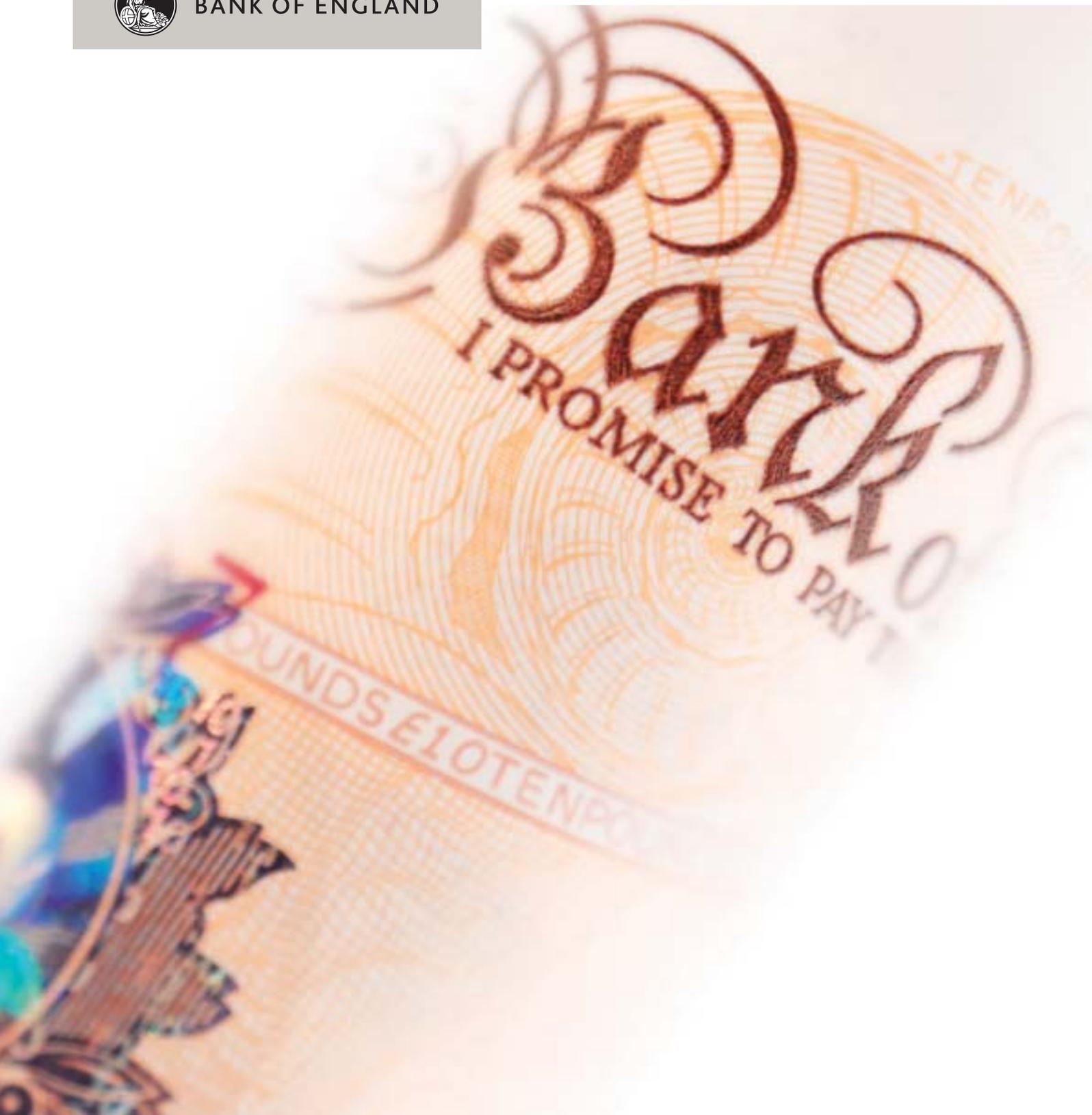


Inflation Report

February 2011



BANK OF ENGLAND





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

The *Inflation Report* is produced quarterly by Bank staff under the guidance of the members of the Monetary Policy Committee. It serves two purposes. First, its preparation provides a comprehensive and forward-looking framework for discussion among MPC members as an aid to our decision making. Second, its publication allows us to share our thinking and explain the reasons for our decisions to those whom they affect.

Although not every member will agree with every assumption on which our projections are based, the fan charts represent the MPC's best collective judgement about the most likely paths for inflation and output, and the uncertainties surrounding those central projections.

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

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Charles Bean, Deputy Governor responsible for monetary policy

Paul Tucker, Deputy Governor responsible for financial stability

Spencer Dale

Paul Fisher

David Miles

Adam Posen

Andrew Sentance

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

The entire *Report* is available in PDF at www.bankofengland.co.uk/publications/inflationreport/2011.htm.

PowerPoint™ versions of the charts in this *Report* and the data underlying most of the charts are provided at www.bankofengland.co.uk/publications/inflationreport/2011.htm.

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Overview

In the United Kingdom, CPI inflation rose further above the 2% target while output fell. Output was, however, temporarily affected by the heavy snowfall at the end of 2010 and growth appears likely to resume. The world economy grew further, although vulnerabilities remain. Expansionary monetary policy, combined with further growth in global demand and the past depreciation of sterling, should ensure that the recovery in the United Kingdom is maintained. But the continuing fiscal consolidation and squeeze on households' purchasing power are likely to act as a brake. After some near-term weakness, GDP growth is judged to be about as likely to be above as below its historical average rate. Even so, the depth of the recession means that some spare capacity is likely to persist over the forecast period.

CPI inflation is likely to pick up to between 4% and 5% in the near term and to remain well above the 2% target over the next year or so, reflecting in part the recent increase in VAT. The near-term profile is markedly higher than in November, largely reflecting further rises in commodity and import prices since then. Further ahead, inflation is likely to fall back, as those effects diminish and downward pressure from spare capacity persists. But both the timing and extent of that decline in inflation are uncertain. Under the assumptions that Bank Rate moves in line with market interest rates and the stock of purchased assets financed by the issuance of central bank reserves remains at £200 billion, the chances of inflation being either above or below the target in the medium term are judged to be broadly balanced.

Financial and credit markets

Since the November *Report*, the MPC has maintained Bank Rate at 0.5% and its stock of purchased assets at £200 billion. Market participants revised up their expectations of the near-term path of Bank Rate. The sterling effective exchange rate has been broadly stable over the past two years, and remains around 25% below its mid-2007 level. UK banks made further progress in refinancing maturing funding, but significant challenges remain. Credit conditions for smaller companies and households continued to be tight. Annual growth of both bank lending and broad money remained weak, as did indicators of housing market activity.

