

Inflation Report

February 2014



BANK OF ENGLAND





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In order to maintain price stability, the Government has set the Bank's Monetary Policy Committee (MPC) a target for the annual inflation rate of the Consumer Prices Index of 2%. Subject to that, the MPC is also required to support the Government's economic policy, including its objectives for 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, output and unemployment, as well as the uncertainties surrounding those central projections.

This *Report* has been prepared and published by the Bank of England in accordance with section 18 of the Bank of England Act 1998.

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The Overview of this *Inflation Report* is available in PDF at www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14febo.pdf.

The entire *Report* is available in PDF at www.bankofengland.co.uk/publications/Pages/inflationreport/2014/ir1401.aspx.

PowerPoint™ versions of the charts in this *Report* and the data underlying most of the charts are provided at www.bankofengland.co.uk/publications/Pages/inflationreport/2014/ir1401.aspx.

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Overview

The UK recovery has gained momentum and inflation has returned to the 2% target. Reduced uncertainty, easier credit conditions and the stimulative stance of monetary policy should support continued solid economic growth, with the expansion in demand becoming more entrenched and more broadly based.

Robust growth has not so far been accompanied by a material pickup in productivity. Instead, employment gains have been exceptionally strong and unemployment has fallen much more rapidly than expected. The LFS headline unemployment rate is likely to reach the MPC's 7% threshold by the spring of this year. Even so, the Committee judges that there remains spare capacity, concentrated in the labour market.

Inflation is likely to remain close to the target over the forecast period. Given this, and with spare capacity remaining, the MPC judges that there remains scope to absorb slack further before raising Bank Rate. Moreover, the continuation of significant headwinds — both at home and from abroad — mean that Bank Rate may need to remain at low levels for some time to come.

Economic outlook

Demand and supply

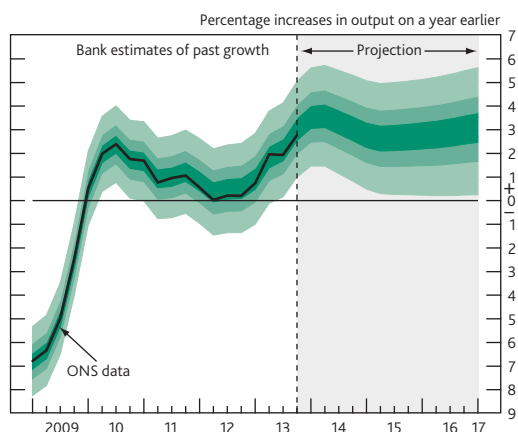
The UK economy grew by 1.9% in 2013, the strongest annual growth rate for six years. Much of that expansion was driven by consumer spending, as lifting uncertainty and easing credit conditions prompted households to reduce their rate of saving. That brightening in the economic environment also prompted a revival in the housing market, with housing transactions in 2013 Q4 up more than 25% on a year earlier, accompanied by a pickup in house price inflation. This revival helped support strong growth in housing investment. In contrast, business investment has remained subdued, although surveys of investment intentions suggest that it is likely to gather pace this year. Despite stronger activity in the United Kingdom's main overseas markets, export performance continued to disappoint. The strength of domestic activity contributed to a slight firming in short-term market interest rates and a further appreciation in sterling.

The recovery in output has not yet been matched by a material pickup in productivity growth. Instead, gains in employment have been exceptionally strong: since the MPC announced its policy guidance last August, almost half a million more people have found work. As a result, the LFS headline unemployment rate has fallen much more rapidly than the Committee anticipated and is likely to reach the MPC's 7% threshold by the spring of this year.

With unemployment nearing that threshold, the Committee has reviewed the current and prospective degree of spare capacity in the economy. Although such estimates are necessarily uncertain, the Committee judges that spare capacity remains, equivalent to around 1%–1½% of GDP and concentrated in the labour market. Around half of that slack reflects the difference between unemployment and an estimate of its medium-term equilibrium rate. Bank staff have revised down their estimate of the medium-term equilibrium rate reflecting the disproportionate falls in longer-term unemployment over recent months. The medium-term equilibrium rate is likely to continue to drift down over the forecast period as unemployment falls further. The remaining slack largely reflects an assessment that there is scope for companies to increase further the hours worked by their employees. In particular, despite an increase in average hours worked since last summer, the number of people indicating they would like to work longer hours has remained elevated.

The Committee continues to expect a gradual recovery in productivity growth. As demand picks up further, some businesses should be able to redeploy staff to more productive activities. Easier credit conditions and reduced uncertainty may allow capital and labour to be reallocated towards more productive companies. And a recovery in business investment should also provide support. The recent weakness in productivity growth has nevertheless caused the Committee to revise down its judgement of the likely strength of the response of productivity to higher demand. More generally, the timing and strength of the pickup in productivity remain highly uncertain.

Chart 1 GDP projection based on market interest rate expectations and £375 billion purchased assets

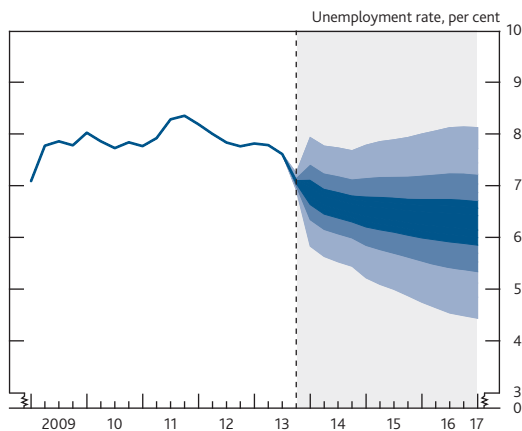


The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. To the left of the vertical dashed line, the 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 30 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 30 occasions. In any particular quarter of the forecast period, GDP growth 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. See the box on page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents.

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 stock of purchased assets stays at £375 billion. Growth eases a little in the near term as the initial fillip from the release of pent-up demand fades. Thereafter, the recovery is projected to move to a firmer footing: a gradual revival in productivity underpins a modest pickup in pay growth, while stronger demand and improved corporate sentiment drive a rebound in business investment.

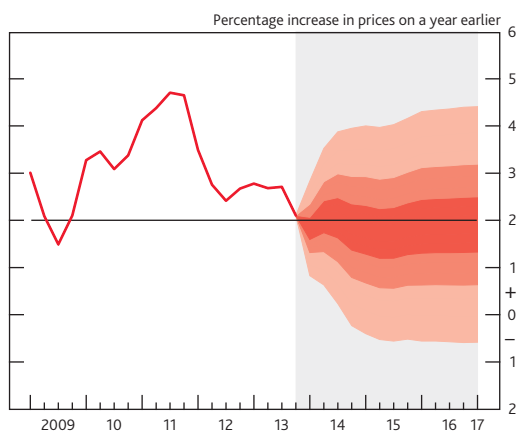
The strengthening of activity in advanced economies means that the risks around the global outlook are judged to be more balanced than of late. However, tensions in some emerging economies have resurfaced, and the need for further adjustment within the euro area continues to pose a risk to UK growth. At home, the main risks to the durability of the recovery are that sustained weakness in productivity prevents a pickup in household incomes and that companies are slow to increase their capital expenditure in response to rising demand. But the possibility of a virtuous cycle in sentiment, spending and incomes means there could be even greater near-term momentum in growth.

Chart 2 Unemployment projection based on market interest rate expectations and £375 billion purchased assets



The fan chart depicts the probability of various outcomes for LFS unemployment. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 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 the mature estimate of unemployment would lie within the darkest central band on only 30 of those occasions. The fan chart is constructed so that outcomes are also expected to lie within each pair of the lighter blue areas on 30 occasions. In any particular quarter of the forecast period, unemployment is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions unemployment can fall anywhere outside the blue area of the fan chart. Over the forecast period, this has been depicted by the light grey background. The calibration of this fan chart takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to unemployment in one quarter will continue to have some effect on unemployment in successive quarters. The fan begins in 2013 Q4, a quarter earlier than the fan for CPI inflation. That is because Q4 is a staff projection for the unemployment rate, based in part on data for October and November. The unemployment rate was 7.1% in the three months to November, and is projected to remain at 7.1% in Q4 as a whole.

Chart 3 CPI inflation projection based on market interest rate expectations and £375 billion purchased assets



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 remains at £375 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 30 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 30 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. 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.

A gradual revival in productivity growth, together with a slight easing in the pace of expansion, should lead to a marked slowing in the rate at which the degree of spare capacity is used up. As a consequence, based on the same assumptions as **Chart 1**, unemployment is expected to fall less rapidly than in the recent past (**Chart 2**), with some spare capacity likely to remain even at the forecast horizon.

But the future path of unemployment is highly uncertain. In particular, for a given growth profile, slack will be eroded more quickly if the impediments to productivity growth are more deeply rooted and take longer to rectify. Alternatively, unemployment may fall more slowly if companies have greater capacity than the MPC judges to expand output without increasing employment or if there is a period of catch-up in productivity as companies adopt a backlog of innovations and technical advances.

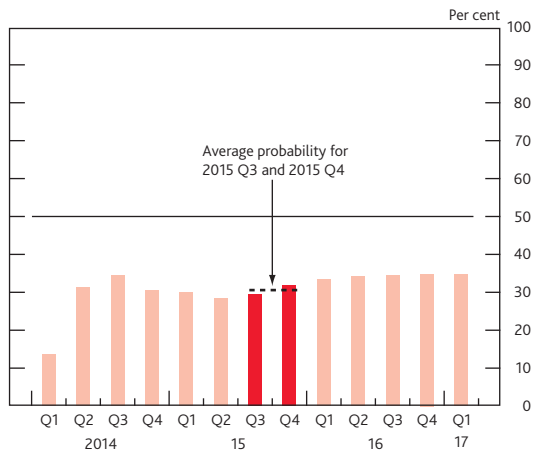
Costs and prices

CPI inflation fell to 2% in December, a fall of almost 1 percentage point since June. The vast majority of that fall appears to reflect the impact of various one-off and idiosyncratic price movements, rather than a more generalised easing in underlying cost and price pressures, which were already subdued. Oil prices have fallen by around 6% over the past year and other commodity prices have fallen by more than 10%. The further appreciation of sterling should also act to dampen import price pressures. Domestically, unit labour costs have risen less than their average historical rate, in part reflecting the drag on pay from labour market slack. The news on inflation expectations since November has, on balance, been good and most measures of medium-term expectations remain close to past averages. Overall, the MPC continues to judge that medium-term inflation expectations remain sufficiently well anchored.

Chart 3 shows the Committee's best collective judgement of the outlook for CPI inflation, on the same basis as **Chart 1**. The near-term outlook is lower than in November, reflecting unexpectedly weak inflation outcomes, smaller rises in utility prices than the MPC had assumed, and the impact of sterling's recent appreciation. Inflation is expected to remain at, or slightly below, the target over the forecast period, as the waning impetus from past increases in import prices and from administered and regulated prices is offset by a diminishing drag from spare capacity. The probability of CPI inflation being at or above the 2.5% knockout 18 to 24 months ahead remains around one third (**Chart 4**).

The inflation outlook is sensitive to several factors. The path of inflation will depend on the pace at which slack is absorbed and the impact that slack has on wages and prices. It is possible that the recent unexpectedly sharp falls in inflation reflect underlying cost and price pressures that are weaker than currently judged. Inflation will also be sensitive to

Chart 4 Probability that CPI inflation will be at or above the 2.5% knockout



The bars in this chart are derived from the same distribution as **Chart 3**. The bars indicate the assessed probability of inflation being at or above 2.5% in each quarter of the forecast period. The dashed line shows the average of the probabilities in 2015 Q3 and 2015 Q4, consistent with the 18 to 24-month period in the MPC's price stability knockout.

developments in commodity prices and the exchange rate, both of which can move sharply.

The policy decision

The UK recovery has gained momentum. Unemployment has fallen more sharply than expected; nonetheless spare capacity remains. CPI inflation has fallen back to the 2% target more quickly than anticipated and, with domestic costs well contained, is expected to remain at, or a little below, the target for the next few years.

At its February meeting, the Committee noted that the existence of spare capacity is both wasteful and increases the risk that inflation will undershoot the inflation target in the medium term. Moreover, the outlook for inflation meant that the near-term trade-off between keeping inflation close to the target and supporting output and employment was more favourable than in recent years. The MPC therefore judged that there remained scope to absorb spare capacity further before raising Bank Rate.

It seemed likely that data released over the next few months would show that the 7% threshold has been reached. The Committee agreed on further guidance for when the threshold was reached. That guidance is explained in the box 'Monetary policy as the economy recovers' on pages 8–9. Essentially, the MPC will seek to close the spare capacity in the economy over the next two to three years while keeping inflation close to the target. To that end, it judges that there is scope for the economy to recover further before Bank Rate is raised and, even when Bank Rate does rise, it is expected to do so only gradually and to a level materially below its pre-crisis average of 5%.

In the light of both the economic outlook and its policy guidance, the Committee voted to maintain Bank Rate at 0.5% and the stock of purchased assets at £375 billion.

Monetary policy as the economy recovers

This box provides further guidance on the setting of monetary policy once the unemployment threshold has been reached.

- The MPC sets policy to achieve the 2% inflation target, and, subject to that, to support the Government's economic policies, including those for growth and employment.
- Despite the sharp fall in unemployment, there remains scope to absorb spare capacity further before raising Bank Rate.
- When Bank Rate does begin to rise, the appropriate path so as to eliminate slack over the next two to three years and keep inflation close to the target is expected to be gradual.
- The actual path of Bank Rate over the next few years will, however, depend on economic developments.
- Even when the economy has returned to normal levels of capacity and inflation is close to the target, the appropriate level of Bank Rate is likely to be materially below the 5% level set on average by the Committee prior to the financial crisis.
- The MPC intends to maintain the stock of purchased assets at least until the first rise in Bank Rate.
- Monetary policy may have a role to play in mitigating risks to financial stability, but only as a last line of defence if those risks cannot be contained by the substantial range of policy actions available to the Financial Policy Committee and other regulatory authorities.

Monetary policy since the financial crisis

The objective of monetary policy is to achieve the inflation target, and, subject to that, to support the Government's economic policies, including those for growth and employment. The stance of policy to achieve the inflation target will vary over time depending on the economic circumstances. Following the global financial crisis, the MPC reduced Bank Rate to its historically low level of 0.5% and purchased assets amounting to £375 billion. Last August, as the economy showed early signs of recovery but the degree of spare capacity remained large, the Committee provided guidance on the future stance of monetary policy, stating its intention to maintain (at a minimum) the current degree of exceptional monetary stimulus at least until the unemployment rate reached 7%, subject to maintaining price and financial stability.

Unemployment has since fallen sharply as the recovery has gained momentum, and it seems likely that data released in the next few months will show that the 7% threshold has been reached. This box provides further guidance on the setting of policy once the unemployment threshold has been reached.

Scope remains to absorb spare capacity further

With inflation expectations well anchored, and in the absence of external price pressures, the MPC can consistently achieve the 2% inflation target in the medium term only if the economy is operating close to capacity. When inflation is at target but the economy is operating below potential levels of activity, the MPC will, in the absence of other influences, set policy to stimulate demand to eliminate that spare capacity.

Spare capacity comprises slack within the labour market — one component of which is the gap between the actual

unemployment rate and its medium-term equilibrium rate — and slack within companies. Last August, given its assessment that there was substantial slack in the economy, the MPC specified the unemployment rate as the threshold for its policy guidance. Although the Committee recognised that unemployment was not a comprehensive measure of economic slack, it chose the unemployment rate because it is less volatile than some alternative measures of slack, is not prone to substantial revisions, and is widely understood.

At the time it provided its policy guidance, the MPC stated that once unemployment had fallen to the 7% threshold, it would assess the state of the economy more broadly, drawing on a wide array of indicators. Given that the threshold is likely to be reached in the next few months, that assessment is provided in this *Inflation Report*. The MPC's view is that the economy currently has spare capacity equivalent to about 1%–1½% of GDP, concentrated in the labour market. Around half of that slack reflects the difference between the current unemployment rate of 7.1% and an estimate of its medium-term equilibrium rate of 6%–6½%. The remaining slack largely reflects a judgement that employees would like to work more hours than is currently the case. Companies appear to be operating at close to normal levels of capacity, although this is subject to some uncertainty.

The existence of spare capacity in the economy is both wasteful and increases the risk that inflation will undershoot the target in the medium term. Moreover, recent developments in inflation mean that the near-term trade-off between keeping inflation close to the target and supporting output and employment is more favourable than at the time the MPC announced its guidance last August: CPI inflation has fallen back to the 2% target more quickly than anticipated

and, with domestic costs well contained, is expected to remain at, or a little below, the target for the next few years. The MPC therefore judges that there remains scope to absorb spare capacity further before raising Bank Rate.

Factors determining the timing and pace of tightening

The legacy of the financial crisis and the persistence of economic headwinds mean that interest rates may need to remain at low levels for some time to come. As discussed in the box on page 40, even when the economy has returned to normal levels of capacity and inflation is close to the target, the appropriate level of Bank Rate is likely to be materially below the 5% level set on average by the Committee prior to the crisis.

Given that the headwinds weighing on the recovery are likely to persist for some time, when Bank Rate does increase, it is expected to do so only gradually. Raising Bank Rate gradually would also guard against the risk that, after a prolonged period of exceptionally low interest rates, increases in Bank Rate have a bigger impact than expected on output and spending.

The actual path Bank Rate will follow over the next few years is, however, uncertain and will depend on economic circumstances. Bank Rate may rise more slowly than expected, and increases in Bank Rate may be reversed, if economic headwinds intensify or the recovery falters. Similarly, Bank Rate may be increased more rapidly than anticipated if economic developments raise the outlook for inflation significantly.

The MPC's assessment of the timing and extent of future policy action will be centred on the following factors:

- **The sustainability of the recovery.** The MPC's central expectation is that the recovery will become more entrenched and more broadly based. Rising productivity should improve the outlook for pay and households' real incomes, and so support the durability of the pickup in consumer spending that is already in train. Moreover, the stronger demand outlook should encourage a rise in business investment, supported by further improvements in the cost and availability of credit. A more broadly based improvement in activity should provide reassurance that the recovery will not be threatened by a gradual removal of monetary stimulus.
- **The extent to which supply responds to demand.** An important part of the MPC's assessment is the judgement that productivity growth will gradually increase, slowing the pace at which spare capacity is used up relative to the recent past. Stronger demand, easier credit conditions and reduced uncertainty should facilitate movements of capital and labour to more productive uses, both within and across companies. But the recent weakness in productivity growth

has caused the Committee to revise down its assessment of the likely strength of the response of productivity growth to higher demand. More generally, the precise timing and extent of the recovery in productivity is highly uncertain, and this uncertainty inevitably carries over into the outlook for policy. If the recovery in productivity is more (less) rapid than expected, Bank Rate could rise more (less) slowly.

- **The evolution of cost and price pressures.** Wage growth has remained muted, so that even with weak productivity growth, unit labour cost growth has been contained. Although pay growth is likely to pick up over the forecast period, this rise is expected to be modest by historical standards and largely to reflect a pickup in productivity growth. Import price pressures also appear subdued, while the moderate pace of demand growth is likely to limit the extent to which profit margins are rebuilt. The MPC judges that inflation expectations remain sufficiently well anchored and will continue to monitor them closely. A continuation of these benign trends in costs and prices would tend to make the case for removing monetary stimulus less pressing.

Asset purchases and the Bank's reinvestment policy

A final factor affecting the path of Bank Rate is the timing, extent and speed at which the MPC chooses to unwind its asset purchases. Last August, the MPC stated its intention not to reduce the stock of purchased assets at least until the 7% unemployment rate threshold was reached, and, consistent with that, to reinvest the cash flows associated with all maturing gilts held in the Asset Purchase Facility (APF). Updating this guidance, the MPC intends to maintain the stock of purchased assets, including reinvesting the cash flows associated with all maturing gilts held in the APF, at least until Bank Rate has been raised from its current level of 0.5%.

Monetary policy and risks to financial stability

Financial instability can have lasting effects on the economy, damaging growth and endangering price stability. The Committee remains mindful that a prolonged period of low rates could lead to risks to financial stability. The financial stability knockout recognises that, in some circumstances, monetary policy has an important role to play in mitigating financial stability risks, but only as a last line of defence; that is, if the risks cannot be contained by the substantial range of mitigating policy actions available to the Financial Policy Committee, the Financial Conduct Authority and the Prudential Regulation Authority in a way consistent with their objectives.

This division of responsibilities between regulatory policy and monetary policy will continue once the 7% unemployment threshold is reached and the financial stability knockout no longer applies. This will allow monetary policy to remain focused on its primary objective of maintaining price stability while supporting a sustained recovery.

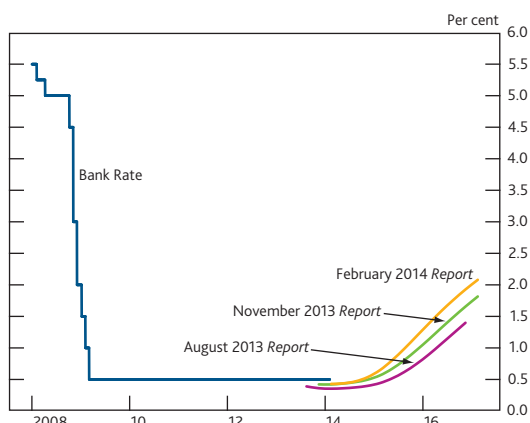
1 Money and asset prices

Official interest rates in the United Kingdom and other advanced economies remained at historically low levels. UK market interest rates have, however, edged higher over the past three months, probably reflecting continued positive news about the strength of the recovery. That news, alongside financial market turbulence in some emerging economies, was associated with a further appreciation of sterling. Credit conditions facing households and companies continued to improve and housing market activity strengthened.

Table 1.A Monitoring the MPC's key judgements

Developments expected in the November Report	Developments since November
Cost and availability of credit	Broadly as expected
<ul style="list-style-type: none"> Further modest declines in the cost of credit to some households and smaller companies. Further increases in credit availability. 	<ul style="list-style-type: none"> Further falls in new loan rates for households. Surveys suggest loan rates lower for larger companies but unchanged for small. Marked rise in mortgage availability at high LTV ratios. Improved availability for companies.
Mortgage approvals	On track
<ul style="list-style-type: none"> A rise in mortgage approvals for house purchase to around 70,000 a month in 2013 Q4, and around 90,000 in 2014 Q2 onwards. 	<ul style="list-style-type: none"> Mortgage approvals averaged 70,000 in Q4 and are expected to average around 90,000 in 2014 Q2 and Q3.
PNFC lending	On track
<ul style="list-style-type: none"> Pace of decline in four-quarter PNFC net lending easing in 2013 Q4; return to growth from 2014 Q1 onwards. 	<ul style="list-style-type: none"> Pace of decline eased in Q4; growth still expected to turn positive in Q1.
Evolution of sterling	Higher than expected
<ul style="list-style-type: none"> Sterling broadly flat, in line with conditioning assumptions. 	<ul style="list-style-type: none"> Sterling appreciated by around 3½%.

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



Sources: Bank of England and Bloomberg.

(a) The August 2013, November 2013 and February 2014 curves are estimated using overnight index swap rates in the fifteen working days to 31 July 2013, 6 November 2013 and 5 February 2014 respectively.

1.1 Monetary policy and financial markets

Monetary policy and market interest rates

In the United Kingdom, the MPC maintained Bank Rate at 0.5% and the stock of purchased assets financed by the issuance of central bank reserves at £375 billion, consistent with its stated intention, at a minimum, to maintain the present highly stimulative stance of monetary policy at least until the unemployment rate falls to 7%, provided that this does not entail material risks to price or financial stability.⁽¹⁾

Results from a Reuters poll conducted in late January indicated that strong UK data — in particular, unemployment data (Section 3) — had led economists, on average, to bring forward the date at which they expect the unemployment threshold to be reached by around 18 months, to 2014 Q1. But expectations about the date of the first rise in Bank Rate were revised by only six months, to 2015 Q2.

The date of the first rise in Bank Rate implied by market interest rates — 2015 Q2 — was broadly similar in the run-up to the February Report to three months earlier. But the yield curve two to three years ahead steepened slightly (Chart 1.1), suggesting that the subsequent pace of tightening is expected to be faster than previously anticipated. Market contacts suggested that forward interest rates would have been higher in the absence of the MPC's policy guidance.⁽²⁾ Survey evidence, discussed in the box on page 12, suggests that guidance has also lowered companies' interest rate expectations, although the evidence on households' expectations is less clear.

In the United States, the Federal Open Market Committee (FOMC) slowed the monthly pace of asset purchases from

(1) The reasons behind the MPC's decisions since the November Report are discussed in the box on page 11.

(2) Movements in market interest rates in the months after the MPC provided policy guidance are discussed in Bean, C (2013), 'The UK economic outlook', available at www.bankofengland.co.uk/publications/Documents/speeches/2013/speech689.pdf.

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 remained at £375 billion, was that four-quarter GDP growth would pick up further in the near term before easing back, while CPI inflation would fall a little further in the near term and remain around, or a little below, the 2% target thereafter.

The news during the month preceding the MPC's meeting on 4–5 December continued to point to a burgeoning recovery in output. In addition, employment had risen by more than expected in Q3, and the LFS unemployment rate had fallen to 7.6% in the three months to September. As a result, the period of very weak productivity growth had continued. The fact that there appeared to have been almost no cyclical recovery in productivity since the start of 2013 was surprising, but it was too soon to draw firm conclusions on the responsiveness of effective supply to stronger demand. There had been a slight tightening in monetary conditions over the month, with UK longer-term market implied interest rates rising by around 20 basis points and sterling appreciating by around 2%.

All Committee members agreed that neither of the price stability knockout conditions that would override the policy guidance provided in August had been breached. CPI inflation had fallen to 2.2% in October. And the probability of CPI inflation being at or above 2.5% 18 to 24 months ahead was judged to be lower on the month, in part reflecting downside news arising from the appreciation of sterling and the Government's announcement that around £50 of policy costs would be removed from annual household energy bills. Medium-term inflation expectations were judged to remain sufficiently well anchored. In addition, the FPC had judged at its meeting on 20 November that the financial stability knockout had not been breached.

With unemployment remaining above the 7% threshold, the Committee's policy guidance therefore remained in place and no member thought it appropriate to tighten, or to loosen, the stance of monetary policy. Against that backdrop, the MPC voted unanimously to maintain Bank Rate at 0.5% and the stock of purchased assets at £375 billion.

