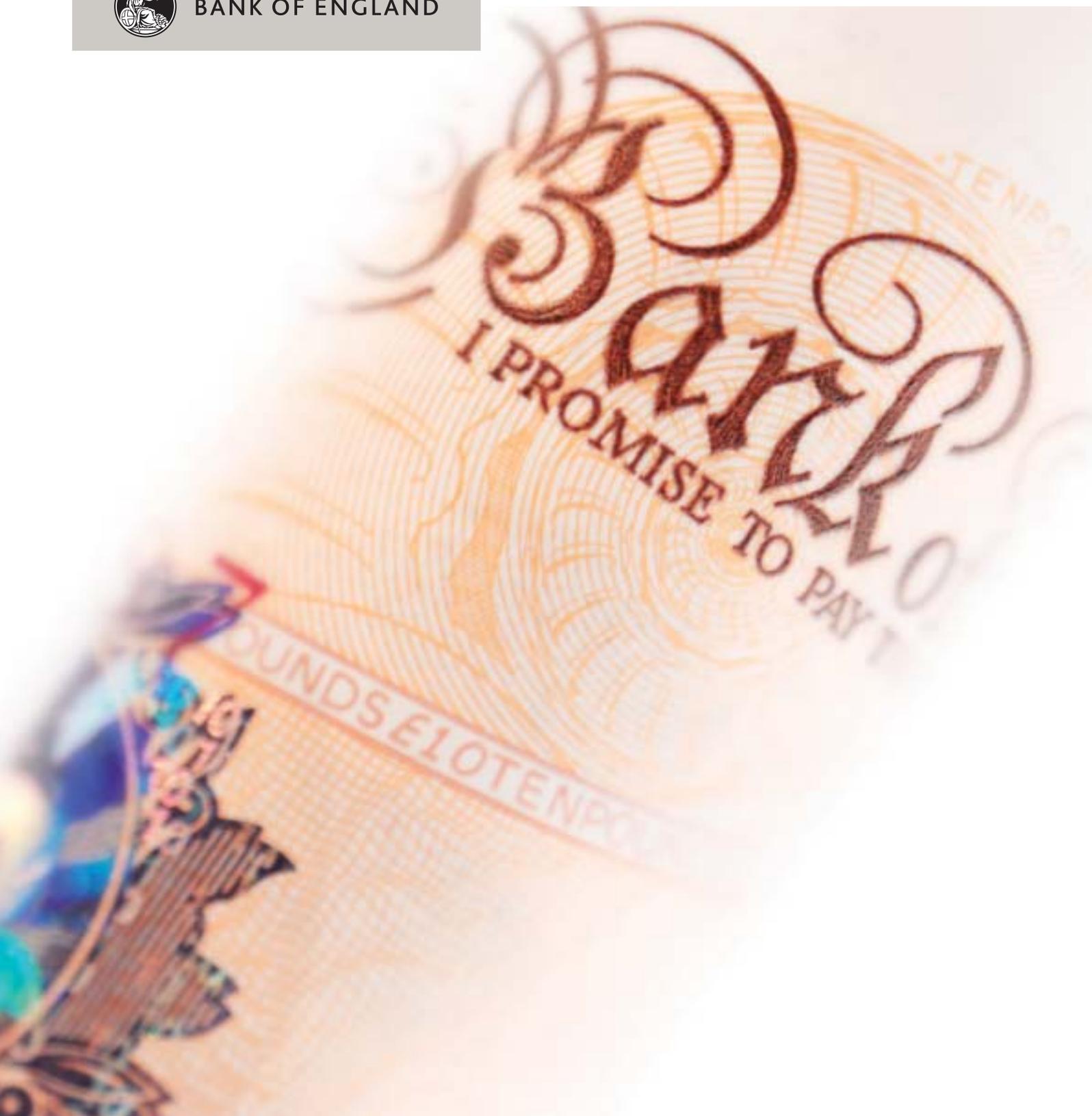


Inflation Report

May 2014



BANK OF ENGLAND





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Inflation Report

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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.

The Monetary Policy Committee:

Mark Carney, Governor

Charles Bean, Deputy Governor responsible for monetary policy

Jon Cunliffe, Deputy Governor responsible for financial stability

Ben Broadbent

Spencer Dale

Paul Fisher

Ian McCafferty

David Miles

Martin Weale



The Overview of this *Inflation Report* is available in PDF at www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14mayo.pdf.

The entire *Report* is available in PDF at www.bankofengland.co.uk/publications/Pages/inflationreport/2014/ir1402.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/ir1402.aspx.

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Overview

The recent strong performance of the UK economy has continued. Output has grown robustly, unemployment has fallen further and inflation is close to the 2% target. A gradual strengthening in productivity and real incomes, together with growing confidence of companies to invest, should underpin the durability of the expansion. The economy remains on course to meet the MPC's intention of absorbing spare capacity over the next few years, while keeping inflation close to the target.

Sustained output growth has not yet been accompanied by a material pickup in productivity. Instead, employment has continued to grow rapidly and the LFS unemployment rate fell below the MPC's 7% threshold in February. The policy guidance that the Committee provided in August 2013 therefore ceased to apply and policy will now reflect the new guidance set out in its February *Inflation Report*. Although the margin of spare capacity has probably narrowed a little since then, the MPC continues to judge that there remains scope to make greater inroads into slack before raising Bank Rate. As set out in its February guidance, when the Committee does start to raise Bank Rate, it expects to do so only gradually and to a level materially below its pre-crisis average.

Economic outlook

Demand and supply

UK output is estimated to have grown by 3.1% in the four quarters to 2014 Q1, with some indicators pointing to even stronger growth. The expansion now appears more broadly based than previously estimated, with spending by both households and businesses having grown solidly in 2013. The revival in the housing market — with transactions up a third over the past year and house prices around 10% higher nationally — underpinned strong growth in housing investment.

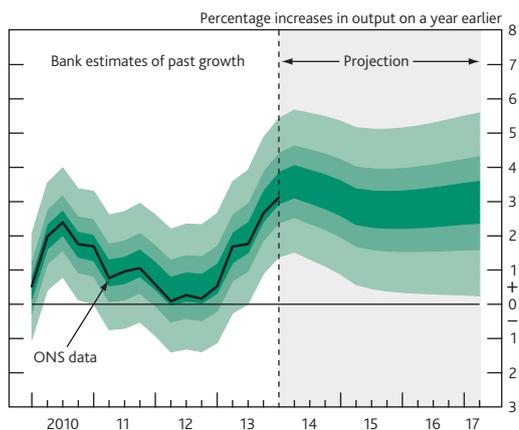
Output growth has continued to be supported by reduced uncertainty and better access to credit. The availability of mortgage lending has improved further, including at relatively high loan to value ratios, although the introduction of the Mortgage Market Review's recommendations may result in a dip in mortgage approvals. The terms on which companies can borrow have also improved, although they remain restrictive for some small and medium-sized enterprises.

The recovery in output has yet to be matched by a material pickup in productivity. Employment has instead continued to grow strongly and the LFS unemployment rate fell to 6.9% in February. Even so, the elevated rate of unemployment and the number of people reporting that they would like to work longer hours point to the existence of labour market slack. In

contrast, companies appear to be operating at around normal levels of capacity utilisation. Overall, there has probably been a modest narrowing in the margin of spare capacity over the past three months, although the central view of most MPC members is that it remains in the region of 1%–1½% of GDP. There is, however, considerable uncertainty around this central estimate, with a range of views on the Committee. As in February, the Committee expects productivity growth to pick up gradually to around its average historical rate by the forecast horizon.

The global backdrop is expected to firm gradually, with growth in the euro area edging higher and the expansion in the US economy supported by the highly stimulative stance of monetary policy. Overall, the emerging economies are likely to grow at around their average historical rate. In China, growth is expected to slow only a little further, although the rapid growth in credit in recent years and the associated expansion of the shadow banking system continue to pose a downside risk.

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 in the near term, as the initial fillip from the release of pent-up demand fades, but remains relatively steady thereafter. Private final demand in the near term continues to rise ahead of incomes, supported by the stimulative stance of monetary policy, improved sentiment and easier credit conditions, with household spending, particularly housing investment, projected to grow solidly. Thereafter, the economic expansion gradually moves onto a firmer footing, with a revival in productivity growth supporting real incomes and companies responding to the stronger demand environment by increasing capital spending.

There are risks to the outlook from developments both abroad and at home. Externally, the need for further adjustment within the euro area continues to pose a downside risk to UK growth, as does the possibility of an end to the relative calm within financial markets, perhaps triggered by the prospect of policy normalisation in some advanced economies. But to the upside, it is possible that improved confidence and reduced uncertainty within the euro area may provide a greater boost to spending than anticipated, especially if recent reductions in periphery sovereign bond spreads translate into easier credit conditions for households and companies.

At home, the main downside risk is that the pickup in growth proves to be unsustainable, either because productivity and real incomes continue to disappoint or because business investment does not recover as expected. Conversely there is a possibility that there is greater underlying momentum in activity than currently thought and, with interest rates

expected to remain at historically low levels, output continues to grow at above its historical average rate.

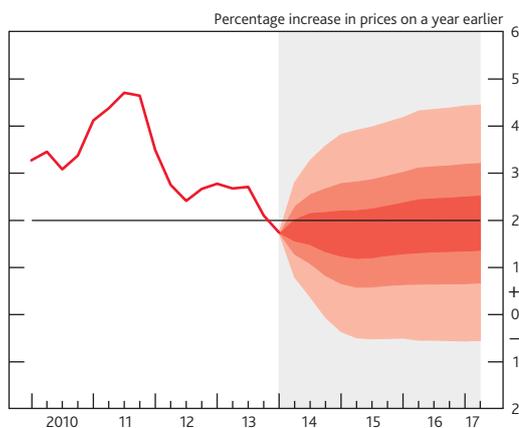
The expected easing in the pace of expansion, together with a modest revival in productivity growth, means that the rate at which spare capacity is absorbed slows markedly relative to the recent past. In particular, after falling further in the near term, unemployment in the second and third years of the forecast is projected to decline only gradually. On the central projection, the margin of spare capacity is broadly closed only by the end of the forecast period.

The path of slack is uncertain, and there is a range of views on the Committee. For a given growth profile, it will depend heavily on the timing and strength of the rebound in productivity growth: the stronger the rebound, the slower the pace at which spare capacity will be absorbed. It will also depend on other developments within the labour market as the expansion takes hold, including the ease with which the longer-term unemployed are able to find work and the extent to which people's desire to work longer hours persists as incomes increase.

Costs and prices

CPI inflation fell to 1.6% in March, but is expected to move nearer to the 2% target in coming months as the falls in petrol prices in the spring of 2013 drop out of the annual comparison. Sterling has risen a little further since the *February Report*; the 10% appreciation over the past year or so should dampen inflation over the first part of the forecast. Having been very weak for over three years, private sector pay growth has begun to pick up, although it remains well below pre-crisis norms. The MPC continues to judge that measures of inflation expectations remain consistent with meeting the 2% target.

Chart 2 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 outturns 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.

Chart 2 summarises the best collective judgement of the outlook for CPI inflation on the same basis as **Chart 1**. Earnings growth is likely to pick up over the forecast period, as productivity growth improves and slack is gradually eliminated. The upward pressure on costs and prices associated with the reduction in spare capacity is partly offset by the fading impetus from administered and regulated prices. Sterling's appreciation is likely to put temporary downward pressure on inflation for the next couple of years. Partly as a consequence, inflation is projected to remain at or slightly below the 2% target over the next few years. By the end of the forecast period, the risks around the target are judged to be broadly balanced, as was also the case three months ago.

There are, as always, risks on both sides of the inflation outlook. To the upside, it is possible that slack will be used up more rapidly than anticipated or that companies will use the stronger demand environment to rebuild margins more than assumed. To the downside, it is possible that the unexpectedly sharp falls in inflation over the past year or so reflect

underlying cost and price pressures that are weaker than currently judged.

The policy decision

The UK economy has performed strongly over the past year. Output is estimated to have grown by over 3% in the year to 2014 Q1. Inflation has fallen back close to the 2% target. And the unemployment rate has declined to its lowest level for over five years. Nevertheless, spare capacity remains and the MPC's current aim is to keep inflation close to the target, while supporting the economic expansion such that spare capacity is absorbed.

At its February meeting, the Committee noted that it was likely that its 7% unemployment threshold would be reached over the next few months and provided guidance on the subsequent setting of policy. At its May meeting, the Committee observed that the LFS unemployment rate had fallen to 6.9% in the latest data release and reaffirmed that guidance in order to achieve the inflation target over the policy horizon. A key feature of the guidance is that, given the likely persistence of headwinds weighing on the economy, when Bank Rate does begin to rise, it is expected to do so only gradually. Moreover, the persistence of those headwinds, together with the legacy of the financial crisis, means that Bank Rate is expected to remain below average historical levels for some time to come.

At its May meeting, the Committee also noted that, conditioned on a gradual rise in Bank Rate, the economy appeared on course to absorb remaining spare capacity over the next few years, while keeping inflation close to the 2% target. The margin of spare capacity had probably narrowed slightly over recent months, but the central view of most MPC members was that it remained in the region of 1%–1½% of GDP. The Committee judged that there was scope to make further inroads into slack before an increase in Bank Rate was necessary.

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

1 Money and asset prices

Official interest rates in the United Kingdom and other advanced economies remained at historically low levels. Near-term implied volatilities — a measure of financial market uncertainty — have been low across a range of asset classes. There have been marked falls in euro-area periphery bond yields. The sterling exchange rate appreciated a little further. Credit conditions for households and companies continued to improve.

Table 1.A Monitoring the MPC's key judgements

Developments anticipated in the February Report	Developments since February
Cost of credit	On track
<ul style="list-style-type: none"> Credit spreads continue to decline over 2014, particularly for high loan to value mortgages and loans to smaller companies. 	<ul style="list-style-type: none"> Credit spreads fell in Q1 as expected, particularly for unsecured household lending and on loans to large corporates.
Mortgage approvals	Lower than expected
<ul style="list-style-type: none"> A rise in mortgage approvals for house purchase to around 80,000 a month in 2014 Q1, reaching around 90,000 by 2014 Q3. 	<ul style="list-style-type: none"> Mortgage approvals averaged 71,000 a month in Q1. Now expected to reach around 85,000 by 2014 Q4.
House prices	Broadly on track
<ul style="list-style-type: none"> Near-term rises in the average of Halifax and Nationwide house price indices to be similar to increases seen in recent months. 	<ul style="list-style-type: none"> Rise in average of Halifax and Nationwide indices in the three months to April broadly similar to that in three months to January.
PNFC lending	Lower than expected
<ul style="list-style-type: none"> Four-quarter PNFC net lending to be slightly positive in 2014 Q1, and rise further in subsequent quarters. 	<ul style="list-style-type: none"> Four-quarter PNFC net lending contracted further in 2014 Q1.
Evolution of sterling	Slightly higher than expected
<ul style="list-style-type: none"> Sterling to evolve in line with conditioning assumptions. 	<ul style="list-style-type: none"> Sterling appreciated around 1%.

1.1 Monetary policy and financial markets

Official interest rates remained at historically low levels in advanced economies. Some countries have begun to move towards a gradual normalisation of monetary policy; for others, however, the repercussions of the financial crisis have been such that policy normalisation remains some way off.

More generally, there are a range of global challenges that could have material ramifications for financial markets. These include the prospective normalisation of US monetary policy, risks surrounding China's financial sector, continued fragilities in some emerging economies and geopolitical tensions. Despite these challenges, near-term implied volatilities — a measure of financial market uncertainty — are low across a range of asset classes (**Chart 1.1**), and market contacts suggest that there has been some intensification of a 'search for yield' (Section 5).

Monetary policy and market interest rates

In the United Kingdom, short-term market interest rates imply that market participants expect Bank Rate to rise gradually, from around 2015 Q2, to 2% or so in three years' time (**Chart 1.2**). As the unemployment rate fell below the MPC's threshold of 7% in the three months to February (Section 3), the policy guidance provided in August 2013 ceased to apply. Policy will instead reflect the new guidance set out in the February Report.⁽¹⁾ As set out in that guidance, when the Committee does start to raise Bank Rate, it expects to do so gradually, and to a level materially below its pre-crisis average. There was little reaction in financial markets to the transition between the two forms of policy guidance.

In the United States, the Federal Open Market Committee (FOMC) slowed the monthly pace of asset purchases further, in line with market expectations. That slowing was accompanied by guidance that the FOMC continued to

(1) For more details, see pages 8–9 of the February 2014 Report; www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14feb.pdf.

Monetary policy since the February Report

The MPC's central projection in the February 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 ease a little as the boost from the release of pent-up demand faded. But growth would pick up thereafter as global activity and business investment strengthened. Inflation was expected to be at, or a little below, the target throughout the forecast period.

Financial conditions had tightened a little in the month preceding the MPC's meeting on 5–6 March, with a small increase in short-term interest rates and a further appreciation in sterling. While there had been little news in the aggregate GDP data, there were initial signs that the anticipated broadening from household to business spending was under way. Estimates of growth over the past year had been revised so that consumer spending and dwellings investment were lower than the Committee had anticipated at the time of the February Report, while business investment was higher than expected.

The headline unemployment rate had risen to 7.2% in the fourth quarter of 2013, following several months of decline, and employment had increased by less than expected. Together with the Committee's backcast for GDP, this meant that productivity appeared to have increased by around its historical average quarterly growth rate of about 0.5%. Whether this recovery in productivity would be sustained remained a key uncertainty.

All Committee members agreed that neither of the price stability knockouts that would override the policy guidance provided in August 2013 had been breached. Headline inflation had fallen below the target for the first time in over four years. And all members of the Committee judged that the probability of inflation being above 2.5% in 18–24 months' time remained less than 50%. The news on survey measures of households' inflation expectations had been to the downside. At its meeting on 20 November, the Financial Policy Committee (FPC) had agreed that the financial stability knockout had not been breached.

With unemployment remaining above the 7% threshold, the MPC's August 2013 policy guidance remained in place and no member thought it appropriate to tighten, or to loosen, the stance of monetary policy. The Committee therefore voted unanimously to maintain Bank Rate at 0.5% and the stock of asset purchases at £375 billion.

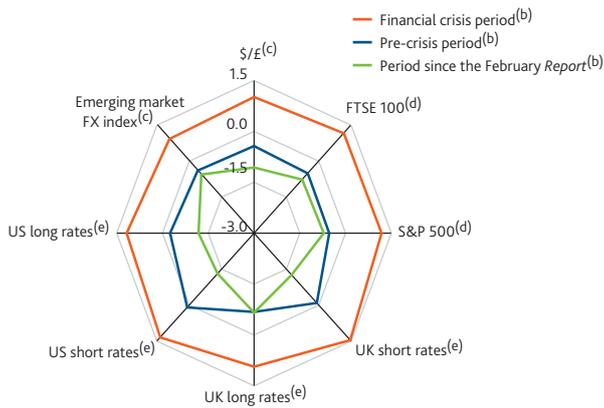
At its meeting on 9 April, the MPC noted that there had been further signs of a strengthening recovery in the advanced economies, with modest positive news on euro-area activity and more evidence of continuing expansion in the United States. Monetary conditions had tightened a little during the month, with UK short-term market interest rates rising around the time of the Federal Open Market Committee's announcement of a further reduction in the pace of asset purchases in the United States.

In the United Kingdom, the recovery was gaining momentum. Output had grown consistently across all sectors in January and February, and Bank staff's central expectation of the final estimate of growth in the first quarter of 2014 had been revised up to 1%. That stronger growth, together with employment increasing by less than expected, meant that productivity appeared to have grown around the turn of the year. There had also been evidence that earnings growth was beginning to pick up, suggesting a sustainable rise in real wages and income was in prospect. The unemployment rate had remained at 7.2% in the three months to January, higher than expected at the time of the February Report.

All Committee members agreed that neither of the price stability knockouts that would override the policy guidance provided in August 2013 had been breached. Inflation had fallen to 1.7% in February and 1.6% in March. While inflation was likely to pick up somewhat in coming months, all members agreed that the probability that it would be above 2.5% in 18–24 months' time remained less than 50%. In addition, there had been mostly downside news on inflation expectations. The FPC had agreed at its meeting on 19 March that the financial stability knockout had not been breached. Against that backdrop, the MPC voted unanimously to maintain Bank Rate at 0.5%, and the stock of asset purchases at £375 billion.

At its meeting on 7–8 May, the MPC voted to maintain Bank Rate at 0.5% and the stock of purchased assets at £375 billion.

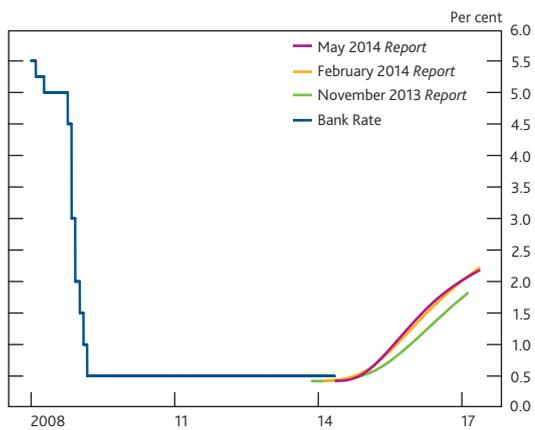
Chart 1.1 Implied volatilities at the three-month horizon for international interest rates, equities and exchange rates^(a)



Sources: Bank of England, Barclays Live, Bloomberg and Bank calculations.

- (a) The chart shows differences, in number of standard deviations, between the values of these indicators and their averages between 2 January 2003 and 7 May 2014, averaged over three different time periods. The averages are based on daily data.
 (b) Pre-crisis period refers to 2 January 2003 to 8 August 2007. Financial crisis period refers to 9 August 2007 to 31 December 2009. The period since the February Report refers to 6 February 2014 to 7 May 2014.
 (c) $\$/\pounds$ refers to implied volatilities from three-month options on the US dollar into sterling exchange rate. Emerging market FX index refers to the JPMorgan Implied Volatility index.
 (d) Implied volatilities from three-month options on the FTSE 100 and S&P 500 respectively.
 (e) Implied volatilities from three-month options on one-year and ten-year interest rate swaps.

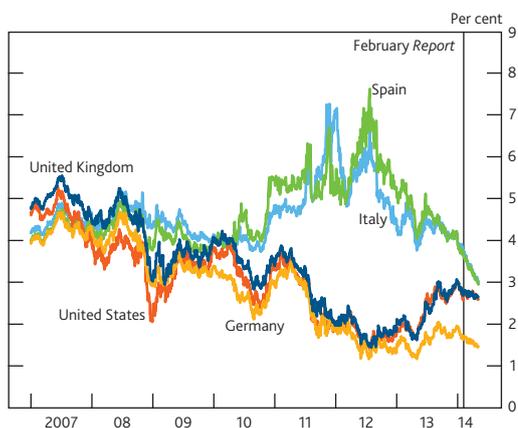
Chart 1.2 Bank Rate and forward market interest rates^(a)



Sources: Bank of England and Bloomberg.

- (a) The November 2013, February 2014 and May 2014 curves are estimated using overnight index swap rates in the fifteen working days to 6 November 2013, 5 February 2014 and 7 May 2014 respectively.

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



Source: Bloomberg.

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

anticipate that it would be appropriate to maintain the policy rate at an exceptionally low level for a considerable time after the asset purchase programme ended. Market participants nevertheless brought forward their expectations of policy tightening a little. Official interest rates in the United States are expected to remain below those in the United Kingdom until 2017.

In contrast, the European Central Bank (ECB) has signalled its intention to keep policy highly stimulative, and potentially loosen further. As a result, market participants have pushed back their expectations of policy tightening. In Japan, monetary policy remains highly stimulative and market participants do not expect a tightening in policy until considerably later than in the United Kingdom or United States.

Long-term interest rates have remained broadly unchanged in the United Kingdom and the United States since the February Report (Chart 1.3). And some measures suggest that uncertainty around those rates remains similar to pre-crisis levels (Chart 1.1).

Euro-area periphery sovereign bond yields have fallen markedly over the past three months (Chart 1.3). That is likely to reflect market expectations for further monetary policy loosening by the ECB, as well as low inflation across the region. Spreads over German yields have also fallen, due to more encouraging economic data, as well as an improvement in investor perceptions of the risks facing those countries (Section 2). It is possible that these declines may also partly reflect an increased appetite among investors to bear risk.

Equities and corporate bonds

Equity prices in the United Kingdom have risen by around 1% since the February Report, while those in the United States and the euro area have risen by around 4%. The underperformance of UK equities partly reflected falls in the share prices of financial companies. More generally, equity prices picked up steadily during 2013 as the outlook for advanced economies improved and investors' risk appetite began to return. Prices have appeared resilient to political events in Ukraine, as well as to continuing concerns about fragilities in some emerging economies. Implied volatilities of equity prices have remained at levels similar to those seen before the financial crisis (Chart 1.1).