Demand

The solid recovery in global demand continued, driven largely by emerging economies. GDP in the United States expanded further in Q4, supported by strong consumption growth although significant headwinds remained. Within the euro area, Germany grew robustly in Q3, but activity remained weak in some parts of the euro-area periphery. UK exports have grown briskly over the past year and surveys pointed to further healthy growth in the near term.

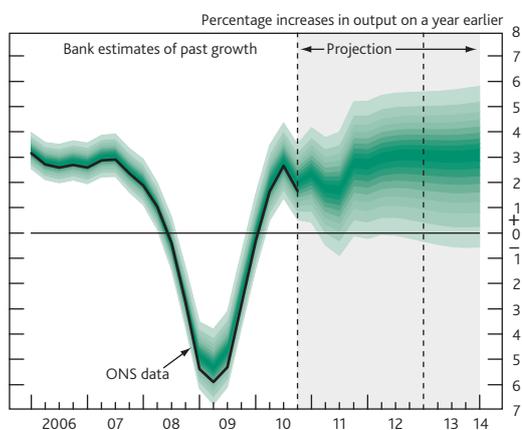
At home, private domestic demand grew robustly in the first three quarters of 2010, driven in part by a temporary boost from an end to the period of de-stocking. But fixed investment also increased strongly, partly financed from companies' substantial positive cash flows. And, abstracting from quarterly volatility, households' consumption grew at a moderate pace, despite stagnant real incomes. The impact of this strength in domestic demand on UK output was partly offset by rapid growth of imports.

A significant fiscal consolidation is in train. The Committee's projections are conditioned on the plans set out in the June *Budget* and the October *Spending Review*.

The outlook for GDP growth

GDP was provisionally estimated to have fallen by 0.5% in 2010 Q4. The ONS estimated that, without the disruption caused by heavy snow, output would have been broadly flat. Growth in 2011 Q1 is likely to be boosted as activity rebounds. But abstracting from the effects of snow, growth around the turn of the year appears likely to be somewhat weaker than expected in the November *Report*.

Chart 1 GDP projection based on market interest rate expectations and £200 billion asset purchases



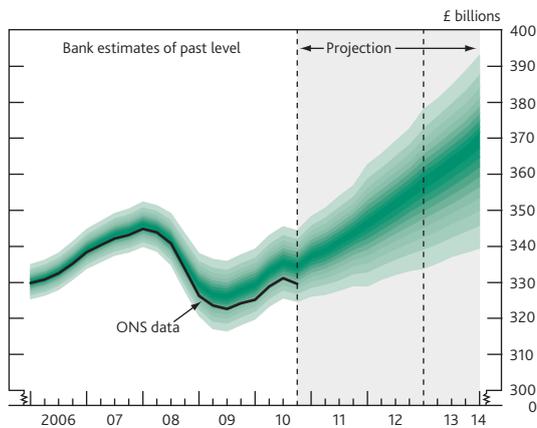
The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £200 billion throughout the forecast period. To the left of the first vertical dashed line, the distribution reflects the likelihood of revisions to the data over the past; to the right, it reflects uncertainty over the evolution of GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that the mature estimate of GDP growth would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outcomes are also expected to lie within each pair of the lighter green areas on 10 occasions. In any particular quarter of the forecast period, GDP is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions GDP growth can fall anywhere outside the green area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In Chart 1, the ratios of the probabilities in the lower bands to those in the upper bands are approximately 6:4 at Years 2 and 3; the downward skew is somewhat smaller at Year 1. See the box on page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents. The second dashed line is drawn at the two-year point of the projection.

Chart 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 financed by the issuance of central bank reserves remains at £200 billion. The projection for four-quarter growth is weaker than in November for much of 2011, following the weak data around the turn of the year. The considerable stimulus from monetary policy, together with a further expansion in world demand and the past depreciation of sterling, should support recovery by encouraging private sector spending and some rebalancing of the economy towards net trade. But the strength of the recovery is likely to be dampened by the fiscal consolidation and a continuing squeeze on households' purchasing power from the effects of higher commodity prices and a persistent impact of the recession on productivity and hence wages.

The outlook for growth remains highly uncertain. Private domestic demand could grow rapidly, for example if some businesses choose to use some of their cash balances to increase investment. But there are significant downside risks to private demand, especially to household spending. In particular, uncertainty about the impact of the fiscal consolidation and restrictions on the availability of credit might cause consumption to grow more slowly than real disposable incomes. The improvement in net trade will depend on the vigour of the global recovery and the degree of rebalancing prompted by sterling's past depreciation.

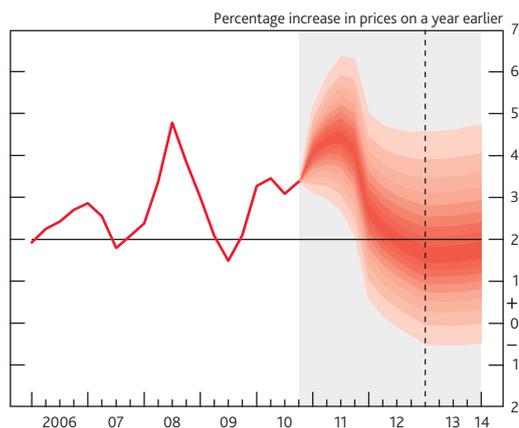
There remains a wider than usual range of views among Committee members about the outlook for growth. The Committee continues to judge that relative to the most likely

Chart 2 Projection of the level of GDP based on market interest rate expectations and £200 billion asset purchases



Chained-volume measure (reference year 2006). See the footnote to Chart 1 for details of the assumptions underlying the projection for GDP growth. The width of this fan over the past has been calibrated to be consistent with the four-quarter growth fan chart, under the assumption that revisions to quarterly growth are independent of the revisions to previous quarters. Over the forecast, the mean and modal paths for the level of GDP are consistent with Chart 1. So the skews for the level fan chart have been constructed from the skews in the four-quarter growth fan chart at the one, two and three-year horizons. This calibration also takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to GDP growth in one quarter will continue to have some effect on GDP growth in successive quarters. This assumption of path dependency serves to widen the fan chart.

Chart 3 CPI inflation projection based on market interest rate expectations and £200 billion asset purchases



The fan chart depicts the probability of various outcomes for CPI inflation in the future. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £200 billion throughout the forecast period. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any particular quarter would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outturns of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. In any particular quarter of the forecast period, inflation is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions inflation can fall anywhere outside the red area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In Chart 3, the ratios of the probabilities in the lower bands to those in the upper bands are approximately 4.6 at Years 2 and 3. The upward skew at Year 1 is smaller. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed line is drawn at the two-year point.

path — which lies within the darkest band in Chart 1 — the risks to growth are skewed to the downside. Taking that skew into account, the Committee's best collective judgement is that GDP growth is about as likely to be above its historical average rate as below it in the medium term.