At the time of its meeting on 8–9 January, the MPC noted that the domestic recovery appeared to have taken hold, with upward revisions to GDP growth in earlier quarters suggesting more momentum than previously believed. Monetary conditions had tightened as financial asset prices reacted to further evidence of a strengthening recovery, particularly news on unemployment. Employment had grown quickly, which had resulted in an unexpectedly sharp fall in the unemployment rate to 7.4% in the three months to October. And a range of evidence suggested that the unemployment rate was likely to reach the 7% threshold materially earlier than previously expected. The apparent lack, so far, of a significant cyclical improvement in productivity during the recovery suggested that there was less slack within businesses than previously believed. But labour market slack might not have been eroded as much as the fall in the headline unemployment rate appeared to imply, as transition rates out of longer-term unemployment had risen. Weak pay growth also pointed to continued slack in the labour market.

All Committee members agreed that neither of the price stability knockout conditions that would override the policy guidance provided in August had been breached. CPI inflation had fallen to 2.0% in December and news during the month — for example, the continued appreciation of sterling — had reduced the likelihood of CPI inflation being above 2.5% 18 to 24 months ahead. And there was no reason to alter the judgement that medium-term inflation expectations remained sufficiently well anchored. The FPC had not met since 20 November, so there was no change to its judgement that the financial stability knockout had not been breached.

With unemployment remaining above the 7% threshold, the Committee's policy guidance therefore remained in place. Against that backdrop, the MPC voted unanimously to maintain Bank Rate at 0.5% and the stock of purchased assets at £375 billion.

At its meeting on 5–6 February, the MPC voted to maintain Bank Rate at 0.5% and the stock of purchased assets at £375 billion. The Committee reached its decisions in the context of the policy guidance announced in the August *Report*.

US\$85 billion to US\$75 billion at its December meeting, and then to US\$65 billion at its January meeting, in light of an improved labour market outlook. That slowing was balanced by guidance about the path of the federal funds rate: the FOMC now anticipates that it will probably be appropriate to maintain the policy rate at exceptionally low levels well past the time that the unemployment rate falls below 6.5%.

The European Central Bank has maintained its policy rates at historically low levels and reiterated that its key policy rates

The effects of the MPC's policy guidance on businesses and households

In August 2013, the MPC provided guidance about the future path of policy, stating its intention not to raise Bank Rate at least until the unemployment rate fell to a threshold of 7%, provided this did not entail material risks to either price or financial stability. This box uses surveys of businesses conducted by Markit and the Bank's Agents, and a GfK NOP survey of households, to assess the effects of this guidance.⁽¹⁾

Businesses

Awareness of the MPC's policy guidance appears to be high among companies and it seems to have boosted their confidence and spending. Around 75% of the companies surveyed by Markit, and 90% of those asked by the Bank's Agents, knew what guidance the MPC had given when asked to select from a list of options. Almost half of respondents to each survey reported that they expected Bank Rate to remain at current low levels for longer than they would have done were guidance not in place (Table 1). And the majority reported that the Bank's policy guidance had made them more confident about UK economic prospects (Table 2).⁽²⁾ That is similar to the 59% of respondents to the 2013 Q4 *Deloitte CFO Survey* who reported that Bank communications since July had boosted their confidence. On balance, companies indicated that the Bank's recent policy guidance had caused them to bring forward or increase spending and increase hiring (Table 3). Evidence on whether they would take on more debt was mixed.

Households

Households appeared to be less aware of guidance than companies and, perhaps reflecting that, reported it had had little effect on their behaviour.⁽³⁾ Only around one fifth of households responding to the GfK NOP survey identified the MPC's guidance from a list of options — although almost half knew it to be a statement of intent about Bank Rate. And fewer than one in four respondents said that guidance had led them to lower their interest rate expectations (Table 1). Around a sixth of households reported to GfK NOP that guidance had boosted their confidence about the economic outlook or their own financial position (Table 2). But the same proportion felt less confident. About half of those were over 55, so that could reflect savers feeling less well off from a period of low interest rates. Most households reported that guidance would not affect their spending (Table 3).

Conclusion

Overall, guidance appears to have had a greater direct effect on companies than on households, perhaps reflecting lower awareness among the latter. Guidance may, however, indirectly affect households' interest rate expectations and spending — for example, through media reports on the outlook for rates and its effects on business spending.

Table 1 Effect of guidance on expectations for the next change in Bank Rate^(a)

	Percentages of respondents			
	Remain low for longer than previously expected	No change	Rise sooner than previously expected	Don't know
Companies				
Markit	45	34	14	7
Bank's Agents	47	31	19	4
Households	23	43	13	22

Sources: Bank of England, GfK NOP and Markit.

(a) Companies were asked: 'Which of the following best describes how the Bank's policy guidance has changed your view of when Bank Rate (the official interest rate) will next change?'. Households were asked: 'Which of the following best describes how — following its announcement in August — the Bank's policy guidance has changed your view of when interest rates will start rising?'. Percentages may not sum to 100 due to rounding.

Table 2 Effect of guidance on confidence^(a)

	Percentages of respondents					
	Much more confident	Slightly more confident	No change	Slightly less confident	Much less confident	Don't know
Companies						
Markit	7	51	39	3	0	0
Bank's Agents	12	62	24	1	0	1
Households	1	14	56	12	4	13

Sources: Bank of England, GfK NOP and Markit.

(a) Companies surveyed by Markit (the Bank's Agents) were asked: 'How have the Bank's recent policies and communications (the Bank's policy guidance) affected your confidence about the near-term (one to two-year) prospects for the UK economy as a whole?'. Households were asked: 'How has guidance affected your confidence about your future financial position or about the wider economy?'

Table 3 Effect of guidance on behaviour^(a)

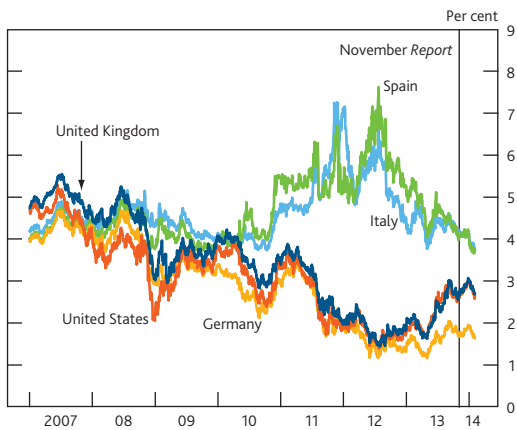
Companies	Net percentage balances ^(b)						
	Take on more staff	Bring forward capital spending	Increase investment spending	Reduce cash holdings	Take on more debt	Purchase other assets	
Markit	n.a.	10	13	-3	-4	10	
Bank's Agents	25	19	19	n.a.	13	17	
Households							
Per cent							
	Bring forward major purchases	Cut back saving and spend more	Move savings to other assets from banks	Take on more debt	Other	Take no action	
Percentages more likely to take action listed	2	7	2	6	4	79	

Sources: Bank of England, GfK NOP and Markit.

(a) Companies were asked whether they were more or less likely to take the actions listed. Households were only asked if they were more likely to take or plan to take the actions listed.

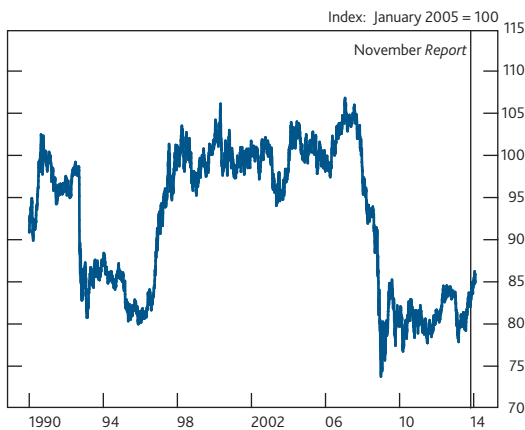
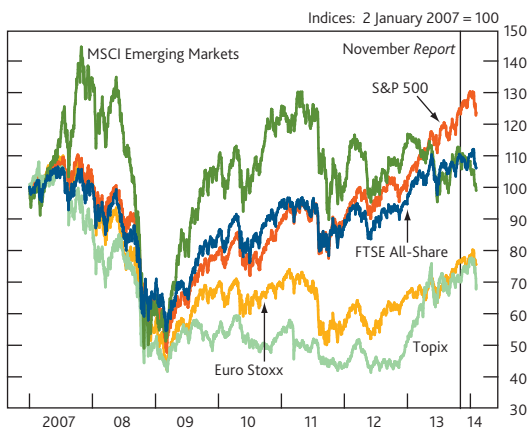
(b) Net percentage balances are the differences between the percentages more likely and less likely to take the listed action.

- (1) The Markit survey was conducted between 1 and 8 November 2013; 231 company purchasing managers responded, spread across the construction, manufacturing and services sectors. The Bank's Agents' survey was conducted between 9 and 21 January 2014; 1,574 companies responded, spread across the private sector. Both surveys were voluntary, so there may be some degree of self-selection bias. The GfK NOP survey was conducted between 31 October and 5 November 2013; 973 households responded.
- (2) The Markit survey asked about 'the Bank's recent policies and communications', which may have been interpreted to include policies other than guidance, such as the Funding for Lending Scheme.
- (3) Household awareness of monetary policy may be lower more generally. On average, around two thirds of respondents to the Bank/NOP household surveys select from a list of options the Bank of England as the group that sets the United Kingdom's basic interest rate level, while around two fifths identify the MPC or the Bank without prompting.

Chart 1.2 Selected ten-year government bond yields^(a)

Source: Bloomberg.

(a) Yields to maturity on ten-year benchmark government bonds.

Chart 1.3 Sterling ERI**Chart 1.4** International equity prices^(a)

Sources: Bloomberg and Thomson Reuters Datastream.

(a) In local currency terms, except for MSCI Emerging Markets, which is in US dollar terms.

would remain at present or lower levels for an extended period of time.

Since the *November Report*, central banks in some emerging economies — including Brazil, India, Indonesia, South Africa and Turkey — have tightened policy in response to sharp outflows of capital and currency depreciations, in part triggered by US monetary policy actions. So far, the countries that have been most affected have been characterised by country-specific factors, including political uncertainty. But a number of other emerging economies with large current account deficits and high inflation remain vulnerable.

UK and US longer-term interest rates continued to rise in tandem for most of the period since the *November Report* (**Chart 1.2**). In contrast, ten-year government bond yields in Germany were broadly flat, so that spreads relative to UK and US yields widened. That is likely to reflect expectations that euro-area growth will remain subdued for a protracted period, given the need to raise competitiveness and reduce indebtedness in the periphery, whereas the UK and US recoveries are expected to gain momentum. More recently, UK, US and German long-term rates fell, as capital flowed into safe-haven assets.

Market perceptions of the likelihood of disorderly adjustment in the euro area have continued to wane over the past three months. That has contributed to further falls in euro-area periphery sovereign bond spreads over German yields (**Chart 1.2**). Several euro-area periphery governments issued new debt, including Portugal and Ireland, and investor demand for these bonds was strong.

Exchange rates

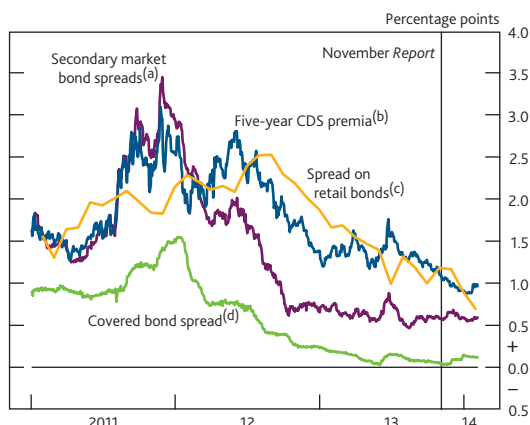
The sterling effective exchange rate index (ERI) has appreciated by about 3½% since the *November Report* and now stands almost 10% above its March 2013 trough (**Chart 1.3**). That leaves the sterling ERI at the top of the band within which it has traded since the substantial depreciation of 2007–08.

Sterling has appreciated against a broad range of currencies since March 2013, largely reflecting the more positive news about prospects for activity in the United Kingdom. It rose by about 5% against the euro, 10% against the US dollar, and more than 15% against the yen, which depreciated after the Bank of Japan launched its monetary stimulus package in April 2013. Some of sterling's appreciation also reflected the recent depreciations in emerging economies.

Equities

Advanced-economy equity prices rose over much of the period since the *November Report* (**Chart 1.4**). But those gains have reversed in recent weeks, as the tensions in some emerging economies have weighed on investors' risk appetite, causing

Chart 1.5 UK banks' indicative longer-term funding spreads



Sources: Bank of England, Bloomberg, Markit Group Limited and Bank calculations.

- (a) Constant-maturity unweighted average of secondary market spreads to swaps for the major UK lenders' five-year euro senior unsecured bonds, or, where not available, a suitable proxy.
 (b) Unweighted average of the five-year senior CDS premia for the major UK lenders.
 (c) Sterling only, average of two and three-year spreads on retail bonds. Spreads over relevant swap rates.
 (d) Constant-maturity unweighted average of secondary market spreads to swaps for the major UK lenders' five-year euro-denominated covered bonds, or, where not available, a suitable proxy.

Chart 1.6 Loans to individuals

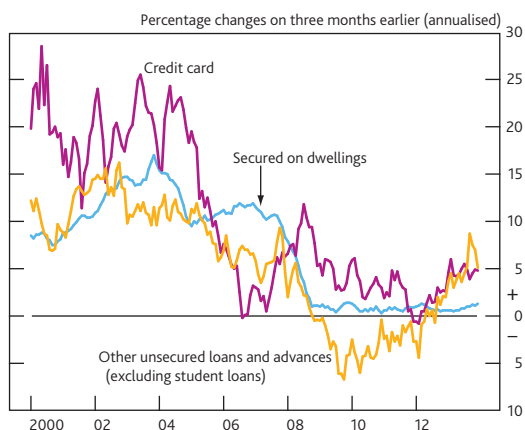
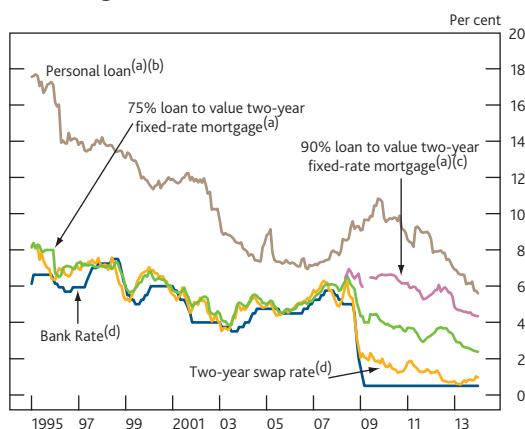


Chart 1.7 Bank Rate and quoted rates on household borrowing



Sources: Bank of England and Bloomberg.

- (a) End-month sterling quoted rates on different mortgage products and on unsecured personal loans. Weighted averages of rates from a sample of banks and building societies with products meeting specific criteria (see www.bankofengland.co.uk/statistics/Pages/iadb/notesiadb/household_int.aspx).
 (b) Quoted interest rate on a £10,000 personal loan.
 (c) The two-year 90% loan to value series is only available on a consistent basis from May 2008 and is not published for March to May 2009 as fewer than three products were offered.
 (d) End-month rates.

equity prices to fall globally. Nevertheless, UK and US nominal equity prices remain close to all-time highs; euro-area equity prices remain below their pre-crisis peak.

1.2 The banking sector

The cost and availability of bank credit depend, in part, on banks' own ability to access funds. Since August 2012, banks have been able to obtain funding through the Funding for Lending Scheme (FLS). Following a change to the terms of the Scheme in late November 2013, the amounts that lenders will be able to borrow over the coming year will no longer increase with their net lending to households. The associated regulatory capital offset for household lending has also been discontinued, but that for corporate lending extended.⁽¹⁾

Those changes to the FLS appear, as expected, to have had little effect on wholesale bank funding spreads, which have been broadly flat over the past three months (**Chart 1.5**). Rises in the market interest rates used as reference rates for these spreads — such as the five-year swap rate — mean, however, that the cost of wholesale funding was higher than at the time of the *November Report*. In contrast, the cost of longer-term retail funding ticked down between October and January.

Credit conditions are also influenced by banks' capital positions. Since the crisis, UK banks' core Tier 1 capital levels have risen by around £140 billion. They are likely to increase further in subsequent quarters, as regulatory changes continue to require banks to improve their capital resilience. Higher capital levels should help support credit conditions and loan growth in the medium term.⁽²⁾

1.3 Credit conditions

Credit conditions have improved broadly as expected since the *November Report* (**Table 1.A**). The box on pages 16–17 shows that an indicator of household and company credit spreads fell slightly in Q4.

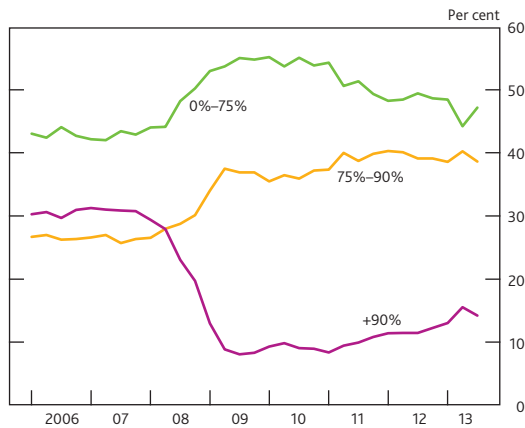
Household unsecured credit

As anticipated three months ago, unsecured credit growth remained robust in Q4 (**Chart 1.6**). That probably reflected further falls in rates charged on new loans (**Chart 1.7**) and increased availability, together with higher demand for credit as improved sentiment boosted consumers' willingness to spend (Section 2). Respondents to the *Credit Conditions Survey* (CCS) expected further improvements in unsecured credit conditions in Q1.

(1) For more details, see Bank of England News Release, 'Bank of England and HM Treasury re-focus the Funding for Lending Scheme to support business lending in 2014', 28 November 2013, available at www.bankofengland.co.uk/publications/Pages/news/2013/177.aspx.

(2) For more information, see the box on pages 16–17 of the May 2013 *Report*.

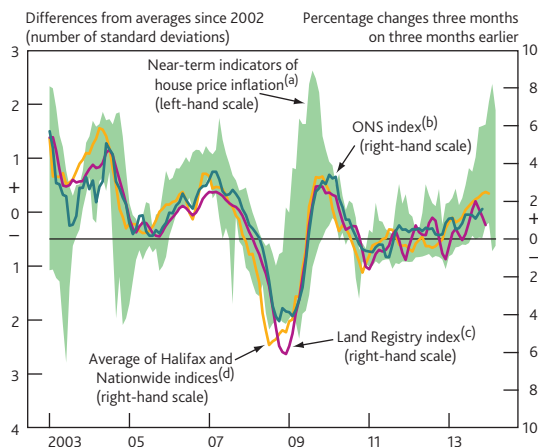
Chart 1.8 Proportion of new mortgages taken out at different loan to value ratios^(a)



Sources: Financial Conduct Authority Product Sales Data and Bank calculations.

(a) Data cover mortgages taken out by homemovers, first-time buyers and councils/registered social tenants exercising their right to buy. Data include regulated mortgage contracts only, and therefore exclude other regulated home finance products such as home purchase plans and home reversions, and unregulated products such as second charge lending and buy-to-let mortgages.

Chart 1.9 House prices and near-term indicators of house price inflation



Sources: Halifax, Land Registry, Nationwide, ONS, Rightmove.co.uk, Royal Institution of Chartered Surveyors (RICS) and Bank calculations.

(a) Includes the RICS expected house prices three months ahead net balance, the RICS new buyer enquiries less instructions to sell net balances, the RICS sales to stock ratio and the three months on three months earlier growth rate of the Rightmove index of average asking prices. All series have been moved forward by three months. The Rightmove index has been seasonally adjusted by Bank staff.

(b) Latest observation is for November 2013.

(c) Latest observation is for December 2013.

(d) Latest observation is for January 2014.

Table 1.B Secured lending to individuals

	Monthly averages						
	2005–07	2008–09	2010–12	2013			
				Q1	Q2	Q3	Q4
Flows (£ billions)							
Gross lending	27.7	16.7	11.7	12.7	14.0	15.2	16.7
Net lending	8.6	2.2	0.8	0.5	0.8	1.1	1.4
Repayments	19.8	14.7	11.2	12.5	13.2	14.3	15.1
<i>of which:</i>							
regular	2.3	2.5	2.7	3.3	3.3	3.7	3.7
on redemption	16.1	11.0	7.4	7.9	8.8	9.5	10.3
other	1.4	1.3	1.1	1.1	1.2	1.2	1.2
Secured loan approvals (£ billions)							
Further advances on existing mortgages	2.1	1.1	0.6	0.5	0.5	0.6	0.6

Household secured credit and the housing market

Secured credit availability has continued to rise over the past three months, largely as anticipated. Evidence from the CCS indicates that the improvement has been particularly marked for mortgages with loan to value (LTV) ratios above 75%, with most lenders expecting availability to increase further in early 2014, especially at higher LTV ratios.

Quoted interest rates on new mortgages fell a little further, continuing the trend seen since mid-2012 (Chart 1.7). That is despite a drift up since 2013 Q2 in the market interest rates lenders use as reference points when pricing mortgages, such as the two-year swap rate. CCS participants attributed part of that narrowing in spreads between quoted mortgage rates and reference rates to increased competition. Lenders indicated that spreads were unlikely to narrow much in Q1, suggesting that mortgage rates could start to rise if reference rates rise further.

Results from the CCS indicate that the thawing in secured credit conditions, and the Government's Help to Buy schemes have helped to release pent-up demand, and encouraged new demand for secured lending. That has been associated with greater momentum in housing market activity: the number of approvals for house purchase rose to an average of 70,000 per month in Q4, in line with expectations at the time of the November Report. Past rises in mortgage approvals have partly been accounted for by borrowers with LTV ratios above 90% (Chart 1.8). The outlook for mortgage approvals is largely unchanged: the number per month is anticipated to rise to around 80,000 in Q1, then to a little over 90,000 by Q3 (Table 1.A).

House prices also continued to rise. The Halifax and Nationwide indices, on average, increased by around 2½% in the three months to January 2014 compared with the previous three months. And house price inflation picked up in several regions of the United Kingdom. Nonetheless, metrics of housing affordability — the ratio of house prices to earnings and income gearing — remained well below levels reached in 2007 (Section 2). A range of forward-looking indicators point to further rises in house prices in the near term, although they provide very different signals about the pace of increase (Chart 1.9).

Stronger housing market activity has fed through into larger gross flows of secured lending to households. But those have been largely matched by increased repayments, so that net lending has risen only slightly (Table 1.B). That may, in part, reflect an increase in the proportion of properties bought using cash since the start of the crisis: such transactions do not generate any new lending but do result in a repayment if the seller still has a mortgage outstanding. Nevertheless, the greater availability of mortgages at higher LTV ratios, coupled with further increases in housing market activity and house

Quantifying developments in credit conditions

Changes in credit conditions have been one of the main headwinds affecting the UK recovery and their assumed evolution is a key determinant of the MPC's projections for output and inflation.⁽¹⁾ This box describes some indicators of credit conditions used by the MPC.

The indicators are based on spreads between the cost of new finance for households or companies and appropriate risk-free rates.⁽²⁾ These spreads are weighted together to reflect the importance of different types of credit for spending. As such, the measures indicate how credit conditions have changed for new bank borrowing, rather than existing loans. The interest rates and weights used are shown in **Table 1**.

Table 1 Interest rates used to estimate credit spreads

	Interest rates
Households (70%)^(a) <i>of which:^(b)</i>	
<i>depositors (50%)</i>	One-year and three-year fixed-rate bonds and one-year time deposit
<i>low LTV borrowers (21%)</i>	New 75% LTV two-year fixed-rate, five-year fixed-rate, and Bank Rate tracker mortgages
<i>high LTV borrowers (4%)</i>	New 90% LTV two-year fixed-rate mortgage
<i>unsecured borrowers (25%)</i>	Credit card, overdraft, £5,000 personal loan and £10,000 personal loan
Companies (30%)^(a) <i>of which:^(c)</i>	
<i>small and medium-sized enterprises (37%)</i>	Data on bank loan rates and judgement based on evidence from the CCS and other surveys
<i>large businesses (63%)</i>	Data on corporate bond spreads and judgement based on evidence from the CCS

(a) Figures in parentheses show the weights used to construct the measure of overall credit spreads from the measures for households and companies. These weights are calculated using the shares of loans to households and to companies in the outstanding stock of sterling loans.

(b) Figures in parentheses show the weights used to construct the overall household credit spread from the credit spread for each group. These weights reflect the proportions of households that are most likely to rely on each type of finance to fund extra spending, estimated using responses to the British Household Panel Survey.

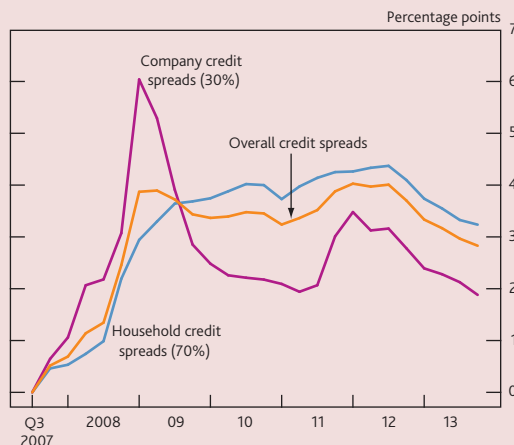
(c) Figures in parentheses show the weights used to construct the overall company credit spread from the credit spread for each group. These weights are calculated using the shares of loans in the outstanding stock of loans to PNFCS. SMEs (large) businesses are defined as those with an annual debit account turnover on the main business account less than (greater than) £25 million.

Chart A shows how these credit spreads for households and companies, both separately and combined, have changed since the start of the financial crisis in 2007 Q3. The fact that estimated spreads are set to zero in 2007 Q3 does not mean that credit conditions were normal at that time — indeed, spreads were unsustainably compressed at the start of the crisis. Rather, 2007 Q3 is used as a convenient reference point to show how conditions have evolved since then.

Households

To calculate the credit spread, households are divided into four groups depending on their most likely marginal source of finance, based on evidence from the British Household Panel Survey. Credit spreads for each group are measured using

Chart A Changes since 2007 Q3 in indicators of household and company credit spreads^(a)



Sources: Bank of England, BDRG Continental SME Finance Monitor, Bloomberg, BofA Merrill Lynch Global Research, used with permission, British Household Panel Survey, Department for Business, Innovation and Skills and Bank calculations.

(a) See footnote (a) to Table 1.

'quoted' interest rates — that is, interest rates advertised by lenders.

- **Savers.** Some households will have sufficient savings to finance extra spending. For these individuals, the cost of that spending is taken to be the deposit rate they would have earned if they had saved instead.
- **Secured borrowers.** For homeowners, who can borrow against their home, the cost of new credit varies with the value of the loan relative to the value of the property: the lower the loan to value (LTV) ratio, the lower is the amount of risk borne by the lender and so the lower the loan rate is likely to be. So secured borrowers are divided into two groups: those who borrow at LTV ratios of 75% or below; and those who borrow at LTV ratios above 75%.
- **Unsecured borrowers.** Individuals who do not own a home and have insufficient savings would be most likely to finance extra spending through unsecured borrowing, using credit cards, overdrafts or personal loans.

