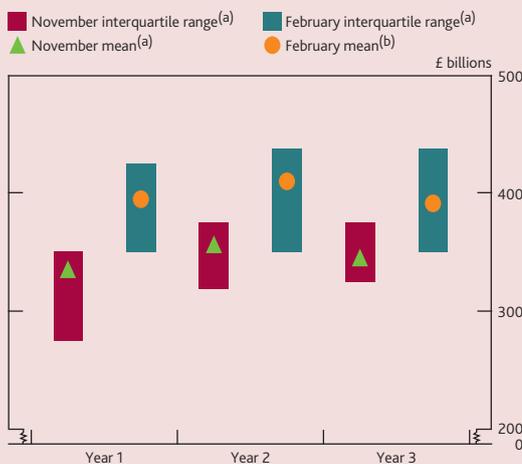
	2013 Q1	2014 Q1	2015 Q1
CPI inflation ^(b)	1.8	1.9	2.1
GDP growth ^(c)	1.1	2.1	2.2
Bank Rate (per cent)	0.6	0.8	1.6
Stock of purchased assets (£ billions) ^(d)	395	410	391
Sterling ERI ^(e)	81.7	81.2	81.5

Source: Projections of outside forecasters as of 31 January 2012.

- (a) For 2013 Q1, there were 25 forecasts for CPI inflation, GDP growth and Bank Rate, 23 for the stock of purchased assets and 18 for the sterling ERI. For 2014 Q1, there were 22 forecasts for CPI inflation and GDP growth, 23 for Bank Rate, 20 for the stock of purchased assets and 15 for the sterling ERI. For 2015 Q1, there were 21 forecasts for CPI inflation, GDP growth and Bank Rate, 19 for the stock of purchased assets and 15 for the sterling ERI.
 (b) Twelve-month rate.
 (c) Four-quarter percentage change.
 (d) Original purchase value. Purchased via the creation of central bank reserves.
 (e) 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.

These forecasts assume somewhat more monetary stimulus than the forecasts made three months ago. Projections of Bank Rate are little changed over the first year, on average, but are slightly lower at years two and three. And, on average, the expected level of asset purchases financed by central bank reserves was higher at around £400 billion, although the

Chart A Range of other forecasters' central assumptions for the stock of asset purchases



Sources: Projections of outside forecasters as of 2 November 2011 and 31 January 2012.

- (a) 21 forecasters provided assessments for 2012 Q4, 18 for 2013 Q4 and 17 for 2014 Q4.
 (b) 23 forecasters provided assessments for 2013 Q1, 20 for 2014 Q1 and 19 for 2015 Q1.

central range of views widened in years two and three (Chart A). The level of the sterling ERI was expected to be, on average, somewhat higher over the next three years.

The Bank also asks forecasters for an assessment of the risks around their central projections for CPI inflation and GDP growth (Table 2). Consistent with only small revisions to the central projections for GDP growth, the average probability respondents attached to different growth outturns in the first two years were broadly unchanged from the assessments made three months ago, although the average probability of growth being less than 1% was judged slightly higher in the near term. The average likelihood of CPI inflation exceeding the inflation target in four quarters' time was judged to be 37%, significantly lower than the 51% reported in the previous survey, consistent with the lower average central projections (Chart B). The average likelihood of CPI inflation being above target by the end of the projection was broadly unchanged at 51%.

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

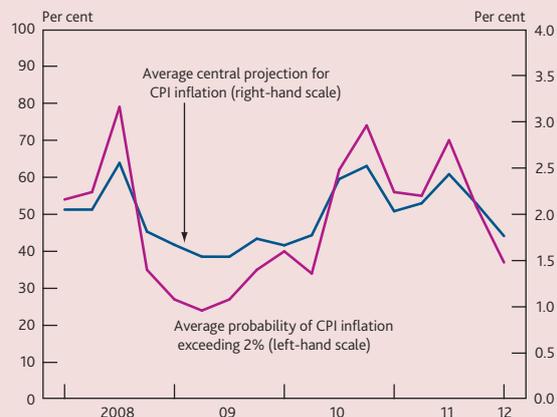
CPI inflation	Probability, per cent						
	<0%	0–1%	1–1.5%	1.5–2%	2–2.5%	2.5–3%	>3%
2013 Q1	4	9	22	29	19	12	6
2014 Q1	4	8	15	30	22	13	9
2015 Q1	3	7	12	28	24	15	11

GDP growth	Probability, per cent					
	<-1%	-1–0%	0–1%	1–2%	2–3%	>3%
2013 Q1	6	13	28	33	16	4
2014 Q1	4	7	16	30	28	15
2015 Q1	3	6	12	26	34	18

Source: Projections of outside forecasters as of 31 January 2012.