Chart 2 shows the distribution for the level of GDP corresponding to the Committee's growth projection. It is likely that some spare capacity will persist throughout the forecast period. The distribution for the level of GDP is somewhat lower than in November, reflecting the weakness of output around the turn of the year and the higher assumed path for Bank Rate.

Costs and prices

CPI inflation rose to 3.7% in December. That elevated level of inflation reflects the temporary impacts of three factors: increases in the standard rate of VAT; higher energy prices; and higher import prices. The degree of pass-through of the January 2011 VAT change is likely to be greater than in 2010, implying a further boost to CPI inflation. Energy and other commodity prices are also likely to raise inflation in the near term, as the effects of large price increases over the past six months or so work through the supply chain.

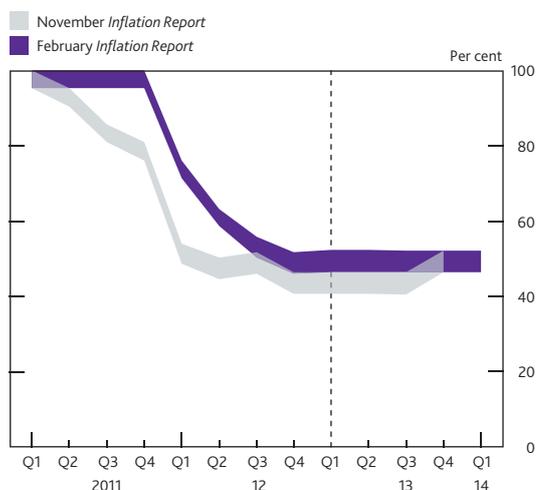
Several indicators of companies' and households' near-term inflation expectations increased. But the increases in these measures since the start of 2010 are broadly in line with the upward revision to the MPC's view of near-term inflation. Measures of households' medium-term expectations also rose, but both those of professional forecasters and those implied by market prices moved by less.

Indicators of the degree of spare capacity within companies continued to give differing signals. Labour productivity remained well below the level it would have reached if it had risen in line with its pre-crisis trend, perhaps suggesting a substantial amount of underutilised capacity. But survey measures of capacity utilisation and a pickup in capital expenditure by companies during the first three quarters of 2010 pointed to a more limited amount of spare capacity. In the labour market, the elevated unemployment rate continued to suggest a sizable degree of slack. Private sector earnings growth picked up a little, but remained subdued relative to past experience. Information on settlements suggested that a further modest pickup was likely in coming months.

The outlook for inflation

Chart 3 shows the Committee's best collective judgement for the outlook for CPI inflation, based on the same assumptions as Chart 1. Inflation is likely to pick up to between 4% and 5% in the near term, and to remain well above the 2% target throughout 2011, boosted by the increase in VAT, higher energy and import prices, and some rebuilding of companies'

Chart 4 An indicator of the probability inflation will be above the target



The February and November swathes in this chart are derived from the same distributions as **Chart 3** and **Chart 5.4** on page 41 respectively. They indicate the assessed probability of inflation being above target in each quarter of the forecast period. The width of the swathe at each point in time corresponds to the width of the band of the fan chart in which the target falls in that quarter, or, if the target falls outside the coloured area of the fan chart, the width of the band closest to the target. The bands in the fan chart illustrate the MPC's best collective judgement that inflation will fall within a given range. The swathes in **Chart 4** show the probability within the entire band of the corresponding fan chart of inflation being close to target; the swathes should not therefore be interpreted as a confidence interval. The dashed line is drawn at the two-year point of the February projection. The two-year point of the November projection was one quarter earlier.

margins. The projection over the first part of the forecast period is markedly higher than in November, due largely to the recent increases in the prices of commodities and other imported goods and services. Further ahead, inflation is likely to fall back as those effects wane and downward pressure on wages and prices from the margin of spare capacity persists. The extent of that fall is likely to be moderated by companies continuing to rebuild their margins and some upward drift in inflation expectations.

The prospects for inflation in the medium term are highly uncertain. Continued strong global growth may lead to further upward pressure on commodity and other import prices. The degree of spare capacity and its impact on inflation will depend on: the strength of demand; the impact of the recession on potential productivity; the performance of the labour market; and the sensitivity of wages to labour market slack. The profile for domestically generated inflation will also depend on the extent and pace of any rebuilding of companies' margins. And inflation will be higher, the more that elevated outturns cause expectations of inflation to rise and that feeds through into wage and price-setting.

There remains a wider than usual range of views among Committee members over the outlook for inflation. On balance, the Committee judges that, based on the monetary policy assumptions described above, the most likely outcome is that inflation will fall a little below the target in the second half of the forecast period, but the risks around that most likely outcome are skewed to the upside. Taking that skew into account, the Committee's best collective judgement is that the chances of inflation being either above or below the 2% inflation target in the medium term are broadly equal (**Chart 4**).

The policy decision

At its February meeting, the Committee judged it likely that growth would resume and that inflation would remain well above the target for the next year or so. Under the assumption that Bank Rate rose in line with market yields, inflation was likely to fall back to around the target in the medium term, as the temporary impact of the factors currently raising inflation waned and some downward pressure from a margin of spare capacity persisted. But both the extent and timing of that fall were uncertain. In the light of that outlook, the Committee judged it appropriate at that meeting to maintain Bank Rate at 0.5% and the stock of asset purchases at £200 billion, in order to meet the 2% CPI inflation target over the medium term.

1 Money and asset prices

The MPC maintained Bank Rate at 0.5% and the stock of purchased assets financed by the issuance of central bank reserves at £200 billion. Since the November *Report*, market participants have revised up their near-term expectations for Bank Rate and expectations of further asset purchases have fallen. Government bond yields have increased since the November *Report*, but are still close to historic lows. UK banks raised a significant amount of funding in 2010, but challenges remain in the years ahead. Credit conditions for large companies improved during 2010. Conditions for smaller companies and for households remained restrictive. Housing market activity continued to be subdued.

Since the November *Report*, market participants have revised up their near-term expectations for Bank Rate. UK government bond yields moved higher, in part as a consequence of changing market expectations of the monetary policy outlook (Section 1.1). In some euro-area periphery countries, government bond yields remained elevated, reflecting concerns about their fiscal and banking sector positions.

The UK banking sector raised a significant amount of funding in 2010, but challenges remain in the years ahead (Section 1.2). During 2010, credit conditions for large companies improved. Conditions for smaller companies remained restrictive. Over the same period, secured credit availability to households increased a little, but unsecured credit availability declined in 2010 Q4 (Section 1.3). Broad money growth is still below pre-crisis rates (Section 1.4).