UK non-financial investment-grade corporate bond yields have been broadly unchanged since the start of the year. And spreads on such bonds, which in part reflect investors' perceptions of the riskiness of holding corporate debt, have been lower than in recent years, albeit above their pre-crisis levels. Net corporate bond issuance by UK private non-financial corporations (PNFCs) fell in 2014 Q1 (Table 1.B), but that partly reflected one-off factors (Section 1.3).

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

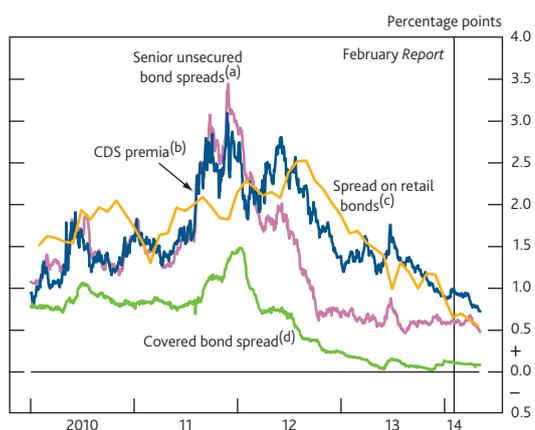
£ billions	Quarterly averages				2014 Q1
	2003–08	2009–12	2013 H1	2013 H2	
Loans	11.5	-6.2	-3.6	-0.8	-5.1
Bonds ^{(b)(c)}	3.4	3.2	5.6	0.6	-1.8
Equities ^(b)	-2.1	1.4	-0.9	-1.4	1.1
Commercial paper ^(b)	0.0	-0.4	0.6	-0.6	-1.2
Total ^(d)	12.8	-2.0	1.0	-1.7	-7.6

(a) Includes sterling and foreign currency funds.

(b) Non seasonally adjusted.

(c) Includes stand-alone and programme bonds.

(d) Total net external finance raised is seasonally adjusted. As component series are not all seasonally adjusted, the total may not equal the sum of its components.

Chart 1.4 Sterling exchange rates**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.

Exchange rates

The sterling effective exchange rate (ERI) has appreciated by around 1% since the February Report, largely reflecting rises against the US dollar and Chinese yuan. That left the ERI just over 10% above its March 2013 trough (**Chart 1.4**).

A little under half of the appreciation since March 2013 reflects rises against the US dollar and the euro (**Chart 1.4**). Around a third of the rise was against emerging-economy currencies, despite these accounting for less than a fifth of the ERI basket. That followed sharp depreciations in several countries' currencies, some of which have partly unwound. The appreciation in sterling is likely to bear down on CPI inflation in coming quarters (Section 4).

1.2 The banking sector

The amount of lending that banks can provide to the real economy, and the terms on which it is provided, depends, in part, on their own ability to access funds.

Banks access funding through several channels. As discussed in the box on pages 14–15, over the past 18 months banks have been able to obtain funds through the Funding for Lending Scheme. They have also seen substantial rises in customer deposits for most of the past year. According to the Bank of England's *Bank Liabilities Survey (BLS)*, banks' volumes of retail funding increased in 2014 Q1, driven — in part — by the supply of deposits from companies. The cost of retail funding has fallen a little further since the February Report (**Chart 1.5**).

Spreads on bank debt have also fallen a little further over the past three months (**Chart 1.5**). According to the *BLS*, this reflects strong investor demand for bank debt, coupled with continued low issuance in the wholesale markets. Indeed, respondents to the survey reported that these falls in spreads have more than offset an increase in reference rates, leading to a fall in the cost of funding the flow of new loans.

Several UK banks have issued capital instruments during the past few quarters, partly in response to recommendations by the Financial Policy Committee and other regulatory changes.⁽¹⁾ Indeed, lenders participating in the *BLS* cited regulatory requirements as the key reason for an expected increase in capital in Q2. Higher capital levels should support credit supply and loan growth in the medium term.⁽²⁾

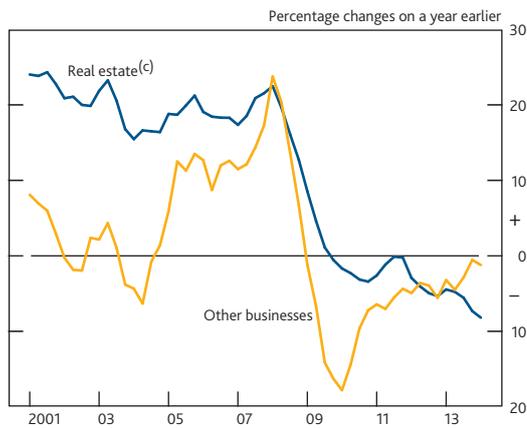
1.3 Credit conditions

Bank lending to companies

Net external finance raised by companies fell sharply in Q1, as net corporate bond issuance and net lending were both

(1) For more details, see the November 2013 *Financial Stability Report*;www.bankofengland.co.uk/publications/Documents/fsr/2013/fsrfull1311.pdf.(2) For more information, see the box 'Macroprudential policy and credit conditions' on pages 16–17 of the May 2013 Report; www.bankofengland.co.uk/publications/Documents/inflationreport/2013/ir13may.pdf.

Chart 1.6 Loans to the UK real estate sector and other businesses^{(a)(b)}



- (a) Lending by UK monetary financial institutions. The sum of lending to the real estate sector and to other businesses comprises lending to PNFCs where data for PNFCs have been estimated by subtracting elements of the industrial breakdown for non-financial businesses thought to contain mainly public sector industries (public administration and defence, education, health and social work and recreational, personal and community services). Data cover lending in both sterling and foreign currency, expressed in sterling. Non seasonally adjusted.
- (b) From January 2011, data are on the SIC 2007 basis. Changes in the SIC codes have led to some components moving between industries. As a result, growth rates in 2011 may be affected.
- (c) The real estate sector is defined as buying, selling and renting of own or leased real estate and includes real estate and related activities on a fee or contract basis. The development of buildings is included in the data prior to 2011.

Chart 1.7 Loans to individuals

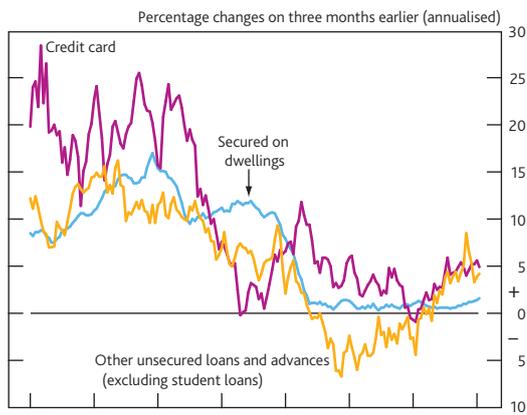
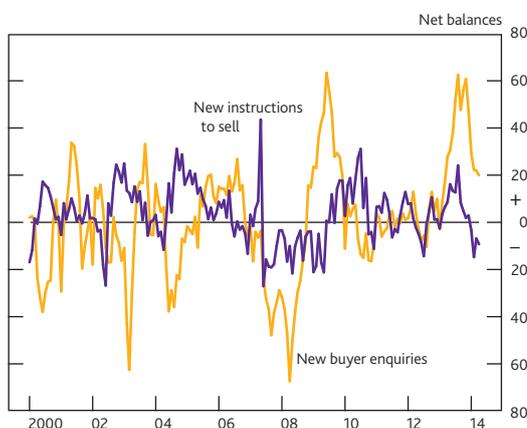


Chart 1.8 New instructions to sell and buyer enquiries^(a)



Source: Royal Institution of Chartered Surveyors.

- (a) Data are for England and Wales, and show the percentage balance reporting an increase in new instructions to sell/new buyer enquiries over the past month since March 2002 (over the past three months prior to March 2002) less the percentage reporting reduced instructions/enquiries.

negative (**Table 1.B**), and weaker than expected in the *February Report*. The Q1 numbers, however, were affected by a small number of large transactions. Those include Vodafone's sale of its stake in Verizon Wireless and the subsequent redemptions to bondholders.

The four-quarter rate of growth in PNFCs' M4 lending fell to -2.5% in Q1 from -0.5% in Q4. Developments in bank lending have, however, differed by sector. In particular, the stock of lending to real estate businesses has declined since 2010 (**Chart 1.6**), with the rate of contraction increasing recently. That is despite gross new lending remaining relatively flat. The contraction is likely, in part, to reflect banks' desire to reduce the volume of bad loans to the commercial real estate (CRE) sector on their balance sheets. And repayments of debt have increased as some CRE companies have reduced their overall borrowing, and others have refinanced loans with non-bank lenders.

Four-quarter growth in loans to businesses outside the CRE sector was broadly zero in 2014 Q1. But it remained a long way above its post-crisis lows: the four-quarter rate of contraction in net lending to non-CRE companies has eased sharply since 2010 (**Chart 1.6**).

Bank credit conditions remain supportive of future increases in loan growth, in line with expectations at the time of the *February Report*. In the Bank's 2014 Q1 *Credit Conditions Survey (CCS)*, lenders reported an increase in corporate credit availability for the sixth consecutive quarter. And a survey by the Bank's Agents found that credit availability had increased over the past year.⁽¹⁾ The improvement in credit availability appears to have been greater for large PNFCs than for small and medium-sized ones, continuing recent trends. Evidence from the *CCS* suggests that business demand for bank credit rose in Q1.

Aggregate net lending to PNFCs is expected to be broadly flat in Q2 before picking up in subsequent quarters. That is a little weaker than expected three months ago (**Table 1.A**).

Corporate capital market issuance is also expected to pick up again in the near term, with respondents to the 2014 Q1 *Deloitte CFO Survey* expecting issuance to increase over the next year, for example.

Secured lending to households and the housing market

Secured loan growth continued to increase in the three months to March, albeit at very subdued rates (**Chart 1.7**). And evidence from the *CCS* suggests that the availability of secured loans to households improved in 2014 Q1. Developments in quoted interest rates on new mortgages were mixed in 2014 Q1. Most quoted two-year

(1) See www.bankofengland.co.uk/publications/Documents/agentssummary/2014/agsum14apr.pdf.

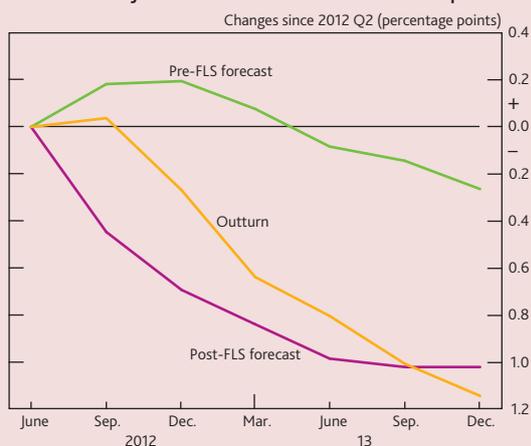
Developments in credit conditions since the launch of the Funding for Lending Scheme

The Funding for Lending Scheme (FLS) was launched by the Bank of England and HM Treasury in July 2012. Its aim was to boost the incentive for banks and building societies to lend to UK households and non-financial companies by providing them with low-cost funding at a time when funding costs in markets had risen sharply.⁽¹⁾ As this box discusses, between the launch of the FLS and the end of 2013, bank funding costs fell sharply, leading to an easing in credit conditions for households and private non-financial corporations (PNFCs). Subsequently, net lending to the real economy increased. In 2013, the FLS was extended, and in November the terms of the Scheme changed to refocus it towards lending to small and medium-sized companies from January 2014.⁽²⁾

The FLS encourages banks and building societies to lend to the real economy by linking the price and quantity of the funds available from the Bank to banks' individual lending performance. But it takes time for the incentives put in place by the FLS to filter through into the real economy. **Table 1** sets out a stylised transmission mechanism, and compares outturns at each stage with expectations following the launch of the FLS.⁽³⁾

As set out in **Table 1**, changes in the funding conditions faced by banks first feed through into the interest rates charged on loans to households and companies and then to lending to the real economy. Wholesale bank funding costs fell over the 18 months between the launch of the FLS and the end of 2013, and many lenders drew funding from the Scheme. That was associated with a fall in borrowing rates and credit spreads (**Chart A**) for households and corporates. Availability of credit, in particular to households, also improved.

Chart A Projections and outturn for credit spread indicator^(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) Pre-FLS forecast based on data up to the time of the Scheme's announcement, post-FLS forecast updates this for the projected impact of the Scheme. The method of calculating this indicator of credit spreads is set out in the box on pages 16–17 of the February 2014 *Inflation Report*; www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14feb.pdf.

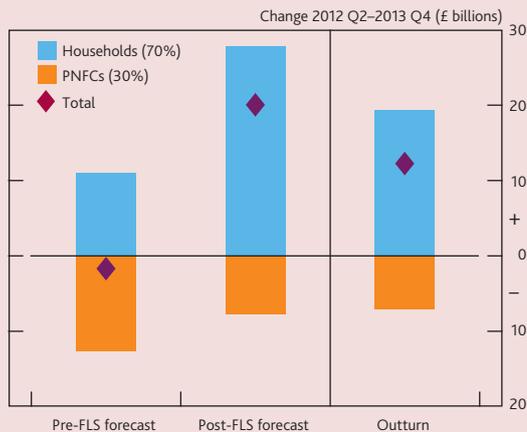
The loosening of credit conditions resulted in an increase in net lending to the real economy, albeit from a low base. Positive lending between 2012 Q2 and 2013 Q4 compares with an expected fall in lending ahead of the introduction of the FLS. Within that increase, lending to households picked up, although by a little less than expected at the time the Scheme was launched. The contraction in the stock of loans to PNFCs was less than expected ahead of the FLS, and broadly in line with expectations after the launch of the Scheme (**Chart B**).

It is difficult to assess the Scheme's contribution to these developments because of the impossibility of knowing what would have happened in its absence. In the year prior to the launch of the FLS, UK banks' funding costs had risen, in large part because of developments in the euro area. As well as the

Table 1 Evaluating developments in credit conditions between the launch of the FLS and the end of 2013

	Anticipated developments following the launch of the FLS in July 2012	Developments since July 2012	In line with expectations?
Participation in Scheme	The majority of lenders to participate in the Scheme, covering large as well as small lenders.	Lenders accounting for 85% of stock of loans to the UK real economy signed up to the Scheme.	In line with expectations.
Stage 1 Bank funding costs	Effective marginal bank funding costs expected to fall by around 150 basis points, including falls in market funding costs.	Bank marginal retail and wholesale funding costs fell around 150–200 basis points. Lenders drew £41.9 billion directly.	Total fall in marginal costs broadly in line, with greater falls for market funding costs. Drawings from the Scheme were lower than expected.
Stage 2 Quoted terms and credit availability	Household and corporate spread indicators expected to fall around 100 basis points.	Household spread indicator fell around 100 basis points, spread indicator for corporates fell around 150 basis points.	Falls in spread indicator for households in line, spread indicator for corporates fell by a little more than expected. Both fell a little more slowly than expected.
Stage 3 Loan applications and approvals	Mortgage approvals of around 200,000 a quarter on average.	Mortgage approvals of around 175,000 a quarter on average.	A little below expectations.
Stage 4 The flow of credit and effective rates	Net lending expected to be around £20 billion during 2012 Q3–2013 Q4. Within that, around £28 billion of net lending to households, and a fall in loans to corporates of around £8 billion (Chart B).	Net lending increased by around £12 billion in total, with an increase in household net lending of around £19 billion and a fall in loans to companies of around £7 billion (Chart B).	Overall less than expected on account of lower lending to households, lending to corporates in line.

Chart B Projections and outturns for net lending to households and PNFCs^(a)



(a) Figures in parentheses show the shares of loans to households and to companies in the outstanding stock of sterling loans. M4 loans and securities excluding the effects of securitisations and loan transfers.

FLS, subsequent falls in banks' funding costs are likely to have reflected other economic developments and policy initiatives at home and abroad: in particular, comments made by the President of the European Central Bank in July 2012 and the subsequent announcement of Outright Monetary Transactions

are likely to have played a role. Developments such as these are likely to have improved banks' funding opportunities, and so reduced UK banks' need to access funding through the FLS; in their absence, it is probable that the FLS would have been more heavily used. Even so, the FLS is still likely to have supported bank lending by acting as a backstop in the event of any deterioration in funding market conditions.

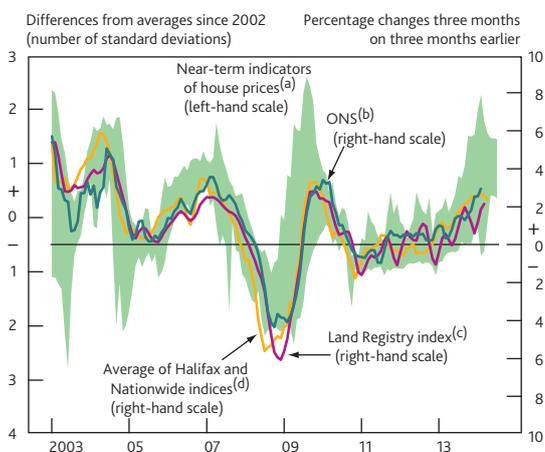
Overall, it is probable that the FLS helped to reduce bank funding costs and, more generally, boosted lending to the real economy over the period of its operation.

- (1) For more detail, see the box on pages 14–15 of the August 2012 *Report* or Bank of England explanatory note, 'The Funding for Lending Scheme', 13 July 2012; www.bankofengland.co.uk/markets/Documents/explanatory_note/fls120713.pdf and Churm, R, Leake, J, Radia, A, Srinivasan, S and Whisker, R (2012), 'The Funding for Lending Scheme', *Bank of England Quarterly Bulletin*, Vol. 52, No. 4, pages 306–20; www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb120401.pdf.
- (2) For more details on changes to the FLS in April 2013, see Bank of England Explanatory Note 'Funding for Lending Scheme extension — explanatory note', 25 April 2013; www.bankofengland.co.uk/markets/Documents/explanatorynotefls130424.pdf. For more details on changes to the FLS in November 2013, 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; www.bankofengland.co.uk/publications/Pages/news/2013/177.aspx.
- (3) For more details on the transmission mechanism, see the box on pages 14–15 of the November 2012 *Report*; www.bankofengland.co.uk/publications/Documents/inflationreport/ir12nov.pdf.

fixed-rate mortgages were little changed, but rates on five-year mortgages picked up a touch.

Despite a further easing in credit conditions, activity in the housing market picked up by less than expected at the time of the February *Report* (Table 1.A). Mortgage approvals were broadly unchanged in Q1, averaging around 70,000 a month. That was around 10,000 a month weaker than anticipated at the time of the February *Report* (Table 1.A). In part, the weaker outturn for approvals may have reflected a limited number of properties for sale: the Royal Institution of Chartered Surveyors (RICS) reported that new instructions to sell have fallen in recent months (Chart 1.8). The implementation of new rules resulting from the Mortgage Market Review — which was carried out by the Financial Conduct Authority to improve the functioning of the mortgage market — may also be weighing on approvals, as banks introduce new processes or train staff, for example. And that is likely to persist in the near term. Approvals are likely to rise over the rest of the year but to a lower level than expected three months ago: they are expected to remain at around 70,000 a month in Q2, and to rise to around 85,000 a month by the end of the year (Section 5).

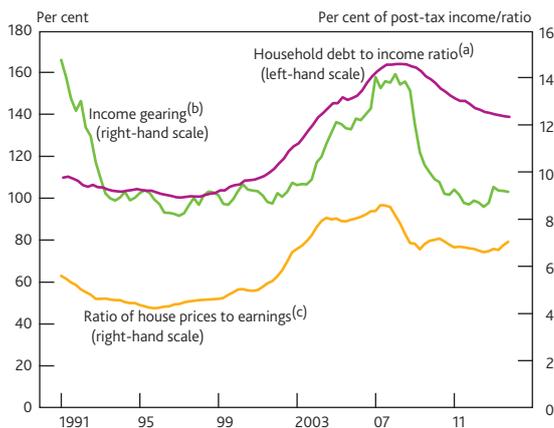
Chart 1.9 House prices and near-term indicators of house price inflation



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

- 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 the average asking price trend. All series have been moved forward by three months. The Rightmove index has been seasonally adjusted by Bank staff.
- Latest observation is for February 2014.
- Data are for England and Wales. Latest observation is for March 2014.
- Latest observation is for April 2014.

House prices rose further (Chart 1.9). The ONS house price index, for example, increased by around 9% in the year to February. Outside of London and the South East, prices rose by around 6%. Several forward-looking indicators point to further increases over the next few months, although the RICS house price expectations balance points to smaller increases in

Chart 1.10 Indicators of housing affordability

Sources: Bank of England, Halifax, Nationwide, ONS and Bank calculations.

- (a) Household financial liabilities as a percentage of the four-quarter moving sum of nominal household post-tax income. Financial liabilities 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 nominal 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.
- (c) Average of the Halifax and Nationwide measures of average house prices divided by average annual earnings, based on average weekly earnings from 2000 onwards and the average earnings index prior to that. Data are three-month moving averages. The Nationwide measure has been seasonally adjusted by Bank staff.

prices in Q2 than in Q1. Although house prices have risen faster than earnings, the house price to earnings ratio remains below 2007 levels (Chart 1.10).

A growing share of recent mortgage contracts has been attributable to borrowers with loan to value ratios above 90%, though this proportion remains below pre-crisis levels. That rising share of higher loan to value mortgages may reflect the Government's Help to Buy mortgage guarantee scheme, which facilitates the provision of mortgages to first-time homebuyers and homemovers with small deposits. New lending at high loan to income ratios has surpassed pre-crisis levels, particularly for high-value properties, including those in London.⁽¹⁾ With growth in the stock of lending remaining subdued, however, the debt to income ratio of households in aggregate has continued to edge lower (Chart 1.10). And income gearing (interest payments and regular repayments of mortgage principal as a proportion of disposable income) remains relatively low (Chart 1.10), reflecting the current low level of interest rates.

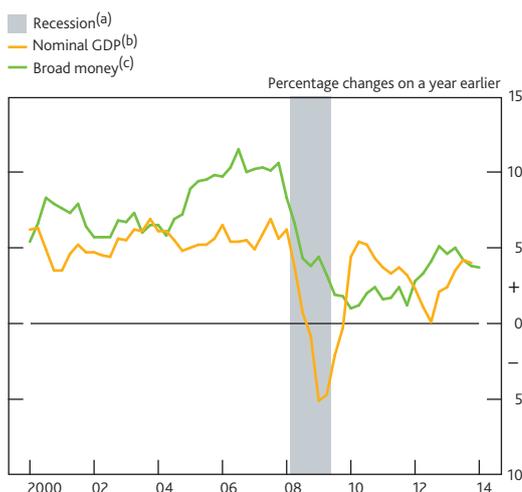
Unsecured bank lending to households

Unsecured credit growth remained robust in Q1, both for credit cards and for other unsecured loans (Chart 1.7), as rates charged on many new loans fell further. Evidence from the CCS suggests that the availability of unsecured credit increased slightly in Q1. Respondents to the CCS expected further improvements in unsecured credit conditions in Q2.

1.4 Money

Annual broad money growth fell back a little further in 2014 Q1 to 3.7%. That was down to a reduction in the holdings of other financial institutions. Flows into household sight deposits and contributions from PNFCs remained robust.

The easing in broad money growth over the past few quarters contrasts with the pickup in nominal GDP growth. In 2013 Q4, broad money and nominal GDP grew at similar rates (Chart 1.11). Between 2000 and 2007, nominal GDP growth of around 5% was associated with broad money growth of around 8%. But there are several reasons why the relationship between broad money and nominal GDP may have changed since the pre-crisis period. On the demand side, real deposit rates have been low, reducing the incentive to hold money. And, on the supply side, the stock of bank borrowing, the main source of money creation, has grown at a slower rate than nominal GDP — in contrast to the pre-crisis period, when it grew faster than nominal GDP.⁽²⁾

Chart 1.11 Broad money and nominal GDP

- (a) A recession is defined as at least two consecutive quarters of falling output (at constant market prices). The recession is assumed to end once output begins to rise.
- (b) At current market prices. The latest observation is 2013 Q4.
- (c) M4 excluding intermediate other financial corporations (OFCs). Intermediate OFCs are: mortgage and housing credit corporations; non-bank credit grantors; bank holding companies; securitisation special purpose vehicles; and other activities auxiliary to financial intermediation. In addition to the deposits of these five types of OFCs, sterling deposits arising from transactions between banks or building societies and 'other financial intermediaries' belonging to the same financial group are excluded from this measure of broad money. The latest observation is 2014 Q1.

- (1) For more information on loan to value and loan to income ratios, see the November 2013 *Financial Stability Report*; www.bankofengland.co.uk/publications/Documents/fsr/2013/fsrfull1311.pdf.
- (2) For more information, see McLeay, M, Radia, A and Thomas, R (2014), 'Money creation in the modern economy', *Bank of England Quarterly Bulletin*, Vol. 54, No. 1, pages 14–27; www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q102.pdf.