Companies

Calculating credit spreads for companies requires more judgement than for households because data on the cost of new bank loans to companies are limited. In particular, there are no data on quoted company loan rates: the data refer to 'effective' rates on loans that have been taken out. These rates reflect the average riskiness of companies obtaining finance, and so may not be representative of the cost of credit for companies wanting to borrow more, for example if lenders have restricted credit availability. Moreover, the variation since the crisis in credit spreads calculated from these effective rates is smaller than other indicators of credit conditions suggest. For that reason, a range of other evidence, including

from surveys, is used to inform the estimate of the company credit spread.

The overall company credit spread is based on separate estimates for large businesses and for small and medium-sized enterprises (SMEs). That is because the cost of bank credit is likely to vary by company size: loans to smaller businesses tend to be riskier than those to larger ones, and lenders therefore typically charge higher rates to compensate them for bearing that extra risk.

- **For large businesses:** credit spreads are mainly estimated using spreads on corporate bonds, both because of data limitations and because many large businesses use bond market finance as well as bank credit. These data are sometimes supplemented by judgement, based on information from the *Credit Conditions Survey (CCS)*, in particular when corporate bond market conditions differ from bank credit conditions.
- **For SMEs:** spreads are estimated by combining Bank and Department for Business, Innovation and Skills data on SME loan spreads with judgement based on evidence from the *CCS* and other surveys.

Capturing changes in credit availability as well as cost

Although the credit spread is calculated using data on the cost of credit, it is likely that it broadly reflects how the availability of credit has changed too. That is largely because evidence

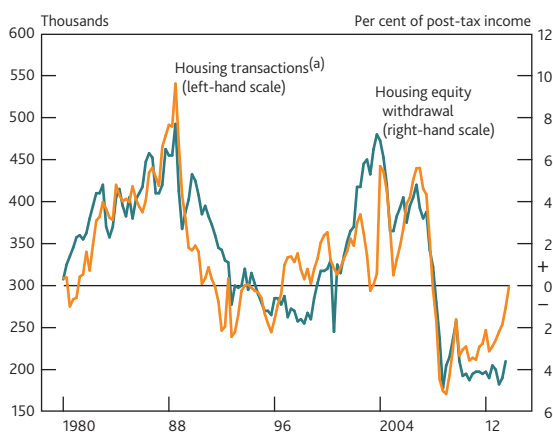
from the *CCS* indicates that changes in credit availability have been correlated with changes in loan spreads. In addition, the weights used in the household credit spread are varied to capture specific episodes when lenders have restricted credit availability. For example, to reflect the withdrawal of high LTV ratio mortgages early in the crisis, the weight of high LTV borrowers was reduced and the weight of unsecured borrowers correspondingly increased. Nevertheless, even though the credit spread may reflect broad trends in credit availability, it is unlikely to capture these effects precisely.

The outlook for credit conditions

Credit spreads have narrowed since the heights of the crisis, and further compression is likely as the banking sector continues to heal. But credit spreads are likely to remain persistently wider than they were in the period immediately before the crisis, reflecting higher bank funding costs as implicit government guarantees are reduced, and more accurate pricing of the risk of loans by banks. As noted in the box on page 40, that persistent widening in spreads is one reason why Bank Rate might be expected to remain low for some time to come.

- (1) The role of credit conditions in explaining recent macroeconomic performance is discussed in Barnett, A and Thomas, R (2013), 'Has weak lending and activity in the United Kingdom been driven by credit supply shocks?', *Bank of England Working Paper No. 482*.
- (2) The measures of risk-free interest rates used to calculate spreads are overnight index swap rates of the same maturity, because these provide the best indicator of the average level of Bank Rate that is expected to prevail over the term of the loan.

Chart 1.10 Quarterly housing equity withdrawal and housing transactions



Sources: Bank of England, HM Revenue and Customs, Land Registry and ONS.

(a) 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 Land Registry data on transactions in England and Wales.

prices, should boost gross lending relative to repayments in coming quarters and so raise net lending.

Increased housing market activity has also yet to translate into increased housing equity withdrawal (HEW) (Chart 1.10). In aggregate, HEW is the difference between net secured lending to households and increases in the stock of housing wealth when either new properties are built or improvements are made to existing ones. So the continued weakness in HEW partly reflects the same factors that underlie the weakness in net lending. In addition, loan approvals for further advances on existing mortgages have remained muted (Table 1.B), indicating that weak HEW is also partly due to households not withdrawing equity to finance spending.⁽¹⁾

The recovery in the housing market could — if accompanied by sizable and rapid rises in house prices, increased household indebtedness and higher leverage in the banking sector — begin to create risks to financial stability. In the November 2013 *Financial Stability Report*, the Financial Policy Committee (FPC) noted that several actions were in train that will guard against the build-up of such vulnerabilities. These include

(1) For more details, see Reinold, K (2011), 'Housing equity withdrawal since the financial crisis', *Bank of England Quarterly Bulletin*, Vol. 51, No. 2, pages 127–33.

Table 1.C Credit Conditions Survey: corporate credit conditions^(a)

	Quarterly averages					2014 Q1 ^(b)
	2007 Q2–2009	2010–11	2012	2013 Q1–Q3	2013 Q4	
Credit availability						
Small businesses	n.a.	7	1	4	13	14
Medium PNFCs	n.a.	6	4	7	1	3
Large PNFCs	n.a.	4	3	13	13	23
Loan spreads						
Small businesses	n.a.	-6	-5	6	8	0
Medium PNFCs	-30	9	-12	23	26	14
Large PNFCs	-35	26	-2	32	35	44
Fees and commissions						
Small businesses	n.a.	-4	-3	3	0	0
Medium PNFCs	-29	9	-6	7	18	21
Large PNFCs	-30	21	-4	9	33	42

(a) Weighted responses of lenders. A positive (negative) balance indicates that more (less) credit was available, or that spreads or fees and commissions had fallen (risen) over the previous three months. Questions on small businesses were not asked prior to 2009 Q4 and questions on credit availability for medium and large PNFCs separately were not asked prior to 2009 Q3.

(b) Lenders' expectations for the following three months reported in the 2013 Q4 survey.

Table 1.D PNFCs' net external finance raised^(a)

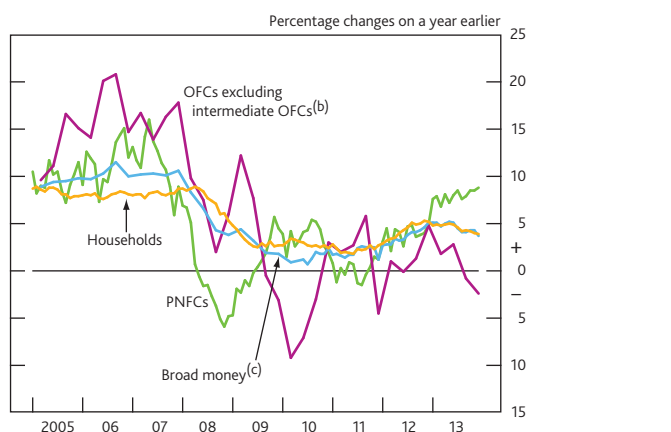
£ billions	Quarterly averages				
	2003–08	2009–12	2013 H1	2013 Q3	2013 Q4
Loans	11.5	-6.2	-3.8	0.2	-2.2
Bonds ^{(b)(c)}	3.4	3.0	6.3	-2.0	3.2
Equities ^(b)	-2.1	1.4	-0.9	-1.5	-1.4
Commercial paper ^(b)	0.0	-0.4	0.6	0.3	-1.5
Total ^(d)	12.7	-2.1	1.7	-1.3	-2.9

(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 1.11 Sectoral broad money^(a)

(a) Monthly data unless otherwise specified.

(b) Quarterly data. Intermediate other financial corporations (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.

(c) M4 excluding intermediate OFCs. Data are quarterly prior to June 2010 and monthly thereafter.

increases in lenders' capital levels and the recent changes to the FLS. The FPC also noted that, should further steps become necessary, it has an extensive toolkit that it could deploy, including recommendations on underwriting standards and the availability of higher-risk loans, as well as recommendations or directions on bank capital requirements.

Corporate credit

Overall, bank credit conditions facing companies appear to have improved further over the past three months, in line with expectations at the time of the *November Report*. For example, results from the *CCS* indicate that corporate credit availability continued to rise, including for companies in the commercial real estate sector.

The improvements in credit conditions still appear to be greater for large companies than for smaller businesses. For example, in the *CCS*, a higher net balance of lenders reported increased availability of credit for large private non-financial corporations (PNFCs) than for small and medium-sized businesses; and while loan spreads were reported, on balance, to have narrowed for large PNFCs, they were broadly unchanged for small companies (**Table 1.C**). Indeed, results from the Federation of Small Businesses survey indicated that the loan rates offered to small companies in 2013 Q4 were slightly higher than those offered in Q3, although the average rate offered remained lower than in early 2012.

Evidence from the *CCS* suggests that company demand for bank credit has increased over the past three months, particularly among medium-sized businesses. Consistent with that pickup, and the improvements in credit conditions, the four-quarter rate of contraction in the stock of loans to companies lessened to -0.7% in Q4 from -1.8% in Q3, in line with expectations three months ago. Nevertheless, companies in aggregate still repaid more finance than they raised, despite robust bond issuance (**Table 1.D**). As was the case three months ago, companies' demand for finance is expected to rise further in Q1, and loan growth to turn positive.

1.4 Money

Broad money growth remained robust in 2013 Q4, at 3.7% (**Chart 1.11**). As has been the case in recent quarters, that strength was predominantly accounted for by flows into household sight deposits. But PNFC money growth has picked up by more. In part, that is likely to reflect an increase in companies' desired money holdings — for example, due to an increase in the volatility of cash flows. As businesses' actual money holdings rise above desired levels, they may draw on the excess to finance capital expenditure.

2 Demand

UK demand continued to grow solidly in 2013 Q3. Improved consumer confidence supported a rise in household spending growth, which helped offset weak export growth. The near-term outlook is robust, with business confidence indicators pointing to a pickup in business investment growth. Prospects for net trade are less encouraging, however, with strong domestic demand likely to attract higher imports, while UK-weighted world demand growth will probably be relatively subdued in the near term.

Table 2.A Monitoring the MPC's key judgements

Developments expected in the November Report	Developments since November
Consumer spending <ul style="list-style-type: none"> Quarterly consumer spending growth of around 0.5%, or a little stronger, in 2013 H2 and 2014 H1. 	A little stronger than expected <ul style="list-style-type: none"> Consumption growth stronger than anticipated in Q3, likely to be stronger in 2013 Q4.
Investment <ul style="list-style-type: none"> Indicators of business investment consistent with average growth rates of around, or a little above, 2% a quarter in 2013 H2 and 2014 H1. Housing investment growth to remain strong over the next year, averaging around 5% per quarter. 	Broadly on track <ul style="list-style-type: none"> Q3 growth broadly in line with expectations but investment intentions firm. Growth in Q3 weaker than anticipated but housing starts continue to suggest a strong pickup.
Advanced economies <ul style="list-style-type: none"> Quarterly euro-area GDP growth averaging around a quarter of a percentage point in 2013 H2 and 2014 H1. Quarterly US GDP growth to average around, or a little above, 0.5% in 2013 H2 and 2014 H1. 	Broadly on track <ul style="list-style-type: none"> Growth slightly weaker than anticipated in Q3, but outlook a touch stronger. 2013 H2 stronger than expected. Broadly in line with expectations thereafter.
Rest of the world <ul style="list-style-type: none"> Indicators of activity consistent with four-quarter growth of around 7.5% in China and around 4% in the other emerging economies in 2013 H2 and 2014 H1. 	Broadly on track <ul style="list-style-type: none"> Growth broadly in line with expectations but some increase in financial stresses in emerging economies. Risks remain to the downside.

UK output rebounded strongly in 2013, having been broadly flat in 2012 (**Chart 2.1**). That recovery has been underpinned by an easing in credit conditions (Section 1), a revival in optimism and a reduction in uncertainty, which have helped release pent-up demand (Section 2.1). The fiscal consolidation is set to continue to weigh on spending, however, and although external demand growth has picked up a little, it remains weak — particularly in the euro area (Section 2.2).

The recovery appears to have more momentum than it did at the time of the *November Report*. The ONS estimates that the level of GDP is 0.6% higher than previously recorded, largely reflecting revisions to consumption since mid-2012; consumption growth was also stronger than anticipated in Q3. Other near-term indicators suggest that the MPC's key judgements on demand from the *November Report* are broadly on track (**Table 2.A**), although exports were weaker than expected in Q3.

Nominal spending has been more volatile than real GDP. Having grown by only 0.6% in Q2, nominal spending grew by 1.4% in Q3 (**Table 2.B**).

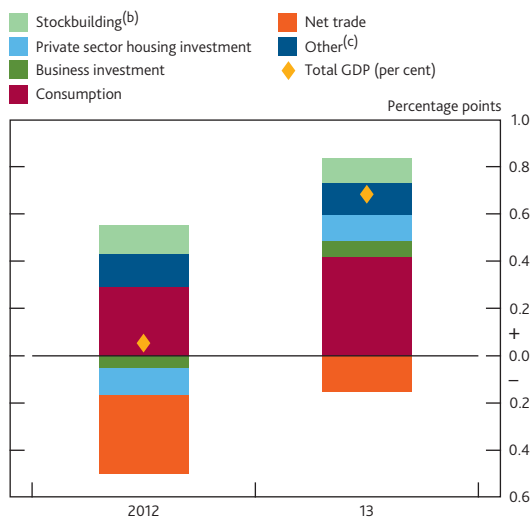
2.1 Domestic demand

Household spending

Consumption has increased robustly over recent quarters, despite household incomes stagnating (**Table 2.C**). Following upward revisions, the latest ONS figures suggest that household spending grew by 0.7% on average in each of the four quarters to 2013 Q3 — just a little below pre-crisis rates (**Table 2.C**). Labour income growth was negligible over that period (**Table 2.C**), as the strength of employment growth (Section 3), was offset by the weakness of real wages (Section 4). Non-labour income growth was also subdued.

Although wage growth probably remained weak in Q4 (Section 4), consumption indicators such as private car registrations and the *CBI Distributive Trades Survey* point

Chart 2.1 Contributions to average quarterly GDP growth^(a)



(a) Average contributions to quarterly GDP growth (chained-volume measures). Data for 2013 are to 2013 Q3.

(b) Stockbuilding excludes the alignment adjustment.

(c) Other includes government expenditure, statistical adjustments and acquisitions less disposals of valuables.

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

Percentage changes on a quarter earlier

	Averages		2013		
	1998–2007	2011–12	Q1	Q2	Q3
Household consumption ^(b)	0.9	0.1	0.7	0.4	0.8
Private sector investment	0.9	-0.3	3.6	-1.1	1.9
of which, business investment	0.7	0.0	3.1	-2.3	2.0
of which, housing investment	1.1	-0.8	4.8	1.3	1.6
Private sector final domestic demand	0.9	0.1	1.3	0.0	1.1
Government consumption and investment	0.8	0.0	-2.0	2.6	0.6
Final domestic demand	0.9	0.0	0.5	0.6	0.9
Change in inventories ^{(c)(d)}	0.0	0.1	-1.1	0.9	0.5
Alignment adjustment ^(d)	0.0	0.0	0.6	-1.0	0.5
Domestic demand	0.9	0.2	0.0	0.6	1.9
'Economic' exports ^(e)	1.1	0.3	-0.2	3.3	-2.9
'Economic' imports ^(e)	1.4	0.2	-1.7	2.5	0.8
Net trade^{(d)(e)}	-0.1	0.0	0.5	0.2	-1.2
Real GDP at market prices	0.8	0.2	0.5	0.8	0.8
Memo: nominal GDP at market prices	1.3	0.7	1.1	0.6	1.4

(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. Official MTIC-adjusted data are not available for exports, so the headline exports data have been adjusted by Bank staff for MTIC fraud by an amount equal to the ONS import adjustment.

to sustained spending growth. Set against that evidence, however, information from the Bank's Agents suggests that momentum may have slowed slightly since Q3. On balance, Bank staff project that consumption is likely to have grown by around ¾% in Q4. As a consequence, consumption in 2013 H2 as a whole is likely to have been stronger than expected in the November Report.

The corollary of rising consumption and broadly flat real post-tax household income has been a falling saving ratio (Chart 2.2). The key factors prompting, or enabling, households to spend more of their incomes are likely to have been a reduction in uncertainty, improved income expectations and a further easing of consumer credit conditions (Section 1).

A reduction in uncertainty is likely to have led some households to reduce their precautionary savings; spending is also likely to have been supported by expectations of higher future income. It is difficult to separate the impact of these two drivers, but survey evidence suggests that consumer confidence, which is likely to reflect both, has improved markedly during 2013. For example, responses to the GfK survey indicate that households' unemployment expectations have fallen and their expectations about their future financial situation have improved. Disaggregated expenditure data provide further evidence: discretionary non-durable spending — for example in restaurants and hotels — which has tended to be correlated with consumer confidence indicators, picked up during 2013 following falls in 2012 (Chart 2.3).

Household lending data suggest that easing credit conditions may also have supported consumption growth; growth in unsecured loans to households in 2013 was the fastest since 2008. As well as directly boosting the expenditure of credit-constrained households, easier access to credit has probably reduced some households' incentive to build up savings in case they are unable to obtain credit when needed. Easier secured credit conditions and the related increase in housing market activity could also support consumption a little.⁽¹⁾ To date, however, households do not appear to be withdrawing housing equity to finance higher spending (Section 1).

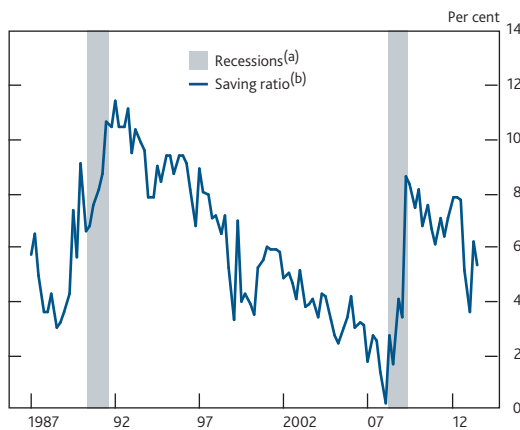
The household debt to income ratio has fallen by 30 percentage points since 2009 Q2 (Chart 2.4). Nevertheless, it remains well above its pre-crisis average. And concerns about debt probably still weighed on some households' spending in recent quarters. According to the NMG Consulting survey, the proportion of households concerned about their indebtedness was just under 40%

(1) For more information on the potential impact of the housing market revival on consumption, see the box on pages 20–21 of the November 2013 Inflation Report.

Table 2.C Contributions of household income and saving to real quarterly consumption growth^(a)

Percentage points	Quarterly averages				
	1998–2007	2008–09	2010	2011–2012 Q3	2012 Q4–2013 Q3
Total income	0.8	0.1	0.1	0.2	0.0
of which, pre-tax labour income	0.7	-0.4	-0.5	-0.1	0.0
of which, household taxes and net transfers ^(b)	-0.2	0.6	0.1	0.2	0.0
of which, other income ^(c)	0.2	0.0	0.5	0.1	0.1
Saving (inverted)^(d)	0.1	-0.8	0.2	-0.2	0.6
Consumption (per cent)	0.9	-0.7	0.3	0.1	0.7

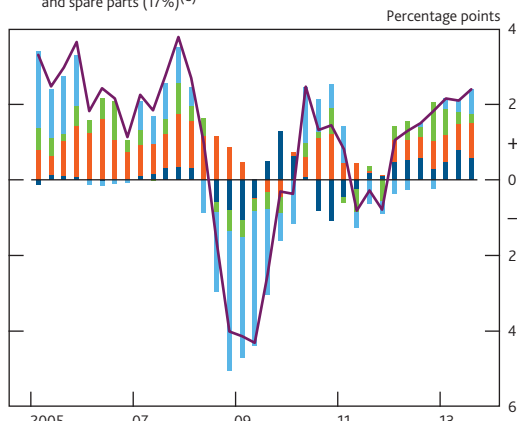
- (a) Contributions may not sum to total due to rounding. Contributions to real consumption are calculated using changes in nominal income and saving deflated by the consumption deflator.
 (b) Household taxes (income taxes and Council Tax) plus net transfers (government benefits minus employees' National Insurance contributions) deflated by the consumption deflator.
 (c) Other income includes property income and is calculated as a residual.
 (d) Changes in the level of saving are inverted so that falls in saving are displayed as positive contributions to consumption growth.

Chart 2.2 Household saving ratio

- (a) 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.
 (b) Percentage of household post-tax income.

Chart 2.3 Contributions to four-quarter domestic household spending growth^(a)

Discretionary non-durables (42%)^(b) Vehicles and spare parts (4%)
 Essential non-durables (37%)^(c) Total domestic consumption (per cent)
 Durables excluding vehicles and spare parts (17%)^(d)



- (a) Chained-volume measures. Components may not sum to total due to chain-linking. Domestic household spending excludes consumption by non-profit institutions serving households and net tourism. Figures in parentheses are shares of domestic household spending in 2010.
 (b) Calculated as a residual. It includes items such as consumer services.
 (c) Essential non-durables consumption defined as consumption of food and non-alcoholic beverages, actual and imputed housing rent, utilities, and vehicle fuels and lubricants.
 (d) Durables includes semi-durables.

in 2013 — although this was slightly lower than in the 2012 survey.⁽¹⁾

The saving ratio is likely to fall further in the near term, but it cannot fall indefinitely. The future path of consumption will therefore depend on the pace of household income growth. In turn, that will be driven by the growth of employment (Section 3) and real wages (Section 4).

Housing investment

Private sector housing investment — comprising new dwellings, improvements to existing dwellings and spending on services associated with property transactions — rose by 1.6% in Q3 (Chart 2.5), which was lower than anticipated in November. Much of the growth in Q3 was accounted for by new dwellings, and the significant rise in housing starts in 2013 (Table 2.D) should continue to feed through into new dwellings expenditure in the next few quarters. Some of the factors supporting consumption growth over recent quarters, such as easier credit conditions and improved consumer confidence, are also likely to have boosted housing market activity.

Business spending

The ONS estimates that business investment rose by 2.0% in Q3. Nevertheless, investment remained below its level a year earlier. Although growth in Q3 was broadly in line with expectations in the November Report, the near-term outlook is a little stronger than anticipated. Survey indicators of investment intentions picked up further in Q4 and continue to point to strong investment growth (Chart 2.6). Based in part on these surveys, Bank staff believe that business investment is likely to have risen strongly in 2013 Q4.

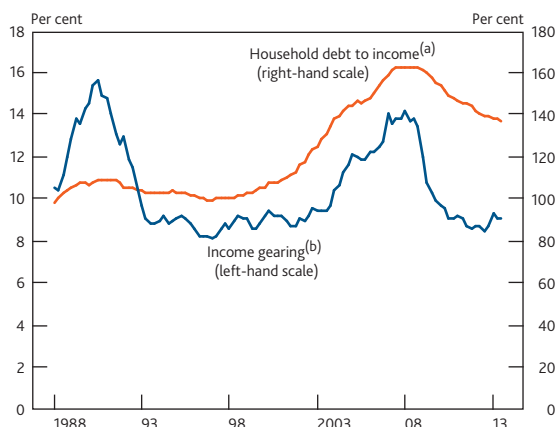
It is also possible that official estimates understate the recent strength of investment. Methodological changes implemented by the ONS in the 2013 Blue Book have made the data more volatile, making the underlying trend harder to judge. This uncertainty, combined with the strength of investment indicators over the past year, suggest that investment over 2013 is more likely than not to be revised up.

Several factors are likely to have increased companies' appetite to invest during the second half of 2013. For example, credit and capital market conditions continued to improve (Section 1) and more spare capacity has been absorbed (Section 3). Companies' optimism about near-term output and profitability also rose markedly, with business surveys suggesting that confidence was at post-crisis highs.

Uncertainty about the durability of the recovery has probably weighed on investment in the past, particularly given the

(1) For more information on the results of the 2013 NMG Consulting survey see Bunn, P, Domit, S, Piscitelli, L, Rostom, M and Worrow, N (2013), 'The financial position of British households: evidence from the 2013 NMG Consulting survey', *Bank of England Quarterly Bulletin*, Vol. 53, No. 4, pages 351–60.

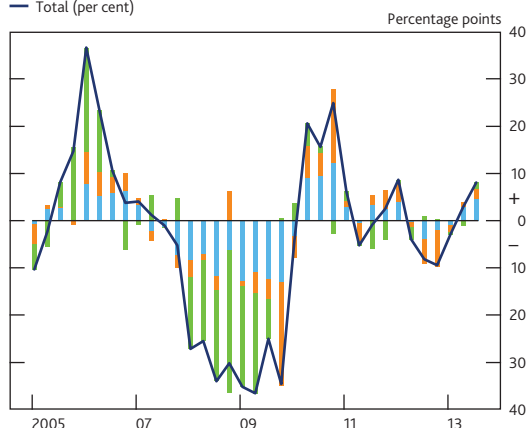
Chart 2.4 Household debt to income and income gearing ratios



- (a) Household financial liabilities as a percentage of the four-quarter moving sum of post-tax income. Financial liabilities data are non seasonally adjusted.
- (b) National Accounts measure of household interest payments (which excludes the impact of Mortgage Interest Relief at Source) plus regular repayments of mortgage principal, as a percentage of household post-tax income. Interest payments and income have been adjusted to take into account the effects of financial intermediation services indirectly measured. Repayments data are non seasonally adjusted. Excludes payments associated with endowment policies.

Chart 2.5 Contributions to four-quarter private sector housing investment growth^(a)

- Spending on services associated with the sale and purchase of property (22%)
- Improvements to existing dwellings (47%)
- Newly built dwellings (31%)
- Total (per cent)



- (a) Chained-volume measures. Figures in parentheses are shares in total private sector housing investment in 2010.

Table 2.D Housing transactions and house building

Thousands	Monthly averages			2013			
	1997–2007	2010–11	2012	Q1	Q2	Q3	Q4
Housing market transactions ^(a)	119	73	78	82	85	91	100
Housing starts ^(b)	15.2	8.8	8.1	8.8	10.6	11.6	n.a.
Housing completions ^(c)	14.2	8.8	9.1	7.6	9.8	8.5	n.a.

Sources: Department for Communities and Local Government, HM Revenue and Customs (HMRC), ONS and Bank calculations.