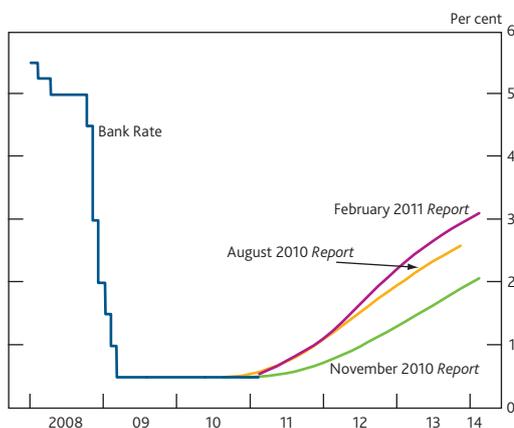
1.1 Financial markets

UK monetary policy

The MPC maintained Bank Rate at 0.5% and the stock of purchased assets financed by the issuance of central bank reserves remained at £200 billion. The reasons behind the MPC's decisions in December and January are discussed in the box on page 10.

Market participants' interest rate expectations for the next three years, implied by overnight index swap (OIS) rates, were higher in the fifteen working days to 9 February than at the time of the November *Report* (Chart 1.1). The next rise in Bank Rate was expected to be a little earlier, and rates were expected to rise somewhat faster thereafter — compared with three months ago, rates were expected to be around 1 percentage point higher by 2013. According to the latest Reuters survey of economists, only 9% of respondents expected further asset purchases, compared with around 50% in the corresponding survey conducted in October.

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



Sources: Bank of England and Bloomberg.

(a) The August 2010, November 2010 and February 2011 curves are estimated using overnight index swap (OIS) rates in the fifteen working days to 4 August 2010, 3 November 2010 and 9 February 2011 respectively.

Monetary policy since the November Report

The MPC's central projection for GDP growth in the November Report, under the assumptions that Bank Rate followed a path implied by market interest rates and that the stock of purchased assets financed by the issuance of central bank reserves remained at £200 billion, was for the recovery in output to be maintained. Under the same assumptions, the MPC's central projection was for CPI inflation to remain above the 2% target throughout 2011, before falling back to below the target during the second half of the forecast period.

There had been little news to affect the most likely path for near-term GDP growth in the month leading up to the MPC's meeting on 8–9 December. Indicators suggested that the UK economy had been growing at around, or a little above, its historical average rate during the second half of 2010. On balance, data on global activity had been broadly as expected and pointed towards continued firm, if geographically unbalanced, growth. There had been a modest tightening in UK monetary conditions resulting from the rise in the sterling effective exchange rate and in bond yields.

Near-term inflation prospects had increased again. CPI inflation had risen to 3.3% in November. Commodity prices had risen substantially over recent months, and there were signs of increased inflationary pressures from strong growth in the world economy. There were also signs that UK households' inflation expectations had risen. Nonetheless, available indicators of businesses' expectations and those inferred from financial markets had remained stable. And it was encouraging that earnings growth had remained moderate.

As had been the case for some months, there were two opposing risks to the outlook for inflation in the medium term. On the downside, there was a risk that private sector demand would not strengthen sufficiently to erode the substantial margin of spare capacity. That could cause inflation to fall significantly below the 2% target in the medium term. On the upside, there was the risk that a prolonged period of above-target inflation could cause inflation expectations to move up.

For most members, the balance of risks had not changed sufficiently over the month to warrant a change in policy. One member continued to take the view that a further expansion in the Committee's programme of asset purchases was necessary to prevent a significant margin of spare capacity acting to push inflation well below target in the medium term. Another member continued to take the view that a gradual withdrawal of monetary stimulus by raising Bank Rate was justified by recent economic developments and would help to reinforce the expectation that inflation would fall back to the target in the medium term.

Seven members of the Committee voted to maintain the current stance of monetary policy. One member voted to increase the size of the asset purchase programme by £50 billion to a total of £250 billion. Another member voted to increase Bank Rate by 25 basis points.

At the time of the MPC's meeting on 12–13 January, the recovery in the United Kingdom and overseas remained broadly as expected. Abstracting from temporary effects, indicators had remained consistent with UK growth at around its historical average rate in the second half of 2010 and early 2011. CPI inflation had risen to 3.7% in December from 3.3% in the previous month. Inflation had generally exceeded the Committee's expectations in recent months. But the key consideration for monetary policy was the likely rate of inflation in the medium term, and the balance of risks around it.

On the one hand, recent developments in the prices of imported commodities and other goods indicated that the near-term path of inflation was likely to be materially higher than the Committee had thought at the time of the November Report; this could have an impact on the public's inflation expectations.

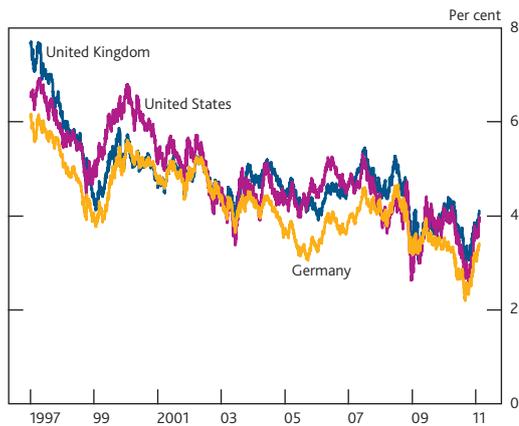
On the other hand, the upward pressure from the past depreciation of sterling and increases in VAT and energy prices could more than account for the current deviation of inflation from the 2% target. That suggested that a margin of spare capacity had exerted downward pressure on inflation, and would continue to do so while demand growth remained insufficient to reduce that margin materially. Moreover, sizable downside risks to demand remained.

There was a spectrum of views among members about the weight to place on these risks. For most, recent developments implied that the risks to inflation in the medium term had probably shifted upwards. For some of those, the decision was finely balanced. The February Report would provide an opportunity to evaluate thoroughly the risks to inflation in the medium term. For two members, the evidence suggested that the balance of risks was already sufficiently clear to warrant an immediate increase in Bank Rate. But for one member, the balance of risks to inflation continued to warrant an expansion of monetary policy, because it was likely that inflation would fall to below the target in the medium term.

Six members of the Committee voted to maintain the current stance of monetary policy. Two members voted for an increase in Bank Rate of 25 basis points. One member voted to increase the size of the asset purchase programme by £50 billion to a total of £250 billion.

At its meeting on 9–10 February, the Committee voted to maintain Bank Rate at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £200 billion.