2 Demand

The near-term growth outlook is broadly unchanged from the *February Report*. GDP growth remained robust in 2013 Q4. Household consumption growth weakened, but probably recovered in 2014 Q1. There were signs of a broadening in the recovery, with business investment revised higher in 2013. Net trade also contributed to growth, although the current account deficit stood at a near-record high. Elsewhere, activity indicators for the advanced economies, particularly the euro area, suggest a slight strengthening in momentum. The near-term outlook for the emerging economies changed little.

Table 2.A Monitoring the MPC's key judgements

Developments anticipated in the February Report	Developments since February
<p>Consumer spending</p> <ul style="list-style-type: none"> Quarterly consumer spending growth of around ¾% in the year to 2014 Q3. 	<p>Weaker than expected</p> <ul style="list-style-type: none"> Consumption growth slowed to 0.3% in 2013 Q4, but is likely to rebound in Q1.
<p>Investment</p> <ul style="list-style-type: none"> 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% per quarter. 	<p>Weaker than expected</p> <ul style="list-style-type: none"> Business investment growth weaker than expected in 2013 Q4 but growth was revised up in 2013 Q2 and Q3. Growth in housing investment in 2013 Q4 weaker than anticipated; indicators suggest a pickup in growth in the near term.
<p>Advanced economies</p> <ul style="list-style-type: none"> Quarterly euro-area GDP growth of a little above ¼% in 2014 H1 and Q3, 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 in 2014 H1 and Q3. 	<p>Broadly on track</p> <ul style="list-style-type: none"> Q4 growth broadly as expected, with improved near-term outlook. Sovereign bond yields and bank funding costs have fallen. Q1 growth temporarily depressed by bad weather; expected to rebound in Q2. Non-farm payrolls in line with expectations.
<p>Rest of the world</p> <ul style="list-style-type: none"> Indicators of activity consistent with four-quarter PPP-weighted emerging-economy growth averaging around 5% and, within that, Chinese GDP growth averaging around 7¾%. 	<p>Broadly on track</p> <ul style="list-style-type: none"> Emerging-economy growth broadly on track, but indicators point to slightly slower Chinese growth.

UK GDP is estimated to have grown by 0.7% in 2013 Q4, unchanged from the estimate available at the time of the *February Report*. Growth in domestic demand (Section 2.1) proved weaker than expected in February but that was offset by a contribution from net trade that was greater than expected (Section 2.2). The ONS estimates that output grew by 0.8% in 2014 Q1 (Section 3).

The pickup in growth in 2013 was associated with an increase in both household consumption and business investment growth (**Chart 2.1**). In part, that reflected declining financial savings by households and companies (**Chart 2.2**), following sharp increases during the recession. Alongside that, the fiscal deficit narrowed.

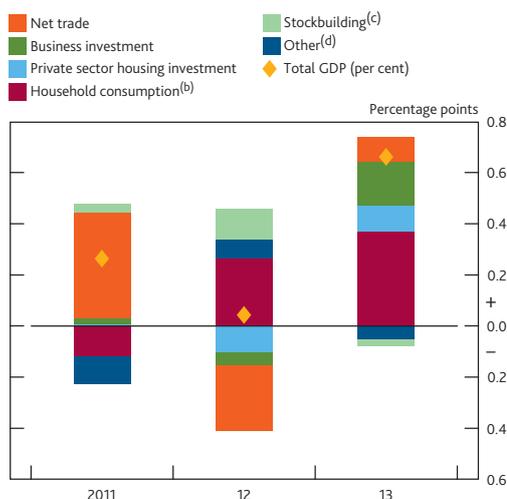
Those domestic developments were associated with a widening in the current account deficit. As discussed in the box on pages 22–23, that reflects weaker investment income flows rather than a marked deterioration in the UK trade deficit. Indeed, net trade volumes supported growth in 2013 (**Chart 2.1**), in part reflecting the continuing recovery in global demand (Section 2.2).

2.1 Domestic demand

Household spending

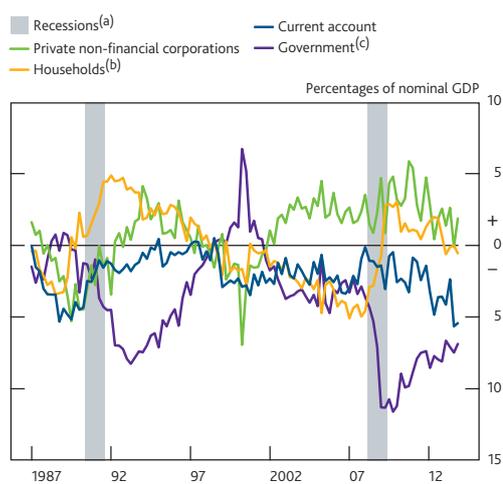
Consumption grew by just 0.3% in 2013 Q4, below the ¾% expected at the time of the *February Report*. Within that, spending on services and non-durable goods fell a touch, but spending on durables continued to grow. The weakness in Q4 is unlikely to persist: retail sales growth remained robust in Q1 and the Bank's Agents' reports are consistent with solid growth in spending on consumer services, which makes up around half of consumption. Bank staff therefore expect growth to recover to close to ¾% in Q1, similar to the rate expected three months ago.

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



- (a) Chained-volume measures. Quarterly averages.
 (b) Includes non-profit institutions serving households.
 (c) Stockbuilding excludes the alignment adjustment.
 (d) Other includes government expenditure, statistical adjustments and acquisitions less disposals of valuables.

Chart 2.2 Net financial accounts by sector



- (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 end once output began to rise.
 (b) Includes non-profit institutions serving households.
 (c) Excludes public corporations. This series has been adjusted by Bank staff to exclude the impact of the Royal Mail and Asset Purchase Facility transfers.

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

Percentage points	Quarterly averages				
	1998–2007	2008–09	2010–12	2013 H1	2013 H2
Total income	0.8	0.1	0.1	0.6	0.0
of which, pre-tax labour income	0.7	-0.4	-0.2	0.8	-0.3
of which, household taxes and net transfers ^(b)	-0.2	0.6	0.1	-0.4	0.1
of which, other income ^(c)	0.2	0.0	0.1	0.1	0.2
Saving (inverted)^(d)	0.1	-0.8	0.1	0.1	0.5
Consumption (per cent)	0.9	-0.7	0.2	0.6	0.5

- (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.

The path of household spending in 2014 will, in part, depend on current and expected incomes. Real income growth provided no support to consumption growth in 2013 H2 as higher non-labour income was offset by a fall in labour income (Table 2.B); instead households saved less (Chart 2.3). While real income growth is likely to pick up this year, it is expected to remain fairly muted in the near term. Further consumption growth will therefore depend on households being willing and able to fund spending by saving less of their income.

One reason that households may be willing to save less is because their expectations of future income have improved. When households are more confident about the longer-term outlook for income, they are typically more willing to 'smooth' through periods of income weakness by saving less or borrowing more. Such expectations cannot be easily measured, but the GfK consumer confidence survey provides some evidence that households have become more optimistic about future income: the balance of households expecting their personal financial situation to improve over the next twelve months rose in Q1, while unemployment expectations fell (Chart 2.4). Persistence in the weakness in current incomes or household concerns about debt levels could, however, hold back spending growth. For example, around 40% of households responding to the NMG Consulting survey in September 2013 were concerned about their indebtedness.

Overall, the saving ratio is likely to fall a little further in the near term. And, the household financial account, which is currently close to balance (Chart 2.2), could fall further into deficit. Forthcoming methodological changes, however, mean that future vintages of data are likely to show a higher level of both saving and the financial account. Those changes, which will take effect in the forthcoming 2014 *Blue Book*, capture pension entitlements building up in certain defined benefit pension schemes.⁽¹⁾ The ONS estimates that these will lead to a broad upward revision to the saving ratio of between 3 and 6 percentage points between 1997 and 2010.

The outlook for consumption ultimately depends on the pace of household income growth, which in turn depends on developments in employment and productivity (Section 3), as well as real wages (Section 4).

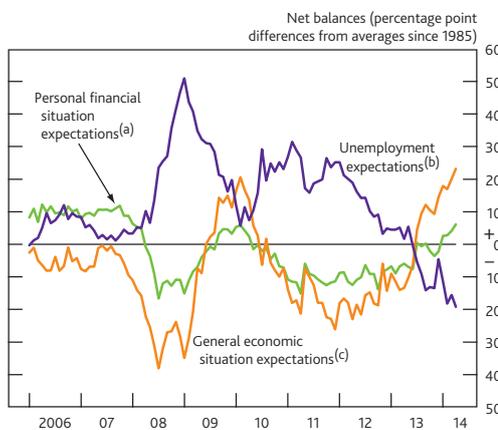
Housing investment

Private sector housing investment, which comprises new dwellings, improvements to existing dwellings and spending on services associated with property transactions, rose in 2013 Q4, continuing the recovery that started in late 2012 (Table 2.C). The pace of growth was, however, weaker than

(1) For further details on these methodological changes affecting the saving ratio, see ONS (2014), *Impacts of European System of Accounts 2010 and other changes on economic statistics*, available at www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/national-accounts/articles/2011-present/impacts-of-european-system-of-accounts.pdf.

Chart 2.3 Household saving ratio

(a) Recessions are defined as in Chart 2.2.
 (b) Percentage of household post-tax income.

Chart 2.4 Survey measures of household expectations

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

(a) Net balance of respondents reporting that they expect their personal financial position to get better over the next twelve months.
 (b) Net balance of respondents reporting that they expect the number of unemployed people to rise over the next twelve months.
 (c) Net balance of respondents reporting that they expect the general economic situation in the United Kingdom to get better over the next twelve months.

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

Percentage changes on a quarter earlier	Averages				2013	
	1998–2007	2008–09	2010–12	2013 H1	Q3	Q4
Household consumption ^(b)	0.9	-0.7	0.2	0.6	0.8	0.3
Private sector investment	0.9	-4.7	0.5	2.5	2.1	2.1
of which, business investment ^(c)	0.7	-1.6	0.4	1.8	2.4	2.4
of which, private sector housing investment	1.1	-8.8	1.5	3.8	1.6	1.4
Private sector final domestic demand	0.9	-1.3	0.2	0.9	1.0	0.6
Government consumption and investment ^(c)	0.8	0.8	-0.1	0.6	0.6	0.1
Final domestic demand	0.9	-0.8	0.1	0.8	0.9	0.5
Change in inventories ^{(d)(e)}	0.0	-0.2	0.2	0.0	0.4	-0.4
Alignment adjustment ^(e)	0.0	0.0	0.0	-0.4	0.7	-0.4
Domestic demand	0.9	-1.1	0.3	0.4	1.9	-0.3
'Economic' exports ^(f)	1.1	-0.7	0.9	0.8	-1.9	2.8
'Economic' imports ^(f)	1.4	-1.4	0.8	0.0	1.5	-0.4
Net trade^{(e)(f)}	-0.1	0.2	0.0	0.3	-1.1	1.0
Real GDP at market prices	0.8	-0.9	0.2	0.6	0.8	0.7
Memo: nominal GDP at market prices	1.3	-0.1	0.8	0.4	1.5	1.6

(a) Chained-volume measures.
 (b) Includes non-profit institutions serving households.
 (c) Business and government investment data take account of the transfer of nuclear reactors from the public corporation sector to central government in 2005 Q2.
 (d) Excludes the alignment adjustment.
 (e) Percentage point contributions to quarterly growth of real GDP.
 (f) 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.

anticipated in February (Table 2.A): in particular, spending on improvements to existing dwellings is estimated to have fallen following three quarters of expansion.

Housing investment growth is likely to strengthen in the near term, reflecting similar factors to those supporting consumption, as well as the Government's Help to Buy schemes. Indeed, housing investment indicators (Table 2.D) point to continued growth over the next few quarters. House building started in 2013 Q4 should, for example, lead to an increase in housing completions in the near term and hence feed through into new dwellings expenditure over the next few quarters. The near-term outlook for housing investment remains robust, but is a little weaker than thought likely in February (Table 2.A) reflecting both the downside news in the investment data themselves and a weakening in mortgage approvals in early 2014 (Section 1).

Business spending

The ONS estimates that business investment rose by 2.4% in Q4. That was slightly weaker than expected in February, but an upward revision to the data for 2013 Q2 and Q3 brought four-quarter growth more in line with the MPC's expectations and the growth rates implied by survey indicators (Chart 2.5). The weakness in four-quarter business investment growth, relative to surveys, for much of 2013 is likely to have been exaggerated by a sharp rise in disposals of capital by the business sector in 2012 Q4. Such disposals, which are reported in the ONS Quarterly Survey of Capital Expenditure, depress official estimates of net investment but surveys may only capture acquisitions or gross investment.

The pre-conditions for a recovery in business investment have been in place for some time and are likely to facilitate a strengthening in business investment in the near term. First, uncertainty about demand, which was a major impediment to investment following the financial crisis, has receded. Indeed, in the April *CBI Industrial Trends Survey*, the proportion of respondents citing uncertainty as a constraint on capital expenditure was the lowest since 2010. Second, business surveys suggest significant growth in companies' order books. Given that, on average, businesses appear to be operating at around normal levels of capacity (Section 3), they may need to undertake investment in order to be able to satisfy these increased orders. Third, the improved availability and cost of project finance should facilitate higher investment. Improvements in credit and capital market conditions over the past few years are likely to have made external finance cheaper and more accessible (Section 1). And positive net savings by private non-financial corporations over the past decade (Chart 2.2) suggests that they may have accumulated internal funds to finance investment.

There are factors that may weigh on business investment, however. Some businesses may prefer to expand by merging

Table 2.D Housing transactions and house building

Thousands, monthly averages ^(a)	Averages				2013		2014
	1998–2007	2010–11	2012	2013 H1	Q3	Q4	Q1
Housing market transactions ^(b)	119	73	78	83	91	98	107
Housing starts ^(c)	15.2	8.8	8.3	9.4	10.4	10.3	n.a.
Housing completions ^(d)	14.2	8.8	9.2	8.8	9.1	9.3	n.a.

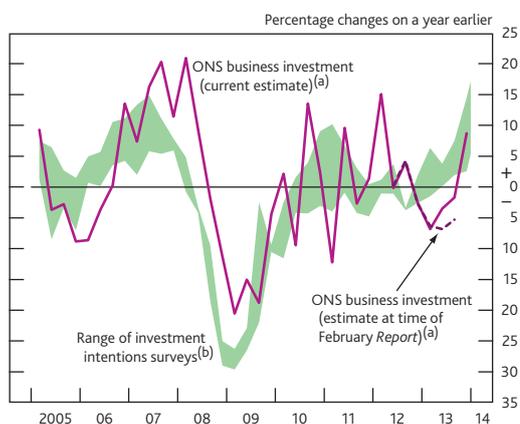
Sources: Department for Communities and Local Government, HM Revenue and Customs (HMRC), ONS and Bank calculations.

(a) Data show numbers per month based on quarterly data.

(b) Number of residential property transactions in the United Kingdom with a value of £40,000 or above per quarter from 2005 Q2. Prior to that date, the series has been assumed to grow in line with quarterly HMRC data on transactions in England and Wales.

(c) Number of permanent dwellings in the United Kingdom started by private enterprises assumed, up to 2013 Q2, to equal the sum of permanent dwellings started by private enterprises in England, Scotland, Northern Ireland and Wales, where permanent dwellings starts by private enterprises in Wales is assumed to grow in line with Welsh total permanent dwellings starts between 2012 Q1 and 2013 Q2. Data for 2013 Q3 and 2013 Q4 have been grown in line with permanent dwellings starts by private enterprises in England. Data have been seasonally adjusted by Bank staff.

(d) Number of permanent dwellings in the United Kingdom completed by private enterprises assumed, up to 2013 Q2, to equal the sum of permanent dwellings completed by private enterprises in England, Scotland, Northern Ireland and Wales. Data for 2013 Q3 and 2013 Q4 have been grown in line with permanent dwellings completions in England. Data have been seasonally adjusted by Bank staff.

Chart 2.5 Business investment and surveys of investment intentions

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

(a) Chained-volume measure. Solid line shows ONS's current estimate of business investment to 2013 Q4. Dashed line shows estimates as at the time of the February Report to 2013 Q3. Data take account of the transfer of nuclear reactors from the public corporation sector to central government in 2005 Q2.

(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 2014 Q1.

and acquiring existing assets from other UK businesses rather than investing in new capital: for example, the *Deloitte CFO Survey* suggests that chief financial officers of major UK businesses placed as much emphasis on expansion through acquisitions in Q1 as they did expansion through increased capital expenditure. Furthermore, some businesses, particularly small and medium-sized enterprises, may still be constrained by difficulties in accessing credit (Section 1).

Government spending

The fiscal consolidation is set to continue. According to the Office for Budget Responsibility, the measures in the 2014 *Budget*, which included an extension of the Help to Buy equity loan scheme and various changes affecting household saving and pensions, were broadly fiscally neutral. The macroeconomic impact of the new policy measures is likely to be small.

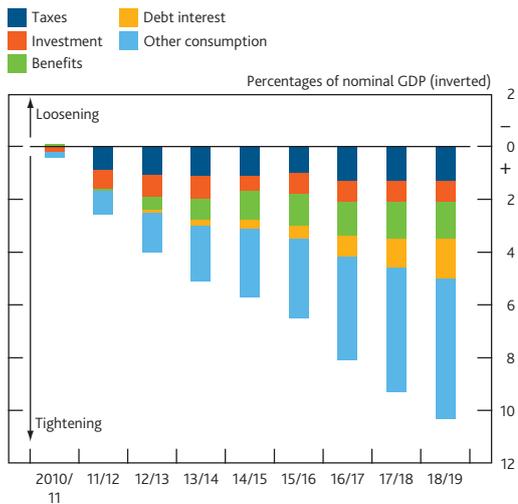
The Institute for Fiscal Studies (IFS) estimates that nearly half of the Government's fiscal consolidation, relative to the March 2008 *Budget*, was achieved by the end of the 2013/14 financial year (Chart 2.6). According to the IFS, nearly all of the tightening planned through tax increases has been implemented. By contrast, around half of the planned cuts to nominal spending are still to come (Chart 2.6). As discussed in the box on page 21 of the May 2012 *Report*, reductions in nominal government consumption may lead to only limited declines in estimates of real government consumption, at least in the short term. This is because of the way in which real consumption is measured: for example, real government consumption on school education is largely measured using the number of pupils taught, which means that changes in nominal spending on education will not necessarily feed through to changes in real spending.

2.2 External demand and UK trade

External demand has evolved broadly as expected in February, with UK-weighted world demand growing by 0.6% in Q4 (Tables 2.A and 2.E). The near-term outlook for world growth remains broadly unchanged, although the regional pattern has shifted slightly. Data for the advanced economies, particularly the euro area, point to slightly stronger growth in the near term than expected at the time of the February Report. The near-term outlook for the emerging economies remains broadly unchanged, but vulnerabilities — such as those related to rapid credit growth in China — remain.

The euro area

GDP in the euro area, the destination of around 40% of UK exports, grew by 0.2% in Q4 (Table 2.E), broadly in line with the ¼% anticipated in February (Table 2.A). Growth was mainly driven by strong contributions from investment and net trade.

Chart 2.6 Composition of the fiscal consolidation^(a)

Source: Institute for Fiscal Studies.

(a) Bars represent the planned fiscal tightening (reduction in government borrowing) relative to the March 2008 *Budget* projections, decomposed into tax increases and spending cuts, with the spending cuts further subdivided into benefit cuts, other current spending cuts and investment spending cuts. The calculations are based on all HM Treasury Budgets, Pre-Budget Reports and Autumn Statements between March 2008 and March 2014. See www.ifs.org.uk/publications/7186 for more details.

Table 2.E GDP in selected countries and regions^(a)Percentage changes on a quarter earlier, annualised^(b)

	Averages	2012		2013			2014
	1998–2007	H1	H2	H1	Q3	Q4	Q1
United Kingdom	3.2	-0.8	1.1	2.3	3.4	2.7	3.2
Euro area (40%)	2.3	-0.7	-1.3	0.3	0.6	0.9	n.a.
United States (17%)	3.0	2.5	1.5	1.8	4.1	2.6	0.1
Japan (2%)	1.1	0.9	-1.6	4.3	0.9	0.7	n.a.
China (3%)	10.0	7.9	7.7	7.6	7.8	7.7	7.4
UK-weighted world GDP ^(c)	3.0	1.5	0.9	2.0	2.4	2.4	2.3

Sources: Eurostat, IMF *World Economic Outlook (WEO)* April 2014, Japanese Cabinet Office, National Bureau of Statistics of China, ONS and US Bureau of Economic Analysis.

- (a) Real GDP measures. Figures in parentheses are shares in UK goods and services exports in 2012 from the 2013 *Pink Book*.
 (b) Chinese data are four-quarter growth because data on quarterly Chinese growth are only available from 2010 Q4. The earliest observation for China is 2000 Q1.
 (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 Q4. For those countries where national accounts data for 2013 Q4 are not yet available, data are assumed to be consistent with projections in the IMF *WEO* April 2014.

Table 2.F Selected indicators for the euro area

Monthly averages	1998–	2012	2013		2014	
	2007 ^(a)		H1	H2	Q1	Apr.
Differences from averages since 1998 (number of standard deviations)						
<i>Confidence</i>						
Consumer	0.5	-1.3	-1.3	-0.4	0.1	0.5
Business ^(b)	0.4	-1.0	-1.1	-0.5	-0.1	-0.1
<i>Output indicators^(c)</i>						
Composite PMI output	0.4	-1.2	-1.1	-0.2	0.1	0.3
Composite PMI new orders	0.4	-1.2	-1.0	-0.1	0.1	0.2
Per cent						
<i>Annual HICP inflation^(d)</i>						
Headline	2.0	2.5	1.6	1.1	0.7	0.7
Core ^(e)	1.6	1.5	1.3	0.9	0.8	1.0

Sources: European Central Bank, European Commission, Eurostat and Markit Economics.

- (a) Unless otherwise stated.
 (b) The business confidence indicator is the weighted average of the industrial confidence indicator, the services confidence indicator, the retail confidence indicator and the construction confidence indicator, based on the weights of those indicators in the economic sentiment indicator.
 (c) Averages since July 1998.
 (d) Non seasonally adjusted. April data are a flash estimate.
 (e) Core inflation excludes energy, food, alcohol and tobacco.

Monthly indicators suggest that euro-area activity is likely to pick up further in the near term (Table 2.F), with momentum appearing slightly stronger than at the time of the February Report. The strengthening in the outlook in part reflects an improvement in confidence (Table 2.F) and easier credit conditions. Alongside this, periphery countries have made further progress in improving their external positions, with the latest data showing current account surpluses in almost all periphery countries. Government deficits have also continued to decline, with market confidence in periphery bonds improving and yields falling further (Section 1).

Constraints on growth, however, remain. For example, despite some recent loosening, credit conditions in the euro-area periphery remain tight. The outlook for credit will in part depend on the outcome of the forthcoming asset quality review and bank stress tests.

Annual inflation, estimated to be 0.7% in April, remained below the European Central Bank's definition of price stability — inflation below, but close to, 2%. That weakness in part reflects volatile components of inflation, such as energy and food prices. But subdued price pressures have also been driven by low demand growth. Persistently low inflation could make the process of rebalancing within the euro area more difficult: adjustments in relative competitiveness are harder to achieve when prices are not rising by much.

The United States

US GDP was flat in 2014 Q1 (Table 2.E), weaker than expected in February (Table 2.A). That weakness is, however, likely to reflect the effects of unusually cold weather. US GDP growth is expected to rebound in Q2, with underlying momentum in the economy appearing similar to that anticipated at the time of the February Report.

US employment grew by 214,000, on average, per month between January and April, as expected in February (Table 2.A), with indicators — to varying degrees — pointing to a modest further improvement in labour market conditions (Chart 2.7). As the recovery in the labour market proceeds, some of those who have left the labour market may decide to re-enter it. There is uncertainty about how persistent past falls in labour force participation will be and therefore about the extent to which higher labour demand will lead to a reduction in labour market slack and higher wage pressures.

Emerging economies

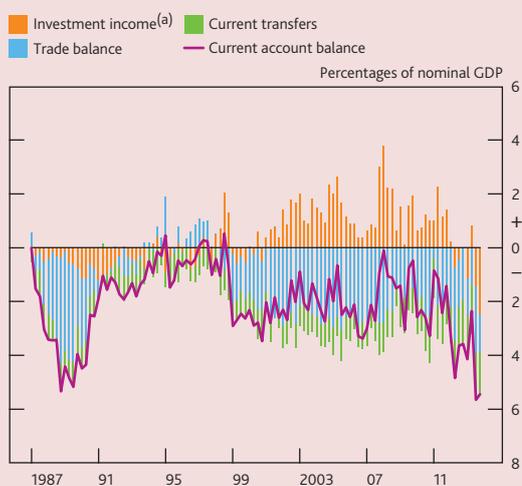
The latest data on growth in the emerging economies were broadly in line with expectations three months ago (Table 2.A) and the aggregate outlook remains little changed. Fragilities in several emerging economies remain, however, and risks stemming from China appear to have increased slightly. Economic activity in China softened a little: GDP grew by 7.4% in the year to 2014 Q1 (Table 2.E), weaker than

The UK current account

The current account records international flows of payments to and from UK residents, generated by trade, the ownership of assets, and other types of transfers, such as remittances. The current account has been in deficit for much of the past 25 years and this deficit has widened since 2011. This box analyses recent movements, focusing on trade and investment income, before outlining some issues around sustainability.