- (a) 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.
- (b) Number of permanent dwellings in the United Kingdom started by private enterprises up to 2011 Q1. Data for 2011 Q2 to 2013 Q3 have been grown in line with permanent dwelling starts by private enterprises in England. Data are non seasonally adjusted.
- (c) Number of permanent dwellings in the United Kingdom completed by private enterprises up to 2013 Q1. Data for 2013 Q2 and Q3 have been grown in line with permanent dwelling completions by private enterprises in England. Data are non seasonally adjusted.

stop-start nature of the recovery since 2009. Uncertainty encourages businesses to wait to assess the persistence of stronger demand before undertaking capital expenditure. As the recovery proceeds and uncertainty dissipates further, postponed investment projects could therefore get the go-ahead. It is also plausible that stronger investment growth could be self-reinforcing, as higher overall growth could provide an additional fillip to business confidence.

Government spending

The fiscal consolidation is planned to continue. The Office for Budget Responsibility (OBR) anticipates that the policy measures announced in the 2013 Autumn Statement will have a broadly neutral impact on GDP growth. Nevertheless, OBR forecasts published at that time were for a more rapid fall in public sector net borrowing than expected in the March 2013 *Budget*; a change largely related to higher projected tax receipts, associated with an upward revision to the OBR's GDP forecasts.

According to estimates by the Institute of Fiscal Studies, using the March 2008 *Budget* as a baseline, around 45% of the Government's planned consolidation has taken place. The planned increases in taxes associated with this consolidation have, for the most part, already happened, with a reduction in government consumption set to account for most of the remaining consolidation.

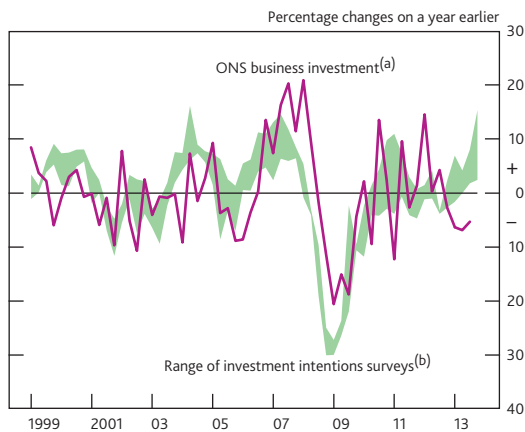
2.2 External demand and UK trade

UK-weighted world GDP grew by 0.6% in Q3, which was broadly in line with expectations at the time of the *November Report*. Within that, positive news on US demand was offset by slightly weaker-than-anticipated euro-area growth. The overall near-term outlook, which is for modest but below average increases in UK-weighted world demand, is also similar to that at the time of the *November Report*. The near-term prospects for advanced economies have improved a little, while the downside risks to emerging economies have intensified.

The euro area

Euro-area GDP grew by 0.1% in Q3 (**Table 2.E**), as subdued French and German export growth weighed on output. That was slightly weaker than anticipated at the time of the *November Report*. The near-term outlook for growth is a touch stronger, however, with output and consumer confidence indicators suggesting modest growth in Q4 and 2014 Q1.

Output indicators suggest that the pace of growth in the euro-area periphery more closely matched that in the core during 2013 H2. Better export performance suggests that the external competitiveness of some periphery countries has improved over 2013, and financial market developments

Chart 2.6 Business investment and surveys of investment intentions

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

(a) Chained-volume measure. Data are to 2013 Q3.

(b) 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. Data are to 2013 Q4.

Table 2.E GDP in selected countries and regions^(a)

Percentage changes on a quarter earlier, annualised^(b)

	Averages	2012		2013			
	1998–2007	H1	H2	Q1	Q2	Q3	Q4
United Kingdom	3.1	-0.8	1.4	2.0	3.2	3.2	2.8
Euro area (40%)	2.3	-0.7	-1.4	-0.8	1.2	0.5	n.a.
United States (17%)	3.0	2.5	1.5	1.1	2.5	4.1	3.2
Japan (2%)	1.1	0.8	-1.3	4.5	3.6	1.1	n.a.
China (3%)	10.0	7.9	7.7	7.7	7.5	7.8	7.7
India (1%)	9.5	4.3	3.3	3.0	2.4	5.6	n.a.
Brazil (1%)	3.0	0.7	3.1	0.0	7.2	-1.9	n.a.
UK-weighted world GDP ^(c)	3.0	1.6	0.9	1.3	2.5	2.4	n.a.

Sources: Eurostat, IMF *World Economic Outlook (WEO)* October 2013, Indian Central Statistical Organisation, Instituto Brasileiro de Geografia e Estatística, Japanese Cabinet Office, National Bureau of Statistics of China, OECD, ONS, Thomson Reuters Datastream, US Bureau of Economic Analysis and Bank calculations.

(a) Real GDP measures. Figures in parentheses are shares in UK goods and services exports in 2012 from the 2013 *Pink Book*.

(b) Chinese and Indian data are four-quarter growth because data on quarterly Chinese growth are only available from 2010 Q4, and seasonally adjusted Indian GDP data are not available. The earliest observation for China is 2000 Q1 and for India is 2005 Q2.

(c) Constructed using data for real GDP growth rates of 143 countries weighted according to their shares in UK exports. For the vast majority of countries, the latest observation is 2013 Q3. For those countries where national accounts data for 2013 Q3 are not yet available, data are assumed to be consistent with projections in the IMF *WEO* October 2013.

suggest that the perceived tail risks associated with the possibility of sovereign default in the periphery have receded (Section 1). Nevertheless, intra euro-area differences in the amount of economic slack — particularly evident in unemployment rates — remain acute, pointing to the need for further adjustment. That suggests euro-area growth is likely to remain subdued for some time.

Euro-area inflation fell steadily in 2013 according to both headline and core measures. At 0.7% and 0.8% respectively in January 2014, these were both well beneath the European Central Bank's (ECB's) definition of price stability, of inflation below but close to 2%. The ECB expects underlying price pressures to remain subdued over the medium term. In general, inflation remained higher in the core, while it was closer to zero in the periphery.

The United States

US GDP growth was robust in 2013 H2, averaging around 0.9% a quarter, which was well above expectations in the November *Report*. Some of the strength in 2013 H2 reflected a rise in stockbuilding, which is unlikely to be repeated, although it may suggest greater optimism about future demand.

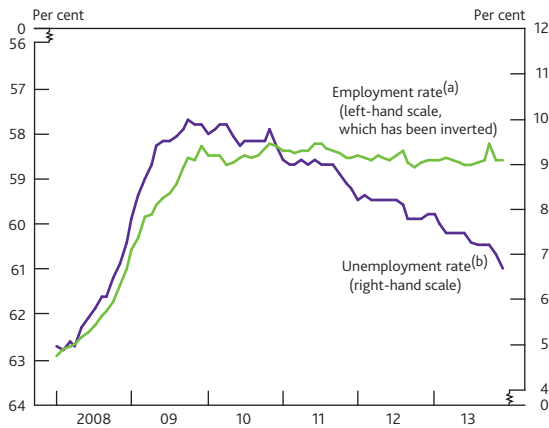
The downside risks to US growth associated with fiscal policy have receded somewhat. A Congressional deal on headline government spending in 2014 and 2015 agreed in December reduced the chance of further government shutdowns, and lowers the amount that the fiscal consolidation will drag on growth in the near term. Even so, the consolidation will continue to weigh on US growth in 2014, albeit by less than in the previous year. And political uncertainty around the US debt ceiling remains.

While US employment growth has been steady in 2013, it has not been strong enough to raise the employment rate, which has remained flat since the recession (**Chart 2.7**). The unemployment rate, which reached 6.7% in December, has fallen, however, as labour force participation has declined. The prospects for labour force participation as the recovery proceeds are uncertain; it is possible that at least some of that fall in participation represents a cyclical response to weak labour demand.

Rest of the world

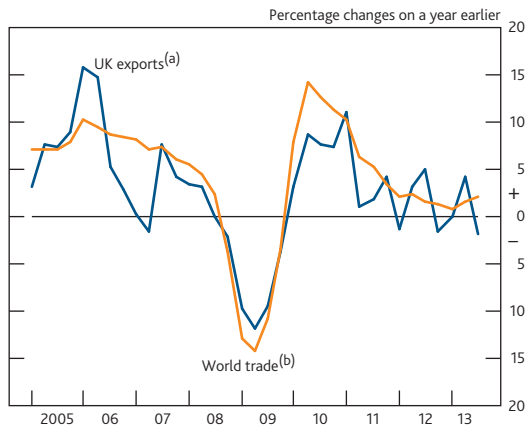
Growth in the rest of the world in 2013 Q3 was broadly as anticipated in the November *Report*, but the intensification of financial market stresses in emerging economies suggests greater downside risks to the near-term outlook.

Growth in emerging economies over recent quarters has been slightly subdued relative to rates observed over much of the previous decade. This continued in Q3, with growth at 5.3% on an annualised PPP-weighted basis. Within that, Chinese

Chart 2.7 US employment and unemployment rates

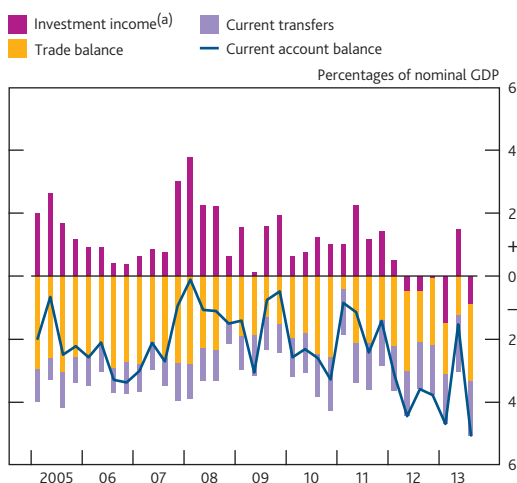
Source: Bureau of Labor Statistics.

- (a) Percentage of the 16+ non-institutional civilian population.
 (b) Percentage of the 16+ civilian labour force.

Chart 2.8 UK-weighted world trade and UK exports

Sources: IMF WEO October 2013, OECD, ONS, Thomson Reuters Datastream and Bank calculations.

- (a) Chained-volume measure excluding the estimated impact of MTIC fraud. Official MTIC-adjusted data are not available, so the headline exports data have been adjusted by Bank staff for MTIC fraud by an amount equal to the ONS's imports adjustment.
 (b) Constructed using data for import volumes of 143 countries weighted according to their shares in UK exports. For the vast majority of countries, the latest observation is 2013 Q3. For those countries where national accounts data for 2013 Q3 are not yet available, data are assumed to be consistent with projections in the IMF WEO October 2013.

Chart 2.9 UK current account

(a) Includes compensation of employees.

GDP growth picked up slightly, while growth in other emerging economies was mixed (Table 2.E). Since then, however, official data suggested that Chinese GDP growth weakened in Q4. And financial markets tensions have increased in some emerging economies.

Some emerging economies have experienced renewed capital outflows and sharp currency depreciations since the November Report. The developments were partly prompted by the FOMC's decision to reduce the pace of its asset purchases, but the countries most affected were those with weak economic fundamentals or subject to political uncertainty. Several emerging-economy central banks have responded by tightening policy (Section 1), which may dampen growth prospects.

In Japan, both CPI inflation and inflation expectations have risen significantly since the Japanese authorities announced major monetary and fiscal stimulus packages in 2012 and 2013, aimed at boosting growth and achieving stable inflation around a target of 2%. Although GDP growth moderated in Q3, activity remains fairly robust.

UK trade and the current account

The ONS reported that UK export growth was particularly weak in Q3, despite positive — albeit subdued — growth in UK-weighted world trade (Chart 2.8). The 2.9% fall in export volumes was concentrated in goods exports outside the European Union. Imports continued to rise, in part reflecting robust domestic consumption growth. This resulted in a significant drag on growth from net trade, of 1.2 percentage points of GDP (Table 2.B).

Monthly goods trade data suggest that net trade is likely to drag less on growth in Q4. But UK domestic spending appears likely to be more robust than UK-weighted world demand in the first half of 2014, resulting in strong import demand and relatively subdued exports.

The UK current account deficit widened to 5.1% of nominal GDP in 2013 Q3, in part as a result of the wider trade deficit, but also reflecting a fall in net foreign investment income (Chart 2.9). Net investment income was consistently positive prior to 2012, helping to offset the United Kingdom's persistent trade deficit, in large part due to the income earned by UK PNFCs on their foreign direct investment (FDI). But this FDI income has been lower recently. This probably reflects a deterioration in the profits of UK-owned overseas operations.

3 Output and supply

Output is estimated to have grown by 0.7% in Q4. Business surveys point to robust growth in Q1. But the recovery in output growth has not yet been associated with a sustained increase in productivity. The unemployment rate fell by more than expected to 7.1% in November, reflecting unusually strong employment growth, and is likely to reach the MPC's 7% threshold by the spring. Nevertheless, a margin of slack within the labour market remains.

Table 3.A Monitoring the MPC's key judgements

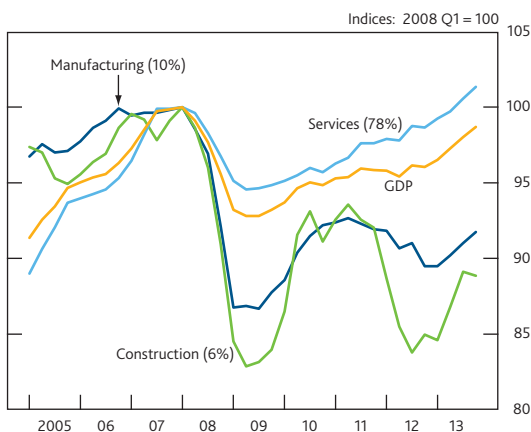
Developments expected in the November Report	Developments since November
Unemployment	Much lower than expected
<ul style="list-style-type: none"> Headline LFS unemployment rate to reach 7.5% by early 2014. 	<ul style="list-style-type: none"> The unemployment rate was 7.1% in the three months to November.
Average hours worked	Broadly on track
<ul style="list-style-type: none"> Average hours continuing to rise gently in 2013 H2 and 2014 H1. 	<ul style="list-style-type: none"> Average hours rose 0.1% in the three months to November.
Participation rate	Broadly on track
<ul style="list-style-type: none"> Labour market participation rate broadly stable. 	<ul style="list-style-type: none"> Little changed.
Productivity	Weaker than expected
<ul style="list-style-type: none"> Four-quarter growth in hourly labour productivity to rise to above 1% by early 2014. 	<ul style="list-style-type: none"> Whole-economy output per hour is likely to have risen by around ½% in the year to 2013 Q4.
Spare capacity	Less spare capacity than expected
<ul style="list-style-type: none"> Indicators of spare capacity consistent with no material intensification of capacity pressures. 	<ul style="list-style-type: none"> Survey indicators of spare capacity pointed to less slack in Q4, suggesting that many companies were operating at close to normal levels of capacity utilisation.

The recovery in output gained momentum, but robust output growth has been accompanied by surprisingly large rises in employment. As a result, the unemployment rate has fallen towards the MPC's threshold of 7% much more quickly than expected (**Table 3.A**). Productivity growth has remained weak (Section 3.1).

The extent to which strong output and employment growth have reduced economic slack is a central judgement for the MPC. Business surveys suggest that companies were operating at close to normal levels of capacity in Q4. But a margin of labour market slack remains (Section 3.2).

The speed at which slack is absorbed in 2014 and beyond will depend, in part, on how quickly productivity recovers. The MPC expected productivity to pick up as demand recovered, judging that many companies would be able to use their existing workforce more effectively before taking on more staff. That recovery in productivity growth has been slow to take hold (Section 3.3), causing the MPC to revise down its judgement of the likely strength of the response of productivity to higher demand. Nevertheless, it continues to expect four-quarter productivity growth to rise gradually to around its pre-crisis average rate over the forecast period (Section 5).

Chart 3.1 GDP and sectoral output^(a)

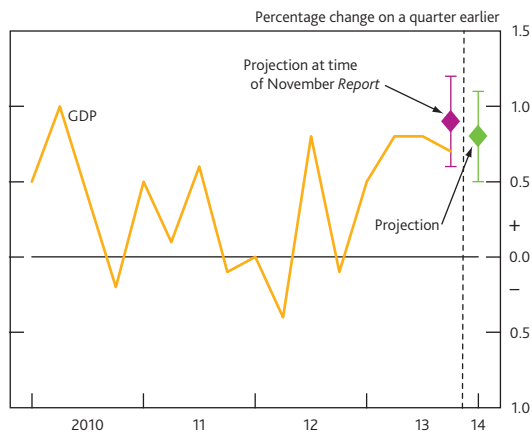


(a) Chained-volume measures. GDP is at market prices. Indices of sectoral output are at basic prices. The figures in parentheses show 2010 weights in gross value added.

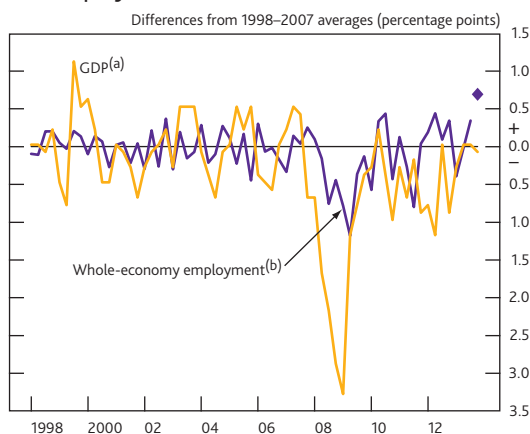
3.1 Recent developments in output, the labour market and productivity

Output

The recovery in output gained momentum during 2013. Four-quarter GDP growth reached 2.8% in Q4, its highest rate since the start of 2008, driven primarily by the service sector. But manufacturing output also boosted growth, in contrast to the drag imparted in 2012 (**Chart 3.1**). Quarterly output growth softened a little to 0.7% in Q4 from 0.8% in Q3. That was weaker than Bank staff had expected in November (**Chart 3.2**), largely reflecting an unexpected fall in construction output. Taking account of survey information, Bank staff expect Q4 growth to be revised up to around 0.9% eventually.

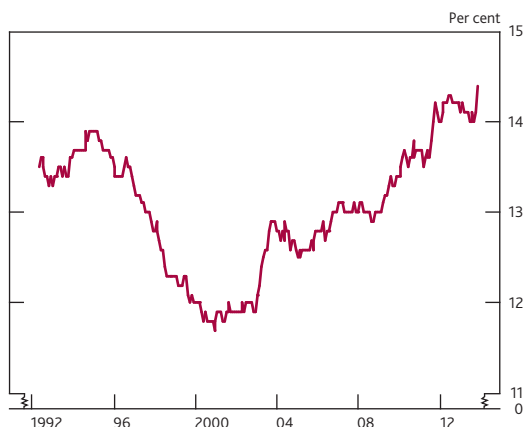
Chart 3.2 Bank staff projection for near-term output^(a)

(a) Chained-volume measures. GDP is at market prices. The magenta diamond shows Bank staff's central projection for the preliminary estimate of GDP growth for Q4 at the time of the November Report. The green diamond shows the current staff projection for the preliminary estimate of GDP growth for Q1. The bands on either side of the diamonds show uncertainty around those projections based on staff estimates of the root mean squared errors of forecasts for quarterly GDP growth made since 2004. As the staff projections are for the preliminary estimates of GDP, they can differ from those used to construct the GDP fans, for example that shown in Chart 5.1, because those fans are based on the MPC's best collective judgement of the final estimate of GDP.

Chart 3.3 Quarterly growth in whole-economy output and employment

Source: ONS (including the Labour Force Survey).

(a) Chained-volume measure at market prices.
 (b) Diamond shows change in the three months to November 2013 relative to the previous three months.

Chart 3.4 Self-employment share^(a)

Source: Labour Force Survey.

(a) Percentage of LFS total employment. Rolling three-month measure. First data point is May 1992.

Output growth is expected to be robust in Q1. The Q4 weakness in construction output growth should unwind, consistent with survey indicators. Surveys also point to continued robust growth in manufacturing and services output. Overall, Bank staff expect the preliminary estimate of GDP growth in Q1 to be around 0.8%, although the historical average error around the staff projection is wide at 0.3 percentage points (Chart 3.2). That preliminary estimate is expected to be revised up over time; the final estimate of Q1 growth incorporated in the MPC's GDP fan chart is 0.9%.

Labour demand and productivity

Demand for labour has been surprisingly robust in recent months, and stronger than its past relationship with output would imply. Employment rose by 280,000 in the three months to November, the largest three-month rise since the series began in 1971. That rise was around four times larger than the average quarterly rise seen in the decade before the crisis, despite recent output growth being close to its pre-crisis average rate (Chart 3.3). Self-employment accounted for just over half of the rise in total employment, taking its share to a series high (Chart 3.4). Full-time and part-time employment both rose in the three months to November (Table 3.B). Strong demand for labour has been concentrated in the private sector; public sector employment was flat in Q3. The rise in employment in Q3 was broadly based across industries, although there were particularly strong increases in construction and real estate activities, according to Workforce Jobs data.

A corollary of the surprising strength in employment growth in 2013 was unexpectedly weak productivity growth. Quarterly productivity growth picked up in 2013 H1, but subsequently fell back. In the four quarters to 2013 Q3, whole-economy output per hour rose by just 0.1%. Productivity remained over 4% below its 2008 peak in Q3.

Official data may understate the true level of productivity; the MPC's backcast suggests that the level of GDP in 2013 Q3, and hence productivity, could eventually be revised up by 0.5%. But those expected revisions are small compared with the unexpected weakness in productivity and are concentrated in 2011 and 2012, such that productivity growth in the first three quarters of 2013 is expected to be broadly unchanged from current estimates. Based on the preliminary estimate of GDP, and the available labour market data and surveys, productivity is likely to have been broadly flat in Q4. Bank staff project a rise of around ½% in the four quarters to 2014 Q1. Section 3.3 discusses the factors influencing the prospects for productivity beyond Q1.

Unemployment and labour supply

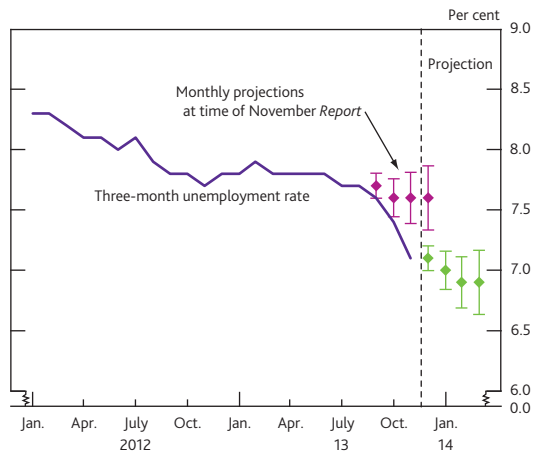
Unemployment has fallen much faster than expected in the November Report, driven by strong labour demand. The Labour Force Survey (LFS) unemployment rate fell to 7.1% in

Table 3.B Employment and participation

	Averages ^(a)		2013			
	1998–2007 ^(b)	2012	Q1	Q2	Q3	Nov. ^(c)
Employment ^(d)	69	151	-43	69	176	280
Full-time employment ^(d)	49	102	11	31	157	222
Part-time employment ^(d)	21	49	-53	38	19	59
Private sector employment ^{(d)(e)}	52	225	40	102	246	n.a.
Participation ^(f)	63.0	63.4	63.5	63.5	63.6	63.6

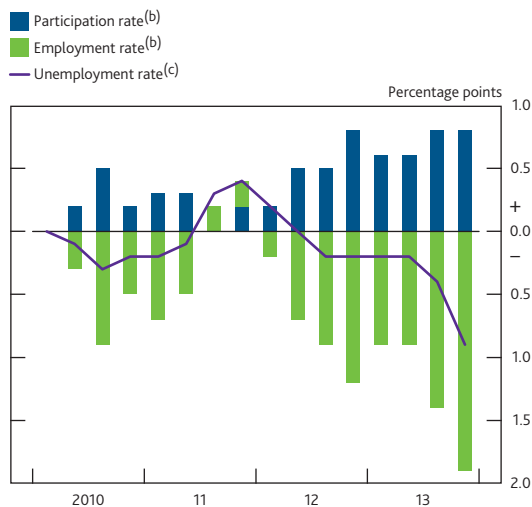
Source: ONS (including the Labour Force Survey).

- (a) Quarterly averages.
 (b) Unless otherwise stated.
 (c) Three months to November.
 (d) Quarterly changes, thousands, except for the final column, which shows changes in the three months to November 2013 relative to the previous three months.
 (e) Average is for 1999 Q2–2007.
 (f) Percentage of the 16+ population.

Chart 3.5 Bank staff projection for the near-term headline LFS unemployment rate^(a)

Sources: Labour Force Survey and Bank calculations.

- (a) The magenta diamonds show Bank staff's central projections for the headline unemployment rate for September, October, November and December 2013 at the time of the November Report. The green diamonds show the current staff projections for the headline unemployment rate for December 2013, and January, February and March 2014. The bands on either side of the diamonds show uncertainty around those projections based on staff estimates of root mean squared errors of past forecasts for the three-month LFS unemployment rate.

Chart 3.6 Contributions to the change in the unemployment rate since 2010 Q1^(a)

Sources: Labour Force Survey and Bank calculations.

- (a) 2013 Q4 is proxied using data in the three months to November.
 (b) Percentage of the 16+ population.
 (c) Percentage of the 16+ economically active population. May not equal the sum of its components due to rounding.

the three months to November, from 7.7% in the three months to August, whereas Bank staff had projected a much smaller fall to 7.6% (Chart 3.5). That 0.5 percentage point discrepancy was around twice as large as the historical average error around the staff projection. The headline LFS rate is projected to have remained at around 7.1% in December.

Unemployment would have fallen by more in recent years if rising employment had not been partially accounted for by increased labour force participation (Chart 3.6). That has in part reflected increased participation rates among older people, which could be related to rising longevity and to lower savings income as a result of the financial crisis. Other factors, such as changes to government benefits and the squeeze on household incomes in recent years (Section 2), are also likely to have encouraged more people to seek work.⁽¹⁾ The factors contributing to a rising participation rate in recent years have more than offset demographic trends that on their own would have pulled down the participation rate significantly. Participation is expected to rise a little further in early 2014.

Further falls in unemployment are likely in early 2014, as employment is likely to continue to rise by more than participation. A range of survey measures of employment intentions rose in Q4 and suggest strong growth. Vacancies also increased further. And the claimant count measure of unemployment continued to fall in Q4, albeit at a slightly slower pace than in Q3. The Bank staff projection for the headline LFS unemployment rate in Q1 is 6.9%, significantly lower than in the November Report, and below the MPC's 7% threshold (Chart 3.5).