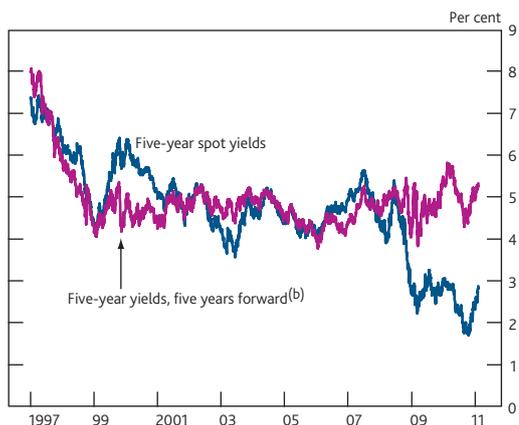
Chart 1.2 International ten-year spot government bond yields^(a)



Sources: Bloomberg and Bank calculations.

(a) Zero-coupon yield.

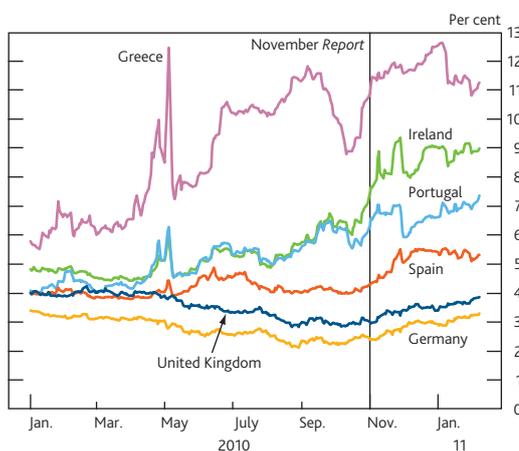
Chart 1.3 UK five-year nominal spot gilt yields and five-year yields, five years forward^(a)



Sources: Bloomberg and Bank calculations.

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

Chart 1.4 Selected European ten-year spot government bond yields^(a)



Sources: Bloomberg and Bank calculations.

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

Government bonds

UK ten-year spot government bond yields have risen since the *November Report*, largely reversing the decline seen through much of 2010 (**Chart 1.2**). But bond yields remained below their pre-crisis levels, reflecting significantly lower five-year spot rates. In contrast, forward rates between five and ten years ahead were at similar levels to those seen before the financial crisis (**Chart 1.3**).

Movements in UK five-year spot rates, in part, reflect changes in market participants' views on the prospects for monetary policy. Expansionary monetary policy has pushed down bond yields in recent years, and the recent small increase in five-year spot rates is consistent with market participants revising upwards their view of the future path of Bank Rate (**Chart 1.1**). Bond yields have also increased somewhat in the United States and Germany (**Chart 1.2**). That too is likely to be related, at least in part, to expected policy developments. In the United States and the euro area, two year ahead OIS rates, indicators of expected policy rates, have risen since the *November Report*.

Nominal bond yields between five and ten years ahead are likely to reflect a number of factors including: the real risk-free rate — which will be affected by the balance between global saving and investment; investors' perceptions of the risk associated with holding sovereign debt; and market participants' views on future inflation (Section 4).

In contrast to bond yields in the United Kingdom, the United States and Germany, yields in some euro-area periphery countries remained elevated (**Chart 1.4**), and well above pre-crisis levels. That reflected market concerns about sovereign and banking sector debt. The implications for UK banks of an escalation in financial market stress are discussed in Section 1.2. The implications for euro-area activity are discussed in Section 2.

Corporate bonds and equities

Non-financial companies' bond yields have risen along with government bond yields since the *November Report*; spreads over government bond yields have been little changed (**Chart 1.5**). Looking through recent small movements, although corporate bond yields are below pre-crisis levels, spreads remain somewhat elevated. That may in part reflect cyclical factors, but to the extent that it reflects a persistent reassessment of the risks associated with holding corporate bonds, spreads may be expected to stay above pre-crisis levels.

The FTSE All-Share index continued to recover from its trough in 2009 and was around 5% higher in the fifteen working days to 9 February than at the time of the *November Report*. Equity prices also increased in other major advanced economies over the same period (**Chart 1.6**). In the run-up to the February *Report*, the FTSE All-Share index stood around 10% below its 2007 peak.

Chart 1.5 Non-financial companies' sterling investment-grade corporate bond spread and yield^(a)



Source: Bank of America/Merrill Lynch.

(a) Excludes utility companies.

(b) Option-adjusted spread over equivalent-maturity government bonds.

Chart 1.6 International equity prices^(a)



Source: Thomson Reuters Datastream.

(a) In local currency terms.

Chart 1.7 International nominal effective exchange rates



Exchange rates

Between the November and February *Reports*, the sterling effective exchange rate index (ERI) appreciated by 2% (**Chart 1.7**). Over the same period, the euro ERI depreciated by around 3% and the US dollar ERI was broadly unchanged. The sterling ERI has been broadly stable over the past two years, and remains around 25% lower than in mid-2007.

1.2 The banking sector

The sustainability and strength of the recovery in the UK economy will depend, in part, on developments in the banking system. Banks' capital and funding positions affect their ability to lend and the terms under which that lending is carried out.⁽¹⁾ In turn, the availability and cost of bank credit influence households' and companies' spending decisions.

Capital

UK banks improved their capital positions during 2010 H1. That mainly reflected an increase in profitability, which allowed them to increase retained earnings. Profitability has been supported by reduced impairment charges. Lenders responding to the Bank's *Credit Conditions Survey* reported that default rates on most types of loans to households and companies had declined in 2010, although they had increased on loans to small companies. And discussions with lenders suggested that corporate write-offs, an indicator of losses, were lower, or in line with, expectations during 2010.⁽²⁾

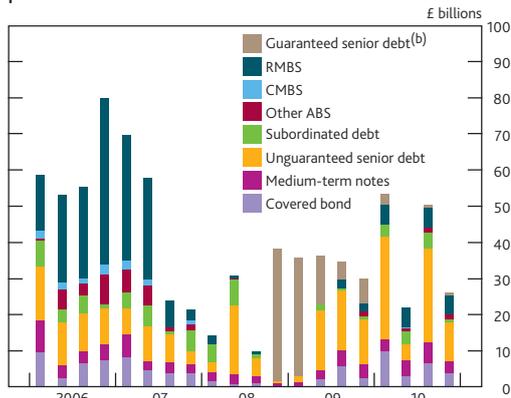
Developments in the commercial real estate sector — which accounts for around half of the stock of all loans by UK-resident lenders to UK private non-financial corporations (PNFCs) — will have important implications for banks' balance sheets. Commercial property values remain around 35% below their mid-2007 peak. And although values of prime property have increased over the past year, values of non-prime property, which account for the majority of UK banks' exposures, have seen little recovery.