In 2013 Q4, the current account deficit was 5.4% of nominal GDP, just short of the 5.6% deficit in Q3 (**Chart A**) — the highest since quarterly records began in 1955. To fund the current account deficit, UK residents can sell some of their foreign assets or increase their foreign liabilities, which they could do either by borrowing more from foreigners or selling them UK assets. So the counterpart to a current account deficit is a net inflow of capital into the United Kingdom. These flows of capital are recorded in the financial account.⁽¹⁾ Between 1999 and 2007 the UK current account was funded largely through increases in foreign liabilities. Since the financial crisis, however, UK residents have funded the deficit by reducing their foreign assets.

Chart A The UK current account



(a) Net compensation of employees is classified by the ONS as income and is included in investment income in this chart.

Trends in the trade balance

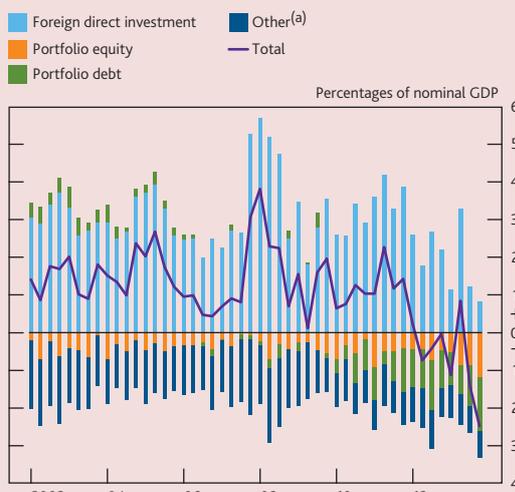
The United Kingdom has run a persistent trade deficit since the late 1990s, and it stood at around 1.5% of nominal GDP in 2013. Although the overall balance has been relatively stable, as discussed in a box on pages 24–25 of the February 2013 *Report*, the deficit in goods has improved in recent years, reflecting the beneficial effects of sterling's depreciation in 2007–08, but services exports have been held back by weaker demand for, and supply of, UK financial services. More recently, the appreciation of sterling since March 2013 has unwound some of the past competitiveness gains. But,

against that, financial services exports should recover as the impact of the financial crisis recedes. Overall, the MPC expects the trade deficit to be broadly flat at around its current level over the next three years (Section 5).

Trends in investment income

In the 2000s the United Kingdom typically earned more from its overseas investments than it paid to overseas owners of UK assets (**Chart B**), helping to fund the trade deficit.⁽²⁾ But since 2011, net investment income has fallen significantly and has generally been in deficit since mid-2012. Indeed, the deficit in net investment income in Q4 was the largest since at least 1955, at -2.5% of nominal GDP. The principal driver of the recent fall in net investment income has been a reduction in the income earned by UK private non-financial corporations on their foreign direct investments (FDI) (**Chart B**). Some of this weakening in income is likely to have been erratic. But lower FDI income is also likely to reflect cyclical weakness in the profits of UK-owned overseas operations, due to weak world demand (Section 2); just under half of the United Kingdom's FDI assets are in the euro area, where growth has been particularly sluggish.

Chart B Net investment income



(a) Other includes net income on loans, deposits and reserve assets.

The return on the net debt portfolio, which has been persistently negative since 2010, has also been a more significant drag on investment income in recent years, as the rate of return on the foreign debt portfolio has fallen further than the rate of return on foreigners' holdings of UK debt. This reflects several factors, some of which may be structural. For example, UK residents may be investing in less risky foreign debt than before the financial crisis, or UK companies may be issuing longer-term debt.

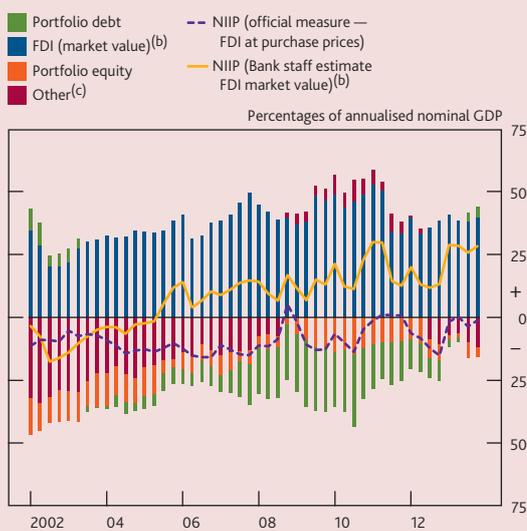
The MPC's projections are consistent with net investment income improving a little over the coming years — as the

euro area recovers further, and FDI returns pick up — but remaining weaker than its average over the past decade.

The sustainability of the current account deficit

Persistent current account deficits are not necessarily unsustainable, but they require foreign investors to be willing and able to finance them. Alongside the size of the deficit, the starting position and composition of the net international investment position (NIIP) may also affect investors' perceptions of how long a given deficit is likely to be sustainable (Chart C).

Chart C The United Kingdom's net international investment position (NIIP)^(a)



Sources: ONS, Thomson Reuters Datastream and Bank calculations.

- (a) Data are non seasonally adjusted.
 (b) For details on how FDI at market value is calculated, see footnote (3) below.
 (c) Other includes loans and deposits and reserve assets.

Capital account flows associated with the current account balance are not the only thing that affects the NIIP. Due to the scale of assets and liabilities involved — worth approximately six times annual GDP — currency revaluation effects and other movements in asset values can lead to sharp capital gains or losses much larger than these transaction-related flows. Thanks to capital gains, and despite the persistence and recent magnitude of the current account deficit, official estimates imply that the NIIP moved from negative in 2012 to broadly balanced in 2013 (Chart C). Overall returns on the United Kingdom's net FDI and equity positions rose over 2013 once currency and other revaluation effects are accounted for, despite weaker recorded income flows.

Indeed, the United Kingdom's external balance sheet may be healthier than official NIIP data suggest, because they do not, for the most part, take account of changes in the value of FDI assets. FDI assets are infrequently traded, so market values are not generally directly observable and need to be

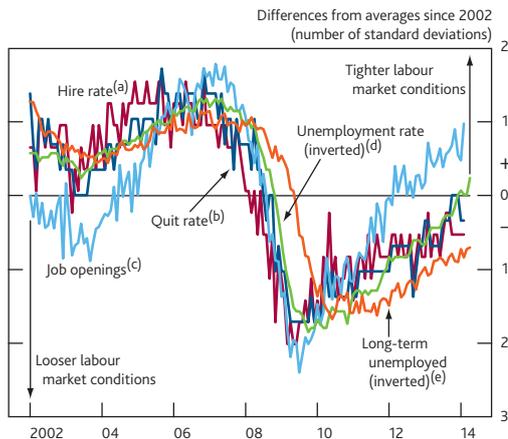
estimated. Official estimates are based on purchase prices. But changes in equity prices can be used to proxy current market values instead.⁽³⁾ Using such changes, the NIIP is estimated to have been positive during 2013 at just under 30% of GDP.

On a market-value basis, the NIIP is dominated by FDI assets (Chart C). Given that these assets tend to increase broadly in line with nominal GDP, it is therefore plausible to expect capital gains to provide a boost to the NIIP in the future. This could leave the NIIP stable in the presence of a persistent current account deficit, albeit smaller than the one observed in 2013.⁽⁴⁾ That said, measuring the NIIP accurately is difficult, estimates are prone to revision, and movements in underlying asset values could rapidly alter the current position.

Conclusion

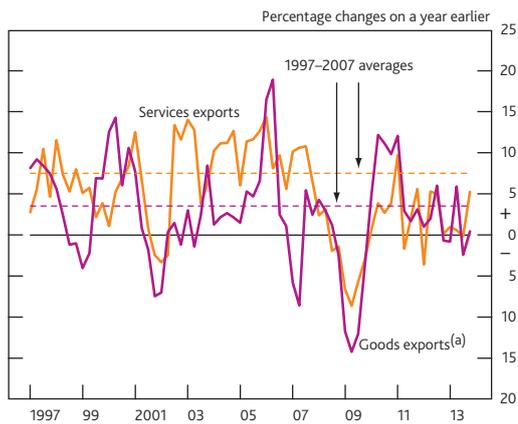
The United Kingdom's current account deficit is large by historical standards and, if the scale of the deficit persists, eventually a substantial deterioration in the NIIP could result. The MPC's projections are consistent with only a modest narrowing of the deficit in the next few years (Section 5).

- (1) The financial account is sometimes also referred to as the capital account.
 (2) For some of that period those positive returns were earned despite an overall negative stock of net overseas assets. That reflects the composition of the balance sheet with a large positive net position on foreign direct investment (FDI) assets, which tend to generate higher, but more volatile, returns than the assets such as bank deposits and loans on which the United Kingdom has typically had a persistent negative net stock position (see Berry, S, Corder, M and Williams, R (2012), 'What might be driving the need to rebalance in the United Kingdom?', *Bank of England Quarterly Bulletin*, Vol. 52, No. 1, pages 20–30; www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb120101.pdf).
 (3) In estimating the market value for UK FDI assets and liabilities, a panel data study of UK companies was used (Pratten, C (1996), *The valuation of outward and inward direct investment*, Cambridge University). Based on this study, it is assumed that in 1991, the market to book value ratio for UK FDI assets was 1.75, and the same ratio for UK FDI liabilities was 1.50. After 1991, the market value of UK FDI assets in a given country, in local currency terms, is assumed to have moved in line with the country's equity market indices. Similarly, the market value of UK FDI liabilities is assumed to have moved in line with the FTSE 100 index. See Kubelec, C, Orskaug, B-E and Tanaka, M (2007), 'Financial globalisation, external balance sheets and economic adjustment', *Bank of England Quarterly Bulletin*, Vol. 47, No. 2, pages 244–57; www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb070204.pdf.
 (4) See Berry, S, Corder, M and Williams, R (2012), *op. cit.*

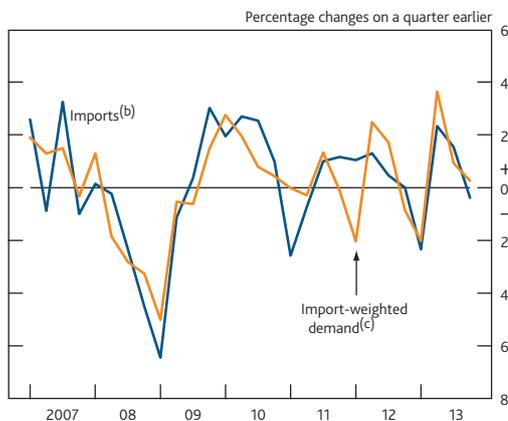
Chart 2.7 US labour market indicators

Source: Bureau of Labor Statistics.

- (a) Total non-farm hires as a percentage of total employment. Latest observation is for February 2014.
 (b) Total non-farm quits as a percentage of total employment. Latest observation is for February 2014.
 (c) Total non-farm job openings. Latest observation is for February 2014.
 (d) Unemployment as a percentage of the civilian labour force. Latest observation is for April 2014.
 (e) Number of people unemployed for 27 weeks or more as a percentage of total number of people unemployed. Latest observation is for April 2014.

Chart 2.8 UK goods and services exports

(a) Excludes the estimated impact of 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.

Chart 2.9 UK imports and import-weighted demand^(a)

Sources: ONS and Bank calculations.

- (a) Chained-volume measures.
 (b) Excludes the impact of MTIC fraud.
 (c) Calculated by weighting household consumption (including non-profit institutions serving households), whole-economy investment (excluding valuables), government spending, stockbuilding (excluding the alignment adjustment) and exports (excluding the estimated impact of MTIC fraud) by their respective import intensities. Import intensities are estimated using the *United Kingdom Input-Output Analytical Tables 2010*.

anticipated in February (**Table 2.A**). That softening is likely only partly to reflect temporary distortions associated with the timing of the Lunar New Year. And vulnerabilities remain from the rapid growth in Chinese credit in recent years and the associated expansion of the shadow banking system.

Adverse developments in individual emerging economies would have limited direct effects on UK activity as each accounts for only a small share of UK exports. More widespread disruption would, however, have greater effects both directly and through trade with other countries that have more substantial trade links to emerging economies. Financial linkages are also significant: for example, some UK banks have sizable exposures in emerging economies and any losses sustained on those loans may affect their ability to extend credit to UK borrowers. And a wider deterioration in global economic sentiment would weigh on UK activity.

UK trade and the current account

Net trade added 1 percentage point to GDP after detracting a similar amount in the previous quarter. Export growth was stronger than anticipated in February (**Table 2.A**) and imports fell (**Table 2.C**).

The strength in exports in 2013 Q4 was driven by services (**Chart 2.8**), with financial, computer and information services exports in particular posting strong growth rates. Exports of goods also rose, albeit more modestly: monthly data suggest that most of this rise unwound over 2014 Q1. The prospects for UK exports depend not only on world demand but also on the level of sterling: the 10% appreciation in sterling since March 2013, if sustained, could weigh on export growth.

The contraction in imports is consistent with weakness in import-intensive components of domestic spending (**Chart 2.9**). Stockbuilding, for example, which has a high import intensity, fell in 2013 Q4 (**Table 2.C**).

Despite the improvement in the trade balance, the current account deficit stood at a near-record high of 5.4% of nominal GDP in 2013 Q4. As discussed in more detail in a box on pages 22–23, the recent widening in the current account deficit primarily reflects weaker net investment income.

3 Output and supply

GDP is estimated to have expanded by 0.8% in 2014 Q1 and Bank staff project it to rise at a similar pace in Q2. Employment growth remained robust in the three months to February. That was associated with a fall in the unemployment rate to 6.9% — below the MPC’s 7% threshold — and a modest narrowing in labour market slack. Surveys indicate that companies were operating at around normal levels of capacity in Q1. Hourly productivity rose by 0.7% in the four quarters to 2013 Q4 and is likely to have increased by around 0.5% in the year to Q1.

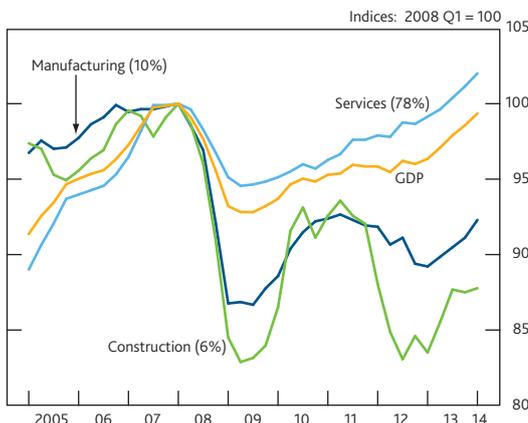
Table 3.A Monitoring the MPC’s key judgements

Developments anticipated in the February Report	Developments since February
Unemployment	On track
<ul style="list-style-type: none"> Headline LFS unemployment rate to decline by a further ½ percentage point by 2014 Q3. 	<ul style="list-style-type: none"> The unemployment rate fell to 6.9% in the three months to February, in line with expectations.
Productivity	Slightly weaker than expected
<ul style="list-style-type: none"> Four-quarter growth in hourly labour productivity to rise to around 1% by 2014 Q3. 	<ul style="list-style-type: none"> Whole-economy output per hour is likely to have risen by around 0.5% in the year to 2014 Q1.
Average hours	Weaker than expected
<ul style="list-style-type: none"> Average hours worked continue to rise in 2014 but at a slower pace than in 2013. 	<ul style="list-style-type: none"> Average hours fell by 0.4% in the three months to February 2014.
Participation rate	Stronger than expected
<ul style="list-style-type: none"> The participation rate to rise gently during 2014 H1. 	<ul style="list-style-type: none"> Participation rate rose to 63.8% in the three months to February 2014.
Capacity utilisation	On track
<ul style="list-style-type: none"> Indicators of spare capacity within companies to show little intensification of capacity pressures. 	<ul style="list-style-type: none"> Indicators suggest that capacity utilisation increased a little further in Q1 but remained around normal levels.

Both output and employment continued to expand at a robust pace at the start of 2014 (Section 3.1). A key judgement for the MPC is how those developments have affected the margin of slack (Section 3.2). Surveys suggest that companies’ capacity utilisation remained around normal levels in Q1. But there still appears to be a margin of slack in the labour market. The unemployment rate was 6.9% in the three months to February, in line with expectations in the February Report (Table 3.A). Average hours worked ticked down, while participation rose. Most MPC members’ central assessment is that the margin of slack remains in the region of 1%–1½% of GDP. There is, however, a range of opinions among the Committee and considerable uncertainty around that estimate.

The extent to which slack narrows as the recovery progresses depends on the path of productivity (Section 3.3). Having fallen in 2012, hourly productivity rose by 0.7% in the four quarters to 2013 Q4. The MPC continues to expect productivity growth to strengthen further, returning to around its pre-crisis average rate by the forecast horizon (Section 5).

Chart 3.1 GDP and sectoral output^(a)



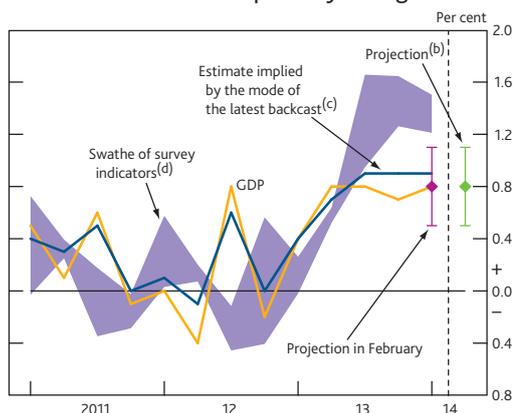
(a) Chained-volume measures. GDP is at market prices. Indices of sectoral output are at basic prices. The figures in parentheses show 2010 weights in gross value added.

3.1 Recent developments in output and the labour market

Output

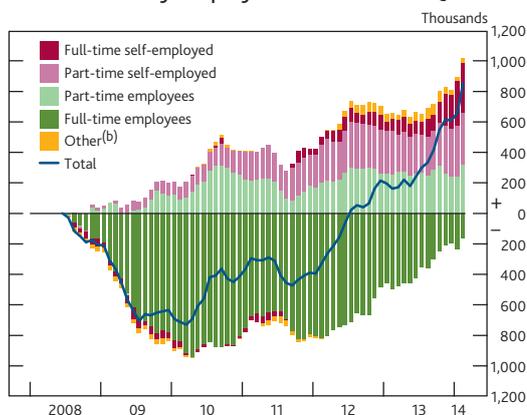
Output growth remained robust in 2014 Q1. The ONS provisionally estimates that GDP expanded by 0.8%, in line with Bank staff’s expectations at the time of the February Report. That left the level of GDP around ½% below its pre-recession peak (Chart 3.1). Growth was strong in Q1 in both the services and manufacturing sectors.

Early estimates of GDP are subject to revision. So when assessing the pace of output growth, Bank staff place some weight on other indicators, such as business surveys and past revisions to the data, to produce a ‘backcast’ — that is, a judgement about the path of GDP in mature estimates of the

Chart 3.2 Estimates of quarterly GDP growth^(a)

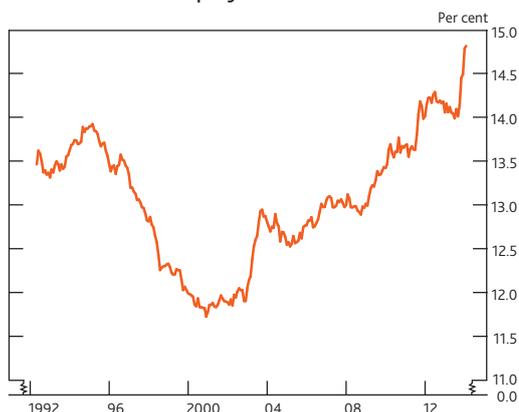
Sources: BCC, CBI, CBI/PwC, Markit Economics, ONS and Bank calculations.

- (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 Q1 at the time of the February Report. The green diamond shows the current staff projection for the preliminary estimate of GDP growth for Q2. The bands on either side of the diamonds show uncertainty around those projections based on staff estimates of the root mean squared error of forecasts for quarterly GDP growth made since 2004.
- (b) This projection differs from the MPC's best collective judgement of the final estimate of GDP growth for Q2, used to construct the GDP fans, which is 0.9%.
- (c) The latest backcast, which is shown to the left of the dashed vertical line in Chart 5.1, is a judgement about the path of GDP in mature estimates of the data.
- (d) Three measures are produced by weighting together sector surveys from the BCC (domestic sales in manufacturing and services), CBI (volume of output in manufacturing; volume of business in financial services, business/consumer services and distributive trades), and Markit/CIPS (volume of output in manufacturing; business activity in services), using nominal shares in value added. The BCC data are non seasonally adjusted. The aggregate measures have been adjusted to have the same mean and variance as quarterly GDP growth over the period 1999 Q1–2014 Q1.

Chart 3.3 Contributions to the change in whole-economy employment since 2008 Q2^(a)

Source: Labour Force Survey.

- (a) Rolling three-month measure. First data point is June 2008. Contributions may not sum to total due to rounding.
- (b) Comprises unpaid family workers and those on government-supported training and employment programmes classified as being in employment.

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.

data.⁽¹⁾ That backcast suggests that quarterly GDP growth was modestly higher in the past three quarters than currently estimated by the ONS, primarily reflecting the strong signal from business surveys (Chart 3.2).

Survey indicators also suggest that the pace of recovery remained robust in Q2, with some pointing to growth of 1% or higher. Bank staff expect the preliminary estimate of GDP growth to be around 0.8%, although the historical error around that projection is wide (Chart 3.2).⁽²⁾ The MPC's GDP fan chart incorporates a final estimate of Q2 growth of 0.9%.

The labour market

Employment growth remained strong in early 2014. According to Labour Force Survey (LFS) estimates, employment rose by 240,000 in the three months to February — a larger increase than anticipated in the February Report. That followed a rise of 280,000 in the three months to November (Chart 3.3). Over half of the increase in the six months to February was accounted for by self-employment, which rose by almost 300,000, the largest change in any six-month period since monthly self-employment data began in 1992. As a result, its share in total employment rose sharply to a series high of almost 15% (Chart 3.4). As discussed in the box on page 27, the rise in self-employment since 2008 is likely to reflect factors associated with the recession, as well as the ageing of the population.

Total hours worked also continued to rise in the three months to February. But they picked up by less than employment, as average hours worked fell for both those in full-time and part-time employment. That was in contrast to expectations in the February Report of a further rise in average hours worked (Table 3.A).

Reflecting strong employment growth, the LFS unemployment rate continued to decline in the three months to February, falling to 6.9% from 7.1% in the three months to November (Chart 3.5). The fall was in line with expectations in the February Report, even though employment rose by more than anticipated. That is because part of the rise in employment was accompanied by an unexpectedly large rise in labour force participation (Table 3.A). A range of factors — including rising longevity, less generous government benefits, and the squeeze on household income — have boosted participation since the recession, more than offsetting downward pressure from demographic trends.⁽³⁾

(1) For more details, see Cunningham, A and Jeffery, C (2007), 'Extracting a better signal from uncertain data', *Bank of England Quarterly Bulletin*, Vol. 47, No. 3, pages 364–75; www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb070301.pdf.

(2) For more information on the approaches taken by Bank staff to produce early estimates of GDP growth, ahead of the publication of official estimates, see Bell, V, Co, L W, Stone, S and Wallis, G (2014), 'Nowcasting UK GDP growth', *Bank of England Quarterly Bulletin*, Vol. 54, No. 1, pages 58–68; www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q106.pdf.

(3) Developments in the participation rate since the recession are discussed in more detail in the box on page 27 of the May 2013 Report; www.bankofengland.co.uk/publications/Documents/inflationreport/2013/ir13may.pdf.

Self-employment and labour market slack

Employment has increased markedly since the end of the recession, despite weak output growth during much of that period. Those gains have been disproportionately concentrated among the self-employed: self-employment has accounted for over one third of the rise in employment since 2010, and about four fifths of the rise since 2008. This box examines why self-employment may have risen since the recession, and discusses the potential implications for the current degree of labour market slack.

Factors contributing to higher self-employment

Some of the rise in self-employment since 2008 is likely to reflect the ageing of the UK population. That is because self-employment tends to be more common among the old than the young (Table 1). The share of older people in employment has risen throughout much of the past two decades, boosting the self-employment share since the early 2000s.

Table 1 Self-employment rates by age group^(a)

Per cent	Averages				2013	
	2004–07	2008–10	2011–12	2013 H1	Q3	Q4
16–24	3.8	4.0	4.8	4.5	4.3	4.8
25–34	9.5	9.6	10.0	10.7	9.9	10.5
35–49	14.0	14.5	14.7	14.9	15.0	15.3
50–64	17.4	17.5	18.3	17.8	17.6	18.3
65+	35.6	34.1	37.4	35.3	37.2	39.0

Sources: Labour Force Survey and Bank calculations.