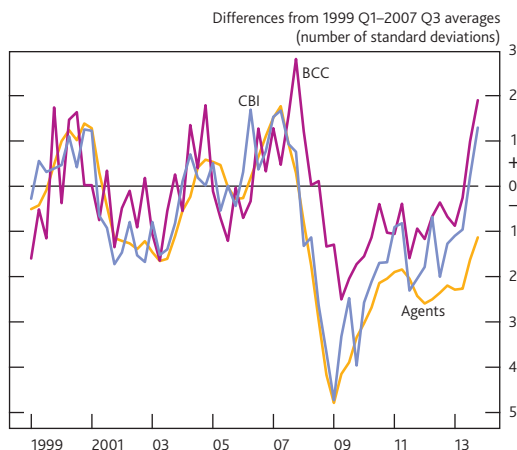
3.2 Indicators of spare capacity

The balance between demand and supply is an important determinant of the degree of inflationary pressure. A key judgement for the MPC is the extent to which that balance has changed, given strong output and employment growth.

Slack within companies

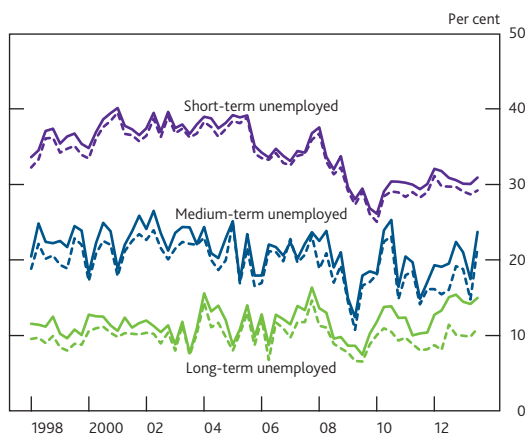
Surveys suggest that the margin of spare capacity within companies narrowed in 2013 such that companies were, on average, operating at close to normal levels of capacity utilisation (Chart 3.7). The interpretation of these survey measures is, however, not straightforward. Companies may have short-term notions of capacity in mind when responding to such surveys, ignoring, for example, mothballed capacity, which may require some spending to bring back into use. Moreover, while these surveys suggest that spare capacity within companies has, on average, fallen to more normal levels, most do not ask companies to quantify either current or 'normal' levels of capacity utilisation. The exception is the CBI

(1) Developments in the participation rate since the recession are discussed in more detail in the box on page 27 of the May 2013 Report.

Chart 3.7 Survey indicators of capacity utilisation^(a)

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

(a) 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 surveys are adjusted to have a mean of zero and a variance of one over 1999 Q1 to 2007 Q3. The BCC data are non seasonally adjusted.

Chart 3.8 Flows from unemployment to employment, including and excluding government-supported training schemes^(a)

Sources: Labour Force Survey and Bank calculations.

(a) Short-term is defined as less than six months, medium-term is defined as six to twelve months and long-term is defined as more than twelve months. For each group of short, medium and long-term unemployed, the chart shows flows into LFS employment divided by the number of people who were unemployed for that length of time in the previous quarter. The dashed lines show those flows excluding participants of government-supported training and work placement schemes. Based on LFS microdata that have been seasonally adjusted by Bank staff. Data are to 2013 Q3 and based on the 16–64 population.

manufacturing survey, which suggests that manufacturers are currently operating with a capacity utilisation level of 82%, broadly in line with the pre-crisis average. Overall, while it is difficult to map these surveys precisely into capacity utilisation, it is unlikely that spare capacity within companies is putting much pressure on inflation in either direction.

Labour market slack

The fall in unemployment probably overstates the fall in labour market slack — the scope for total hours worked to increase without pressure on pay. That scope depends on: how far unemployment is above its medium-term equilibrium rate; whether people are working fewer hours than they would like; and whether some potential employees have been temporarily discouraged from seeking work.

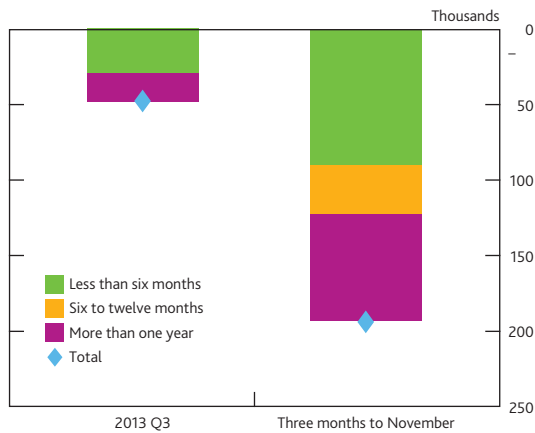
Unemployment probably remains above its medium-term equilibrium rate suggesting scope for it to fall without significant pressure on pay. Bank staff's estimate of the equilibrium rate depends on the composition of unemployment and so varies over time.⁽¹⁾ A key determinant is the proportion of the unemployed who have been out of work for some time. They are likely to exert less downward pressure on wages than those who have been out of work for only a short while. That is because people typically become more disconnected from the labour market the longer they are unemployed. As a result, the probability of them finding a job decreases. Based on the historical average rates at which different groups of the unemployed move into jobs, those who have been out of work for over a year have been around a third as likely to find work as those unemployed for less than six months (**Chart 3.8**). The rise in long-term unemployment in 2009 was therefore associated with a rise in the medium-term equilibrium rate to around 6½%.

More recently, longer-term unemployment has fallen back: around half of the fall in total unemployment between June and November 2013 was among the long and medium-term unemployed (**Chart 3.9**), reducing Bank staff's estimate of the medium-term equilibrium rate to 6%–6½%. Longer-term unemployment, and hence the medium-term equilibrium unemployment rate, is likely to continue to fall as demand recovers.

There is uncertainty about the medium-term equilibrium unemployment rate. The rate at which the long-term unemployed find work has risen since mid-2009 (**Chart 3.8**). The underlying rise may be overstated, in part, as it reflects participation in government-supported training and work placement schemes, which provide only temporary employment. But even excluding those moving onto such schemes, the transition rate of the long-term unemployed,

(1) For more information on equilibrium rates of unemployment, see the box on pages 28–29 of the August 2013 *Inflation Report*.

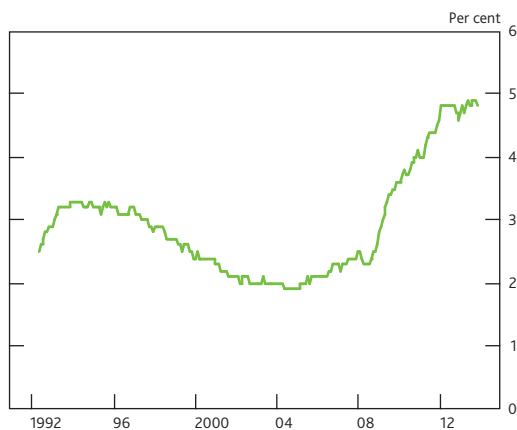
Chart 3.9 Contributions to the fall in unemployment since 2013 Q2 by duration^(a)



Source: Labour Force Survey.

(a) Change in LFS unemployment divided into those who have been unemployed for less than six months, between six and twelve months, and more than one year.

Chart 3.10 Part-time employees who could not find full-time work^(a)



Source: Labour Force Survey.

(a) Number of people reporting to the LFS that they are working part-time because they could not find a full-time job, as a percentage of LFS total employment. Rolling three-month measure. First data point is May 1992.

Table 3.C Average weekly hours worked and a measure of 'desired' hours

	Averages ^(a)			2013			
	1998–2007 ^(b)	2011	2012	Q1	Q2	Q3	Nov. ^(c)
Average hours	32.4	31.6	31.9	32.0	32.0	32.1	32.2
Number of hours that the currently employed would like to work, on average ^(d)	32.1	32.1	32.4	32.7	32.6	32.7	n.a.

Sources: ONS (including the Labour Force Survey) and Bank calculations.

(a) Quarterly averages.
 (b) Unless otherwise stated.
 (c) Three months to November.
 (d) Actual hours worked adjusted for the difference between actual and desired working hours of those in work. Based on the methodology set out in Bell, D and Blanchflower, D (2013), 'How to measure underemployment?', *Peterson Institute for International Economics Working Paper No. 13-7*. Based on LFS microdata that have been seasonally adjusted by Bank staff. Average since 2001 Q2.

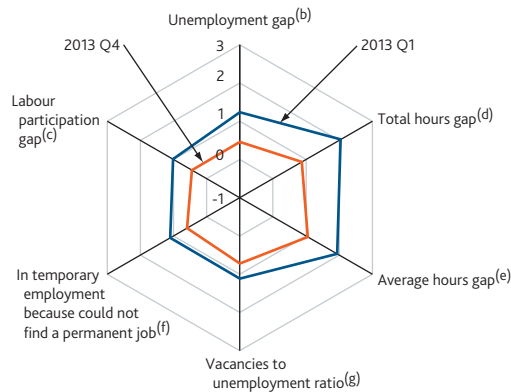
relative to that of the short-term unemployed, remains above its historical average. That suggests that the long-term unemployed may be exerting more downward pressure on wages than they did in the pre-crisis decade. However, the transition rate of the short-term unemployed into work is below its historical average, which could indicate that they have been searching for employment less intensively and are exerting less downward pressure on wages than before the crisis.

There is probably also scope for companies to increase the hours their staff work without significant pressure on pay. Average hours worked have increased fairly steadily since the 2008/09 recession for both full-time and part-time employees. At face value that suggests less slack. But an unusually high proportion of part-time employees still say that they would prefer a full-time job (**Chart 3.10**). And, according to LFS microdata, the number of hours that the currently employed would like to work, on average, has also risen (**Table 3.C**). It is unclear how far these rises in 'desired' hours reflect an increase in the medium-term equilibrium level of average hours. For example, it is likely that some of the rise in desired hours will unwind as the squeeze on household real incomes eases (Section 4). Bank staff judge that much of the rise in these indicators of desired hours reflects a rise in the medium-term equilibrium level of average hours worked, and have therefore revised up their assessment of that medium-term equilibrium level since August.

Other measures also suggest that slack remains, despite the recent tightening of the labour market (**Chart 3.11**). For example, the proportion of temporary staff in the LFS reporting that they are in such employment because they could not find a permanent job remains above pre-crisis levels. And vacancies remain low relative to unemployment. The MPC also judges that the participation rate remains slightly below its medium-term equilibrium level, as some potential employees have been temporarily discouraged from looking for work.

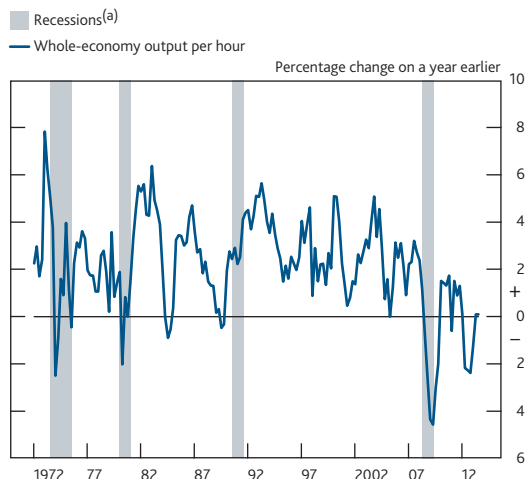
In contrast, surveys of recruitment difficulties point to tightness in some parts of the labour market. As labour demand increases and the pool of unemployed shrinks, it can become more difficult for employers to recruit staff with the required skills. Recruitment difficulties have become particularly apparent in some parts of the construction sector, according to contacts of the Bank's Agents. More generally, survey indicators suggest that recruitment difficulties and skills shortages increased in 2013 and pointed to a degree of tightness around pre-recession averages in Q4.

Overall, the MPC judges that a margin of slack remains, concentrated in the labour market and largely reflecting, in roughly equal parts, unemployment and average hours being away from their medium-term equilibrium levels. That margin is equivalent to around 1%–1½% of GDP: the amount that it is assumed would be produced were unemployment to fall and

Chart 3.11 Selected indicators of labour market slack^(a)

Sources: ONS (including the Labour Force Survey) and Bank calculations.

- (a) The chart shows the differences, in number of standard deviations, between the values of these indicators and their 1992–2007 averages. The orange line is based on ONS data for the three months to November 2013 and Bank staff estimates for 2013 Q4. The blue line is based on ONS data and Bank staff estimates for 2013 Q1.
- (b) Difference between the unemployment rate and Bank staff's central estimate of the medium-term equilibrium unemployment rate.
- (c) Difference between Bank staff's estimate of the trend participation rate and the participation rate.
- (d) Percentage difference between total weekly hours worked and Bank staff's estimate of trend total weekly hours worked. The standardised data have been multiplied by -1 so that a higher number indicates more slack. Trend total weekly hours worked has been revised up since this chart was first published in August 2013 in *Monetary policy trade-offs and forward guidance*, reflecting an upward revision to trend average hours worked per week.
- (e) Percentage difference between average weekly hours worked and Bank staff's estimate of trend average weekly hours worked. The standardised data have been multiplied by -1 so that a higher number indicates more slack. This measure was not included in the version of this chart that was published in August 2013.
- (f) Number of people reporting to the LFS that they are in temporary employment because they could not find a permanent job, as a percentage of the number of people in temporary employment. Data begin in 1992 Q2.
- (g) Number of UK vacancies (excluding agriculture, forestry and fishing) divided by LFS unemployment. Data on UK vacancies are only available from 2001 Q2 onwards. Prior to that, UK vacancies have been projected backwards using changes in the number of vacancies at UK job centres. Data on vacancies at UK job centres for 2001 Q2 have been estimated using data for April 2001. The standardised data have been multiplied by -1 so that a higher number indicates more slack.

Chart 3.12 Labour productivity

Source: ONS (including the Labour Force Survey).

- (a) Recessions are defined as at least two consecutive quarters of falling output (at constant market prices). The recessions are assumed to end once output began to rise, apart from the 1970s where two separate occasions of falling output are treated as a single recession.

average hours worked to rise to their equilibrium levels, assuming that the newly employed are as productive as current staff.

3.3 Prospects for productivity

Productivity growth has been unprecedentedly weak since the 2008/09 recession (**Chart 3.12**). That weakness continued into 2013, despite strong growth in demand and in contrast to the MPC's expectations of a gradual pickup.

It is not clear what has constrained productivity growth in recent years. But given the continued weakness in productivity, the MPC judges that the extent to which productivity growth will rise as a direct result of stronger demand growth is less than thought likely in August. In particular, to the extent that weak productivity reflected businesses retaining staff who would be costly to replace, or needing a minimum level of staff to keep operating, that part of the weakness should have unwound as demand picked up. Nevertheless, there are other reasons to expect productivity growth to pick up as the recovery progresses. For example, as demand increases, some companies may be able to switch staff from winning business towards producing output. More generally, as production increases, employees will become more experienced and may be better able to make efficiency gains.

Productivity growth may also pick up as the lingering impact from the aftermath of the financial crisis gradually fades. Productivity growth following the crisis may have been held back by weak business investment growth and by impediments to the efficient reallocation of capital and labour from less productive businesses to more productive ones. Both of those factors are likely to have been caused, at least in part, by tight credit conditions and elevated uncertainty about the demand outlook. More recently, credit conditions and uncertainty have eased, although how far and how quickly that improvement feeds into higher productivity is uncertain. Evidence on the extent of reallocation between companies is only available with a considerable delay.⁽¹⁾ Investment did rise in Q3 and is expected to rise further in coming quarters (Section 2). But it will take time for that to boost productivity, as investment is small relative to the amount of existing capital.

The MPC continues to expect productivity growth to pick up gradually, although there is considerable uncertainty around when that rise will occur and how large it will be (Section 5). The box on pages 46–47 presents two scenarios illustrating the potential impact on the wider economy if productivity picks up more or less quickly than in the MPC's central judgement.

(1) Company-level data suggest that productivity growth was constrained by reduced reallocation in 2010 and 2011 compared with earlier years. Data for 2012 have only very recently become available. See page 27 of the August 2013 Report for more details.

4 Costs and prices

CPI inflation returned to the 2% target in December. Inflation is expected to moderate further in the next few months before edging up to around the target. Wage growth remained weak, and four-quarter unit labour cost growth fell back in 2013 Q3. Companies' margins still appeared squeezed. Inflation expectations remained anchored.

Table 4.A Monitoring the MPC's key judgements

Developments expected in the November Report	Developments since November
Inflation expectations • Medium-term inflation expectations consistent with the 2% target.	On track • Consistent with meeting the target.
Earnings growth • Four-quarter AWE growth to average around 1% in 2013 H2, rising a little thereafter.	On track • Whole-economy AWE twelve-month growth rate was 0.9% in the three months to November.
Unit labour costs • Quarterly unit labour cost growth to be negative in Q3, then to rise to around 0.5% by mid-2014.	On track • Quarterly unit labour cost growth was -1.4% in Q3.
Commodity prices • Commodity prices to evolve roughly in line with paths implied by futures markets.	Broadly on track • US dollar oil futures prices a little higher, but gas futures a little lower.
Utility prices • Four-quarter increases in household energy prices of 9% by 2014 Q1.	Lower than expected • Household energy prices will be around 5½% higher in Q1 than a year earlier.

CPI inflation fell to the MPC's 2% target during 2013 Q4 for the first time in four years (Chart 4.1, Section 4.1), and wage growth remained subdued. Inflation will be influenced by the evolution of global and import prices (Section 4.2), labour costs, and inflation expectations (Section 4.3).

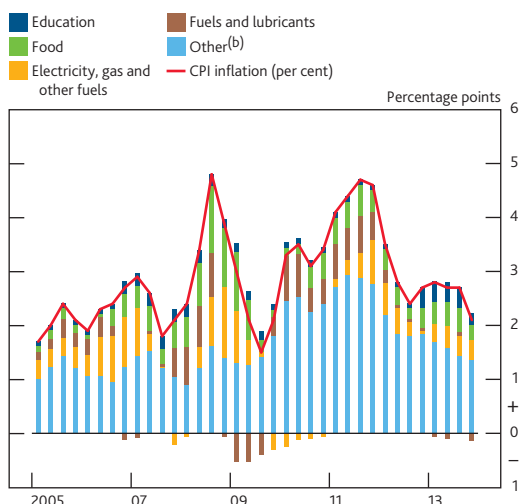
4.1 Consumer prices

CPI inflation fell to 2% in December, down from 2.9% at its recent June 2013 peak. That was a faster fall than expected three months ago. RPI inflation also fell back, but by less, so the wedge between RPI and CPI inflation, which is discussed in a box on pages 34–35, increased. CPIH inflation — a measure of consumer price inflation that includes owner-occupiers' housing costs — fell from 2.7% in June to 1.9% in December.⁽¹⁾

The decline in CPI inflation since June 2013 was accounted for by a number of factors (Chart 4.2). The contribution from 'other services' prices fell by a little under 0.2 percentage points, which is likely partly to reflect weakness in labour cost growth that may persist (Section 4.3). But the vast majority of the decline was accounted for by idiosyncratic factors. The contribution from food and petrol prices fell, partly reflecting better harvests in 2013 than the year before and lower oil prices respectively (Section 4.2). Airfares and clothing and footwear price inflation also slowed; those components tend to be volatile. In addition, there have been smaller rises than expected in administered and regulated prices, particularly tuition fees and domestic energy prices.

The increase in university tuition fees implemented in October 2012 affected a second cohort of students in Autumn 2013. Although the increase in fees was the same as the previous year, its proportionate impact on overall tuition fee expenditure was smaller as a substantial number of students were already paying the higher fees. As a result, the contribution from education fell by around 0.2 percentage

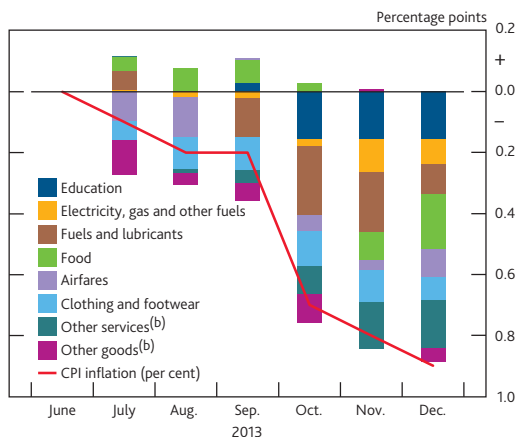
Chart 4.1 Contributions to CPI inflation^(a)



(a) Quarterly contributions to annual CPI inflation. Data are non seasonally adjusted.
 (b) Calculated as a residual. Includes a rounding residual.

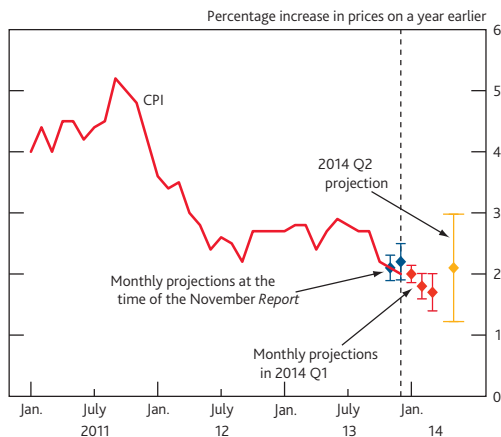
(1) The UK Statistics Authority confirmed the designation of CPIH as a National Statistic in November 2013. For more information on this measure, see www.ons.gov.uk/ons/guide-method/user-guidance/prices/cpi-and-rpi/introducing-the-new-cpih-measure-of-consumer-price-inflation.pdf.

Chart 4.2 Contributions to the change in annual CPI inflation since June 2013^(a)



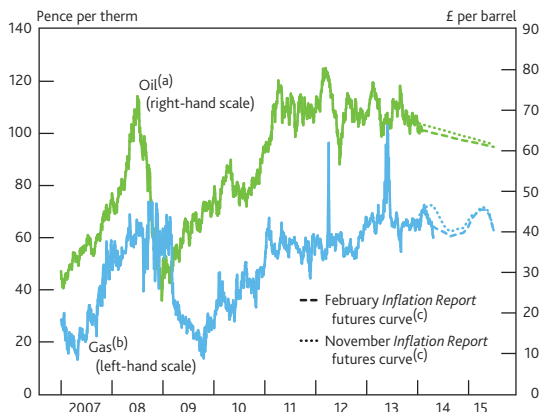
(a) Data are non seasonally adjusted. Contributions may not sum to total due to rounding.
 (b) Calculated as residuals between the total contribution of goods or services to CPI inflation and the contributions to CPI inflation from the goods or services identified in the chart.

Chart 4.3 Bank staff projection for near-term CPI inflation^(a)



(a) The blue diamonds show Bank staff's central projection for CPI inflation in November and December 2013 at the time of the November *Inflation Report*. The red diamonds show the staff projection for January, February and March 2014. The orange diamond shows the projection for 2014 Q2, consistent with the central projection in *Chart 5.2*. The bands on each side of the blue and red diamonds show the root mean squared error of projections for CPI inflation one, two and three months ahead made since 2004. The bands on each side of the orange diamond show the standard deviation for the Q2 projection consistent with the MPC's inflation fan chart *Chart 5.2*.

Chart 4.4 Sterling oil and wholesale gas prices



Sources: Bank of England, Bloomberg, Thomson Reuters Datastream and Bank calculations.

(a) Brent forward prices for delivery in 10–21 days' time converted into sterling.
 (b) One-day forward price of UK natural gas.
 (c) The futures prices shown are averages during the fifteen working days to 6 November 2013 (dotted lines) and 5 February 2014 (dashed lines). The sterling oil futures curve is calculated by assuming that the sterling-dollar exchange rate remains at its average level during those respective fifteen-day periods.

points in October 2013 (*Chart 4.2*). Tuition fees are expected to contribute around 0.2 percentage points to inflation over the next 18 months, 0.1 percentage points less than previously assumed.

A lower contribution from domestic energy prices accounted for around 0.1 percentage points of the fall in CPI inflation. That largely reflected a smaller overall increase in prices this year compared with last. In the autumn, four of the six largest utility companies announced increases in prices averaging 9%. But in response to the Government announcing the removal of around £50 of policy costs from household energy bills, those companies announced cuts in prices, while the other two announced smaller price increases of around 4%. That means that utility prices will be 5½% higher in Q1 than a year earlier, below the assumption in the November *Report* (*Table 4.A*), and last year's increase of around 8%. The MPC also expects smaller future increases in domestic energy prices (Section 5).

CPI inflation is expected to continue to moderate in the near term, reaching around 1.7% in March (*Chart 4.3*), largely on account of the smaller increases in utility prices compared with the previous year, and a further fall in petrol prices. After that, inflation is expected to edge up to around 2%.

4.2 Global and import prices

Commodity prices

Commodity prices are an important influence on inflation. They affect CPI inflation directly, via household energy bills, for example, and indirectly through businesses' costs.

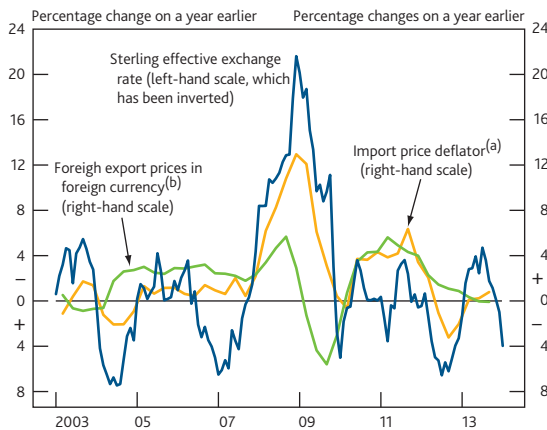
Energy prices have changed little since the November *Report*, and remain lower than they were a year ago. US dollar oil spot prices have fallen by around 6% over the past year; in sterling terms they have fallen by around 10% (*Chart 4.4*). The futures curve has remained a little downward-sloping, perhaps reflecting expectations that disruptions to Libyan supply during 2013 may come to an end, while some of the sanctions on Iranian oil exports may be lifted. In the run-up to the February 2014 *Report*, gas spot and futures prices were also a little below their levels a year earlier.

Relative to a year ago, agricultural commodity and industrial metals prices were around 10% lower. Industrial metals prices in particular are likely to have been affected by subdued growth in some emerging economies (Section 2).

Non-energy import prices

Import prices have been a major contributor to elevated CPI inflation since 2008. Changes in import prices reflect developments in both foreign export prices and the sterling exchange rate. Sterling's depreciation in 2007–08 of more than 25% led to a sharp increase in import prices (*Chart 4.5*). And over 2010–11, large increases in foreign export prices led

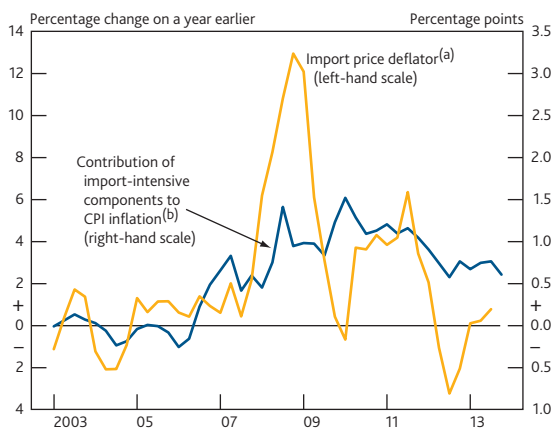
Chart 4.5 Sterling effective exchange rate, UK import prices and foreign export prices excluding fuel



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

- (a) Goods and services deflator excluding fuels and the impact of MTIC fraud.
 (b) Domestic currency export prices of goods and services of 52 countries weighted according to their shares in UK imports. The sample does not include any major oil exporters. The observation for 2013 Q3 is an estimate. In 2013 Q3, export prices for Pakistan, the Philippines and Turkey are assumed to grow at the same rate as export prices in the rest of the world.