The Property Industry Alliance, a cross-industry group representing the commercial property industry, estimates that in mid-2010, a significant proportion of commercial property loans issued since 2004 were in breach of loan to value ratio agreements. To date, banks have limited their realised losses on commercial property by extending maturing loans, provided the loans were being serviced. But if borrowers become unable to service their loans — for example if rental incomes fall or interest rates increase — that could lead to losses being realised. Banks have, however, made provisions against future losses on commercial property, and so the

(1) The outlook for the UK banking sector is discussed in detail in the December 2010 *Financial Stability Report*.

(2) See the January 2011 *Trends in Lending*.

Chart 1.8 Term issuance by the major UK lenders in public markets^(a)

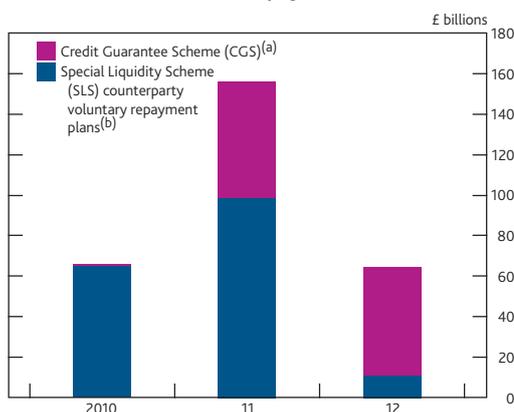


Sources: Bank of England, Dealogic and Bank calculations.

(a) Data are as at end-January 2011. Data are shown at a quarterly frequency, the final observation is 2010 Q4. Includes debt issued by Banco Santander, Bank of Ireland, Barclays, Co-operative Financial Services, HSBBC, Lloyds Banking Group, National Australia Bank, Nationwide, Northern Rock and RBS. Term issuance refers here to securities with an original contractual maturity or earliest call date of at least 18 months. It includes subordinated lower Tier 2 and Tier 3 capital instruments with debt features.

(b) Senior debt issued under HM Treasury's Credit Guarantee Scheme.

Chart 1.9 SLS and CGS repayment schedules

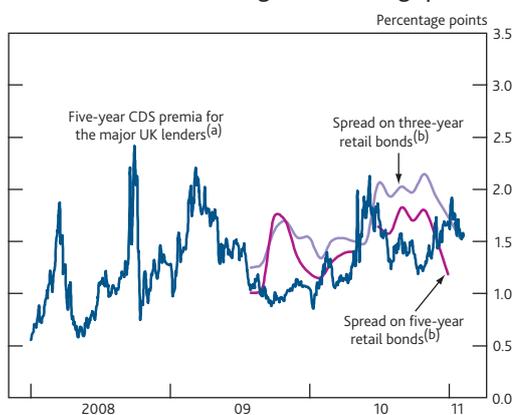


Sources: Bank of England, Dealogic, Debt Management Office and Bank calculations.

(a) CGS data are derived from the end-November 2010 position. Data for 2010 show the outstanding CGS data that were due to mature between 1 December 2010 and 31 December 2010. Data for all years are for a subset of banks covered by the scheme. The subset corresponds to the *Financial Stability Report's* major UK banks peer group (see footnote (1) on page 36 of the December 2010 *Financial Stability Report* for more details on the UK banks peer group).

(b) For 2010, this shows actual SLS repayments made by end-November 2010. For 2011 and 2012, data are based on voluntary repayment plans.

Chart 1.10 Indicative long-term funding spreads



Sources: Bank of England, Markit Group Limited, Thomson Reuters Datastream and Bank calculations.

(a) The data show a weighted average of the CDS premia (at five-year maturity) of the major UK lenders, weighted by each bank's share in total assets.

(b) Sterling only. Spread over the relevant swap rate. The three-year and five-year retail bond rates are weighted averages of rates from banks and building societies within the Bank of England's normal quoted rate sample with products meeting the specific criteria (see www.bankofengland.co.uk/mfsd/iadb/notesiadb/household_int.htm). The series for the five-year bond is not published for May 2010 and January 2011 as only two or fewer institutions in the sample offered products in that period.

impact of any future losses on banks' balance sheets will depend on the extent to which those provisions prove sufficient.

To date, market concerns about the fiscal and banking sector positions in peripheral euro-area countries appear to have had a limited impact on the UK banking system. As a proportion of their assets, UK banks' direct exposure to the sovereign and banking sector debt of those countries is limited. But UK banks do have significant exposures to households, corporates and banks in the euro area as a whole. So if heightened market concerns led to a weakening in economic conditions in the euro area, that could lead to higher losses for UK banks,⁽¹⁾ and aggravate the funding challenge facing banks in the United Kingdom and elsewhere.

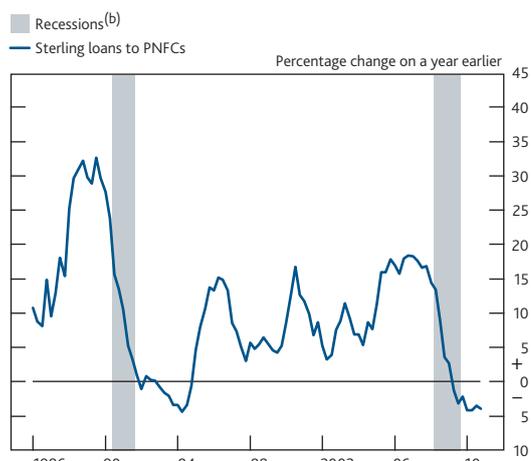
Funding

Investors' perceptions of banks' capital positions will be a key influence on the cost and availability of funding for banks. Major UK lenders issued around £150 billion of term debt in public markets in 2010 (as indicated in **Chart 1.8**). That was similar to the amount issued in 2009. But a significant amount of issuance in 2009 was government-guaranteed debt, which was not the case in 2010. In addition to funds raised in public markets, contacts reported that private markets had been an important source of funding for banks, with around £70 billion raised in 2010. Overall, many of the major UK banks reported that they had achieved, and in some cases exceeded, their term issuance plans for 2010.

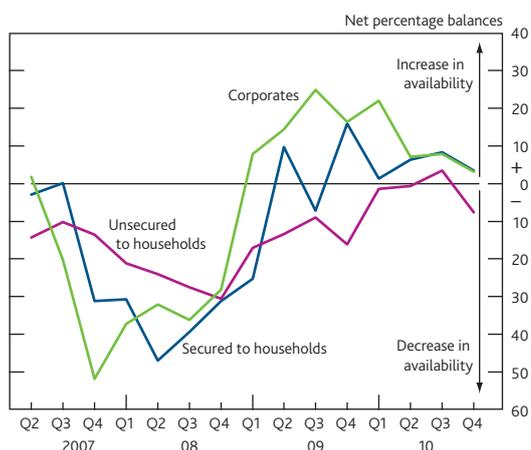
A significant funding challenge nonetheless remains for UK banks. Coinciding with the expiry of public support schemes (**Chart 1.9**), the amount of funding maturing in 2011 is higher than in 2010. In total, including funding supported by the public support schemes, around £400 billion to £500 billion of wholesale term debt is due to mature by the end of 2012. In January 2011, UK banks issued around £20 billion of debt in public markets. That compared with average monthly issuance of around £13 billion in 2010.