(a) Percentages of employment in the relevant age group, calculated from the LFS microdata.

This demographic trend does not, however, account for all of the rise in self-employment in recent years. Some also reflects rising rates of self-employment among different age groups, including older people (Table 1). Those increases in self-employment rates probably reflect the effects of the financial crisis and associated recession. For example, weak demand for labour among businesses is likely to have meant that some of those who were unable to find a job became self-employed instead. In addition, weakness in real household income is likely to have boosted labour market participation among potential second earners and those nearing retirement, and some of those people probably became self-employed rather than employees.

There has been a marked increase in self-employment in the very recent past: since August 2013, it has risen by almost 300,000. That increase seems too large to be the result of demographic changes and the effects of the crisis and recession alone. It may, in part, reflect strong growth in

construction output: the self-employment rate is around 40% in that sector, and construction accounted for around one quarter of the increase in self-employment in 2013 H2.

The recent rise may also reflect improvements in confidence and credit conditions associated with the strengthening of the recovery. Following the recession, it is likely that some people who thought about becoming self-employed decided not to — for example, due to concerns that they would be unable to earn sufficient income given the low level of demand. The brightening outlook, together with better access to finance, may have prompted some of these people to change their mind.

Implications for labour market slack

There are two ways in which the self-employed could be adding to the degree of labour market slack and putting downward pressure on pay growth. First, they could be working fewer hours than they would like. And second, they might prefer to work for a company and so be competing for jobs.

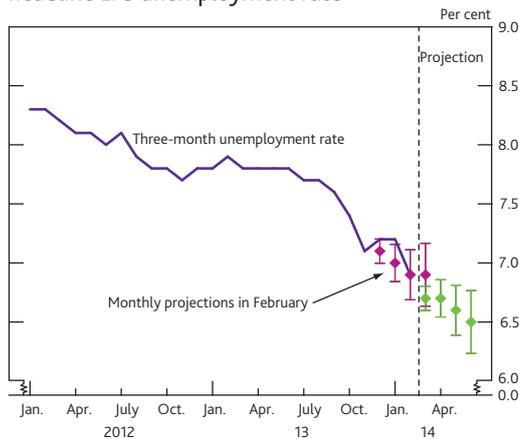
There is evidence of some underemployment among the self-employed as well as employees. For example, according to LFS microdata, the self-employed would, on average, have preferred to work around ½ hour more per week. That was similar to the average gap reported by employees. Bank staff's estimate of the average hours gap takes into account this underemployment among the self-employed (Section 3.2).

Evidence on whether the self-employed are seeking jobs within companies is mixed at present. For example, LFS microdata indicate that it is not uncommon for the self-employed to start working for businesses instead. Around one fifth of those who became self-employed between 2008 and 2013 moved to a job at a company within a year. But of those who were self-employed in 2013 Q4, the proportion looking for a job was slightly lower than that for employees. Moreover, there is little evidence that people have become self-employed since the recession as a response to redundancy, as the rises in self-employment do not appear to have been associated with increased inflows of people who recently lost their job. It is, however, possible that the number of self-employed searching for, and moving into, jobs within companies will increase as businesses' demand for labour continues to strengthen, although it is too soon to assess if that is happening yet.

Conclusion

There has been a marked rise in self-employment since 2008. That probably reflects factors associated with the recession, as well as the ageing of the population. Members of the Committee hold a range of views about the extent to which self-employment represents a form of labour market slack.

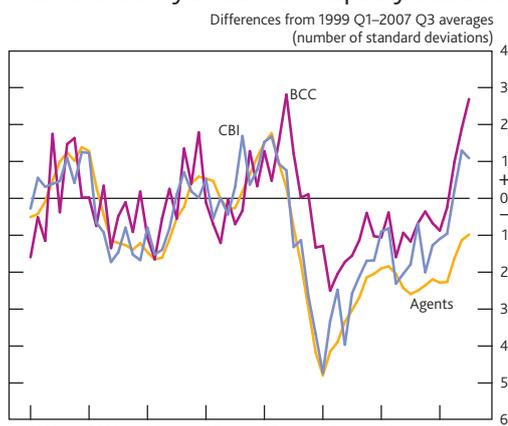
Chart 3.5 Bank staff projection for the near-term headline LFS unemployment rate^(a)



Sources: Labour Force Survey and Bank calculations.

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

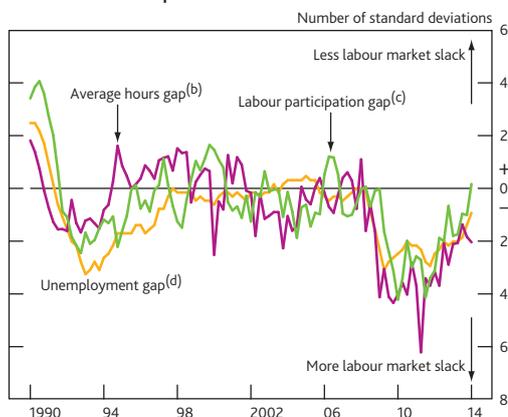
Chart 3.6 Survey indicators of capacity utilisation^(a)



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 3.7 Components of labour market slack^(a)



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

(a) Standard deviations are calculated over the period 1992–2007. The final data points are staff estimates for 2014 Q1.
 (b) Percentage difference between Bank staff's estimate of the medium-term equilibrium level of average weekly hours worked and average weekly hours worked.
 (c) Difference between the participation rate and Bank staff's estimate of the medium-term equilibrium participation rate.
 (d) Difference between Bank staff's estimate of the medium-term equilibrium unemployment rate and the unemployment rate.

Bank staff estimate that unemployment fell to 6.7% in the three months to March, 0.2 percentage points lower than expected in the February Report (Chart 3.5). A range of indicators, including surveys of employment intentions and the number of vacancies, suggest that employment growth remained strong, while participation is expected to have been broadly stable. And the claimant count, a more timely indicator of unemployment, fell to 3.4% in March from 3.5% in February. Unemployment is likely to have declined further since Q1. The pace at which it falls depends not only on the strength of output growth, but also on the extent to which that is accompanied by higher productivity growth (Section 3.3), as both affect companies' demand for labour.

3.2 Indicators of spare capacity

A key judgement for the MPC is the balance between demand and supply — 'spare capacity' or 'slack' — and thus the degree of inflationary pressure in the economy. As explained in the box on page 29, the measure of slack used by the MPC comprises slack within companies and slack within the labour market.

Slack within companies

Survey indicators suggest that companies' capacity utilisation increased a little in Q1 but, on average, remained at around normal levels (Chart 3.6). These indicators are, however, not straightforward to interpret. For example, most are qualitative: only the *CBI Quarterly Industrial Trends Survey* asks companies to quantify levels of capacity utilisation. Moreover, the range across surveys is unusually wide at present, with the BCC indicator near its series high.

Labour market slack

Labour market slack represents the extent to which total hours worked are below their medium-term equilibrium level, so putting downward pressure on pay growth. The MPC's estimate of labour market slack has three components: the gaps between the unemployment rate, the participation rate, and average hours worked and their respective medium-term equilibrium levels. This section discusses recent developments in each of those gaps in turn.

Bank staff estimate that the unemployment gap narrowed in Q1, but by less than the 0.5 percentage point projected fall in unemployment (Chart 3.7). That is because the estimated medium-term equilibrium unemployment rate has fallen too, since most of the recent falls in unemployment have been among those who have been unemployed for six months or longer (Table 3.B).⁽¹⁾ Staff project that longer-term unemployment is likely to continue to decline as labour demand rises, and so expect further falls in unemployment to

(1) For more information on equilibrium rates of unemployment, see the box on pages 28–29 of the August 2013 Report; www.bankofengland.co.uk/publications/Documents/inflationreport/2013/ir13aug.pdf.

Assessing the degree of spare capacity

The inflation outlook depends in part on spare capacity in the economy. The MPC defines spare capacity as the additional output that could be produced before slack stops reducing inflation. The MPC uses this terminology to distinguish its measure of spare capacity from the output gap that measures the additional output that could be produced in the longer term, such as that used by the Office for Budget Responsibility.

Spare capacity limits the build-up of inflationary pressure as GDP rises. That is because companies can increase their inputs, or the intensity with which these inputs are used, without costs rapidly escalating. Once the spare capacity has been absorbed, companies are likely to see faster growth in costs as output expands — for example, as companies take on additional employees or capital depreciates faster.

Quantifying the degree of spare capacity

The Bank's measure of spare capacity, as with any measure of slack, cannot be directly observed. To form its judgement of the degree of spare capacity, the MPC therefore assesses a range of indicators, splitting spare capacity into two elements: that within companies; and that within the labour market.

Spare capacity **within companies** is the extra output that could be produced if companies worked their existing capital and labour force at normal rates of intensity, where normal rates imply no significant upward or downward pressure on inflation relative to the 2% inflation target. To inform its assessment of the degree of spare capacity within companies, the MPC looks at the divergence of business survey measures of capacity utilisation — such as those from the BCC and CBI surveys and the Bank's Agents' scores — from their historical norms.

Spare capacity **within the labour market** is the extra output that could be produced by those who are underemployed or out of work before labour market slack stops weighing on wage growth. Unemployment is a key element of spare capacity in the labour market, but it is not the only one. In particular, it is helpful to think of spare capacity in the labour market as having three constituents: an 'unemployment gap', an 'average hours gap' and a 'participation gap'.

The unemployment gap is how far unemployment is from its medium-term equilibrium: the rate that would prevail if nominal wages were fully flexible in the short run. This medium-term equilibrium is particularly relevant for assessing wage pressures over the MPC's three-year forecast period. When unemployment is above equilibrium, competition for jobs means that wage growth tends to be subdued (see the box on pages 28–29 of the August 2013 *Report*).

Bank staff's estimate of the medium-term equilibrium unemployment rate reflects changes in the number of people out of work for more than six months: the longer that someone has been out of work, the lower the probability of them finding

a job and hence the less downward pressure they would tend to put on wages. The composition of unemployment between those out of work for a short period and those out of work for a longer one varies over time, and so, therefore, does the estimate of the medium-term equilibrium unemployment rate. In particular, the equilibrium rate tends to decline when unemployment itself is falling.

Changes in the equilibrium rate are calculated by weighting together changes in six to twelve, and more than twelve-month, unemployment rates. The weights used are those groups' average transition rates into employment between 2002 and 2007, relative to transition rates for those out of work for fewer than six months. For example, those who have been unemployed for more than twelve months are a third as likely to find a job as those unemployed for fewer than six months. So only a third of any change in the long-term unemployed represents a change in Bank staff's measure of labour market slack; two thirds represents a change in the equilibrium rate.

As well as those who are unemployed, spare capacity in the labour market reflects those people employed but working fewer hours than they would like (the average hours gap). For example, some people already in employment may want to move from part to full-time work but may be unable to do so when labour demand is weak. As the economy recovers, it is likely that some of these will be willing to work more hours without hourly wages increasing. Bank staff estimates of this average hours gap are informed by indicators such as the number of part-timers stating they would like a full-time job, and how many extra hours people say they want to work. Underemployment can exist among both employees and the self-employed (see the box on page 27).

Finally, some people who are out of work and not participating in the labour market may also represent labour market slack (the participation gap). For example, some individuals outside the labour market who want to work may have been temporarily discouraged from actively seeking employment by a lack of jobs. If these people are able to enter the labour market relatively quickly, they will probably act to restrain wage growth in much the same way as the unemployed. One way of gauging how much spare capacity this group represents is to use LFS data on the proportion of people who state that they would like a job but are not actively seeking one.

The MPC's current assessment of spare capacity

Most MPC members' central view is that the margin of slack is currently around 1%–1½% of GDP. Companies are thought to be working their existing capital and labour at around normal rates of intensity, so slack is concentrated in the labour market, reflected in broadly equal measures in the unemployment gap and the average hours gap. There is, however, a range of opinions within the Committee and considerable uncertainty around the margin of slack (Section 5).

Table 3.B Unemployment rates and flows from unemployment to employment by duration of unemployment

Per cent	Averages			2013		2014
	1998–2007	2010–12	2013 H1	Q3	Q4	Feb.(a)
Unemployment rates^(b)						
Total	5.3	8.0	7.8	7.6	7.2	6.9
Less than six months	3.2	3.8	3.7	3.5	3.4	3.3
Six to twelve months	0.8	1.5	1.3	1.3	1.2	1.1
More than one year	1.3	2.7	2.8	2.7	2.6	2.5
Transition rates from unemployment into employment^(c)						
Less than six months	35.9	28.8	28.9	29.4	31.7	n.a.
Six to twelve months	20.9	17.7	16.9	21.4	17.4	n.a.
More than one year	10.3	9.5	9.9	11.2	13.2	n.a.

Sources: Labour Force Survey and Bank calculations.

(a) Data for the three months to February 2014.

(b) Percentages of the 16+ economically active population.

(c) Flows into LFS employment each quarter by those who had been unemployed for the specified duration as percentages of the number of people who were unemployed for that duration in the previous quarter. Data exclude participants of government-supported training and work placement schemes.

Table 3.C Indicators of labour market slack

	Averages			2013		2014
	1998–2007 ^(a)	2010–12	2013 H1	Q3	Q4	Q1
Vacancies/unemployed ratio ^{(b)(c)}	0.41	0.19	0.21	0.22	0.24	0.26
Number of people working part-time because they could not find a full-time job ^{(b)(d)}	2.2	4.3	4.8	4.9	4.7	4.7
Number of people in temporary employment because they could not find a permanent job ^{(b)(d)}	1.6	2.0	2.1	2.0	2.0	1.9
Recruitment difficulties for skilled employees^(e)						
Manufacturing	12	13	16	21	13	13
Services ^(f)	31	16	14	25	26	24

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

(a) Unless otherwise stated.

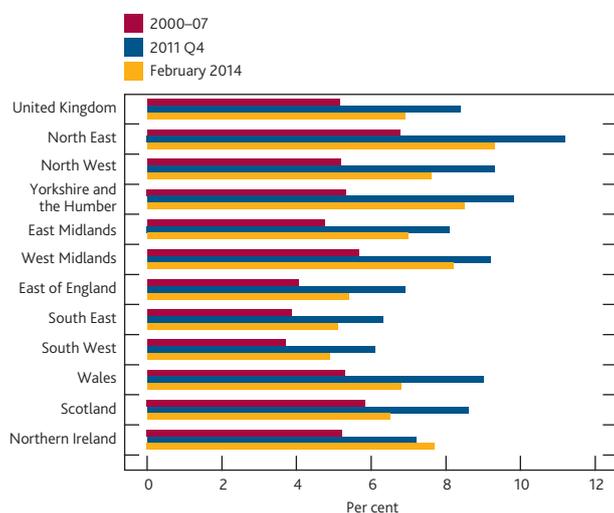
(b) The figure for 2014 Q1 shows data for the three months to February.

(c) Number of vacancies (excluding agriculture, forestry and fishing) divided by LFS unemployment. Average is since 2001 Q2.

(d) As reported to the LFS. Percentage of LFS total employment.

(e) Percentages of respondents to the CBI surveys expecting skilled labour to limit output/business over the next three months (in the manufacturing sector) or over the next twelve months (in the services sector). Averages are since 1998 Q4.

(f) Percentages for the financial, business/consumer services sectors are weighted together using employee jobs shares from Workforce Jobs.

Chart 3.8 Regional unemployment rates

Source: Labour Force Survey.

be accompanied by a gradual decline in the medium-term equilibrium rate from the current estimate of 6%–6½%.

Bank staff's estimate of the medium-term equilibrium unemployment rate may not reflect how far unemployment can fall before it ceases to act as a drag on pay growth. For example, it will not be a good guide if there is significant mismatch between the unemployed and the jobs available. Such mismatch can arise if those looking for jobs do not have the skills businesses need, or if vacancies are concentrated in different locations from potential employees.

Surveys indicate that skills mismatch is limited in most parts of the labour market at present (Table 3.C). Contacts of the Bank's Agents, however, reported more marked skills shortages in the construction and real estate sectors. Neither are there signs of regional mismatch. As unemployment has fallen from its peak in late 2011, unemployment rates have declined everywhere except Northern Ireland; the largest falls were in Wales, Scotland and the North East (Chart 3.8). The falls in unemployment were accounted for by rising employment rather than falling participation.

The rise in the participation rate in the three months to February is judged to have reduced the degree of slack modestly. Indeed, Bank staff estimate that participation was in line with its medium-term equilibrium rate in Q1 (Chart 3.7). The participation rate is expected to remain broadly flat over the remainder of 2014.

Bank staff estimate that the gap between average hours worked and their medium-term equilibrium level widened in Q1 (Chart 3.7), reflecting the small fall in average hours in the three months to February (Section 3.1). That slack includes underemployment of the self-employed as well as employees.

There is uncertainty about the medium-term equilibrium level of average hours. In contrast with the downward trend seen over the previous four decades, average hours have risen over the past five years. That was accompanied by rises in a measure of the hours that those in employment would, on average, like to work (Table 3.D). And the proportion of part-time staff reporting that they would prefer a full-time job — an indicator of the gap between actual and medium-term equilibrium average hours — has been elevated in recent years (Table 3.C). It is, however, impossible to determine how much of the rise in desired hours is a response to the effects of the crisis — such as lower household real income — which is likely to reverse in time, and how much is likely to persist. Moreover, LFS data show that, in the past, people who reported working fewer hours than desired subsequently seemed satisfied with smaller increases than they said they wanted.⁽¹⁾ Bank staff's

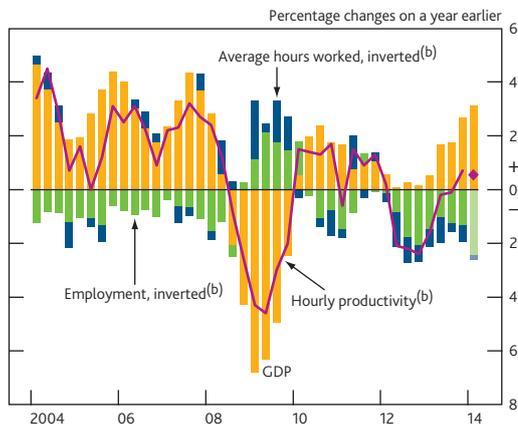
(1) For more details, see Weale, M (2014), 'Slack and the labour market', available at www.bankofengland.co.uk/publications/Documents/speeches/2014/speech716.pdf.

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

	Averages ^(a)			2013		2014
	1998–2007 ^(b)	2012	2013 H1	Q3	Q4	Feb. ^(c)
Average hours	32.4	31.9	32.0	32.1	32.1	32.0
Number of hours that the currently employed would, on average, like to work ^(d)	32.1	32.4	32.7	32.7	32.6	n.a.

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

- (a) Quarterly averages.
 (b) Unless otherwise stated.
 (c) Three months to February.
 (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.

Chart 3.9 Contributions to hourly labour productivity^(a)

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

- (a) Whole-economy output per hour. Contributions may not sum to total due to seasonal adjustment.
 (b) The final observations are based on Bank staff projections for 2014 Q1. The error bands around those projections are wide.

estimate of medium-term equilibrium average hours is consistent with the judgement that only around half of the present gap between actual hours and the estimate of desired hours represents labour market slack.

Overall, the margin of slack was probably equivalent to around 1%–1½% of GDP in Q1. That is the extra amount that could be produced were unemployment and average hours worked to be at their medium-term equilibrium levels, assuming that the newly employed were as productive as current employees. It is likely that the degree of slack narrowed slightly in Q2, although the central view of most MPC members is that it remains in the region of 1%–1½%. A box on pages 44–45 explores how that judgement affects the outlook.

3.3 Prospects for productivity

The speed at which slack will be absorbed depends on the evolution of productivity. Productivity growth has risen since 2012, alongside the pickup in output growth. But the recovery in productivity growth has been far less marked: the ONS estimates that output per hour rose by just 0.7% in the four quarters to 2013 Q4 (Chart 3.9) and remained around 4% below its pre-recession peak. Based on the preliminary estimate of GDP, and the latest labour market data and surveys, output per hour is likely to have risen by around 0.5% in the four quarters to 2014 Q1, far below its pre-crisis average growth rate of about 2½%.

The recovery in activity is itself likely to support productivity growth. For example, higher demand should allow companies that needed a minimum number of staff to remain in operation to increase the efficiency with which they are utilised.

In addition, improvements in credit conditions and reduced uncertainty over the past year have probably been associated with a lessening drag on productivity growth from weak investment and inefficient allocation of resources across companies.⁽¹⁾ It is, however, uncertain how quickly, and to what extent, those developments will raise productivity growth. For example, there are signs that business investment is increasing (Section 2). But the flow of investment is small relative to the stock of capital, so it needs to strengthen further if it is to result in a significant increase in labour productivity.

As in February, the MPC expects that productivity growth will pick up gradually over the forecast period as the recovery progresses. Four-quarter growth in output per hour is expected to rise to around 1% in 2014, a little less than previously anticipated. But considerable uncertainty around the timing and extent of any strengthening remains (Section 5).

(1) The contribution of resource reallocation to productivity growth is discussed in more detail in Barnett, A, Chiu, A, Franklin, J and Sebasti a-Barriel, M (2014), 'The productivity puzzle: a firm-level investigation into employment behaviour and resource allocation over the crisis', *Bank of England Working Paper No. 495*; www.bankofengland.co.uk/research/Documents/workingpapers/2014/wp495.pdf.

4 Costs and prices

CPI inflation fell to 1.6% in March and, although it is likely to rise a little, inflation will probably remain below 2% in Q2. Earnings growth edged up at the start of 2014 and, although headline pay data are likely to be volatile over the coming months, there are signs that stronger underlying growth may persist. Companies expected muted price rises. Measures of inflation expectations remained consistent with the 2% target.

Table 4.A Monitoring the MPC's key judgements

Developments anticipated in the February Report	Developments since February
Inflation expectations	On track
<ul style="list-style-type: none"> Medium-term inflation expectations consistent with the 2% target. 	<ul style="list-style-type: none"> Household expectations down but close to long-run averages; financial market expectations broadly unchanged.
Earnings growth	On track
<ul style="list-style-type: none"> Four-quarter AWE growth to be around 2% by 2014 Q3, following some volatility in 2014 H1. 	<ul style="list-style-type: none"> Pickup in the three months to February broadly as anticipated.
Unit labour costs	Slightly higher than anticipated
<ul style="list-style-type: none"> Unit labour costs to be broadly flat in 2013 Q4 and 2014 Q1, then quarterly growth to rise to 0.5% by 2014 Q3. 	<ul style="list-style-type: none"> Quarterly unit labour cost growth a little higher than expected in Q4, and likely to be modestly higher in Q1 as well. Prospects for 2014 H2 lower than anticipated.
The exchange rate, utility bills and commodities	Broadly on track
<ul style="list-style-type: none"> Sterling ERI, domestic energy bills and commodity prices evolve in line with conditioning assumptions. 	<ul style="list-style-type: none"> Sterling ERI slightly higher than conditioning assumption. US dollar and sterling oil futures broadly stable as anticipated. UK gas futures lower.
Import prices	Broadly on track, outlook weaker
<ul style="list-style-type: none"> Import prices to fall by just over 1% in 2014 H1. 	<ul style="list-style-type: none"> Import prices fell by 1¼% in the four quarters to Q4 as expected but are likely to have fallen by more than previously anticipated in Q1.

Chart 4.1 Bank staff projection for near-term CPI inflation^(a)



(a) The blue diamonds show Bank staff's central projection for CPI inflation in January, February and March 2014 at the time of the February *Inflation Report*. The red diamonds show the staff projection for April, May and June 2014. 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 decline in CPI inflation from its recent peak in June 2013 continued in Q1 (Section 4.1). CPI inflation is likely to pick up slightly in the near term, although it is probable that CPI inflation will remain below the 2% target in Q2. Wage growth edged up around the turn of the year, and the MPC expects this strengthening to continue, in part supported by a gradual rise in productivity growth from Q2 onwards (Section 4.2). Measures of inflation expectations remain consistent with the MPC's 2% target (Section 4.4).

4.1 Recent developments in costs and prices

Consumer prices

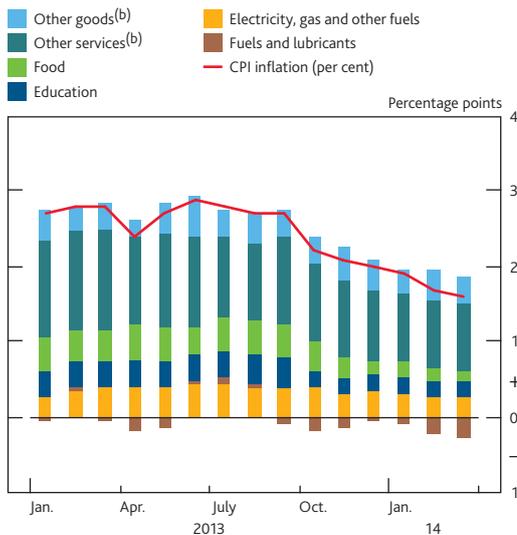
CPI inflation fell to 1.6% in March, down from 2% in December, broadly in line with expectations at the time of the February Report (Chart 4.1). At the component level, around half of the overall dip during Q1 reflected lower petrol price inflation and about a quarter lower household energy price inflation (Chart 4.2). CPIH inflation — a measure of consumer price inflation that includes owner-occupiers' housing costs — fell to 1.5%, with the contribution of housing costs little changed.