Chart 4.6 UK non-energy import prices and contribution of import-intensive components to CPI inflation



Sources: ONS and Bank calculations.

- (a) Goods and services deflator excluding fuels and the impact of MTIC fraud.
 (b) Quarterly contribution of the 17 most import-intensive components relative to their 2003–06 average, excluding tobacco (because of the impact of duties), and operation of personal transport equipment (which includes petrol prices). The contribution from clothing has been adjusted prior to January 2011 to reflect a change in methodology implemented during 2010 that added 0.3 percentage points to this contribution. The import intensities of CPI components have been estimated using ONS Supply and Use tables.

Table 4.B Private sector earnings^(a)

Percentage changes on a year earlier	Averages			2013			
	2001–2007	2008 Q3–2010 Q2	2010 Q3–2012	Q1	Q2	Q3	Nov. ^(b)
	(1) Total AWE	4.3	0.7	1.9	0.2	2.8	1.1
(2) AWE regular pay ^(c)	3.9	1.6	2.0	0.8	1.2	1.1	1.2
(1)–(2) Bonus contribution ^(d)	0.4	-0.9	0.0	-0.6	1.6	0.0	-0.1
Pay settlements ^(e)	3.3	2.5	2.1	2.0	2.1	2.1	2.0

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) Total pay excluding bonuses and arrears of pay.
 (d) Percentage points. The bonus contribution does not always equal the difference between total average weekly earnings (AWE) growth and AWE regular pay growth due to rounding.
 (e) Average over the past twelve months, based on monthly data.

to further rises in import prices. Although import prices were broadly flat over the first three quarters of 2013, estimates by Bank staff suggest that past rises in import prices continued to contribute to CPI inflation in Q4 (Chart 4.6).

It takes time for changes in import prices to pass through into consumer prices. The speed of pass-through varies across different goods and services. The prices of some items, such as fresh food, tend to react quickly; the prices of other items change only slowly, for example those with long supply chains. The extent to which a change in import prices is passed through to consumer prices is also uncertain, and will depend on the direction, size and expected persistence of that change. For example, a survey of UK importers carried out in 2008 suggested that the probability of a change in the exchange rate being passed through increases with the size of that change.⁽¹⁾

Since its trough in March 2013, sterling has appreciated by almost 10%. And foreign export price inflation has fallen (Chart 4.5), partly reflecting weak inflation in some of the United Kingdom's main trading partners. Both of those factors will reduce import price inflation. Past price movements suggest that companies will eventually pass through most of the resulting fall in import prices to consumer prices, but that may take some time. Overall, the contribution from import prices to CPI inflation is likely to fade over coming months (Section 5).

4.3 Labour costs, company profits and wage and price-setting behaviour

The path of inflation depends in part on developments in companies' labour costs, as well as on the inflation expectations of those setting prices and wages.

Labour costs

Wage growth has been weak since the 2008/09 recession, despite persistently above-target inflation. Annual growth in private sector pay — both including and excluding the contribution from bonuses — was just over 1% in the year to November 2013, compared with average rates of around 4% in the years prior to the crisis (Table 4.B).

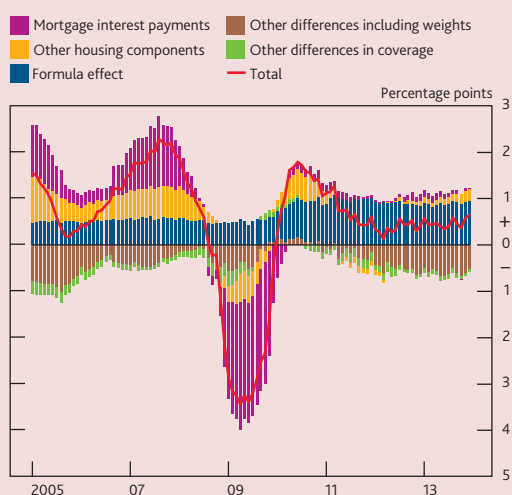
Average weekly earnings (AWE) growth was volatile during 2013 and that will affect the pattern of twelve-month growth during 2014. Some people took advantage of the prospective reduction in the top rate of UK income tax in April 2013 by deferring bonus payments and earnings from Q1 until after the reduction took effect in Q2. Consequently, even if wages remained at their November 2013 level, annual wage growth would rise significantly in March 2014, and fall sharply the following month (Chart 4.7). Abstracting from this short-run volatility, the outlook is for only modest rises in wages.

(1) For more information, see Greenslade, J and Parker, M (2008), 'Price-setting behaviour in the United Kingdom', *Bank of England Quarterly Bulletin*, Vol. 48, No. 4, pages 404–15.

The long-run RPI-CPI wedge

The MPC targets CPI inflation. But it also monitors other measures of inflation, such as RPI. Historically, RPI inflation has tended to be higher than CPI inflation. The wedge between those inflation rates has fluctuated over the past (Chart A), but it is possible to estimate where it is likely to settle in the long run, when short-term shocks have washed out. This is useful, for example, for mapping between expectations of RPI inflation derived from financial markets and CPI inflation. This box explains Bank staff's estimate for the long-run wedge, which is around 1.3 percentage points.

Chart A Contributions to the wedge between RPI and CPI inflation



The formula effect

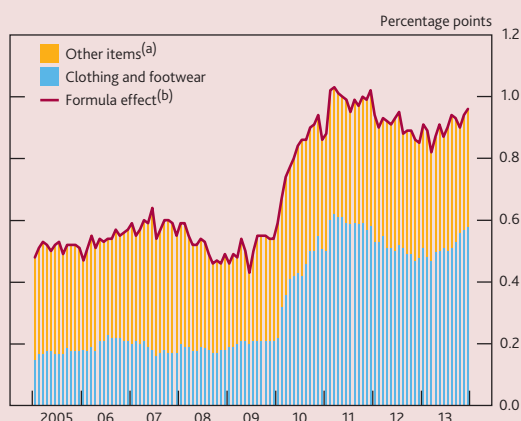
One key difference between RPI and CPI inflation is the different statistical methods used to aggregate data for the prices of individual items. This gives rise to a difference between the two measures known as the 'formula effect'.⁽¹⁾ Until 2010, the formula effect was fairly stable at around 0.5 percentage points (blue bars in Chart A).

During 2010, the ONS changed how it collects clothing prices, leading to a considerable increase in their contribution to the formula effect (Chart B).⁽²⁾ That change led Bank staff to revise up their estimate of the contribution of the formula effect to the long-run wedge to 0.9 percentage points (Table 1). The decision to contemplate only routine changes to the RPI, which effectively rules out a change in the formulae used in its construction, contributed to the UK Statistics Authority's decision to cancel the designation of the RPI as a national statistic.⁽³⁾ No further methodological changes to the RPI are therefore incorporated in the staff's estimate of the long-run wedge.

Mortgage interest payments and other housing costs

Mortgage interest payments (MIPs) and other housing components, such as housing depreciation and Council Tax,

Chart B Contributions to the formula effect



(a) Calculated as a residual.

(b) Contribution of the formula effect to the wedge between RPI inflation and CPI inflation.

Table 1 Estimated contributions to the long-run wedge between RPI and CPI inflation

Percentage points	2005–13 averages	Central long-run estimate
Formula effect	0.7	0.9
Mortgage interest payments and other housing components	0.3	0.6
Other differences ^(a)	-0.5	-0.2
Total	0.5	1.3

(a) Includes other differences in coverage and weights.

are included in the RPI but not the CPI. The contribution of these to the wedge largely depends on developments in the housing market and interest rates (orange and magenta bars in Chart A).

MIPs principally depend on mortgage rates charged by lenders, and the value of the mortgaged housing stock. In the long run, interest rates should be broadly stable, so the contribution of MIPs to the wedge should depend on the change in the value of the housing stock, which also determines the contribution from housing depreciation. To calculate the contribution of housing, a simplifying assumption is made that house prices in the long run increase in line with earnings, which have risen by around 4½% a year on average in the past (Table 4.B). Assuming no change in the weight of housing in the RPI basket, that implies a 0.6 percentage point contribution from housing to RPI, and hence to the wedge (Table 1).

Other differences in coverage and weights

RPI and CPI inflation can also diverge because there are other differences in the items included in each index, and because some items have different weights in each index (green and brown bars in Chart A). The weights used in the two indices are based on different sources. They also capture slightly different groups of consumers. In particular, the CPI includes all private households, whereas the RPI excludes some

households, including the highest 4% of earners and pensioners largely dependent on benefits. And differences in coverage mean that the weights for items included in both indices differ.⁽⁴⁾ In particular, the housing components not included in the CPI account for around 14% of the RPI; the RPI weights for common components are consequently smaller.

Since 2005, after which the split of the wedge into its components is based on the ONS's preferred methodology, these other differences in weights and coverage have contributed on average around -0.5 percentage points to the wedge. But that partly reflects increases in energy and import prices, tuition fees and VAT, which have a smaller weight in the RPI than in the CPI, and so boosted RPI inflation by less than CPI inflation. In the long run, these items are expected to grow at rates consistent with CPI inflation at the 2% target, and the contribution from other differences to the wedge is expected to fall to -0.2 percentage points.

External estimates

Based on these assumptions, Bank staff estimate the long-run RPI-CPI wedge to be around 1.3 percentage points. That is similar to the Office for Budget Responsibility's estimate of 1.3 to 1.5 percentage points.⁽⁵⁾ Although discussions with market participants suggest that the long-run wedge priced into inflation breakevens is a little lower than the Bank staff estimate, at around 0.9 to 1 percentage points on average.

(1) For more information, see ONS (2014), *CPI Technical Manual*, Chapter 10.

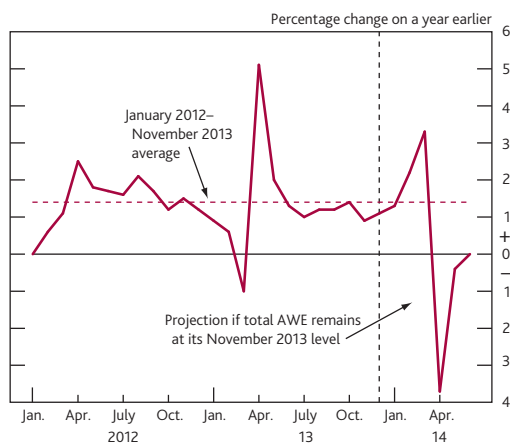
(2) For more information, see the box on page 39 of the February 2011 *Report*, and the January 2011 ONS information note, 'CPI and RPI: increased impact of the formula effect in 2010'.

(3) For more information, see UK Statistics Authority (2013), 'Assessment of compliance with the Code of Practice for Official Statistics — The Retail Prices Index'.

(4) For more information on the different source data and the population base for each index, see ONS (2010), 'Differences between the RPI and CPI measures of inflation'.

(5) For more information, see Miller, R (2011), 'The long-run difference between RPI and CPI inflation', *OBR Working Paper No. 2*, available at <http://cdn.budgetresponsibility.independent.gov.uk/Working-paper-No2-The-long-run-difference-between-RPI-and-CPI-inflation.pdf>.

Chart 4.7 Single-month measure of private sector total earnings and illustration of base effects^(a)



Sources: ONS and Bank calculations.

(a) Private sector AWE total pay.

Table 4.C Survey indicators of private sector earnings growth^(a)

	Averages			2013	
	2001–07	2008 Q3–2012 Q2	2012 Q3–2013 Q2	Q3	Q4
Agents ^(b)	2.4	0.8	1.1	1.2	1.3
BCC ^(c)	29	19	20	24	23
CBI ^(d)	n.a.	1.5	1.5	1.8	2.1
REC ^(e)	56.4	49.8	51.9	55.8	59.0
VocaLink ^(f)	n.a.	1.9	1.3	2.4	2.2

Sources: Bank of England, BCC, CBI (all rights reserved), KPMG/REC/Markit, ONS, VocaLink and Bank calculations.

(a) Sectoral surveys weighted together using employee shares from Workforce Jobs, unless otherwise stated.

(b) Change in total labour costs per employee, latest three months on a year earlier. End-quarter observations on a scale of -5 to +5. Data cover the manufacturing and services sectors.

(c) Net balance of companies reporting pressures to raise prices from pay settlements. Data are non seasonally adjusted and cover the non-services and services sectors.

(d) Expected percentage change in wage/salary cost per person employed (including overtime and bonuses) over the next twelve months. Data cover manufacturing, distribution, and consumer/business services.

(e) Net balance of companies reporting average salaries awarded to staff placed in permanent positions were higher than one month ago and reporting average hourly pay rates for temporary/contract staff were higher than one month ago, weighted together using the shares of permanent and temporary employees.

(f) Change in take-home pay per employee for FTSE 350 companies, latest three months on a year earlier.

Evidence from a recent survey by the Bank's Agents suggests that wage growth will remain muted beyond Q1. Respondents expected annual pay settlements — which account for a large proportion of total earnings growth — to be only slightly higher in 2014 than in 2013. Retention and recruitment of staff were reported to be bolstering total labour costs relative to last year, while inflation expectations were reported to be pushing down. Some indicators point to a greater strengthening in pay pressures. For example, in December, the REC survey rose to its highest level since October 2007 (Table 4.C), and remained there in January, although that only captures the salaries of those who have recently started a job, rather than all employees. More generally, surveys have tended to point to stronger earnings growth than the official data for some time.

The key factors influencing wages over the medium term are productivity and slack in the labour market (Chart 4.8). Productivity growth has been unusually weak since the 2008/09 recession. And despite recent falls, slack is estimated to remain (Section 3). These have both depressed wage growth.

As labour market slack falls and productivity growth picks up, wage growth is likely to recover. The extent to which higher wages affect prices partly depends on the extent to which unit labour cost growth increases as a result. In the period since the 2008/09 recession, wages have adjusted slowly to the weakness in productivity, such that private sector unit labour cost growth has been relatively robust, averaging around its pre-crisis average rate (Chart 4.9). In Q3, four-quarter growth in unit labour costs fell back, broadly as expected in the November *Report*. If wages rise broadly in line with productivity, unit labour cost growth will remain subdued (Section 5).

Monitoring inflation expectations

In August, the MPC set out policy guidance linking Bank Rate and asset sales to an unemployment threshold of 7%. This guidance will cease to hold if any of three knockouts are breached. One of these knockouts relates to whether medium-term inflation expectations remain sufficiently well anchored. The MPC has three main metrics for monitoring the risks to inflation expectations: the level of inflation expectations; uncertainty about inflation; and the sensitivity to unexpected economic developments.

As in November, the level of inflation expectations appears consistent with the 2% target. There remains some evidence that expectations derived from financial markets have been more sensitive to news about the economy over the past year than before the financial crisis, but that sensitivity to news has fallen a little at longer horizons. Overall, the MPC continues to judge that medium-term inflation expectations remain sufficiently well anchored.

The level of inflation expectations

At the one-year horizon, developments in indicators of households' inflation expectations have been mixed since the November Report (Table 1). The Bank/NOP one year ahead measure picked up in the November 2013 survey, rising further above its pre-crisis average. But other indicators fell or were unchanged.

Some measures of households' inflation expectations at the two to three and five to ten-year horizons picked up between Q3 and Q4. Those increases occurred around the time that several utility companies announced price rises. The more timely monthly YouGov/Citigroup measure fell in January — completely unwinding its October pickup, which probably reflected the utility price increases. Overall, most medium-term household measures remain close to past averages. Professional forecasters' expectations were also close to historical averages in Q1.

Indicators of inflation expectations implied from financial instruments that reference RPI inflation — such as inflation swaps — have changed little since the November Report. An indicator of expected inflation three years ahead was around 3% in the run-up to the February Report, and five to ten year ahead expected inflation was 3.5% (Table 1).

These indicators reflect not only expected CPI inflation but also market participants' views about the future wedge between RPI and CPI inflation, together with a risk premium to compensate for factors such as uncertainty about future inflation. Market contacts estimate the long-run RPI-CPI wedge priced in to breakevens to be around 0.9 to 1 percentage points on average. And market participants

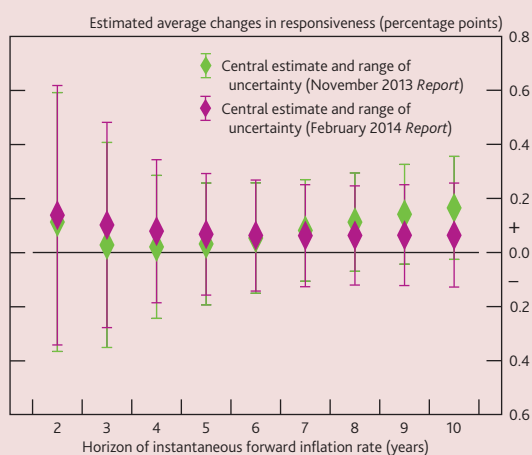
Table 1 Indicators of inflation expectations^(a)

Per cent	2000 (or start of series) to 2007 averages ^(b)	Averages since 2008	2011	2012	2013			2014
					H1	Q3	Q4	
One year ahead inflation expectations								
Households^(d)								
Bank/NOP	2.3	3.4	4.1	3.5	3.6	3.2	3.6	n.a.
Barclays Basix	2.8	3.2	4.0	3.1	2.9	2.8	2.8	n.a.
YouGov/Citigroup (Nov. 2005)	2.5	2.8	3.4	2.7	2.7	2.6	2.8	2.4
Companies (2008 Q2)^(e)								
Financial markets (Oct. 2004) ^(f)	2.6	2.7	3.1	2.6	3.1	2.9	3.0	2.9
Two to three year ahead expectations								
Households^(d)								
Bank/NOP (2009 Q1)	n.a.	2.9	3.4	3.1	3.4	3.0	3.4	n.a.
Barclays Basix	3.2	3.4	4.0	3.3	3.2	3.1	3.2	n.a.
Professional forecasters (2006 Q2)^(g)								
Financial markets (Oct. 2004) ^(h)	2.8	3.0	3.0	2.8	3.1	3.1	3.1	3.2
Five to ten year ahead expectations								
Households^(d)								
Bank/NOP (2009 Q1)	n.a.	3.3	3.5	3.4	3.6	3.5	3.7	n.a.
Barclays Basix (2008 Q3)	n.a.	3.8	3.9	3.9	3.6	4.0	3.9	n.a.
YouGov/Citigroup (Nov. 2005)	3.5	3.4	3.6	3.4	3.4	3.3	3.7	3.2
Financial markets (Oct. 2004) ⁽ⁱ⁾	3.0	3.5	3.3	3.1	3.4	3.5	3.5	3.5
Memo: CPI inflation	1.6	3.2	4.5	2.9	2.8	2.7	2.1	n.a.

Sources: Bank of England, Barclays Capital, Bloomberg, CBI (all rights reserved), Citigroup, GfK NOP, ONS, YouGov and Bank calculations.

- (a) Data are non seasonally adjusted.
 (b) Dates in parentheses indicate start date of the data series.
 (c) Financial markets data are averages from 2 January–5 February. YouGov/Citigroup data are for January.
 (d) The household surveys ask about expected changes in prices but do not reference a specific price index, and the measures are based on the median estimated price change.
 (e) CBI data for the manufacturing, business/consumer services and distribution sectors, 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.
 (f) Instantaneous RPI inflation one year ahead implied from swaps.
 (g) Bank's survey of external forecasters, inflation rate three years ahead.
 (h) Instantaneous RPI inflation three years ahead implied from swaps.
 (i) Five-year, five-year forward RPI inflation implied from swaps.

Chart A Change in responsiveness of instantaneous forward inflation rates to CPI news relative to pre-crisis^(a)



Sources: Bloomberg, ONS and Bank calculations.

- (a) The diamonds show the estimated slope coefficients for the change in responsiveness of instantaneous forward inflation rates (derived from inflation swaps) to news in the CPI release over the twelve months to September 2013 (green diamonds) and the twelve months to December 2013 (magenta diamonds) relative to the pre-crisis period (September 2004–December 2007). The bands around the diamonds cover two standard errors either side of the estimated slope coefficients.

contacted in January commented that their mean expectations were above the 2% target, although their modal expectations remained consistent with the target. A box on pages 34–35 sets out Bank staff's estimate of the long-run wedge.

Uncertainty

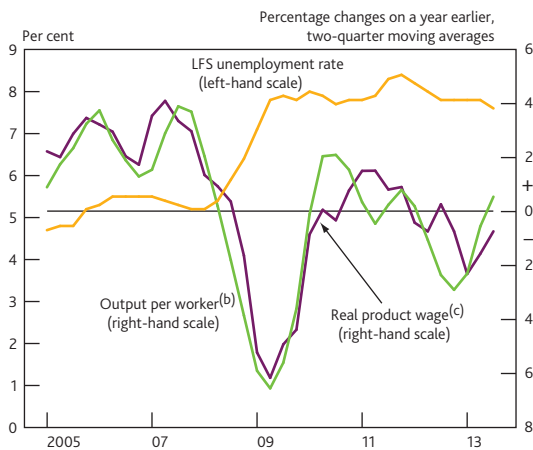
Market-based measures of uncertainty about expected inflation have fallen a little over the past three months. But they remain higher than in 2008.

Sensitivity to news

There remains some tentative evidence that inflation expectations derived from financial markets are more sensitive to news than a few years ago, but at the seven to ten-year horizon, that sensitivity has moderated since the time of the

November Report. One way of assessing this sensitivity is to examine how these measures of inflation expectations change in response to unexpected movements in CPI inflation on the day of publication. The magenta diamonds in **Chart A** show the change in expected inflation at different horizons following CPI data releases between January 2013 and December 2013 relative to the average changes in response to CPI news between 2004 and 2007; the green diamonds show the equivalent coefficients at the time of the November Report. Over the past twelve months, inflation expectations appear to have been a little more responsive to CPI data news than they were between 2004 and 2007, but that change in sensitivity is very small relative to the uncertainty around it (**Chart A**). And at longer horizons that responsiveness has declined since the November Report.

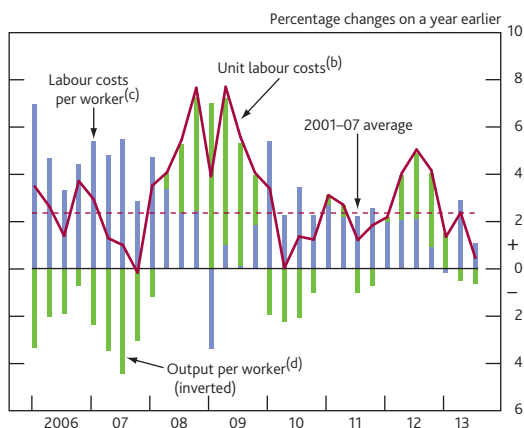
Chart 4.8 Real product wages, the unemployment rate and productivity^(a)



Sources: ONS (including the Labour Force Survey) and Bank calculations.

- (a) The latest observation is 2013 Q3.
 (b) Market sector output per worker.
 (c) Private sector AWE total pay deflated by the market sector gross value added deflator.

Chart 4.9 Contributions to private sector unit labour costs^(a)



Sources: ONS and Bank calculations.

- (a) Contributions do not sum to total due to the method of calculation.
 (b) Estimated labour costs per worker as defined in footnote (c) divided by market sector output per worker.
 (c) Calculated using private sector AWE data adjusted using the ratio of private sector employee compensation to wages and salaries.
 (d) Market sector output per worker.

Company profits and business pricing intentions

The latest ONS data on the private sector corporate profit share suggest that companies' profit margins have remained compressed following the 2008/09 recession. A survey by the Bank's Agents conducted in mid-2013 also indicated that profit margins have been squeezed in aggregate, although there were significant differences across companies and sectors. In particular, the survey suggested that the profits of export-facing businesses had been supported by the sterling depreciation.⁽¹⁾ But sterling's appreciation since March 2013 may have put downward pressure on exporters' margins.

It is likely that companies will eventually need to rebuild their margins to deliver sufficiently attractive returns to investors. Some of the increase in margins could occur through a reallocation of resources towards more profitable businesses. But it could also happen through larger increases in prices, smaller increases in costs, or a combination of the two.

Inflation expectations

The rate at which companies raise prices partly depends on their inflation expectations. For example, if businesses expect higher price rises by their competitors, perhaps as a result of stronger overall inflation, they may be more inclined to make larger price increases themselves. Companies' near-term expectations for the change in their own prices, and prices in their industry more generally, have been broadly stable over the past year.

More generally, as discussed in a box on pages 36–37, the MPC judges that medium-term inflation expectations remain sufficiently well anchored. Movements in measures of medium-term expectations of households, financial market participants and professional forecasters have been mixed, but most are close to past averages.

(1) For more information, see page 35 of the August 2013 Report.

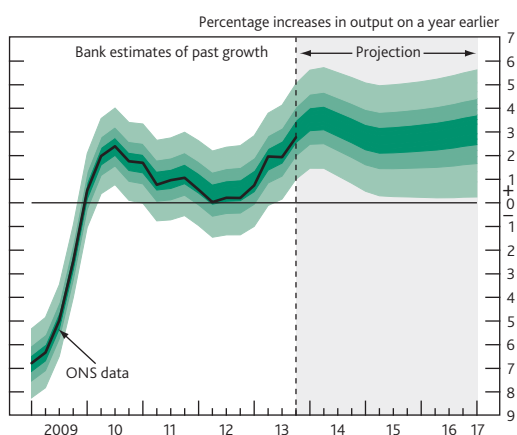
5 Prospects for inflation

The UK recovery has gained momentum and unemployment has fallen faster than expected. The recovery to date has been underpinned by a revival in confidence, a reduction in uncertainty and an easing in credit conditions. It is sustained over the forecast period as productivity and real income growth revive.

CPI inflation has returned to the 2% target sooner than expected. Upward pressure from import and administered and regulated prices remains, but slack is providing a countervailing force. Over the forecast period, upward price pressures fade, slack is gradually absorbed, and inflation remains at, or a little below, the target.

Output has continued to recover. That recovery has been associated with a faster fall in unemployment than the MPC expected: unemployment was 7.1% in November and is likely to reach the 7% threshold by the spring of this year. The outlook for inflation and growth depends on how much slack remains and, crucially, on the strength of the prospective pickup in productivity growth. Even when the economy has returned to normal levels of capacity and inflation is close to the target, the appropriate level of Bank Rate is likely to be materially below the 5% level set, on average, by the Committee prior to the financial crisis (see the box on page 40).