Indicators of banks' funding costs have been mixed since the November *Report*. Major UK banks' five-year credit default swap (CDS) premia — moves in which would typically be associated with changes in longer-term funding costs — are a little higher than at the time of the November *Report* (**Chart 1.10**). Three-month Libor has been broadly stable. Spreads on retail deposits — such as those over equivalent-maturity swap rates — have fallen back over recent months (**Chart 1.10**).

(1) For a detailed discussion, see the box on pages 30–31 of the December 2010 *Financial Stability Report*.

Chart 1.11 Sterling loans to PNFCs^(a)

(a) M4 lending excluding the effects of securitisations and loan transfers.
 (b) Recessions are defined as at least two consecutive quarters of falling output (at constant market prices). Recessions are assumed to end once output began to rise.

Chart 1.12 Credit Conditions Survey: credit availability^(a)

(a) Weighted responses of lenders. A positive balance indicates that more credit was available over the past three months.

Table 1.A PNFCs' equity and debt issuance^(a)

£ billions	Averages		2010			
	2003–08	2009	Q1	Q2	Q3	Q4
Equities						
Net issuance	-0.7	2.6	0.6	1.5	0.0	0.4
Gross issuance	0.8	2.7	0.8	1.8	0.3	0.9
Repayments	1.5	0.0	0.2	0.3	0.3	0.4
Corporate bonds^(b)						
Net issuance	1.1	1.5	0.5	-1.2	0.1	-0.3
Gross issuance	2.6	4.3	2.4	1.4	1.7	2.0
Repayments	1.5	2.8	2.0	2.6	1.6	2.3
Commercial paper						
Net issuance	0.0	-0.6	0.5	0.1	-0.6	-0.4
Gross issuance	4.4	3.3	3.0	2.0	2.4	1.5
Repayments	4.4	3.9	2.6	1.8	3.0	1.9

(a) Averages of monthly flows of sterling and foreign currency funds. Due to rounding, net issuance may not equal gross issuance minus repayments. Data are non seasonally adjusted.
 (b) Includes stand alone and programme bonds.

1.3 Credit conditions

Credit conditions for large companies have improved over the past year. Credit conditions for smaller companies and for households appear to remain tighter than before the onset of the financial crisis.

Corporate credit conditions

Bank lending to UK companies remained weak at the end of 2010 (Chart 1.11). Lenders responding to the *Credit Conditions Survey* suggested that credit availability had improved somewhat over the past year (Chart 1.12), with improvements reported for credit made available to small, medium-sized and large companies. But while spreads on lending to large companies were reported to have fallen over the same period, spreads on lending to small businesses were little changed.

Moreover, reports from the Bank's Agents suggest that credit conditions for small companies generally remain tight, both in terms of cost and availability. Data from the Department for Business, Innovation and Skills suggest that the stock of lending to small and medium-sized enterprises continued to contract in the second half of 2010.

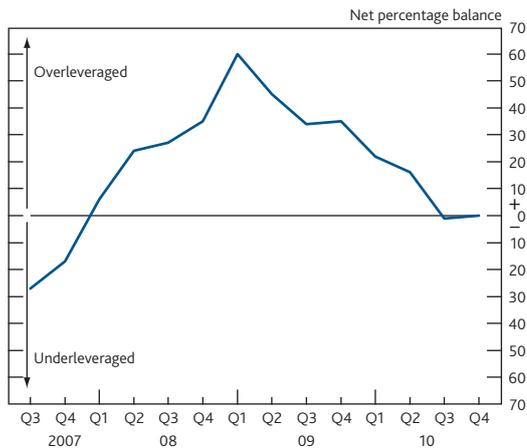
Larger companies have easier access to finance through bond and equity markets, and during the recession they made use of such finance. For example, gross corporate bond issuance was very strong in 2009 (Table 1.A), as companies switched from bank to non-bank finance. In addition, some companies issued equity or reduced share buybacks (Table 1.A). Equity issuance is likely to have been aimed at reducing leverage — the ratio of debt to assets. A majority of chief financial officers responding to the *Deloitte CFO Survey*, a survey of large companies, thought that UK companies' balance sheets were, on average, overleveraged during 2009, but in 2010 Q4 leverage was regarded as being appropriate (Chart 1.13). Gross corporate bond and gross equity issuance returned to around their pre-crisis averages in 2010.

Household credit conditions and the housing market

Growth in the total stock of loans to individuals remained weak during 2010 (Chart 1.14). That reflected weakness in both secured lending, which accounts for around 85% of the stock of household debt, and also unsecured lending.

The three-month annualised growth rate of unsecured lending picked up very slightly at the end of 2010 (Chart 1.14). Lenders' responses to the *Credit Conditions Survey* suggested that the availability of unsecured credit had been broadly unchanged through most of 2010, and fell slightly in 2010 Q4 (Chart 1.12). Quoted interest rates on unsecured loans, such as those on personal loans, remained higher than in the years preceding the financial crisis, despite the lower level of Bank Rate (Chart 1.15). The demand for unsecured lending

Chart 1.13 Deloitte CFO Survey: view on leverage of companies' balance sheets^(a)



Source: Deloitte.

(a) A positive balance indicates that respondents consider UK corporate balance sheets to be overleveraged.

Chart 1.14 Loans to individuals

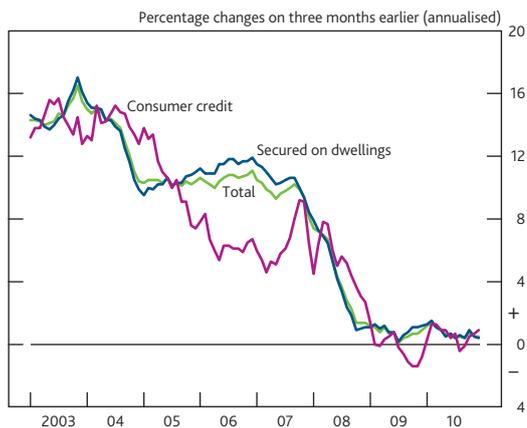
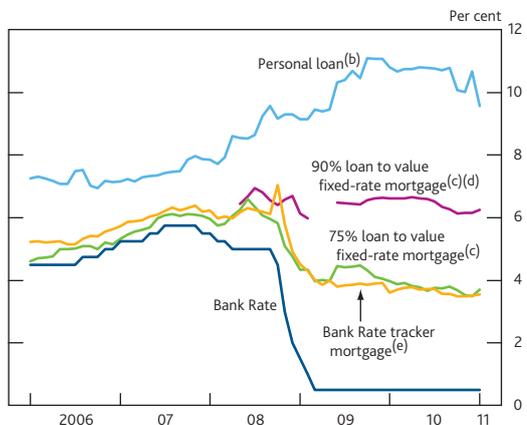


Chart 1.15 Bank Rate and average quoted interest rates on new household borrowing^(a)



(a) Sterling-only end-month average quoted rates. The Bank's quoted interest rates series are currently compiled using data from up to 23 UK monetary financial institutions. The data are non seasonally adjusted.