Services price inflation equalled its historical low of 2.3% in March, having fallen over much of the preceding year and a half. This decline was accompanied by a pronounced slowdown in earnings growth in the sector during 2012, although lower contributions from airfares and tuition fees accounted for much of the weakness more recently. Goods inflation also fell but it stayed well above its average in the decade prior to the recession at 1%, in part reflecting past rises in import costs.

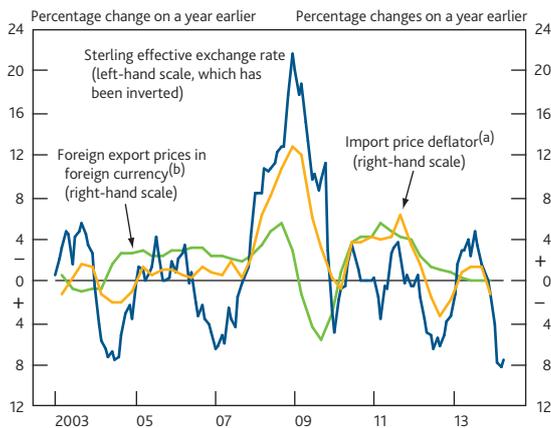
CPI inflation is expected to pick up a little to 1.8% in Q2 (Chart 4.1). That largely reflects a probable rise in petrol price inflation as price falls that occurred in 2013 Q2 drop out of the annual comparison.

Import costs and pass-through into consumer prices

Import prices have raised CPI inflation over recent years, driven by a combination of stronger foreign export price inflation and

Chart 4.2 Contributions to CPI inflation^(a)

(a) Monthly contributions to annual CPI inflation. Data are non seasonally adjusted.
 (b) Calculated as the difference 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 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. In 2013 Q4, export prices for Iceland, Pakistan, the Philippines, Switzerland and Turkey are assumed to grow at the same rate as export prices in the rest of the world.

Table 4.B Sterling oil and wholesale gas prices^(a)

	Spot price	May 2016 futures price	Changes in futures prices since the February Report (per cent)		
			Dec. 2014	Dec. 2015	Dec. 2016
Oil price (£ per barrel) ^(b)	64.6	58.7	0.4	-0.2	-0.5
Gas price (pence per therm) ^(c)	48.6	58.6	-5.5	-3.0	-1.0

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

(a) Futures prices at the time of the May *Inflation Report* are averages during the fifteen working days to 7 May 2014. Futures prices at the time of the February *Inflation Report* are averages during the fifteen working days to 5 February 2014.
 (b) Brent forward prices for delivery in 10–21 days' time converted into sterling.
 (c) One-day forward price of UK natural gas.

falls in the value of sterling, the latter most notably in 2007–08 (**Chart 4.3**). Indeed, the most import-intensive items in the CPI basket continued to exhibit above-average inflation rates in Q1, suggesting that the pass-through of higher import costs may still be affecting the annual CPI inflation rate.

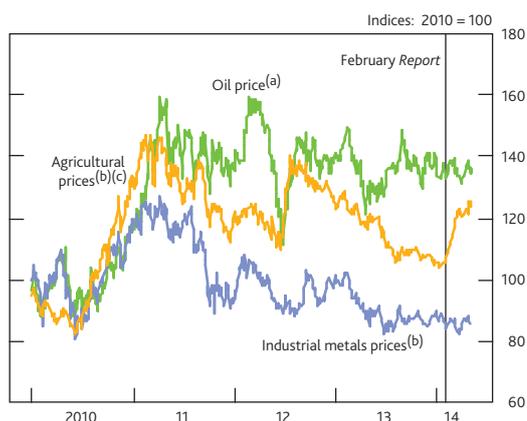
Over the coming quarters, however, import prices are likely to dampen inflation. The MPC had already expected the positive contribution from past increases in import costs to dissipate. But falls in import prices over 2013 and at the beginning of 2014 mean that contribution could turn negative shortly. That turnaround in inflationary pressure from import costs in part stems from lower price inflation in foreign currency terms. Other countries' export prices were broadly flat over 2013, with some of that weakness reflecting reduced inflationary pressure in the euro area — a key source of UK imports (Section 2). It also stems from a rise in the value of sterling of just over 10% from its recent trough in March 2013. Together, these factors have already been associated with a fall in sterling import prices excluding fuels of around 3% between 2013 Q1 and 2013 Q4. During 2014 H1, the MPC expects import prices to fall by a further 2% or so (**Table 5.B**).

There is uncertainty about the extent to which the fall in import costs will bear down on CPI inflation. If sterling remains around its current level, the lower level of import costs is likely to persist, and retailers might be more inclined to pass these lower costs through into consumer prices. That said, it is possible that some companies may want to take the opportunity to rebuild margins, especially after a period during which they have been squeezed (Section 4.3). Overall, the MPC judges that this fall in import costs is likely to be passed through more or less fully into consumer prices over the forecast period (Section 5).

Other global prices

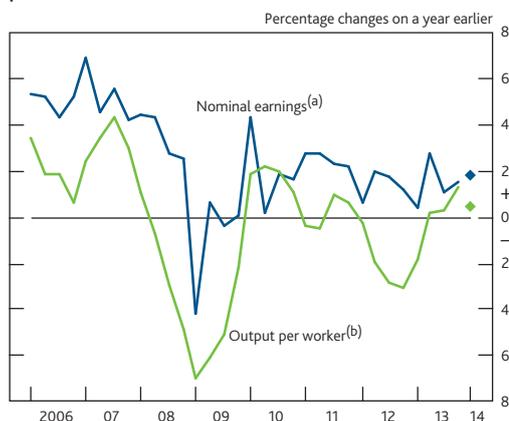
Petrol and household energy prices contributed just 0.1 percentage points to CPI inflation in Q1, well below their average contribution of 0.6 percentage points over the preceding decade. Even once petrol price falls in 2013 Q2 drop out of the annual comparison, that contribution appears set to remain relatively subdued in the near term. Sterling oil prices have changed little since February and the futures curve remains downward sloping. UK gas futures prices were lower in the fifteen working days to 7 May than in the run-up to the February Report (**Table 4.B**). The MPC has maintained its February assumption that, on average, household energy bills will rise by around 2½% in 2015 and 2016; that would be below the average increases observed over the past decade.

Consumer food price inflation has fallen since late 2013, and is likely to fall further in 2014 Q2, in part due to announcements of price discounting by supermarkets. These cuts could have a material impact on overall food price inflation, particularly if the supermarket discounting becomes more widespread.

Chart 4.4 US dollar oil and commodity prices

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

- (a) US dollar Brent forward prices for delivery in 10–21 days' time.
 (b) Calculated using S&P US dollar commodity price indices.
 (c) Total agriculture and livestock S&P commodity index.

Chart 4.5 Private sector nominal earnings and output per worker

Sources: ONS and Bank calculations.

- (a) AWE total pay. The diamond shows data for the two months to February 2014.
 (b) The diamond is based on the Bank staff's projection for private sector output per worker in 2014 Q1. The error band around that forecast is wide.

Table 4.C Private sector earnings and indicators of future pay growth

	Averages				2014
	2001–07	2008 Q3–2010 Q2	2010 Q3–2012	2013	Q1
Official estimates (percentage changes on a year earlier)^(a)					
(1) Private sector AWE	4.3	0.7	1.9	1.5	1.9
(2) AWE regular pay ^(b)	3.9	1.6	2.0	1.1	1.8
(1)–(2) Bonus contribution ^(c)	0.4	-0.9	0.0	0.4	0.0
Pay settlements ^(d)	3.3	2.6	2.1	2.1	2.1
Memo: Whole-economy total AWE	4.3	1.4	1.9	1.2	1.8
Indicators of future pay growth					
CBI ^(e)	n.a.	1.3	1.7	1.7	2.1
REC ^(f)	56	47	52	55	61

Sources: Bank of England, CBI (all rights reserved), Incomes Data Services, KPMG/REC/Markit, the Labour Research Department, ONS and XpertHR.

- (a) Official estimates for 2014 Q1 show data in the two months to February.
 (b) Private sector total pay excluding bonuses and arrears of pay.
 (c) Percentage points. The bonus contribution does not always equal the difference between total AWE growth and AWE regular pay growth due to rounding.
 (d) Average over the past twelve months, based on monthly data.
 (e) Expected percentage change in wage/salary cost per person employed (including overtime and bonuses) over the next twelve months for companies in the manufacturing, business/consumer services and distribution sectors, weighted together using nominal shares in value added.
 (f) Net balance of companies reporting that average salaries awarded to staff placed in permanent positions were higher than one month ago.

Sharp rises in agricultural commodity prices since February may, however, limit the downward pressure on food price inflation (**Chart 4.4**). In particular, grains prices have risen substantially, following adverse weather conditions in North and South America, as well as political uncertainty in Ukraine — a significant wheat producer. Agricultural commodity prices represent only a small part of food producers' overall costs, however. So movements in commodity prices are typically associated with much smaller movements in consumer food prices.

4.2 Labour costs

Nominal earnings growth

Wage growth has been weak since the 2008/09 recession (**Chart 4.5**), dragged down by the persistent weakness of productivity growth and significant slack in the labour market (Section 3). Having recovered somewhat in 2010, pay growth fell again in 2012, and remained subdued in 2013: growth in private sector average weekly earnings (AWE) regular pay averaged just 1.1% (**Table 4.C**).

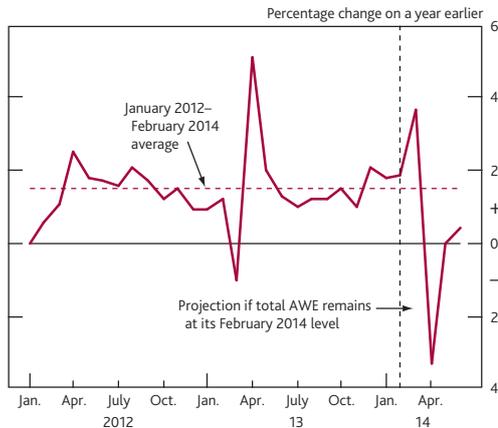
In February, the MPC judged that pay growth would pick up during 2014. Early indications are that wages have moved broadly in line with those expectations (**Table 4.A**), with the annual growth rate of private sector regular pay in the two months to February standing at 1.8%, significantly above the average annual growth rate in 2013 (**Table 4.C**).

The headline statistics on annual pay growth over the coming months may be difficult to interpret, however. That is due to volatility in last year's data, as some people took advantage of the prospective reduction in the top rate of UK income tax in April 2013 to defer bonus payments and earnings from 2013 Q1 until after the reduction took place. The resultant fluctuations in pay mean that the twelve-month growth rate of private sector total pay is likely to rise sharply to over 3.5% in March, before turning markedly negative in April (**Chart 4.6**). The fluctuations in the headline data, which are three-month averages, will be less marked.

Looking through that near-term volatility, some earnings surveys suggest that pay growth may continue to rise. The CBI survey measure of businesses' expected growth in pay per head over the next twelve months stood at 2.1% in Q1. And the REC survey indicator of newly recruited permanent employees' pay growth is now well above its pre-recession average, and consistent with very strong wage growth. It is not clear, however, how far larger pay increases for new recruits will feed through into wider upward pressure on the pay of existing employees.

The MPC's central view implies that whole-economy annual total pay growth should approach 2½% by the end of 2014.

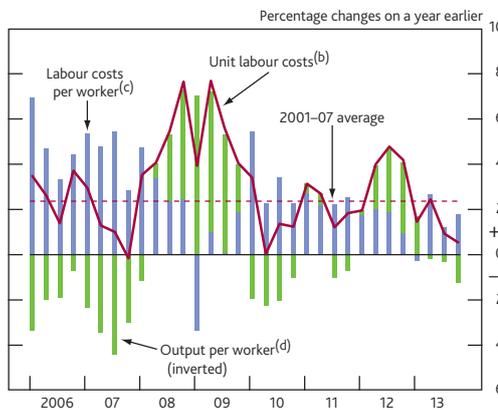
Chart 4.6 Single-month measure of private sector total earnings and illustration of base effects^(a)



Sources: ONS and Bank calculations.

(a) Private sector AWE total pay.

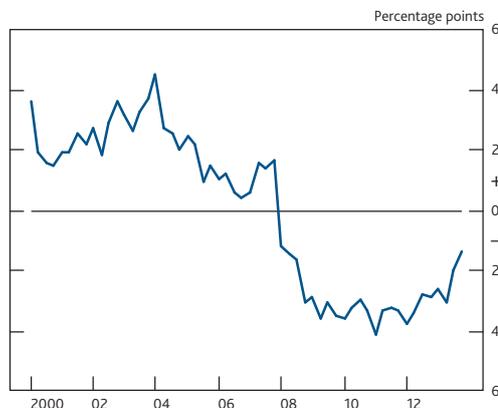
Chart 4.7 Private sector unit labour costs^(a)



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.

Chart 4.8 Estimate of consumer-facing companies' margins relative to its average since 2000^(a)



Sources: ONS and Bank calculations.

- (a) Margins are estimated using the consumer prices index (which has been seasonally adjusted by Bank staff) and an estimate of total costs for consumer-facing companies. The estimate of costs is constructed by weighting together energy costs (CPI sub-indices for electricity, gas, other fuels, fuels and lubricants; 10%), UK import prices excluding fuel (shown in Chart 4.3: 25%), private sector unit labour costs (shown in Chart 4.7; 55%) and indirect taxes (measured using the basic price adjustment; 10%). The weights are based on the energy and import price intensity of the CPI and the contribution of indirect taxes to CPI inflation; the weight for labour costs is calculated as a residual.

A steady rise in productivity is expected to be a key driver of this pickup, alongside a continuing reduction in labour market slack (Section 5).

Unit labour costs

Four-quarter unit labour cost growth eased in 2013 Q4 (Chart 4.7), albeit by a little less than expected, reflecting wage growth in Q4 that was a touch stronger than expected and four-quarter productivity growth that was slightly weaker than anticipated. Relative to data on wages, however, there is a higher degree of uncertainty attached to productivity data, which are less timely and more prone to revision. For example, if output in 2013 Q4 is revised higher, as the MPC expects (Section 3), productivity would also be higher and quarterly unit labour cost growth correspondingly lower. In 2014 Q1, four-quarter unit labour cost growth is likely to have risen, but, on average, the MPC expects moderate unit labour cost growth over 2014.

4.3 Company profits and pricing decisions

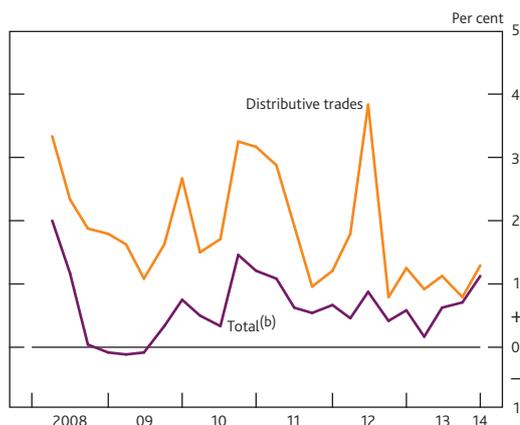
A range of measures suggest that, in aggregate, companies' profit margins are likely to have risen slightly during 2013, but are still below their pre-recession average. These measures include ONS estimates of return on capital, and an estimate based on the gap between consumer-facing companies' overall costs and consumer prices (Chart 4.8). According to the Bank's Agents' contacts, businesses generally expect margins to recover gradually.

One way for businesses to boost their margins as demand recovers is to raise prices, which would put temporary upward pressure on inflation. Intelligence from the Bank's Agents suggests, however, that most businesses anticipate that a rise in margins will come about through overhead costs being spread more broadly, and output per worker rising as demand recovers — in other words, through subdued cost growth, rather than through higher prices. This is borne out by responses to the CBI's various business surveys, which indicate that, in aggregate, companies expect to instigate only modest price rises over the next twelve months (Chart 4.9). Expected price rises in the distributive trades sector, where company price-setting decisions are likely to affect CPI inflation most directly, were subdued relative to their average since 2008. There are risks to margins, and hence CPI inflation, in both directions (Section 5).

4.4 Inflation expectations

Companies' inflation expectations are one influence on their own wage and price-setting decisions. The *Deloitte CFO Survey*, which samples large companies, suggests that these expectations have fallen since the turn of the year. In 2013 Q4, just over half of companies surveyed expected CPI inflation to be above 2.5% in two years' time, whereas

Chart 4.9 Companies' expected changes in own prices over the next year^(a)



Sources: CBI (all rights reserved) and ONS.

- (a) Companies are asked: 'What percentage change is expected to occur over the next twelve months in your own average output price for goods sold into UK markets?'.
 (b) CBI data for the manufacturing, business/consumer services and distribution sectors, weighted together using nominal shares in value added.

Table 4.D Indicators of inflation expectations^(a)

Per cent	2000 (or start of series) to 2007 averages ^(b)	Averages since 2008	2011	2012	2013	2014	
						Q1	Q2 ^(c)
One year ahead inflation expectations							
Households^(d)							
Bank/NOP	2.3	3.4	4.1	3.5	3.5	2.8	n.a.
Barclays Basix	2.8	3.2	4.0	3.1	2.8	2.3	n.a.
YouGov/Citigroup (Nov. 2005)	2.5	2.8	3.4	2.7	2.7	2.2	2.0
Companies (2008 Q2)^(e)	n.a.	0.5	0.7	0.6	0.4	0.7	n.a.
Financial markets (Oct. 2004)^(f)	2.6	2.7	3.1	2.6	3.0	2.8	2.9
Two to three year ahead expectations							
Households^(d)							
Bank/NOP (2009 Q1)	n.a.	2.9	3.4	3.1	3.3	2.8	n.a.
Barclays Basix	3.2	3.4	4.0	3.3	3.2	2.7	n.a.
Professional forecasters (2006 Q2)^(g)	2.0	2.1	2.2	2.1	2.2	2.1	2.1
Financial markets (Oct. 2004)^(h)	2.8	3.0	3.0	2.8	3.1	3.2	3.1
Five to ten year ahead expectations							
Households^(d)							
Bank/NOP (2009 Q1)	n.a.	3.3	3.5	3.4	3.6	3.2	n.a.
Barclays Basix (2008 Q3)	n.a.	3.8	3.9	3.9	3.8	3.6	n.a.
YouGov/Citigroup (Nov. 2005)	3.5	3.4	3.6	3.4	3.5	3.0	2.9
Financial markets (Oct. 2004)⁽ⁱ⁾	3.0	3.5	3.3	3.1	3.5	3.4	3.4
Memo: CPI inflation	1.6	3.1	4.5	2.8	2.6	1.7	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 1 April–7 May. YouGov/Citigroup data are for April.
 (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.

the 2014 Q1 results showed that proportion had fallen to a fifth. Companies' inflation expectations, as recorded in CBI business surveys, rose a little in Q1, but remained subdued.

Households' inflation expectations have also fallen since the end of 2013, as CPI inflation has continued to decline. These measures were generally either in line with, or below, average in Q1 (**Table 4.D**). Expectations were probably influenced by movements in headline inflation. It also is probable that households raised their expectations in 2013 Q4 because of large rises in utilities prices announced then. The announcement of consumer energy price freezes at the start of 2014 is therefore likely to explain some of the fall since.⁽¹⁾ Falls in longer-dated household expectations measures have been notable, with the Citigroup five to ten year ahead measure remaining close to its series low in April.

In contrast to the falls in household expectations, and in common with the expectations of professional forecasters, measures of inflation expectations implied by financial markets were little changed beyond the one-year horizon (**Table 4.D**).

As well as the level of inflation expectations, the MPC uses two other metrics for monitoring the risk of expectations becoming de-anchored: uncertainty about inflation; and the sensitivity of inflation expectations to unexpected economic developments. Market-based measures of uncertainty about future inflation fell in early 2013 but remain higher than in 2008. There also remains some tentative evidence that inflation expectations derived from financial markets are more sensitive to news than a few years ago (see the box on pages 36–37 of the February 2014 *Report*). Overall, the MPC continues to judge that medium-term inflation expectations remain well anchored.

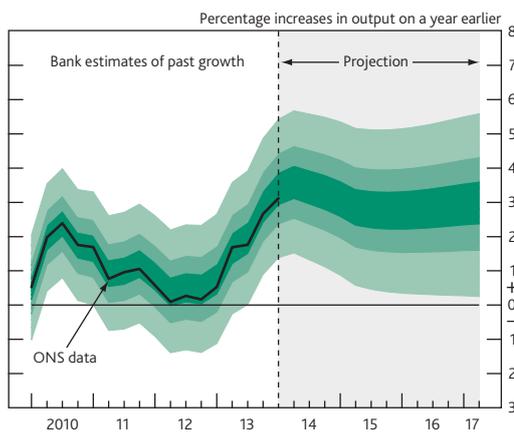
(1) For an illustration of the impact of announced increases in utility prices on inflation expectations see the box on pages 34–35 of the November 2013 *Report*; www.bankofengland.co.uk/publications/Documents/inflationreport/2013/ir13nov.pdf.

5 Prospects for inflation

The outlook for GDP growth and inflation is little changed from February. A sustained period of demand growth is in prospect, with the expansion likely to endure as productivity, and real incomes, revive. And while recent gains in output have been associated with a modest narrowing in the margin of spare capacity, the pace at which slack is absorbed is projected to slow. The persistence of slack should help to curb domestic inflationary pressures, while external price pressures are likely to remain subdued. Overall, therefore, the economy remains on course to meet the MPC's aim of absorbing spare capacity over the next two to three years, while keeping CPI inflation close to the 2% target.

The recent strong performance of the economy has continued, with robust output growth, falling unemployment and low inflation. Looking ahead, the economic expansion is expected to move to a firmer footing as productivity and real incomes revive. The gradual recovery in productivity growth should slow the pace at which spare capacity is absorbed, and the MPC continues to judge that there remains scope to make inroads into slack before raising Bank Rate. When the Committee does start to raise Bank Rate, it expects to do so gradually, and to a level materially below its pre-crisis average.⁽¹⁾

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



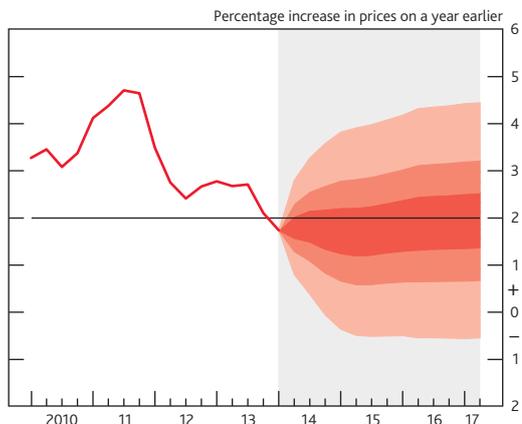
The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. To the left of the vertical dashed line, the 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.

The Committee's latest projection for four-quarter GDP growth is shown in **Chart 5.1**,⁽²⁾ which is conditioned on a gradual rise in Bank Rate. Growth eases during the coming year, as some of the initial boost from reduced uncertainty and easier credit conditions fades. Thereafter, a steady, sustained expansion is in prospect, underpinned by a gentle rise in productivity and real incomes. Output is also supported by the highly stimulative stance of monetary policy (see the box on page 41).

It is likely that there has been a modest narrowing in the margin of spare capacity in recent months, broadly consistent with the Committee's expectations in February. The central view of most MPC members is that spare capacity is still probably in the region of 1%–1½% of GDP. Over the forecast period, the pace at which spare capacity is absorbed is projected to slow, reflecting rising productivity growth and a gentle easing in demand growth. In the central projection, the margin of spare capacity is broadly closed only by the end of the forecast period. There is

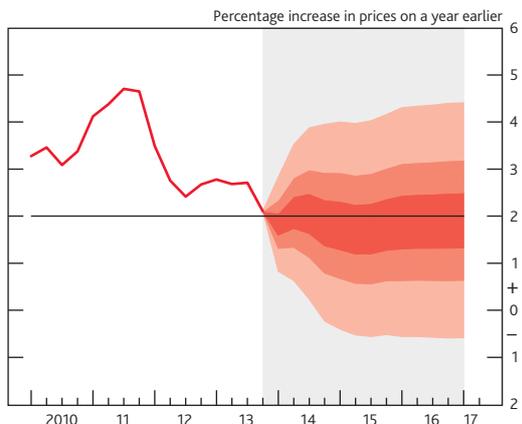
- (1) See the box on pages 8–9 of the February 2014 *Report*; www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14feb.pdf.
- (2) Unless otherwise stated, the projections shown in this section are conditioned on: Bank Rate following a path implied by market yields; a constant stock of asset purchases; the recommendations of the Financial Policy Committee (as set out in the Record of its March meeting) and the current regulatory plans of the Prudential Regulation Authority; the Government's tax and spending plans as set out in the March 2014 *Budget*; commodity prices following market paths; and the sterling exchange rate remaining broadly stable. The main assumptions are set out in a table at www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14mayca.pdf.