Chart 5.1 GDP projection based on market interest rate expectations and £375 billion purchased assets



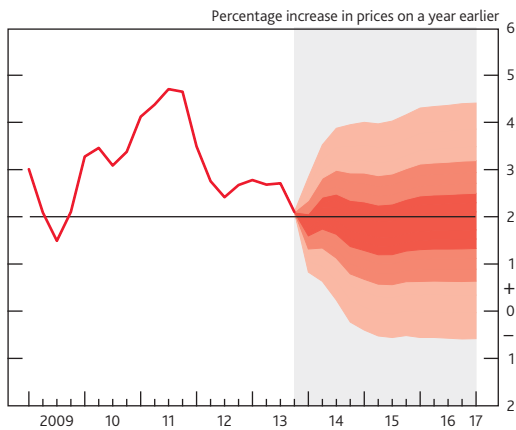
The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. To the left of the vertical dashed line, the 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 30 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 30 occasions. In any particular quarter of the forecast period, GDP growth 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. See the box on page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents.

Four-quarter GDP growth has risen over the past year as uncertainty has lifted and credit conditions have eased (Chart 5.1). Under the assumptions that Bank Rate moves in line with a path implied by market interest rates (Chart 1.1 on page 10) and of a constant stock of purchased assets, growth eases a little as the initial fillip from the release of pent-up demand fades, but picks up further out as global activity and business investment strengthen.⁽¹⁾

The recovery has been associated with some absorption of economic slack. The MPC judges that a margin of slack, probably around 1%–1½% of GDP, remains, concentrated in the labour market. A prospective pickup in productivity growth means that slack is absorbed only slowly and some remains at the forecast horizon.

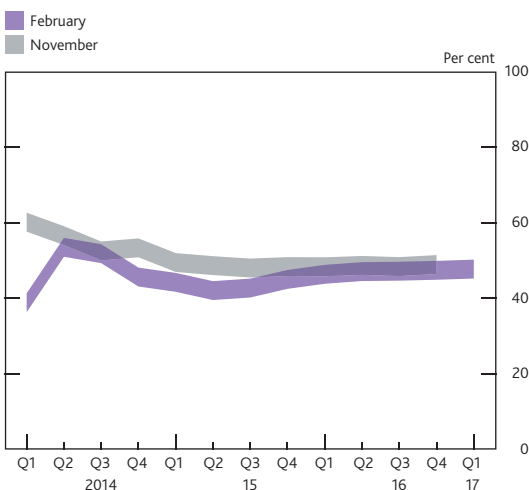
(1) The projections are also conditioned on: the Government's tax and spending plans as set out in the December 2013 Autumn Statement; commodity prices following market paths; and the sterling effective exchange rate remaining around its level in the fifteen working day average to 5 February 2014 of 85.6, which is around 3½% above the November starting point. The main assumptions are set out in a table available at www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14febca.pdf.

Chart 5.2 CPI inflation projection based on market interest rate expectations and £375 billion purchased assets



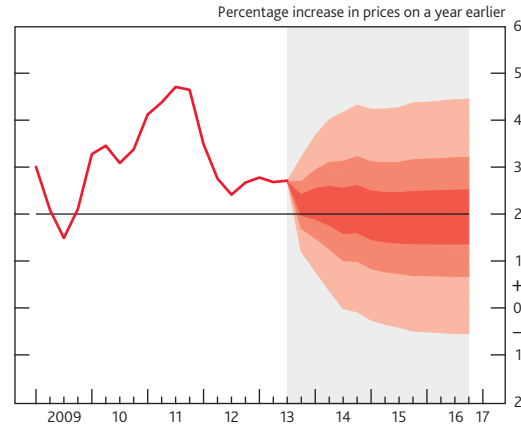
Charts 5.2 and 5.3 depict the probability of various outcomes for CPI inflation in the future. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. If economic circumstances 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 30 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 30 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. 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.

Chart 5.4 Probability that inflation will be above the target



The February and November swathes in this chart are derived from the same distributions as Charts 5.2 and 5.3 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.

Chart 5.3 CPI inflation projection in November based on market interest rate expectations and £375 billion purchased assets



CPI inflation has fallen back to the 2% target. Under the same assumptions as Chart 5.1, inflation is at, or a little below, the target throughout the forecast period (Chart 5.2), as a waning contribution from import and administered and regulated prices outweighs the lessening drag from slack. The projection is lower than in November (Chart 5.3) in the near term, reflecting unexpectedly low outturns, smaller rises in utility prices than the MPC had assumed, and the appreciation of sterling. Further out, a lower contribution from import and administered and regulated prices is broadly offset by a reduced drag from slack (Chart 5.4).

5.1 Key judgements and risks

The Committee's projections are underpinned by four key judgements, set out below. Table 5.A sets out the projections for variables that illustrate these judgements. Risks surround these judgements, and Table 5.B provides a range of indicators to monitor them in the near term.

Key Judgement 1: headwinds to growth in advanced economies continue to wane, such that global growth recovers slowly to around its historical average rate

The MPC's November judgement that a recovery in the advanced economies would drive a gradual strengthening in global growth remains broadly on track, although tensions have increased in some emerging economies. The MPC's central view is for advanced-economy growth to rise gradually and emerging-economy growth to remain at around current rates, such that annual growth in world activity reaches 4% by 2016 in PPP-weighted terms and a little under 3% in UK trade-weighted terms (Table 5.A). The risks around global growth are judged to be more balanced than in recent years.

Bank Rate in the medium term

Even if the economy were operating at normal levels of capacity, the level of interest rates needed to keep inflation close to the target and to maintain demand in line with supply would vary over time. In the immediate aftermath of the global financial crisis, this rate — which can be thought of as the equilibrium interest rate — fell sharply and became negative, reflecting the scale of the balance sheet adjustment necessary and the sharp increase in uncertainty. Although it is difficult to estimate the equilibrium rate with any precision, it has probably risen recently as economic conditions have improved and is likely to increase further as the economic headwinds ease over the forecast period. Nonetheless, the legacy of the financial crisis means that the equilibrium rate is likely to remain unusually low for a considerable period.

The financial crisis also caused demand to fall substantially below the economy's potential supply, meaning that the policy rate needed to stimulate the economy and close the margin of spare capacity was even lower than the equilibrium rate. At the same time, the MPC also needed to ensure that inflation remained on track to hit the inflation target in the medium term. Bank Rate was cut to 0.5% and, in view of the effective lower bound for Bank Rate, the MPC engaged in asset purchases to provide further monetary stimulus. As the equilibrium rate increases and the recovery progresses such that the margin of spare capacity is absorbed, Bank Rate will need to increase gradually. However, even when the economy is operating at normal levels of capacity and inflation is close to the target, the factors continuing to push down the equilibrium interest rate mean that Bank Rate is likely to be materially below the 5% level set on average by the Committee prior to the crisis.

This is evident in the MPC's projections for economic growth and inflation. Conditioned on the assumption that Bank Rate

rises in line with a path implied by market yields, the MPC expects that in three years' time the economy will be close to, though a little below, normal capacity and that inflation will be close to the target. At that point, market yields imply that Bank Rate will be around 2%, materially below its average historical rate.

Market interest rates also currently imply that Bank Rate is expected to remain in the range of 2%–3% for some while beyond the forecast horizon. Although the future path of interest rates is very uncertain, there are several reasons to think that the equilibrium rate — and hence Bank Rate — may remain low by historical standards for some time to come:

- A number of headwinds to demand are likely to persist beyond the three-year forecast horizon. For example, the Government plans to continue to reduce the structural budget deficit for several more years, and growth in euro-area demand may continue to fall short of its pre-crisis average.
- Although there has been a recent and welcome improvement in credit availability, it seems likely that interest rate spreads on loans will remain substantially higher than their unsustainably compressed levels before the financial crisis.
- On a broader level, the United Kingdom's financial openness means that interest rates here are linked to global interest rates, which displayed a pronounced downward trend in the years preceding the financial crisis.⁽¹⁾ This was partly the result of a rise in savings by emerging economies, which reinforced the downward pressure from subdued investment demand in the advanced economies. These developments are unlikely to reverse quickly.

(1) For a discussion of the measurement of the world interest rate and measures of implied future real interest rates, see King, M and Low, D (2014), 'Measuring the 'world' real interest rate', *NBER Working Paper No. 19887*.

Annual euro-area growth is likely to pick up gradually, but to remain well below its pre-crisis average rate (Table 5.A), reflecting the challenges still facing the periphery. The risks posed by those challenges have, on balance, diminished a little. Most periphery countries' government bond yields have fallen since November, improving debt dynamics and reducing bank funding costs. Moreover, periphery countries have improved their competitiveness, and activity indicators have risen more than anticipated. An associated revival in confidence could engender a faster recovery than in the central case. That would be more likely if the ECB's forthcoming assessment of banks' balance sheets bolsters confidence in the euro-area banking system. But the rebalancing challenges within the area could prove more difficult if recent low rates of overall euro-area inflation persist, as the necessary further changes in competitiveness between countries will be harder to achieve.

Table 5.A MPC key judgements^{(a)(b)}

Key Judgement 1: headwinds to growth in advanced economies continue to wane, such that global growth recovers slowly to around its historical average rate

	Average 1998– 2007	2013 ^(c)	Projections		
			2014	2015	2016
World GDP (UK-weighted) ^(d)	3	1½	2½	2¾	2¾
Euro-area GDP ^(e)	2¼	-½	1¼	1¼	1½
US GDP ^(f)	3	2	3	3	3

Key Judgement 2: domestically, the revival in confidence and improving credit conditions aid the broadening of the recovery from household to business spending

	Average 1998– 2007	2013 ^(c)	Projections		
			2014	2015	2016
Credit spreads ^(g)	¾ ^(h)	2¾	2¼	2	2
Household saving ratio ⁽ⁱ⁾	4¼	5	4	3	3
Business investment to GDP ratio ^(j)	9¼	8	8½	9¼	10¼

Key Judgement 3: growth in the economy's supply capacity picks up gradually, such that slack is absorbed only slowly as demand recovers

	Average 1998– 2007	2013 ^(c)	Projections		
			2014	2015	2016
Productivity ^(k)	2½	0	1	1¼	2
Participation rate ^(l)	63	63½	63¾	63¾	63¾
Average hours ^(m)	32¼	32¼	32¼	32¼	32½

Key Judgement 4: upward pressure from external prices fades but the drag from slack lessens, so that inflation stays close to the target

	Average 1998– 2007	2013 ^(c)	Projections		
			2014	2015	2016
UK import prices ⁽ⁿ⁾	½	-1¼	-1½	-¼	¼

Sources: Bank of England, BDRG Continental *SME Finance Monitor*, Bloomberg, BofA Merrill Lynch Global Research, used with permission, British Household Panel Survey, Department for Business, Innovation and Skills, Eurostat, IMF *World Economic Outlook (WEO)*, ONS, US Bureau of Economic Analysis and Bank calculations.

- (a) The MPC's projections for GDP growth, CPI inflation and unemployment (as presented in the fan charts) are underpinned by four key judgements. The mapping from the key judgements to individual variables is not precise, but the profiles in the table should be viewed as broadly consistent with the MPC's key judgements.
- (b) Figures show calendar-year growth rates unless otherwise stated.
- (c) 2013 estimates contain a combination of data and projections. The quarter of the last data outturn is noted in the footnote for each variable.
- (d) Chained-volume measure. Constructed using real GDP growth rates of 143 countries weighted according to their shares in UK exports. For the vast majority of countries, the latest outturn is at least 2013 Q3. For those countries where national accounts data for 2013 Q3 are not yet available, data are assumed to be consistent with projections in the IMF *WEO* October 2013.
- (e) Chained-volume measure. Latest outturn 2013 Q3.
- (f) Chained-volume measure. Latest outturn 2013 Q4.
- (g) Percentage point spread over reference rates. Based on a weighted average of household and corporate loan and deposit spreads over appropriate risk-free rates. Indexed to equal zero in 2007 Q3. Latest outturn 2013 Q4.
- (h) Based on the weighted average of spreads for households and large companies over 2003 and 2004 relative to the level in 2007 Q3. Data used to construct the SME spread are not available for that period. The period is chosen as broadly representative of one where spreads were neither unusually tight nor unusually loose.
- (i) Calendar-year average. Percentage of total available household resources. Latest outturn 2013 Q3.
- (j) Calendar-year average. Chained-volume business investment as a percentage of GDP. Latest outturn 2013 Q3.
- (k) GDP per hour worked. GDP at market prices is based on the mode of the MPC's backcast. Latest outturn 2013 Q3.
- (l) Level in Q4. Percentage of the 16+ population. Latest outturn 2013 Q3.
- (m) Level in Q4. Average weekly hours worked, in main job and second job. Latest outturn 2013 Q3.
- (n) Four-quarter inflation rate in Q4. Excludes the impact of missing trader intra-community fraud. Latest outturn 2013 Q3.

The risk of a disorderly outcome is judged to have lessened, but, as in previous *Reports*, the direct effects of such an outcome are excluded from the fan charts.

US growth has continued at a solid pace. The drag from fiscal consolidation is expected to wane in 2014, in part reflecting the agreement on the federal budget. GDP is expected to grow at around historical average rates (**Table 5.A**), supported by an improving labour market.

Some emerging economies have experienced further sharp outflows of capital and currency depreciations since the November *Report*. Those tensions have been associated with country-specific factors, but a number of countries with large current account deficits and high inflation remain very sensitive to developments elsewhere, including US monetary policy. A risk of a sharp slowdown in these economies and contagion to others therefore remains, along with the risk of a marked slowing in China, perhaps prompted by a fall in credit growth. A slowdown in emerging economies would probably have limited direct implications for UK exports but indirect trade linkages or more widespread financial market disruption could lead to a more significant impact.

The recovery in the United Kingdom's main overseas markets should feed through to higher UK exports. But the support to exports from sterling has lessened following its appreciation over the past year. In the central view, export growth is expected to pick up to a little above its pre-crisis average rate. That is associated with UK exporters' share of world trade continuing to fall. There is uncertainty around that profile: for example, some of the post-crisis weakness in services exports could unwind over the forecast period (see the box on pages 24–25 of the February 2013 *Report*).

Key Judgement 2: domestically, the revival in confidence and improving credit conditions aid the broadening of the recovery from household to business spending

The recovery to date has been supported by a revival in confidence and a dissipation of uncertainty. It has also reflected easing credit conditions, which are assumed to continue to improve over the forecast period (**Table 5.A**), supporting a further pickup in lending. That said, the spreads charged over reference rates on household and company loans are likely to remain higher than their unsustainably compressed levels before the financial crisis (see the box on pages 16–17).

The impact of the past reduction in uncertainty and easing in credit conditions has, so far, been much more apparent in household than company spending. In the central projection, the pattern seen over the past year of households funding consumption growth by saving less, in the face of little income growth, continues this year (**Table 5.A**). But households cannot cut back on saving indefinitely; longer-term consumption growth depends on income growth picking up.

Table 5.B Monitoring risks to the Committee's key judgements

The Committee's projections are underpinned by four key judgements. Risks surround all of these, and the MPC will monitor a broad range of indicators to assess the degree to

which the risks are crystallising. The table below provides guidance on the likely path for the indicators if the judgements in the MPC's central view evolve as expected.

Key judgement	Likely developments in 2014 H1 and Q3 if judgements evolve as expected
1: headwinds to growth in advanced economies continue to wane, such that global growth recovers slowly to around its historical average rate	<ul style="list-style-type: none"> • Quarterly euro-area GDP growth of a little above ¼%, with sovereign bond yields and indicators of bank funding costs broadly stable. • Quarterly US GDP growth averaging a little below ¾% and non-farm payrolls increasing by a little over 200,000 per month. • Indicators of activity consistent with four-quarter PPP-weighted emerging-economy growth averaging around 5% and, within that, Chinese GDP growth averaging around 7¾%. • UK exports to grow at around 1% per quarter on average in the year to 2014 Q3.
2: domestically, the revival in confidence and improving credit conditions aid the broadening of the recovery from household to business spending	<ul style="list-style-type: none"> • Quarterly consumer spending growth of around ¾% in the year to 2014 Q3. • Indicators of business investment consistent with average quarterly growth rates of around 3% in the year to 2014 Q3. • Housing investment to strengthen over the next year, averaging growth of around 5% a quarter. • A rise in mortgage approvals for house purchase to around 80,000 a month in 2014 Q1, reaching around 90,000 by 2014 Q3. • Near-term rises in the average of Halifax and Nationwide house price indices to be similar to increases seen in recent months. • Four-quarter PNFC net lending to be slightly positive in 2014 Q1, and rise further in subsequent quarters. • Credit spreads continue to decline over 2014, particularly for high loan to value mortgages and loans to smaller companies.
3: growth in the economy's supply capacity picks up gradually, such that slack is absorbed only slowly as demand recovers	<ul style="list-style-type: none"> • Headline LFS unemployment rate to decline by a further ½ percentage point by 2014 Q3. • The labour market participation rate to rise gently during 2014 H1. • Average hours worked continue to rise in 2014 but at a slower pace than over the past year. • Indicators of spare capacity within companies to show little intensification of capacity pressures. • Four-quarter growth in hourly labour productivity to rise to around 1% by 2014 Q3.
4: upward pressure from external prices fades but the drag from slack lessens, so that inflation stays close to the target	<ul style="list-style-type: none"> • Medium-term indicators of household and financial market inflation expectations continuing to be consistent with the 2% target (see the box on page 36–37). • Headline four-quarter AWE growth to be around 2% by 2014 Q3 following some volatility in 2014 H1. • Unit labour costs to remain broadly flat in 2013 Q4 and 2014 Q1 before picking up to quarterly growth of around 0.5% by 2014 Q3. • Sterling ERI, domestic energy bills and commodity prices evolve in line with the conditioning assumptions. • Import prices to fall by a little over 1% in 2014 H1.

In the central projection, four-quarter growth in real pay turns positive towards the end of 2014, as productivity growth picks up. But the income recovery is muted and consumption grows below its pre-crisis average rate in the second half of the forecast period. The main risk to consumption stems from productivity: the box on pages 46–47 shows that faster (slower) productivity growth leads to faster (slower) growth in income and hence consumption. There are also risks associated with households' saving. For example, if some

households have based spending decisions on expectations of unrealistically rapid income growth, they could rein in spending as they realise that income is rising only slowly. That might particularly be the case for highly indebted households.

The housing market revival has continued, in line with the MPC's expectation in the November *Report* (Section 1). Most surveys suggest that recent rates of house price increases will continue in the short term. Although the outlook is uncertain, house prices are assumed to rise broadly in line with nominal incomes further out. Higher housing activity and prices provide only modest support to consumption in the central view (see the box on pages 20–21 of the November 2013 *Report*). But housing investment boosts GDP growth significantly over the first two years of the forecast. The housing market recovery could begin to create risks to financial stability if accompanied by substantial and rapid rises in house prices and a further build-up in household debt. In the November *Financial Stability Report*, the Financial Policy Committee noted that several actions were in train that should mitigate the build-up of such vulnerabilities. It also noted that it had an extensive toolkit that it could deploy as part of a proportionate and graduated response to evolving housing market risks, should further steps become necessary.

With household spending growth slowing and the global economy recovering only gradually, business spending needs to pick up the baton of growth if the pace of expansion is to be maintained. Business investment has so far remained weak even as activity has risen. That is not surprising — companies are likely to use up spare capacity before investing and may need to see a sustained recovery in demand before having the confidence to make decisions that are costly to reverse. But demand and financial conditions have become increasingly conducive to investment: large companies have good access to credit; and, in aggregate, companies appear to have healthy balance sheets. Indeed, investment intentions surveys point to robust growth in capital spending. In the central projection, investment growth picks up to over 10% a year, and the investment to GDP ratio rises markedly (Table 5.A). There are risks around that outlook on both sides stemming from the risks to productivity growth. But, overall the risks are probably skewed to the investment recovery being slower to come through. For example, even though credit conditions are likely to ease somewhat over the forecast period, many smaller companies' investment may still be constrained by difficulties accessing credit.

Key Judgement 3: growth in the economy's supply capacity picks up gradually, such that slack is absorbed only slowly as demand recovers

Economic slack has been absorbed faster than expected. In the November *Report*, the MPC assumed that companies would work existing resources more intensively before stepping up recruitment. But survey indicators suggest that companies are

not far from operating at normal capacity, and employment has grown strongly (Section 3). That has been associated with lower unemployment: LFS unemployment is likely to reach the MPC's 7% threshold by the spring of this year, much earlier than judged likely three months ago.

The fall in unemployment probably overstates the fall in labour market slack — the scope for total hours worked to increase without pressure on pay. That scope depends on: how far unemployment is above its medium-term equilibrium level; whether people are working fewer hours than they would like; and whether there are some potential employees who have been temporarily discouraged from looking for work. The fall in unemployment has been accompanied by a small downward revision to Bank staff's estimate of the medium-term equilibrium unemployment rate, which is now judged to be between 6% and 6½%. That reflects the fact that the long-term unemployed — who are assumed to put less downward pressure on wages than the short-term unemployed — have accounted for a substantial share of the fall in unemployment. There also appears to be scope for companies to increase hours worked without much pressure on pay: although average hours have been rising, the hours people want to work are higher — for example, many part-timers say that they would like a full-time job (Section 3). Indeed, the MPC now judges that although average hours have risen more than expected, there was more slack in average hours in Q4 than was assumed in the August 2013 projections. In addition, labour market participation is judged to be a little below its potential level.

The MPC judges that a margin of slack — probably around 1%–1½% of GDP — still remains within the economy. That is concentrated in the labour market, with unemployment and average hours both somewhat away from their medium-term equilibrium levels. There is considerable uncertainty around those judgements and a range of opinions on the Committee. In particular, equilibrium unemployment and hours cannot be observed, only imperfectly inferred. And it is difficult to judge whether recent movements are likely to persist or not — for example, higher desired hours could reflect a temporary response to the squeeze on real incomes.

The speed at which slack is absorbed depends crucially on the extent to which productivity growth picks up. Productivity appears to have grown more slowly than hoped as demand has recovered, even taking account of the upward revisions to growth in the MPC's central backcast. As in November, the MPC judges that productivity growth will gradually pick up, but will only reach its pre-crisis average rate in the third year of the projection (**Table 5.A**). That would be much stronger growth than in recent years, but the gap between productivity and a continuation of its pre-recession trend would nevertheless continue to widen.

There are a number of reasons to expect productivity growth to rise, although there is considerable uncertainty around the timing and extent of any rise. As demand recovers, companies may be able to redeploy some staff from winning business towards producing output. Companies may make productivity advances through learning by doing as production returns to more normal rates. Easier credit conditions and lower uncertainty should facilitate the movement of capital and labour towards more productive companies. The recovery in business investment will also support productivity. The central projection puts little weight on mechanisms that imply rapid catch-up in productivity as demand recovers, for example as companies adopt a backlog of innovations and technical advances. Indeed, the continued weakness in productivity has caused the MPC to revise down its assessment of the extent to which productivity responds to increases in demand. But there are risks on both sides of the productivity profile: the box on pages 46–47 illustrates the impact of alternative assumptions that productivity either increases more rapidly than in the central case or else stagnates.

In the central projection, the slow rise in productivity growth is associated with continued, but slowing, growth in labour demand and some reduction in economic slack. In particular, existing staff work more hours (**Table 5.A**), such that the gap between actual and desired hours gradually closes. The participation rate also rises towards its equilibrium level (**Table 5.A**). And the unemployment rate falls. That fall is modest relative to recent experience as the pickup in productivity growth slows growth in hiring. Moreover, the medium-term equilibrium rate also declines a little further, as more of the longer-term unemployed find jobs. Overall, in the central case, slack is not fully absorbed over the forecast period. There is, however, considerable uncertainty about its evolution.

Key Judgement 4: upward pressure from external prices fades but the drag from slack lessens, so that inflation stays close to the target

CPI inflation fell back to the 2% target in December 2013, following four years above it. The decline since mid-2013 was faster than expected. Although that appears largely to reflect idiosyncratic factors that had been pushing up inflation abating more quickly than expected (Section 4), it is possible that it signals a greater easing in underlying price pressures.

At the start of the forecast period, slack exerts downward pressure on inflation, but that downward pressure diminishes as slack is absorbed. That is reflected in higher wages, such that unit labour cost growth is expected to pick up from the second half of 2014, although it remains well below its pre-crisis average rate. Companies' labour costs are kept in check by the gradual increase in productivity growth, which allows wages to rise without generating much inflationary pressure.

The impact of alternative paths for labour productivity

Labour productivity growth has been unusually weak since the 2008/09 recession (Section 3), such that productivity in 2013 Q3 was around 16% below the level implied by an extrapolation of its pre-crisis trend. The reasons for that weakness remain uncertain. The MPC judges that productivity growth is likely to pick up gradually towards its pre-crisis average rate (Table 1). Productivity growth could, however, be either stronger or weaker than the MPC expects. This box shows that, under certain assumptions, higher (or lower) productivity would:

- lead to higher (or lower) GDP and real wages; and
- have only a modest impact on inflation and unemployment.

Table 1 Alternative paths for labour productivity

	1998–2007 average	2013 ^(a)	Projections		
			2014	2015	2016
Whole-economy per hour, calendar-year growth					
February 2014 central projection	2½	0	1	1¼	2
Higher-productivity scenario	2½	0	1¾	2¾	4
Lower-productivity scenario	2½	0	¼	0	0

(a) Data are available to 2013 Q3. 2013 Q4 is a Bank staff projection.

Alternative productivity paths

This box illustrates two alternative paths for productivity. On the higher path, productivity accelerates more than in the central case; it is around 5½% higher than the MPC's central judgement at the three-year forecast horizon. Since productivity growth on this higher path is at or above its pre-crisis average for much of the forecast period (Table 1), the shortfall in productivity relative to its pre-crisis trend decreases to around 13%, compared with an increasing shortfall in the central case. On the lower path, productivity does not grow at all over the forecast period, continuing the unprecedented weakness of the past few years (Table 1). The level of productivity in this case is around 5½% lower than the MPC's central judgement after three years.

The impact of higher or lower productivity on GDP, unemployment and inflation is estimated using the Bank's suite of forecasting models, under the assumption that market interest rates respond to macroeconomic developments as they have in the past.⁽¹⁾ These scenarios are mirror images of each other, and the responses are symmetric, so only the higher-productivity scenario is described in detail.