- (a) For 2013 Q1, 25 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 2014 Q1, 22 forecasters provided assessments for CPI and GDP; for 2015 Q1, 21 forecasters provided assessments for CPI and GDP. The table shows the average probabilities across respondents. Rows may not sum to 100 due to rounding.

Chart B Other forecasters' average central projections for CPI inflation and average probabilities of CPI inflation exceeding 2% one year ahead



Sources: Projections of outside forecasters provided for *Inflation Reports* between February 2008 and February 2012.

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Text of Bank of England press notice of 8 December 2011

Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £275 billion

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to continue with its programme of asset purchases totalling £275 billion financed by the issuance of central bank reserves.

The Committee expects the announced programme to take another two months to complete. The scale of the programme will be kept under review.

The minutes of the meeting will be published at 9.30 am on Wednesday 21 December.

Text of Bank of England press notice of 12 January 2012

Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £275 billion

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to continue with its programme of asset purchases totalling £275 billion financed by the issuance of central bank reserves.

The Committee expects the announced programme of asset purchases to take until early February to complete. The scale of the programme will be kept under review.

The minutes of the meeting will be published at 9.30 am on Wednesday 25 January.

Text of Bank of England press notice of 9 February 2012

Bank of England maintains Bank Rate at 0.5% and increases size of Asset Purchase Programme by £50 billion to £325 billion

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to increase the size of its asset purchase programme, financed by the issuance of central bank reserves, by £50 billion to a total of £325 billion.

In the United Kingdom, the underlying pace of recovery slowed during 2011, with activity falling slightly during the final quarter. Some recent business surveys have painted a more positive picture and asset prices have risen. But the pace of expansion in the United Kingdom's main export markets has also slowed and concerns remain about the indebtedness and competitiveness of some euro-area countries. A gradual strengthening of output growth later this year should be supported by a gentle recovery in household real incomes as inflation falls, together with the continued stimulus from monetary policy. But the drag from tight credit conditions and the fiscal consolidation together present a headwind. The correspondingly weak outlook for near-term output growth means that a significant margin of economic slack is likely to persist.

CPI inflation has fallen back from its September peak, declining to 4.2% in December. Inflation should continue to fall sharply in the near term, as the increase in VAT in January 2011 drops out of the twelve-month comparison. Inflation is then likely to decline further as the contribution of energy and import prices diminishes, while downward pressure from unemployment and spare capacity continues to restrain domestically generated inflation.

In the light of its most recent economic projections, the Committee judged that the weak near-term growth outlook and associated downward pressure from economic slack meant that, without further monetary stimulus, it was more likely than not that inflation would undershoot the 2% target in the medium term. The Committee therefore voted to increase the size of its programme of asset purchases, financed by the issuance of central bank reserves, by £50 billion to a total of £325 billion. The Committee also voted to maintain Bank Rate at 0.5%. The Committee expects the announced programme of asset purchases to take three months to complete. The scale of the programme will be kept under review.

The Committee's latest inflation and output projections will appear in the *Inflation Report* to be published at 10.30 am on Wednesday 15 February.

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

Glossary and other information

Glossary of selected data and instruments

ABS – asset-backed security.

AWE – average weekly earnings.

CDS – credit default swap.

CMBS – commercial mortgage-backed security.

CPI – consumer prices index.

CPI inflation – inflation measured by the consumer prices index.

ERI – exchange rate index.

GDP – gross domestic product.

LFS – Labour Force Survey.

Libor – London interbank offered rate.

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

OIS – overnight index swap.

PMI – purchasing managers' index.

RMBS – residential mortgage-backed security.

RPI – retail prices index.

Abbreviations

BCC – British Chambers of Commerce.

CBI – Confederation of British Industry.

CFO – chief financial officer.

CIPS – Chartered Institute of Purchasing and Supply.

ECB – European Central Bank.

EFO – *Economic and Fiscal Outlook*.

EU – European Union.

FTSE – Financial Times Stock Exchange.

GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.

GVA – gross value added.

HMRC – Her Majesty's Revenue and Customs.

HMT – Her Majesty's Treasury.

ISM – Institute for Supply Management.

LTRO – longer-term refinancing operation.

MPC – Monetary Policy Committee.

MTIC – missing trader intra-community.

NBER – National Bureau of Economic Research.

OBR – Office for Budget Responsibility.

OFCS – other financial corporations.

ONS – Office for National Statistics.

PNFCs – private non-financial corporations.

PwC – PricewaterhouseCoopers.

RICS – Royal Institution of Chartered Surveyors.

S&P – Standard & Poor's.

VAT – Value Added Tax.

Symbols and conventions

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

n.a. = not available.

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

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

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