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



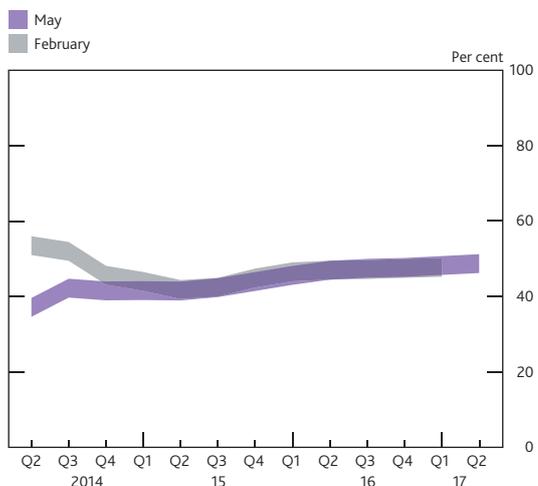
Charts 5.2 and 5.3 depict the probability of various outcomes for CPI inflation in the future. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. If economic circumstances 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 5.3 CPI inflation projection in February 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 May and February swaths 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 the target in each quarter of the forecast period. The 5 percentage points width of the swaths reflects the fact that there is uncertainty about the precise probability in any given quarter, but they should not be interpreted as confidence intervals.

considerable uncertainty surrounding that central path, with different Committee members taking different views.

Inflation has been near to the target in recent months, and is expected to remain at, or a little below, 2% throughout the forecast period (Chart 5.2). The drag from slack is forecast to lessen, and wage growth and profit margins are expected to recover gradually. The price-level effects associated with sterling's appreciation are assumed to put temporary downward pressure on inflation for the next couple of years. Overall, the inflation profile is very similar to that in February (Chart 5.3). The risks around the 2% target are judged to be broadly balanced, as was the case three months ago (Chart 5.4).

5.1 Key judgements and risks

The Committee's forecasts are underpinned by four key judgements, set out below. Table 5.A provides projections for variables that illustrate those judgements, and Table 5.B provides a range of indicators for monitoring them.

Key Judgement 1: internationally, policymakers are able to maintain growth in the face of continuing economic and financial challenges

Recent quarters have seen a gradual pickup in global growth, and relative calm in financial markets (Sections 1 and 2). That fairly steady global backdrop masks disparate challenges, however. Some economies are moving towards a normalisation of monetary policy; for others, the repercussions of the financial crisis mean that they remain some way from policy normalisation.

In the euro area, the United Kingdom's largest trading partner, activity indicators have edged higher in recent months. The

Table 5.A MPC key judgements^{(a)(b)}**Key Judgement 1: internationally, policymakers are able to maintain growth in the face of continuing economic and financial challenges**

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

Key Judgement 2: domestically, a revival in productivity and real incomes helps to drive a sustained expansion in demand

	Average 1998– 2007	Projections		
		2014	2015	2016
Credit spreads ^(f)	¾ ^(g)	2¼	2	2
Household saving ratio ^(h)	4¼	5	3¾	3½
Business investment to GDP ratio ⁽ⁱ⁾	9¼	8¾	9½	10½

Key Judgement 3: the pace at which slack is absorbed slows, reflecting a gradual expansion in supply

	Average 1998– 2007	Projections		
		2014	2015	2016
Productivity ^(j)	2½	1	1¼	2
Participation rate ^(k)	63	63¾	63¾	63¾
Average hours ^(l)	32¼	32¼	32¼	32¼

Key Judgement 4: as the drag from slack lessens, the associated recovery in wage growth and margins is consistent with the inflation target

	Average 1998– 2007	Projections		
		2014	2015	2016
UK import prices ^(m)	½	-2¼	0	¼
Unit wage costs ⁽ⁿ⁾	2¼	1	1¾	1¾

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) Chained-volume measure. Constructed using real GDP growth rates of 143 countries weighted according to their shares in UK exports.
- (d) Chained-volume measure.
- (e) Chained-volume measure.
- (f) Level in Q4. 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.
- (g) 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.
- (h) Calendar-year average. Percentage of total available household resources.
- (i) Calendar-year average. Chained-volume business investment as a percentage of GDP.
- (j) GDP per hour worked. GDP at market prices is based on the mode of the MPC's backcast.
- (k) Level in Q4. Percentage of the 16+ population.
- (l) Level in Q4. Average weekly hours worked, in main job and second job.
- (m) Four-quarter inflation rate in Q4. Excludes the impact of missing trader intra-community fraud.
- (n) Four-quarter growth in unit wage costs in Q4. Whole-economy wages and salaries divided by GDP at market prices, based on the mode of the MPC's GDP backcast.

Committee's projections are consistent with a further gentle pickup in growth. Euro-area growth is, however, still likely to remain below its pre-crisis average, in part because of the continuing adjustment in the periphery. In addition, euro-area banks are only part of the way through restructuring their balance sheets; the forthcoming asset quality review and bank stress tests should provide a gauge of how far that rebuilding process has to go. While these challenges may prove a greater drag on growth than assumed in the central path, the MPC judges that, at present, the risk of a disorderly adjustment in the euro area is much reduced. And it is possible that improved confidence and reduced uncertainty in the euro area will provide a greater boost to spending than anticipated.

In the United States, the recent pause in growth appears to have been largely related to the bad weather, and so is likely to prove temporary. Beyond the near term, the MPC's central view is consistent with US growth at around its historical average of 3%, with the private sector expansion gathering pace as the shadow of the financial crisis fades. Indeed, it is possible that this understates the degree of momentum in the private sector. But it is also possible that it understates the degree to which the supply side of the economy remains damaged by the financial crisis and the recession. More generally, there are uncertainties surrounding the assumed gradual normalisation of US monetary policy.

That normalisation is one of a set of developments that could have ramifications far beyond national borders. Others include the prospects for China, where the expansion of recent years has been accompanied by rapid credit growth and an increasingly significant shadow banking system. And while the MPC's central view is consistent with only a gentle slowing in Chinese GDP growth, the fault lines stemming from the financial sector pose distinct downside risks. Fragilities also remain in some emerging economies. And there are a range of geopolitical tensions, for example those related to Ukraine.

Despite these global tensions, implied volatilities — a measure of uncertainty — have been low across a range of asset classes in the recent past, and there have been signs of some intensification of a 'search for yield'. It is plausible that, at some juncture, the continuing policy and geopolitical challenges will trigger a rise in volatility, and a broader reassessment of risk in financial markets. If this were associated with substantial asset price corrections, it would represent downside risks to global, and UK, activity.

Overall, the central path of the Committee's projections is consistent with a sustained, steady global expansion, with world growth close to its historical average of 3% or so for most of the forecast period (Table 5.A). Given this outlook for its main trading partners, UK export growth picks up to around

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 understand 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 the remainder of 2014 if judgements evolve as expected
1: internationally, policymakers are able to maintain growth in the face of continuing economic and financial challenges	<ul style="list-style-type: none"> • Quarterly euro-area GDP growth of between ¼% and ½%, with credit conditions easing slightly. • Quarterly US GDP growth averaging at around ¾%; non-farm payrolls increasing by a little more than 200,000 per month. • Indicators of activity consistent with four-quarter PPP-weighted emerging-economy growth of around 5% on average; within that, Chinese GDP growth expected to be slightly above 7%. • UK exports to grow at around ½% per quarter on average.
2: domestically, a revival in productivity and real incomes helps to drive a sustained expansion in demand	<ul style="list-style-type: none"> • Quarterly consumer spending growth of close to ¾%. • Indicators of business investment consistent with average quarterly growth rates of around 3%. • Housing investment to strengthen, averaging growth of a little less than 4% per quarter. • Four-quarter growth in real household income to average a little above 2% a quarter during 2014. • Mortgage approvals for house purchase to remain at around 70,000 a month in 2014 Q2, reaching around 85,000 by 2014 Q4. • Rises in the main indices of national house prices to average around 1% a month in 2014 Q2. • PNFC net lending to be around zero in 2014 Q2, and to pick up in subsequent quarters. • Credit spreads to continue to decline over 2014.
3: the pace at which slack is absorbed slows, reflecting a gradual expansion in supply	<ul style="list-style-type: none"> • Headline LFS unemployment rate to decline to around 6½% by 2014 Q2, and to edge down thereafter. • The labour market participation rate to remain broadly flat over the remainder of 2014. • Average hours worked to increase by around ½% during the remainder of the year. • Indicators of spare capacity within companies to show little intensification of capacity pressures. • Four-quarter growth in hourly labour productivity of around 1% during 2014.
4: as the drag from slack lessens, the associated recovery in wage growth and margins is consistent with the inflation target	<ul style="list-style-type: none"> • Medium-term indicators of inflation expectations to continue to be consistent with the 2% target. • Headline four-quarter AWE growth to approach 2½% by the end of the year, following some volatility in 2014 H1. • Growth in unit wage costs of around ¼% a quarter through 2014. • Sterling ERI, domestic energy bills and commodity prices to evolve in line with the conditioning assumptions set out in www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14mayca.pdf. • Import prices to fall by a little over 2% in 2014 H1, and remain broadly flat thereafter.

its pre-crisis rate.⁽¹⁾ Uncertainties around export growth particularly relate to the evolution of the exchange rate, the impact of the past appreciation in sterling, and to the prospects for UK services exports, which have been weaker than expected for much of the post-crisis period.⁽²⁾

Key Judgement 2: domestically, a revival in productivity and real incomes helps to drive a sustained expansion in demand

The expansion in domestic demand has continued and there has been some broadening in growth from consumer to business spending (Section 2). Those increases in private

(1) Bank staff have calculated indicative projections for a range of economic variables consistent with the MPC's modal forecast. See www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14mayca.pdf.

(2) See the box on pages 24–25 of the February 2013 Report; www.bankofengland.co.uk/publications/Documents/inflationreport/2013/ir13feb.pdf.

The impact of asset purchases in the MPC's projections

In the immediate aftermath of the financial crisis, the level of interest rates necessary to keep inflation close to the target and to maintain supply in line with demand — the equilibrium interest rate — fell sharply and became negative. The MPC could not lower Bank Rate sufficiently to match that equilibrium rate, so instead began a programme of asset purchases. As set out in a box on page 40 of the February 2014 *Report*, the equilibrium interest rate has probably risen as the recovery has gained strength. In determining the appropriate path for Bank Rate as the economy recovers, it is important to consider not only the likely level of the equilibrium interest rate, but also the impact that past asset purchases are still having on the economy.

The impact of asset purchases

The MPC purchased £375 billion of assets between 2009 and 2012 and, since March 2013, has reinvested the cash flows associated with the maturing gilts held in the Asset Purchase Facility (APF), in order to maintain the stock at £375 billion.

Asset purchases raise holdings of broad money, lower gilt yields and, in turn, raise a range of asset prices. That stimulates expenditure by increasing wealth and lowering financing costs. Asset purchases may also have a stimulatory impact through their broader effects on expectations and confidence. There is uncertainty about the impact of asset purchases on the economy: in particular, as with changes in Bank Rate, the precise effect on the economy depends on the prevailing economic conditions.

In general, looser monetary policy encourages households and companies to bring forward spending from the future and is usually assumed to boost real activity only in the short to medium term. There are, however, a number of reasons why the MPC's asset purchases, undertaken at a time of considerable uncertainty and financial market strains, may have provided enduring support to the level of activity, relative to where it would otherwise have been. For example, by changing the mix of assets held in the private sector, the MPC's purchases may have a prolonged impact on yields and therefore the cost of capital. And by limiting the fall in output during the recession, they may have contained the deterioration in supply capacity — for example, if fewer unemployed people left the labour market or fewer productive assets were scrapped. Overall, the MPC therefore judges that maintaining the stock of assets is likely to provide continued, albeit declining, support to the level of activity.

Bank staff analysis suggests that the peak cumulative impact of the MPC's asset purchases on the level of real GDP was around 2½%.⁽¹⁾ As purchases are assumed to take around

two years to feed through fully to activity, that peak impact probably occurred during 2013. In the MPC's projections the stock of purchased assets is assumed to remain at £375 billion throughout the forecast period. Over the forecast period, therefore, the support to the level of activity from asset purchases is assumed to wane.

Asset purchases and Bank Rate as the economy recovers

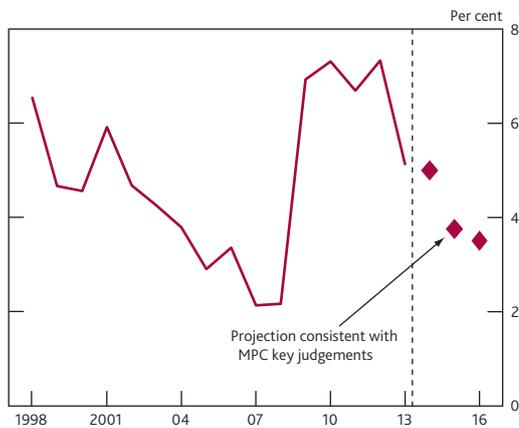
As set out in the box on pages 8–9 of the February 2014 *Report*, when Bank Rate begins to rise, the appropriate path so as to eliminate slack over the next two to three years and keep inflation close to the target is expected to be gradual. One factor affecting that path will be the extent and speed with which the MPC chooses to unwind its stock of purchased assets. In the February *Report*, the MPC stated that it intends to maintain the stock, 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 rate of 0.5%. Beyond that point, as MPC members have previously set out in individual speeches and testimony,⁽²⁾ there are a number of considerations that will affect its decisions as to how to tighten policy.

- Bank Rate will be the active marginal instrument for monetary policy.
- In order to be able to use Bank Rate as an active tool in response to adverse shocks to activity, the MPC is likely to defer sales of assets at least until Bank Rate has reached a level from which it could be cut materially, were more stimulus to be required.
- Some reduction in the stock of assets could be achieved without active sales, as the gilts in the portfolio mature.
- Any asset sales will be conducted in an orderly programme over a period of time so as not to disrupt the gilt market and cause a sharp tightening in monetary conditions. The Bank will liaise with the Debt Management Office when deciding any programme of sales.

All else equal, any reduction in the stock of purchased assets is likely to be associated with a lower path of Bank Rate than would otherwise have been the case.

(1) This is consistent with the estimates provided in Joyce, M, Tong, M and Woods, R (2011), 'The United Kingdom's quantitative easing policy: design, operation and impact', *Bank of England Quarterly Bulletin*, Vol. 51, No. 3, pages 200–12; www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb110301.pdf, where the initial phase of £200 billion of purchases was shown to have a peak effect on real GDP of around 1.5%–2%, and the results presented in Weale, M and Wieladek, T (2014), 'What are the macroeconomic effects of asset purchases?', *External MPC Unit Discussion Paper No. 42*; www.bankofengland.co.uk/research/Documents/externalmpcpapers/extmpcpaper0042.pdf.

(2) See, for example, evidence given to the Treasury Committee by Mark Carney on 12 September 2013; www.bankofengland.co.uk/publications/Pages/tchearings/2013/120913.aspx.

Chart 5.5 Household saving ratio^(a)

Sources: ONS and Bank calculations.

(a) Calendar-year average. Percentage of total available household resources.

sector spending have not yet been matched by rises in income; net private sector financial savings have declined in recent quarters, and the current account deficit has widened (see the box on pages 22–23).

In the household sector, the recent fall in the saving ratio reflects several interrelated factors: greater optimism about future income; reduced uncertainty; and easier credit conditions. The Committee's central view is that consumer spending growth will continue to exceed that of incomes over the next year or so. In the latter part of the forecast, however, spending growth is projected to edge lower as some of the initial boost from reduced uncertainty and easier credit conditions wanes. By contrast, for incomes, sustained growth is in prospect, driven by a revival in productivity (see Key Judgement 3). So the saving ratio falls a little further in the near term, but stabilises thereafter (Table 5.A and Chart 5.5).

Uncertainties include the risks to income growth, the prospects for which are closely linked to productivity (see the box on pages 46–47 of the February 2014 Report). There are also uncertainties about the degree to which households are willing and able to allow spending growth to outpace growth in incomes. That in turn depends upon households' optimism about future incomes, as well as the likely cost of, and ease of access to, credit.

Housing investment has been rising strongly, reflecting the revival in the property market (Section 2). And the fundamentals remain in place for a continued strengthening in housing market activity and further robust growth in housing investment. The near-term outlook for housing investment is modestly weaker than in February, but that reflects, at least in part, transitory factors. For example, the Mortgage Market Review's recommendations, which came into effect in late April (Section 1), may dampen mortgage approvals by a little more than first anticipated. There is uncertainty about the outlook for housing investment, as well as for the property market more broadly. Any potential risks to financial stability emanating from the property market would in the first instance be addressed by the Financial Policy Committee, working with the Financial Conduct Authority and the Prudential Regulation Authority. Such risks will be discussed in the forthcoming June 2014 *Financial Stability Report*.

Business spending has recorded solid gains, supported by reduced uncertainty and, for many companies, easier credit conditions. Growth in business spending is likely to continue to strengthen, supported by a further easing in credit conditions, sustained optimism in the economic outlook and pressures on capacity. In the central view, the ratio of business investment to GDP increases to a little above 10% by the end of the forecast period (Table 5.A). Uncertainties include the degree to which companies are willing and able to fund increased capital expenditure by running down their accumulated cash surpluses or by borrowing.

Overall, the Committee's central projections are consistent with a further decline in the private sector's net financial balance. That decline is partly offset by a fall in the public sector deficit, reflecting the continuing fiscal consolidation. The counterpart is a current account deficit that narrows only modestly from its present level. The sustainability of a current account deficit should be viewed in the context of a country's stock of external assets and liabilities (see the box on pages 22–23). But, in principle, large current account deficits can, if they persist, increase vulnerability to abrupt changes in financial market sentiment, with associated risks to asset prices.

Key Judgement 3: the pace at which slack is absorbed slows, reflecting a gradual expansion in supply

An important judgement underpinning the MPC's forecast is the size of the current margin of spare capacity, as well as the likely evolution of spare capacity as the economy recovers. When assessing the degree of slack, the Committee considers both spare capacity within companies and spare capacity within the labour market (see the box on page 29). Companies appear to be operating at broadly normal levels of capacity utilisation. In the labour market, there is likely to have been a modest narrowing in slack over the past three months. The central view of most MPC members is that there is probably still spare capacity equivalent to around 1%–1½% of GDP, however (Section 3). Around half of that spare capacity is thought to reflect the gap between the current level of unemployment and its medium-term equilibrium rate (the 'unemployment gap'), and the remainder the gap between actual and desired working hours (the 'hours gap'). There is considerable uncertainty about both the margin of slack, and its impact on inflation.

The central view is for a slowing in the pace at which slack is absorbed, with the margin of spare capacity broadly closed only by the end of the forecast period. Within companies, capacity pressures seem likely to remain at, or a little above, normal. Within the labour market, the gap between actual and desired hours is assumed to narrow fairly sharply over the next year or two. The gap between unemployment and its medium-term equilibrium rate is projected to decline more slowly; the falls in actual unemployment are likely to be associated with some further modest reduction in the medium-term equilibrium rate.⁽¹⁾ By the end of the forecast period, the Committee's central projection is consistent with a medium-term equilibrium rate of 5¼%–5¾%, compared with a current estimate of 6%–6½%.

Some of the uncertainty about spare capacity relates to productivity. An array of influences have impeded productivity growth in recent years — with explanations ranging from the

(1) For more detail on measures of equilibrium unemployment, see the box on pages 28–29 of the August 2013 *Report*; www.bankofengland.co.uk/publications/Documents/inflationreport/2013/ir13aug.pdf.

The effect of slack on inflation

The MPC's projections are underpinned by a number of key judgements. These judgements are subject to uncertainty, so the Committee considers the risks surrounding them when forming its projections. A box in the February 2014 *Report* illustrated potential risks around the central view on productivity growth. This box illustrates some of the risks surrounding the Committee's judgement on the current margin of slack within the economy.

The central view of most MPC members is that spare capacity is probably in the region of 1%–1½% of GDP at present and that, by the forecast horizon, spare capacity is likely to be broadly absorbed. There is, however, a range of opinions on the Committee and considerable uncertainty around that central estimate of the present margin of slack, with risks in both directions.

This box explores two scenarios in which the current degree of slack is different from the MPC's central projection in order to illustrate how the judgement on slack affects the outlook.

- In the first scenario, there is a wider margin of slack: this is rationalised by assuming that those currently unemployed put more downward pressure on inflation than assumed in the central projection — that is, that the medium-term equilibrium unemployment rate is lower.
- In the second scenario, there is less slack: this is rationalised by assuming that companies are presently working at above normal levels of capacity.

The effects of these scenarios are estimated using the Bank's suite of forecasting models⁽¹⁾ and are conditioned on the assumption that market interest rates respond to macroeconomic developments as they have on average in the past. The scenarios discussed do not cover the full range of uncertainty about the margin of slack, nor are they the only sources of that uncertainty. For example, the medium-term equilibrium level of average hours may be higher or lower than estimated.

Scenario 1: lower medium-term equilibrium unemployment rate

In this scenario, the current margin of slack is wider than in the MPC's central projection because the medium-term equilibrium unemployment rate is assumed to have fallen more rapidly since unemployment began to decline from its peak in late 2011. As explained in the box on page 29, Bank staff's estimate of the medium-term equilibrium unemployment rate reflects a judgement that people who have been unemployed for some time put less downward pressure on wages because they are less likely to find jobs.

The rate at which the long-term unemployed have found work has, however, been around or above its pre-recession average in recent years. That suggests the equilibrium unemployment rate, which is based on pre-crisis average transition rates between unemployment and work, may be lower than currently estimated.

The scenario assumes that the medium-term equilibrium unemployment rate is presently around 5%, similar to Bank staff's central estimate of the long-term equilibrium rate, rather than the 6%–6½% implied by the starting point of the MPC's latest projections. That alternative path implies a current margin of slack that is around a percentage point wider than the MPC's central view of 1%–1½% of GDP.

The wider margin of slack at the start of the scenario means that inflationary pressures are lower than in the MPC's central projections. Companies face less pressure to raise pay, so wage growth is weaker. And, since the change in labour market slack does not affect the path of productivity, that results in lower unit labour cost growth.

Interest rates are assumed to respond to the reduction in inflationary pressures, and so are lower than in the MPC's central projection. That raises GDP growth; employment growth is stronger too, as businesses demand more labour to produce the additional output. As a result, unemployment falls more quickly than in the MPC's central projection (Table 1), so that the margin of slack in this scenario narrows to around ½% of GDP by the end of the forecast period.

Table 1 Modal paths for output growth, unemployment and inflation in the alternative scenarios for slack^(a)

Per cent	2014 Q1 ^(b)	Projections		
		2015 Q2	2016 Q2	2017 Q2
May 2014 <i>Inflation Report</i> central projection				
Four-quarter GDP growth	3.4	2.9	2.8	3.0
Unemployment rate	6.7	6.1	5.9	5.9
CPI inflation	1.7	1.7	1.9	2.0
Scenario 1: lower medium-term equilibrium unemployment rate				
Four-quarter GDP growth	3.4	3.0	2.9	3.0
Unemployment rate	6.7	5.8	5.6	5.5
CPI inflation	1.7	1.4	1.7	1.8
Scenario 2: higher capacity utilisation within companies				
Four-quarter GDP growth	3.4	2.2	2.4	3.0
Unemployment rate	6.7	6.2	6.1	6.0
CPI inflation	1.7	2.0	2.1	2.0

Sources: ONS and Bank calculations.

- (a) Data for four-quarter GDP growth are based on the mode of the MPC's backcast.
 (b) The figure for unemployment in 2014 Q1 is the Bank staff projection.

In total, these effects mean that annual CPI inflation is projected to be around ¼ percentage point lower throughout the forecast than in the MPC's central projection (**Table 1**).

Scenario 2: higher capacity utilisation within companies

In this scenario, the current margin of slack is narrower than in the MPC's central projection because companies' capacity utilisation is assumed to be well above normal. On average, survey indicators suggest that businesses are operating around normal levels of capacity, but some are close to record highs.

The scenario therefore assumes that capacity utilisation within companies is around 1% of GDP above normal at present, rather than close to normal as in the MPC's central projection. That alternative path implies that the overall margin of slack — which includes slack in the labour market as well as within companies — is negligible.

Inflationary pressures are stronger in the scenario than in the MPC's central projection. Since businesses' capacity utilisation is assumed to be above normal, they are working their existing resources harder. That raises unit cost growth — for example, because more needs to be spent on maintaining machinery and equipment.