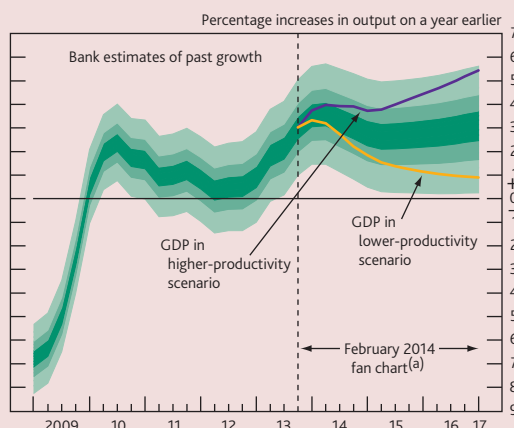
Impact on GDP, unemployment and inflation

Productivity is a key determinant of real wages (Section 4). Higher productivity, relative to the central case, is reflected in

higher real wages. Real wages are assumed to rise eventually by the same amount as productivity, with around half of the adjustment taking place by the forecast horizon. That real wage adjustment comes mostly through higher nominal wage growth rather than lower inflation.

Some households will probably not raise their spending until their income rises, say because they have limited savings or poor access to credit. But other households are likely to be able to raise spending in anticipation of higher future income.⁽²⁾ As these households see productivity rising more quickly than expected, they revise up their view of future income and, therefore, raise current spending. That higher spending is financed, initially, through saving less or borrowing more. Investment also rises, relative to the central case, as companies anticipate increased future demand, and as higher productivity boosts profits. Overall, four-quarter GDP growth averages nearly 1½ percentage points higher than in the MPC's modal projection (Chart A).

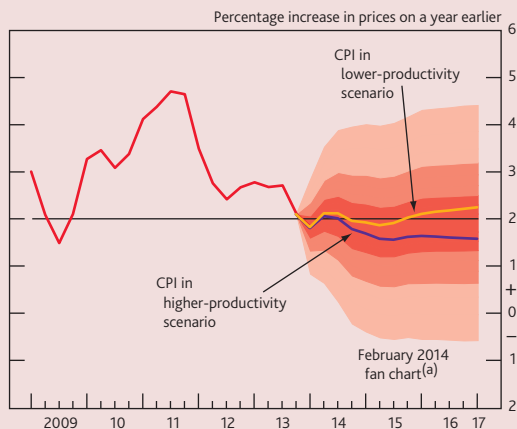
Chart A GDP projection and alternative scenarios



(a) See footnote to Chart 5.1.

Because higher productivity is largely matched by higher demand, employment is a little lower and unemployment a little higher than in the MPC's central projection; after three years, the unemployment rate is 0.5 percentage points higher than the central projection.

Unit labour costs are little changed in the long run, as productivity and wages rise by similar amounts. But, over the forecast period, unit labour costs are lower than in the central case because the rise in wages lags the rise in productivity. That reduces CPI inflation, relative to the central projection, but the overall response of inflation is small (Chart B), especially in comparison with the significantly stronger demand profile. Indeed, the GDP growth path in this higher-productivity scenario rises to the outer band of the MPC's fan chart, whereas the associated path of CPI inflation lies within the central band. Since the inflation outlook is only

Chart B CPI inflation projection and alternative scenarios

(a) See footnote to Chart 5.2.

a little lower than the central case, market interest rates are also only a little lower than in the central case.

Sensitivities

The precise impact of higher productivity on GDP, unemployment and inflation depends on exactly how companies and households respond. In particular, a smaller demand response to higher productivity would be associated with a larger impact on unemployment and inflation. The demand response would be smaller if households are less forward looking or more credit constrained. In either case, they would be less likely to increase their spending before receiving higher income.

Whether or not productivity is higher in response to other macroeconomic developments also matters. In this box, higher productivity is assumed to be unrelated to such developments, say because it results from some new

technology. If higher productivity were itself a response to other macroeconomic developments, then its impact would be different.

The impact of higher productivity on inflation also depends on how costly it is to change prices relative to nominal wages. For example, many companies change prices infrequently, because of the costs involved.⁽³⁾ Similarly, companies and employees only agree wages periodically. If it were less costly to change prices or more costly to change wages than assumed in the scenarios, there would be a bigger inflation impact.

Conclusion

The unprecedented weakness in productivity growth in recent years remains puzzling. The outlook for productivity is uncertain, but productivity is a key determinant of the growth rate of the economy consistent with inflation staying close to the 2% target. These scenarios show that, under certain assumptions, faster (or slower) productivity growth can generate faster (or slower) real wage and demand growth, with only limited implications for inflation.

- (1) These scenarios were produced assuming unanticipated labour-augmenting productivity shocks, such that productivity is persistently higher or lower than in the central projection, even beyond the forecast horizon. The response of market interest rates to macroeconomic developments was proxied using an estimated Taylor rule. For more information about the Bank's central forecasting model and range of supporting models, see Burgess, S, Fernandez-Corugedo, E, Groth, C, Harrison, R, Monti, F, Theodoridis, K and Waldron, M (2013), 'The Bank of England's forecasting platform: COMPASS, MAPS, EASE and the suite of models', *Bank of England Working Paper No. 471*.
- (2) Around three quarters of consumer spending is assumed to be based on both current and future income. See Burgess *et al* (2013) *op. cit.* for more information.
- (3) Previous Bank research has examined companies' price-setting behaviour using survey information and company-level data. See, for example, Greenslade, J and Parker, M (2010), 'New insights into price-setting behaviour in the United Kingdom', *Bank of England Working Paper No. 395*, and Bunn, P and Ellis, C (2012), 'Examining the behaviour of individual UK consumer prices', *The Economic Journal*, Vol. 122, Issue 558, pages F35–F55.

Table 5.C Calendar-year GDP growth rates

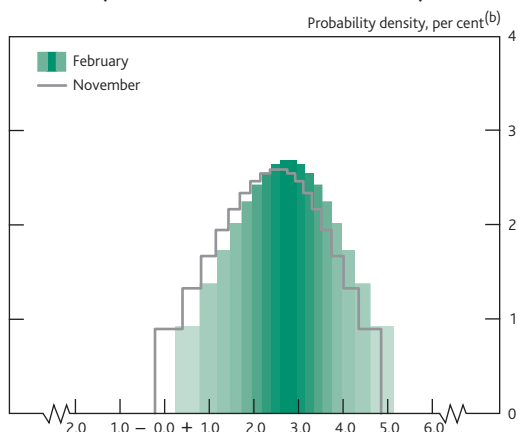
	Mode	Median	Mean
2014	3.4 (2.9)	3.4 (2.8)	3.4 (2.8)
2015	2.7 (2.5)	2.7 (2.3)	2.7 (2.3)
2016	2.9 (2.7)	2.8 (2.5)	2.8 (2.5)

The table shows projections for calendar-year growth of real GDP consistent with the respective modal, median and mean projections for four-quarter growth of real GDP. The numbers in parentheses show the corresponding projections in the November 2013 *Inflation Report*. The February and November projections have been conditioned on market interest rates, and the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. Where growth rates depend in part on the MPC's backcast, revisions to quarterly growth are assumed to be independent of the revisions to previous quarters.

In the central case, companies' capacity utilisation remains close to normal, putting little pressure on inflation in either direction. Companies are, however, expected to rebuild margins, which appear to have been squeezed in aggregate. A modest rebuild occurs through moderate labour cost growth and inflation around the target. It is possible that some companies will try to gain market share as demand increases, by charging lower prices and accepting lower profits for a while. But others may seek to rebuild margins more quickly. Price-setting behaviour also depends on inflation expectations: the MPC continues to judge that inflation expectations remain sufficiently well anchored (see the box on pages 36–37).

The waning drag from slack is offset by a smaller contribution from those factors that have been raising inflation. Administered and regulated prices now appear likely to contribute less over the forecast period, both compared with the recent past and with previous *Report* projections. That mainly reflects a smaller contribution to domestic utility prices

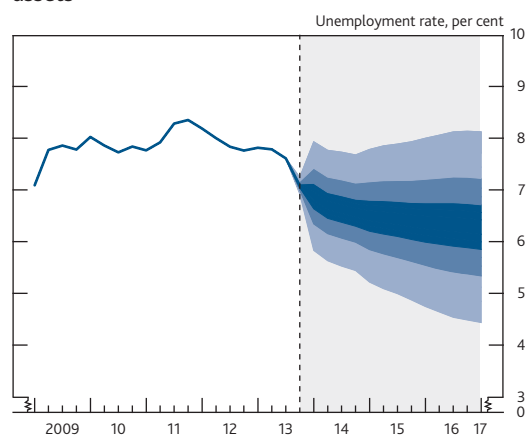
Chart 5.5 Projected probabilities of GDP growth in 2016 Q1 (central 90% of the distribution)^(a)



(a) Chart 5.5 represents the cross-section of the GDP growth fan chart in 2016 Q1 for the market interest rate projection. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. The coloured bands in Chart 5.5 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 2016 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 outline represents the corresponding cross-section of the November 2013 *Inflation Report* fan chart, which was conditioned on market interest rates and the same assumption about the stock of purchased assets financed by the issuance of central bank reserves.

(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 5.6 Unemployment projection based on market interest rate expectations and £375 billion purchased assets



The fan chart depicts the probability of various outcomes for LFS unemployment. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 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 the mature estimate of unemployment would lie within the darkest central band on only 30 of those occasions. The fan chart is constructed so that outcomes are also expected to lie within each pair of the lighter blue areas on 30 occasions. In any particular quarter of the forecast period, unemployment is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions unemployment can fall anywhere outside the blue area of the fan chart. Over the forecast period, this has been depicted by the light grey background. The calibration of this fan chart takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to unemployment in one quarter will continue to have some effect on unemployment in successive quarters. The fan begins in 2013 Q4, a quarter earlier than the fan for CPI inflation. That is because Q4 is a staff projection for the unemployment rate, based in part on data for October and November. The unemployment rate was 7.1% in the three months to November, and is projected to remain at 7.1% in Q4 as a whole.

from non-energy costs in light of recent Government and regulatory announcements (Section 4): no further rises in utility prices are expected this year and these prices are expected to rise by only 2½% in the second and third years of the forecast. There remains considerable uncertainty around the outlook for both wholesale energy prices and non-energy costs.

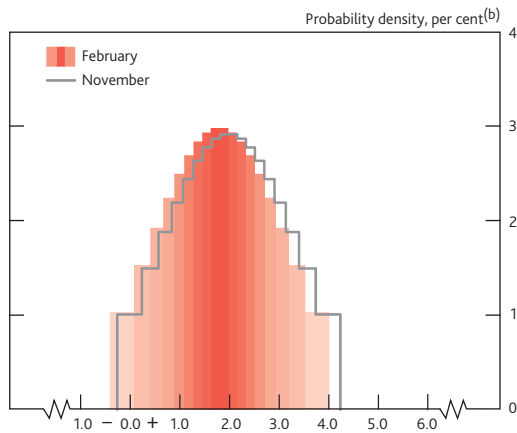
The contribution of import costs to CPI inflation — which was probably a little over ½ percentage point at the end of 2013 — is also likely to fall. In both the United States and euro area, measures of core inflation are close to 1%. Foreign export prices were flat in 2013. Commodity prices have fallen in dollar terms, with metals prices down more than 10% over the past year and oil prices 6% lower. Moreover, the sterling appreciation of around 10% since its March 2013 trough will bear down on UK import prices. Over the forecast period, lower import prices (Table 5.A) are slowly passed through to consumer prices, and their contribution to CPI inflation turns negative. The risks to global prices are skewed a little to the downside, in view of the possibility of more persistent disinflationary pressures in some advanced economies and the downward pressure on commodity prices that would result from a slowing in emerging economies. There is also uncertainty about import price pass-through — as in November, not all of the fall in import prices is assumed to feed through to consumer prices.

5.2 The projections for demand, unemployment and inflation

Based on the judgements above, and the risks around them, four-quarter GDP growth is expected to pick up in the near term as the lifting of uncertainty and easing credit conditions continue to help release pent-up demand (Chart 5.1). As that boost fades, growth moderates, before rising again as global activity strengthens and business investment recovers (Table 5.C). The profile for growth is a little higher than in the November *Report*. In the near term that reflects revisions to data and the momentum in survey outturns and, further out, a slightly larger boost from the easing in credit conditions (Chart 5.5). There is a range of views on the Committee on the risks to the projections. Overall, the risks to GDP growth are judged to be balanced in the near term but skewed to the downside further out, reflecting the possibility that the recovery may fail to get onto a firmer footing, for example, if business investment growth is slow to pick up.

Unemployment is likely to reach the MPC's 7% threshold by the spring of this year (Chart 5.6). The unemployment rate falls further over the forecast period, as productivity growth picks up more slowly than output growth. The profile is considerably lower than in the November *Report*, reflecting recent unexpectedly low outturns: the fall in unemployment from 2014 Q1 onwards is similar. Those unexpectedly low

Chart 5.7 Projected probabilities of CPI inflation outturns in 2015 Q1 (central 90% of the distribution)^(a)



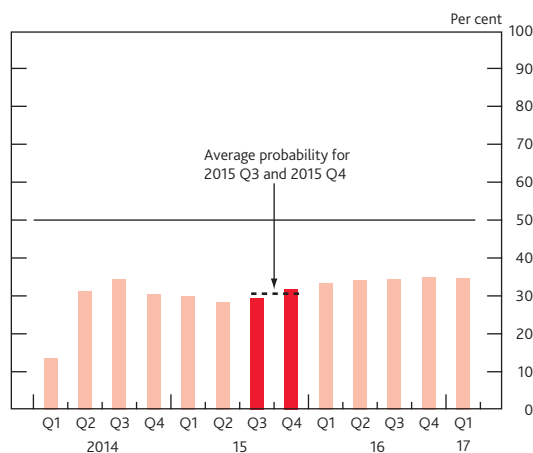
- (a) Chart 5.7 represents the cross-section of the CPI inflation fan chart in 2015 Q1 for the market interest rate projection. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. The coloured bands in Chart 5.7 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 2015 Q1 would lie somewhere within the range covered by the histogram on 90 occasions. Inflation would lie outside the range covered by the histogram on 10 out of 100 occasions. The grey outline represents the corresponding cross-section of the November 2013 *Inflation Report* fan chart, which was conditioned on market interest rates and the same assumption about the stock of purchased assets.
- (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.

Table 5.D Q4 CPI inflation

	Mode	Median	Mean
2014 Q4	1.9 (2.1)	1.9 (2.1)	1.9 (2.1)
2015 Q4	1.8 (1.9)	1.8 (1.9)	1.8 (1.9)
2016 Q4	1.9 (1.9)	1.9 (1.9)	1.9 (1.9)

The table shows projections for Q4 four-quarter CPI inflation. The numbers in parentheses show the corresponding projections in the November *Inflation Report*. The February and November projections have been conditioned on market interest rates, and the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period.

Chart 5.8 Probability that CPI inflation will be at or above the 2.5% knockout



The bars in this chart are derived from the same distribution as Chart 5.2. The bars indicate the assessed probability of inflation being at or above 2.5% in each quarter of the forecast period. The dashed line shows the average of the probabilities in 2015 Q3 and 2015 Q4, consistent with the 18 to 24-month period in the MPC's price stability knockout.

outturns have led the Committee to increase the uncertainty around the unemployment projection in the near term. The risks to the projection are judged to be broadly balanced.

CPI inflation has fallen back to the 2% target. Under the assumption that Bank Rate follows a path implied by market interest rates, inflation remains close to, or a little below, the target throughout the forecast period (Chart 5.2). The projection is lower than in November in the near term (Chart 5.7), reflecting unexpectedly low outturns, smaller rises in utility prices than the MPC had assumed, and the appreciation of sterling. Further out, a lower contribution from import and administered and regulated prices is broadly offset by a smaller drag from slack (Table 5.D). As in November, the risks around the outlook are assumed to be balanced, and the probability of inflation being above 2.5% 18–24 months ahead is around 30% (Chart 5.8).

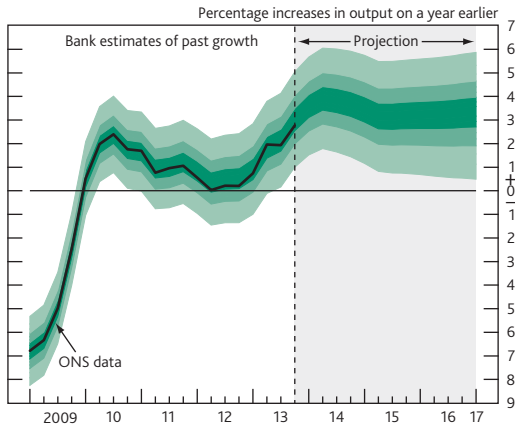
The projections described above are conditioned on Bank Rate following the path implied by market interest rates, such that Bank Rate rises in the first half of 2015, and reaches 2% by early 2017. The MPC also considers projections based on constant interest rates. The constant rate projections in this *Report* assume that Bank Rate is 0.5% for the next three years and then rises towards the market path over the following three years, and that this path is anticipated by businesses and households. Relative to the market rate projections, lower rate expectations boost asset prices and lower the exchange rate, both of which support demand. In addition, for the period that interest rates are below the market path, net interest payments by households are lower and their disposable income higher. Under those assumptions, GDP is judged likely to grow at above-average rates throughout the forecast period (Chart 5.9). Productivity growth is also assumed to be a little stronger, and in the central case, the unemployment rate falls nearly $\frac{3}{4}$ percentage point more than under the market curve assumption (Chart 5.10). Inflation is higher and remains somewhat above the target (Chart 5.11): the probability of inflation being above the target is just under 60% at the forecast horizon, compared with just under 50% in the market rate projection.

5.3 The policy decision

The UK recovery has gained momentum. Unemployment has fallen more sharply than expected; nonetheless spare capacity remains. CPI inflation has fallen back to the 2% target more quickly than anticipated and, with domestic costs well contained, is expected to remain at, or a little below, the target for the next few years.

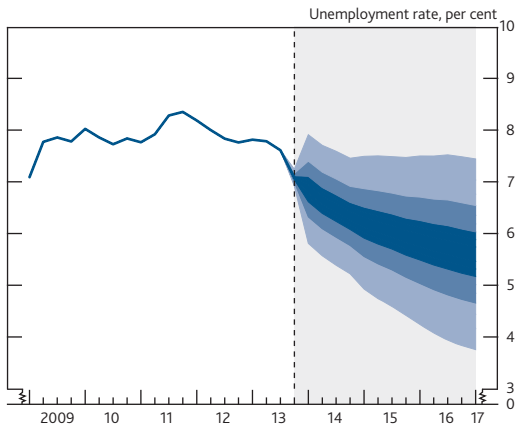
At its February meeting, the Committee noted that the existence of spare capacity is both wasteful and increases the risk that inflation will undershoot the inflation target in the medium term. Moreover, the outlook for inflation meant that

Chart 5.9 GDP projection based on constant nominal interest rates at 0.5% and £375 billion purchased assets



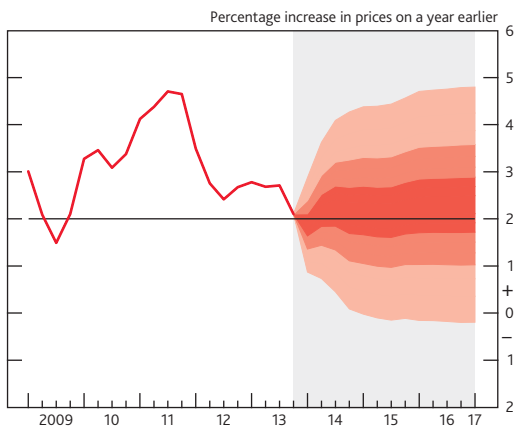
See footnote to Chart 5.1.

Chart 5.10 Unemployment projection based on constant nominal interest rates at 0.5% and £375 billion purchased assets



See footnote to Chart 5.6.

Chart 5.11 CPI inflation projection based on constant nominal interest rates at 0.5% and £375 billion purchased assets



See footnote to Chart 5.2.

the near-term trade-off between keeping inflation close to the target and supporting output and employment was more favourable than in recent years. The MPC therefore judged that there remained scope to absorb spare capacity further before raising Bank Rate.

It seemed likely that data released over the next few months would show that the 7% threshold has been reached. The Committee agreed on further guidance for when the unemployment threshold was reached. That guidance is explained in the box 'Monetary policy as the economy recovers' on pages 8–9. Essentially, the MPC will seek to close the spare capacity in the economy over the next two to three years while keeping inflation close to the target. To that end, it judges that there is scope for the economy to recover further before Bank Rate is raised and, even when Bank Rate does rise, it is expected to do so only gradually and to a level materially below its pre-crisis average of 5%.

In the light of both the economic outlook and its policy guidance, the Committee voted to maintain Bank Rate at 0.5% and the stock of purchased assets at £375 billion.

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. On average, respondents expected annual CPI inflation to be close to, albeit a touch above, its current rate of 2% over the next three years (Table 1). Average inflation expectations for the year ahead have fallen slightly since the November Report. Four-quarter GDP growth was, on average, projected to rise a little further, but was expected to be below its historical average rate of 2.75% over the next three years (Table 1). Year-ahead growth expectations were stronger than they had been three months earlier. The LFS unemployment rate was expected to fall to 6% over the next three years (Table 1). This was 0.7 percentage points lower than the average expectation for unemployment three years ahead recorded in the November Report.

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

	2015 Q1	2016 Q1	2017 Q1
CPI inflation ^(b)	2.1	2.2	2.1
GDP growth ^(c)	2.5	2.6	2.5
LFS unemployment rate	6.8	6.3	6.0
Bank Rate (per cent)	0.6	1.3	2.1
Stock of purchased assets (£ billions) ^(d)	375	362	338
Sterling ERI	85.0	85.3	84.5

Source: Projections of outside forecasters as of 29 January 2014.

(a) For 2015 Q1, there were 22 forecasts for CPI inflation, GDP growth and Bank Rate, 19 for the unemployment rate and the stock of purchased assets, and 17 for the sterling ERI. For 2016 Q1 and 2017 Q1, there were 20 forecasts for CPI inflation, GDP growth and Bank Rate, 17 for the unemployment rate and 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.

These forecasts assumed a slightly tighter monetary stance to those made three months ago. The stock of purchased assets financed by the issuance of central bank reserves was, on average, expected to be £24 billion lower by the three-year horizon. And the sterling ERI was expected to be around 3% higher, on average, over the next three years.

The Bank also asks forecasters for their assessment of the risks around their central projections for CPI inflation, GDP growth and the unemployment rate (Table 2). The average probability assigned to inflation being above the target at the two-year horizon fell back slightly relative to the previous survey, but inflation was still judged a little more likely to be above the target than below it: in contrast, the MPC judged the risks around the target to be broadly balanced at that point.

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

CPI inflation		Range:							
Probability, per cent		<0%	0–1%	1–1.5%	1.5–2%	2–2.5%	2.5–3%	>3%	
2015 Q1		2	6	13	27	24	17	12	
2016 Q1		2	7	13	24	22	17	15	
2017 Q1		3	7	12	23	24	19	12	
GDP growth		Range:							
Probability, per cent		<-1%	-1–0%	0–1%	1–2%	2–3%	>3%		
2015 Q1			1	3	10	23	38	25	
2016 Q1			2	4	10	21	36	27	
2017 Q1			2	5	11	22	34	27	
LFS unemployment rate		Range:							
Probability, per cent		<5%	5–5.5%	5.5–6%	6–6.5%	6.5–7%	7–7.5%	7.5–8%	>8%
2015 Q1		1	3	8	22	34	20	9	3
2016 Q1		6	8	14	25	28	12	6	2
2017 Q1		10	11	16	28	19	9	5	2

Source: Projections of outside forecasters as of 29 January 2014.

(a) For 2015 Q1, 21 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, 18 forecasters provided their assessments of the likelihood of the unemployment rate falling in the ranges shown. For 2016 Q1 and 2017 Q1, 19 provided assessments for CPI and GDP growth, 16 provided assessments for the unemployment rate. The table shows the average probabilities across respondents. Rows may not sum to 100 due to rounding.

The average probability distribution around forecasters' central GDP projections has shifted up with their central expectations. As a result, the average probability attached to GDP growth being more than 3% has increased noticeably over the past six months, at all horizons (Chart A).

Chart A Average of other forecasters' probabilities of GDP growth being above 3%



Sources: Projections of outside forecasters provided for Inflation Reports between February 2008 and February 2014.

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Text of Bank of England press notice of 5 December 2013

Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £375 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 maintain the stock of asset purchases financed by the issuance of central bank reserves at £375 billion.

The Committee reached its decisions in the context of the monetary policy guidance announced alongside the publication of the August 2013 *Inflation Report*.

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

Text of Bank of England press notice of 9 January 2014

Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £375 billion

The Bank of England's Monetary Policy Committee today voted to maintain Bank Rate at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £375 billion.

The Committee reached its decisions in the context of the monetary policy guidance announced alongside the publication of the August 2013 *Inflation Report*.

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

Text of Bank of England press notice of 6 February 2014

Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £375 billion

The Bank of England's Monetary Policy Committee today voted to maintain Bank Rate at 0.5%. The Committee also voted to maintain the stock of purchased assets financed by the issuance of central bank reserves at £375 billion.

The Committee reached its decisions in the context of the monetary policy guidance announced alongside the publication of the August 2013 *Inflation Report*.

The Committee's latest economic projections will appear in the forthcoming *Inflation Report* to be published at 10.30 am on Wednesday 12 February.

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

Glossary and other information

Glossary of selected data and instruments

AWE – average weekly earnings.

CDS – credit default swap.

CPI – consumer prices index.

CPI inflation – inflation measured by the consumer prices index.

CPIH – an index of consumer prices that includes a measure of owner-occupiers' housing costs.

ERI – exchange rate index.

GDP – gross domestic product.

LFS – Labour Force Survey.

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

RPI – retail prices index.

RPI inflation – inflation measured by the retail prices index.

Abbreviations

APF – Asset Purchase Facility.

BCC – British Chambers of Commerce.

CBI – Confederation of British Industry.

CCS – Credit Conditions Survey.

CEIC – CEIC Data Company Ltd.

CFO – chief financial officer.

ECB – European Central Bank.

FDI – foreign direct investment.

FLS – Funding for Lending Scheme.

FOMC – Federal Open Market Committee.

FPC – Financial Policy Committee.

FTSE – Financial Times Stock Exchange.

GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.

HEW – housing equity withdrawal.

HMRC – Her Majesty's Revenue and Customs.

IMF – International Monetary Fund.

LTV – loan to value.

MIP – mortgage interest payment.

MPC – Monetary Policy Committee.

MSCI – Morgan Stanley Capital International Inc.

MTIC – missing trader intra-community.

OBR – Office for Budget Responsibility.

OECD – Organisation for Economic Co-operation and Development.

OFCs – other financial corporations.

ONS – Office for National Statistics.

PNFCs – private non-financial corporations.

PPP – purchasing power parity.

PwC – PricewaterhouseCoopers.

REC – Recruitment and Employment Confederation.

RICS – Royal Institution of Chartered Surveyors.

S&P – Standard & Poor's.

SMEs – small and medium-sized enterprises.

VAT – Value Added Tax.

WEO – IMF *World Economic Outlook*.

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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