As in the first scenario, interest rates respond to the change in inflationary pressure. In this scenario, they are higher than the market-implied path underlying the MPC's central projection. That reduces output growth and companies' labour demand.

In addition, the fact that capacity utilisation is higher at the start of the forecast period while output is unchanged implies that companies' underlying productive capacity is lower than in the central projection. That is assumed to bear down on actual productivity over the forecast, reducing GDP growth further. But that additional fall in GDP growth has relatively little effect on employment, because the lower level of productivity means that businesses require more staff to produce a given amount of output.

Overall, in this scenario GDP growth is lower than in the MPC's central projection, while unemployment is slightly higher

(**Table 1**). Those changes partially offset the upward pressure on inflation from the narrower margin of slack at the start of the forecast: the weaker path for output means capacity utilisation within companies falls back to normal levels over the forecast; and an increase in labour market slack associated with higher unemployment weighs on wage growth. As a result, CPI inflation is projected to be around ¼ percentage point higher in the first two years of the forecast than in the MPC's central projection (**Table 1**).

Conclusion

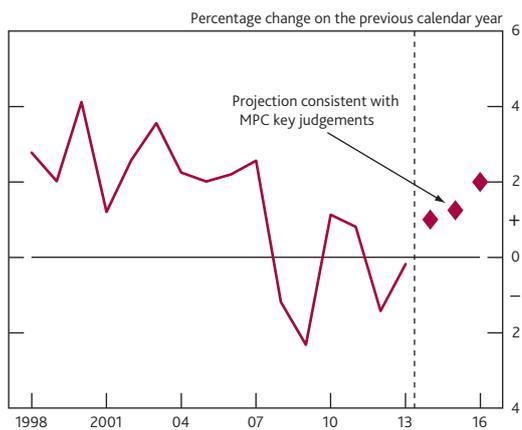
There is considerable uncertainty around the present margin of slack in the economy, with risks in both directions. The scenarios in this box illustrate how that margin of slack might affect the outlook for inflation: they suggest that if the current degree of slack were around 1 percentage point wider (or narrower) than assumed in the MPC's central projection, CPI inflation could be around ¼ percentage point lower (or higher) than projected.

The size of the change in CPI inflation in the two scenarios is similar, but not symmetric. Differences arise because the changes in slack in the two scenarios originate from different sources, implying that the economy has been subject to different shocks. In particular, the change in the assumption about current capacity utilisation implies that the hit to companies' underlying productive potential is greater than in the MPC's central projection, whereas the change in the assumption about the medium-term equilibrium unemployment rate has no implications for underlying productivity. So the effect of a change in slack on inflation depends on how that change has come about, as well as on the size of the change.

(1) The Bank's central forecasting model does not explicitly include the medium-term equilibrium unemployment rate or capacity utilisation within companies. So the scenarios presented in this box have been produced using judgement about which shocks would best capture the effects of the change in the initial margin of slack and evidence from a range of supporting models. In both scenarios, 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 *et al* (2013), 'The Bank of England's forecasting platform: COMPASS, MAPS, EASE and the suite of models', *Bank of England Working Paper No. 471*; www.bankofengland.co.uk/research/Documents/workingpapers/2013/wp471.pdf.

weakness of demand itself, to the difficulties faced by some companies in obtaining adequate bank financing.⁽¹⁾ In the central view, productivity growth picks up gradually as these influences wane (**Chart 5.6**). There is inevitably considerable uncertainty about the precise pace and timing of the anticipated rise in productivity growth. The faster the rate of

(1) See, for example, the box on page 33 of the November 2012 *Report*; www.bankofengland.co.uk/publications/Documents/inflationreport/ir12nov.pdf.

Chart 5.6 Productivity growth^(a)

Sources: ONS and Bank calculations.

(a) GDP per hour worked. GDP at market prices is based on the mode of the MPC's backcast.

productivity growth, the greater the scope for demand to expand without generating inflationary pressure.

More generally, there is uncertainty not only about the outlook for variables such as unemployment and average hours themselves, but also about their respective medium-term equilibrium rates. The box on pages 44–45 provides some scenarios that illustrate these uncertainties. These illustrative scenarios show how GDP growth, unemployment and inflation differ under different assumptions about the current margin of slack and its transmission through the economy.

Key Judgement 4: as the drag from slack lessens, the associated recovery in wage growth and margins is consistent with the inflation target

Spare capacity has depressed inflation throughout the post-crisis period, but this has been counterbalanced by external price pressures. Recently, those external pressures have begun to recede, and CPI inflation fell to 1.6% in March (Section 4). The Committee's central view assumes that, in the coming years, the drag on CPI inflation from slack lessens, and the associated recovery in wage growth and profit margins is consistent with the 2% target. The price-level effects associated with sterling's appreciation are assumed to put temporary downward pressure on inflation.

One set of risks relates to wages. Pay growth has stagnated for much of the post-crisis period, but is projected to rise steadily as productivity growth improves and labour market slack is gradually eroded. The assumed pace of recovery is fairly gentle, with wage growth remaining some way below its historical average of 4.5% or so in the central view. Uncertainties include the prospects for productivity and for labour market slack. There are also risks relating to the impact of the past weakness in wages. For example, companies may be more inclined to grant higher pay awards if they are concerned that protracted pressure on real incomes may undermine employees' morale and efficiency. Set against that is the risk that the weak growth in pay that has characterised the post-crisis period has become ingrained in employees' expectations.

Over the past year or so, profit margins appear to have moved higher despite the decline in inflation (Section 4). That has been facilitated by falling cost growth — subdued labour cost pressures have been accompanied by declines in fuel, raw material and import costs. The central view is consistent with a further gentle rise in margins: CPI inflation is steady, and cost growth remains subdued, reflecting not only the outlook for labour costs, but also the assumed evolution of the exchange rate and commodity prices.⁽¹⁾ Uncertainties include the nature

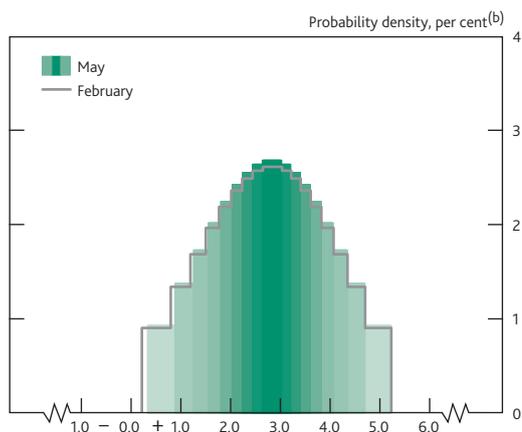
(1) The Committee's projections are conditioned on the assumptions that commodity prices follow market paths, and that the sterling effective exchange rate remains at around its level in the fifteen working day average to 7 May 2014 of 86.6, 1.1% above the February starting point. See www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14mayca.pdf.

Table 5.C Calendar-year GDP growth rates of the modal, median and mean paths^(a)

	Mode	Median	Mean
2014 ^(b)	3.4 (3.4)	3.4 (3.4)	3.4 (3.4)
2015	2.9 (2.7)	2.9 (2.7)	2.9 (2.7)
2016	2.8 (2.9)	2.8 (2.8)	2.8 (2.8)

- (a) The table shows the projections for calendar-year growth of real GDP consistent with the modal, median and mean projections for four-quarter growth of real GDP implied by the fan chart. 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. The numbers in parentheses show the corresponding projections in the February *Inflation Report*. The May and February 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.
- (b) The anticipated upward revisions to recent estimates of quarterly GDP growth has implications for calendar-year growth in 2014. For example, without the anticipated upward revisions to past GDP growth, the modal path of the Committee's May projections would imply calendar-year growth of 3.1% in 2014, rather than 3.4%.

Chart 5.7 Projected probabilities of GDP growth in 2016 Q2 (central 90% of the distribution)^(a)



- (a) Chart 5.7 represents the cross-section of the GDP growth fan chart in 2016 Q2 for the market interest rate projection. It has been conditioned on the assumption that the stock of purchased assets 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. The grey outline represents the corresponding cross-section of the February 2014 *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.

of company pricing strategies as the economy recovers. Companies may take advantage of the brightening outlook to push through larger price rises, for example; conversely, they may instead choose to lower prices temporarily to invest in building market share, perhaps facilitated by the easing in credit conditions. There are associated risks to margins, and hence CPI inflation, in both directions.

For import costs, there is uncertainty about the path of import prices themselves, and about their likely pass-through to CPI inflation. For example, the central view assumes that nearly all of the recent sterling appreciation is passed into consumer prices over the three-year forecast period. That is a little higher than the pass-through assumed in February, in part because of the persistence of the appreciation in the sterling exchange rate. The impact of this change in judgement is small: in the central view, annual CPI inflation is around 0.1 percentage point weaker in each of the next two years than would otherwise have been the case. Risks include the possibility that companies choose to absorb falls in import prices into their margins rather than pass them onto their customers.

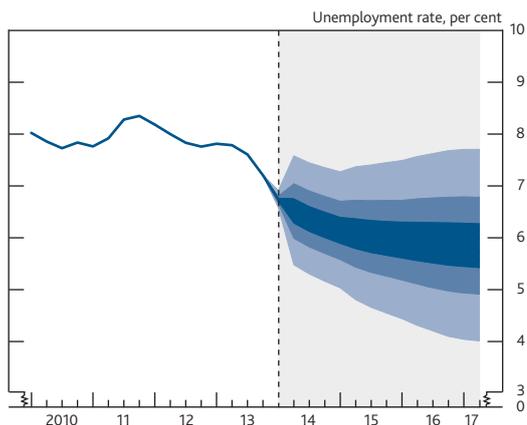
In recent years, CPI inflation has been boosted by a range of 'administered and regulated' prices, such as household energy bills and tuition fees. While these prices continue to exert upward pressure on CPI inflation in the early part of the forecast period, their impact is likely to be less pronounced than in the recent past. That mainly reflects a smaller contribution to domestic utility prices from non-energy costs in the light of Government and regulatory announcements. As in February, the central path for inflation embodies the assumption that there are no further rises in utility prices this year, and that utility prices rise by around 2½% in the second and third years of the forecast.

5.2 The projections for demand, unemployment and inflation

Based on these judgements, and the risks around them, the MPC anticipates that there will be steady four-quarter GDP growth for much of the forecast period. At present, it is likely that GDP growth is still being boosted by the initial adjustment to reduced uncertainty and easier credit conditions. That impetus is assumed to fade during 2014 (Table 5.C). Productivity and hence real incomes are projected to revive, however, allowing the expansion to move onto an increasingly firmer footing. Overall, the profile for growth is similar to that in February (Chart 5.7).

The risks to GDP growth are judged to be balanced in the near term, but are skewed a little to the downside in the latter part of the forecast period. That partly reflects global uncertainties, as well as the possibility that the recovery in UK business

Chart 5.8 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 unemployment would lie within the darkest central band on only 30 of those occasions. The fan chart is constructed so that outturns 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 2014 Q1, a quarter earlier than the fan for CPI inflation. That is because Q1 is a staff projection for the unemployment rate, based in part on data for January and February. The unemployment rate was 6.9% in the three months to February, and is projected to fall to 6.7% in Q1 as a whole.

Table 5.D Q4 CPI inflation

	Mode	Median	Mean
2014 Q4	1.8 (1.9)	1.8 (1.9)	1.8 (1.9)
2015 Q4	1.8 (1.8)	1.8 (1.8)	1.8 (1.8)
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 February *Inflation Report*. The May and February 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.

spending is less robust than in the central view. And there is uncertainty about the past evolution of GDP growth, as well as about the future. At present, the MPC judges that recent estimates of quarterly GDP growth are more likely to be revised up than down, in part reflecting strong survey indicators. That judgement is reflected in the 'backcast' fan to the left of the dashed line in **Chart 5.1**.⁽¹⁾

Since the previous *Report*, unemployment has fallen below the MPC's 7% threshold, and a further decline is in prospect (**Chart 5.8**). In the central path, the pace of that decline is slower than that in the recent past, however. That reflects the judgement that productivity growth is set to recover gradually, reducing companies' need to take on extra staff. As in February, the risks around this profile are judged to be broadly balanced.

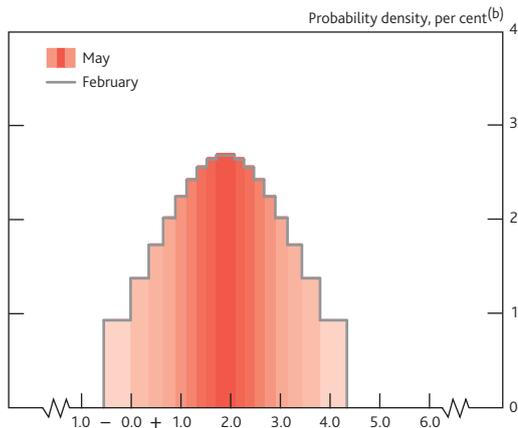
The outlook for productivity and unemployment affect the likely degree of slack in the economy, and hence inflation. It is likely that there has been a modest narrowing in the margin of spare capacity over recent months, broadly consistent with the central expectations in the February *Report*. The central view of most MPC members, however, is that spare capacity is probably still in the region of 1%–1½% of GDP. Looking ahead, the projected easing in the pace of the expansion, together with a modest revival in productivity growth, means that the rate at which spare capacity is absorbed should slow markedly. On the central projection, the margin of spare capacity is broadly closed only by the end of the forecast period.

The anticipated absorption of spare capacity means that, in the central view, the drag on CPI inflation from slack should lessen in the coming years. The associated recovery in wage growth and margins is, however, a fairly gradual one. External price pressures are assumed to be subdued: indeed, they reduce CPI inflation in the central view, reflecting the recent appreciation of sterling. Administered and regulated prices, such as tuition fees, are assumed to make a small upward contribution in the early years to the forecast, but have little impact further out. Taken together, these influences suggest CPI inflation is likely to remain close to, or a little below, the 2% target (**Table 5.D**). The near-term outlook is a little lower than in February, reflecting recent inflation outturns, but the profile thereafter is little changed (**Chart 5.9**). The risks around the inflation target are judged to be broadly balanced, as was the case three months ago.

The projections described above are conditioned on Bank Rate following a path implied by market interest rates, such that

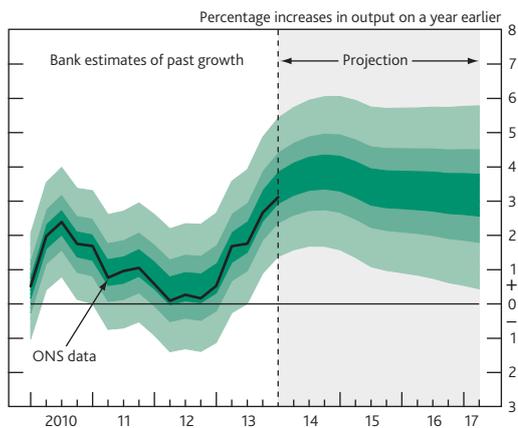
(1) The anticipated upward revisions to recent estimates of quarterly GDP growth has implications for projected four-quarter and calendar-year growth in 2014. For example, without the anticipated upward revisions to past GDP growth, the modal path of the Committee's projections would imply calendar-year growth of 3.1% in 2014, rather than 3.4%. See also **Table 5.C**.

Chart 5.9 Projected probabilities of CPI inflation in 2016 Q2 (central 90% of the distribution)^(a)



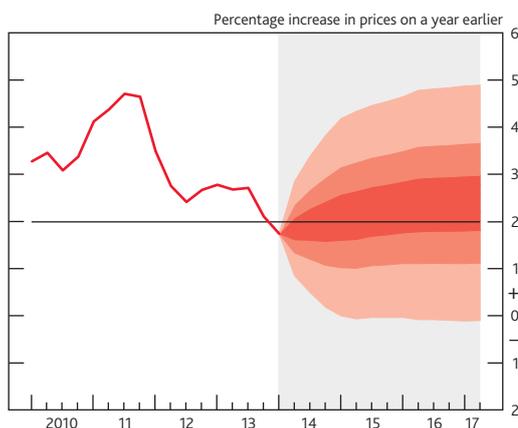
- (a) Chart 5.9 represents the cross-section of the CPI inflation fan chart in 2016 Q2 for the market interest rate projection. It has been conditioned on the assumption that the stock of purchased assets remains at £375 billion throughout the forecast period. The coloured bands in Chart 5.9 have a similar interpretation to those on the fan charts. Like the fan charts, they portray the central 90% of the probability distribution. The grey outline represents the corresponding cross-section of the February 2014 *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.

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



See footnote to Chart 5.1.

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.

Bank Rate rises in the first half of 2015, and reaches 2% by 2017. The MPC also considers projections based on constant Bank Rate. Under the constant rate assumptions,⁽¹⁾ four-quarter GDP growth is likely to remain above its historical average rate (Chart 5.10), while CPI inflation is likely to persist at a little above the 2% target (Chart 5.11).

5.3 The policy decision

The UK economy has performed strongly over the past year. Output is estimated to have grown by over 3% in the year to 2014 Q1. Inflation has fallen back close to the 2% target. And the unemployment rate has declined to its lowest level for over five years. Nevertheless, spare capacity remains and the MPC's current aim is to keep inflation close to the target, while supporting the economic expansion such that spare capacity is absorbed.

At its February meeting, the Committee noted that it was likely that its 7% unemployment threshold would be reached over the next few months and provided guidance on the subsequent setting of policy. At its May meeting, the Committee observed that the LFS unemployment rate had fallen to 6.9% in the latest data release and reaffirmed that guidance in order to achieve the inflation target over the policy horizon. A key feature of the guidance is that, given the likely persistence of the headwinds weighing on the economy, when Bank Rate does begin to rise, it is expected to do so only gradually. Moreover, the persistence of those headwinds, together with the legacy of the financial crisis, means that Bank Rate is expected to remain below average historical levels for some time to come.

At its May meeting, the Committee also noted that, conditioned on a gradual rise in Bank Rate, the economy appeared on course to absorb remaining spare capacity over the next few years, while keeping inflation close to the 2% target. The margin of spare capacity had probably narrowed slightly over recent months, but the central view of most MPC members was that it remained in the region of 1%–1½% of GDP. The Committee judged that there was scope to make further inroads into slack before an increase in Bank Rate was necessary.

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

(1) 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; that path is anticipated by businesses and households.

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 April.⁽¹⁾ On average, respondents expected four-quarter GDP growth of around 2.5% over the forecast period (Table 1), similar to expectations three months ago and below its historical average rate of 2¾%. On average, the LFS unemployment rate was expected to fall to 5.7% over the next three years, around 0.3 percentage points lower than at the time of the February Report. And respondents expected annual CPI inflation to be close to the 2% inflation target over the next three years, similar to expectations at the time of the February Report.

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

	2015 Q2	2016 Q2	2017 Q2
CPI inflation ^(b)	2.0	2.0	2.1
GDP growth ^(c)	2.6	2.5	2.4
LFS unemployment rate	6.4	5.9	5.7
Bank Rate (per cent)	0.8	1.6	2.4
Stock of purchased assets (£ billions) ^(d)	375	356	326
Sterling ERI	86.3	86.1	85.3

Source: Projections of outside forecasters as of 30 April 2014.

(a) For 2015 Q2, there were 29 forecasts for CPI inflation and GDP growth, 28 for Bank Rate, 27 for the unemployment rate, 20 for the stock of asset purchases and 16 for the sterling ERI. For 2016 Q2, there were 25 forecasts for CPI inflation and GDP growth, 24 for Bank Rate, 23 for the unemployment rate, 18 for the stock of asset purchases and 14 for the sterling ERI. For 2017 Q2, there were 24 forecasts for CPI inflation, GDP growth and Bank Rate, 22 for the unemployment rate, 18 for the stock of asset purchases and 14 for the sterling ERI.

(b) Twelve-month rate.

(c) Four-quarter percentage change.

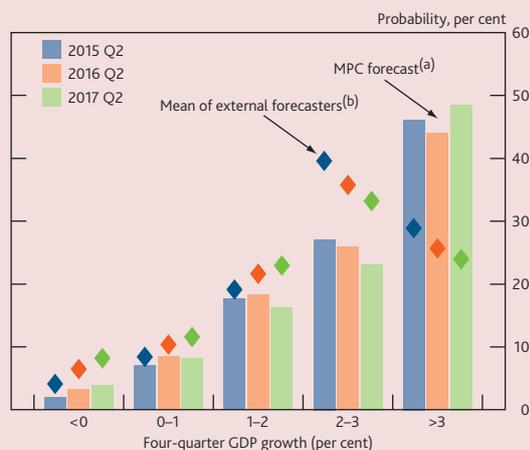
(d) Original purchase value. Purchased via the creation of central bank reserves.

External forecasters' expectations for four-quarter GDP growth were generally weaker than those of the MPC. At the one, two and three-year horizons external forecasters' average central expectation was for growth of around 2.5%, compared with the MPC's central expectation of around 3%. This reflects, on average, external forecasters placing less weight on GDP growth being above 3% than the MPC (Chart A). Despite expecting weaker GDP growth, external forecasters expect a similar LFS unemployment rate to the MPC at the end of the forecast period.

The average of respondents' central expectation for CPI inflation, of around 2% in 2017 Q2, was in line with the MPC's modal forecast. Most forecasters' central expectations were for inflation to lie close to the 2% inflation target (Chart B), but one or two forecasters expect inflation to be above 2.5%. On average, and in line with the MPC's fan chart, respondents viewed the risks around the target as broadly balanced.

Forecasters expected some tightening in the monetary stance over the forecast horizon, due to both a higher level of Bank Rate and a lower stock of purchased assets. On average, external forecasters' expectations for Bank Rate were broadly in line with the market yield curve. The stock of purchased assets was, on average, expected to fall by around £50 billion over the forecast period, with nearly three quarters of respondents expecting some decline. The Bank, for the first time, asked respondents about how they expected the stock of assets to decline. Those who expected some decline during the forecast horizon expected the Bank to stop reinvesting maturing gilts, and a minority of those also expected the MPC to sell some assets.

Chart A Frequency distribution of GDP growth

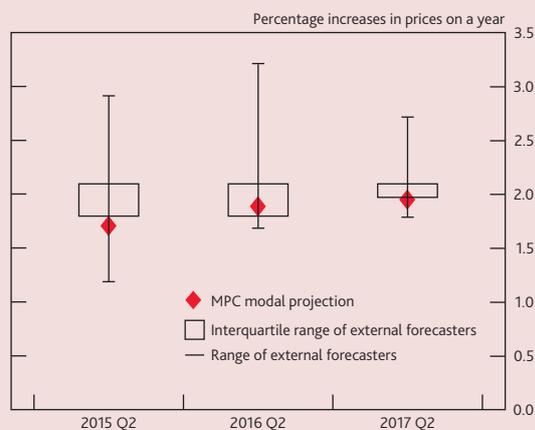


Source: Projections of outside forecasters as of 30 April 2014.

(a) The MPC's forecast distribution is derived from the same distribution as Chart 5.1. They represent the probabilities that the MPC assigns to GDP growth lying within a particular range at a specified time in the future.

(b) These represent the mean of external forecasters' expectations for the probability of GDP growth lying within a particular range. For 2015 Q2, 27 forecasters provided the Bank with their assessment of the likelihood of GDP growth falling in the ranges shown above. In 2016 Q2, 24 forecasters provided their assessment. In 2017 Q2, 23 forecasters provided their assessment.

Chart B Range of modal expectations for CPI inflation



Source: Projections of outside forecasters as of 30 April 2014.

(1) For the tables summarising the results see 'Other forecasters' expectations May 2014', available at www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14mayofe.pdf.

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Text of Bank of England press notice of 6 March 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*.

Also in the context of that guidance, the Committee agreed to reinvest the £8.1 billion of cash flows associated with the redemption of the March 2014 gilt held in the Asset Purchase Facility.

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

Text of Bank of England press notice of 10 April 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 at its meeting on 9 April 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 minutes of the meeting will be published at 9.30 am on Wednesday 23 April.

Text of Bank of England press notice of 8 May 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 at its meeting 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's latest economic projections will appear in the forthcoming *Inflation Report* to be published at 10.30 am on Wednesday 14 May.

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

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.

HICP – harmonised index of consumer prices.

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.

PMI – purchasing managers' index.

RPI – retail prices index.

RPI inflation – inflation measured by the retail prices index.

Abbreviations

APF – Asset Purchase Facility.

BCC – British Chambers of Commerce.

BLS – Bank Liabilities Survey.

CBI – Confederation of British Industry.

CCS – Credit Conditions Survey.

CEIC – CEIC Data Company Ltd.

CFO – chief financial officer.

CIPS – Chartered Institute of Purchasing and Supply.

CRE – commercial real estate.

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.

FX – foreign exchange.

GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.

HMRC – Her Majesty's Revenue and Customs.

IFS – Institute for Fiscal Studies.

IMF – International Monetary Fund.

MPC – Monetary Policy Committee.

MTIC – missing trader intra-community.

NIIP – net international investment position.

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.

SIC – Standard Industrial Classification.

SMEs – small and medium-sized enterprises.

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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