(b) Quoted interest rate on a £10,000 personal loan.

(c) Two-year fixed-rate mortgage.

(d) Series is only available on a consistent basis back to May 2008, and is not published for March-May 2009 as only two or fewer products were offered in that period.

(e) On mortgages with a loan to value ratio of 75%.

was reported to be broadly unchanged in 2010 Q4, but appeared to have fallen in 2010 as a whole.

The three-month annualised growth rate of secured lending was 0.4% in December 2010 (**Chart 1.14**). Lenders' responses to the *Credit Conditions Survey* suggested that secured credit availability to households improved a little during 2010 (**Chart 1.12**), with spreads on lending reported to have eased. Consistent with that, quoted secured lending rates fell slightly over 2010, but a significant gap between quoted secured rates and Bank Rate remained (**Chart 1.15**) — in part reflecting trends in bank funding costs relative to Bank Rate.⁽¹⁾

Responses to the *Credit Conditions Survey* indicated a sharp decline in the demand for secured lending in 2010 Q4. Some lenders suggested that severe winter weather reduced applications for house purchase, but contacts of the Bank's Agents reported that concerns about the outlook for incomes and house prices may also have weighed on housing market activity. More generally, the tightening in credit conditions since the onset of the financial crisis has been associated with a low level of housing market transactions.

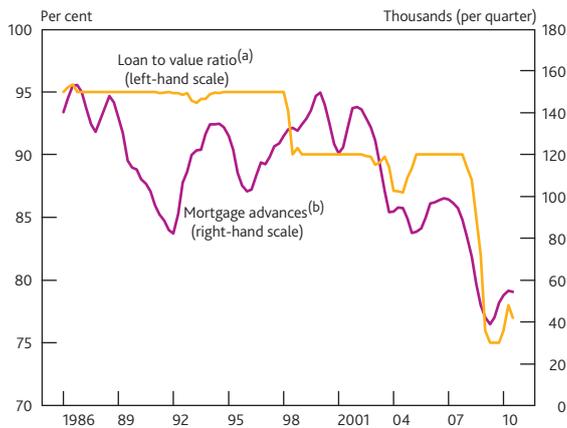
The tightening in credit conditions will have affected many people attempting to take out new debt. That will include those wishing to trade up, and also first-time buyers, who are often a key part of the chain of purchases and sales that are involved in a typical housing market transaction. Average loan to value ratios for first-time buyers fell in 2008 and early 2009 (**Chart 1.16**), as lenders required buyers to put down larger deposits. That in turn is likely to have led some to postpone house purchase until they could raise the necessary deposit, reducing mortgage advances to first-time buyers (**Chart 1.16**).

The impact of reduced demand from first-time buyers on house prices will depend, in part, on how homeowners who wish to sell their properties respond. Some homeowners may be willing to reduce the selling price of their property. But others may choose to hold off selling, and perhaps rent out their property until first-time buyers have adjusted to the necessary higher average level of deposits, in which case the impact on prices may be more limited.

House prices declined significantly in 2008 and early 2009 (**Chart 1.17**). Although they recovered somewhat in the remainder of 2009, house prices have since fallen again and in January 2011 stood around 15% below their 2007 peak. The RICS sales to stock ratio — an indicator of market tightness — remained at low levels (**Chart 1.17**).

(1) See 'Understanding the price of new lending to households', *Bank of England Quarterly Bulletin*, Vol. 50, No. 3, pages 172–82.

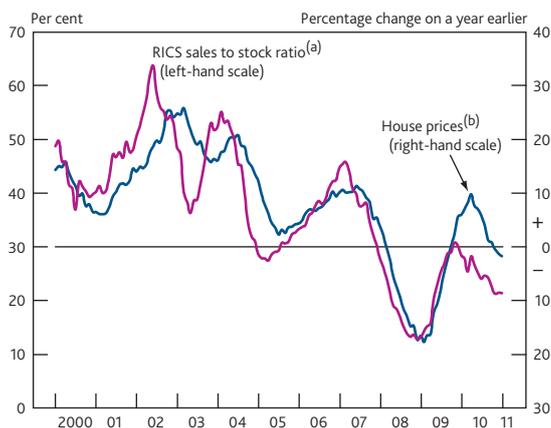
Chart 1.16 First-time buyer mortgage advances and loan to value ratio



Sources: Council of Mortgage Lenders and Bank calculations.

- (a) Median loan to value ratio. The decline in the median loan to value ratio in 1998 will reflect, at least in part, the removal of the requirement to take out a mortgage indemnity guarantee for loan to value ratios below 90%.
- (b) Four-quarter moving average.

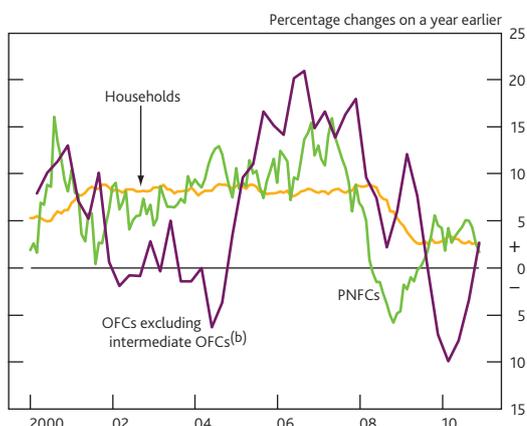
Chart 1.17 House prices and RICS sales to stock ratio



Sources: Halifax, Nationwide, Royal Institution of Chartered Surveyors (RICS) and Bank calculations.

- (a) Ratio of average house sales per surveyor to the average stock of homes on surveyors' books at the end of the month.
- (b) The average of the Halifax and Nationwide measures. The published Halifax index has been adjusted in 2002 by Bank staff to account for a change in the method of calculation.

Chart 1.18 Sectoral broad money^(a)



- (a) Monthly data, unless otherwise specified.
- (b) Based on quarterly data. Intermediate OFCs are: mortgage and housing credit corporations; non-bank credit grantors; bank holding companies; and those carrying out other activities auxiliary to financial intermediation. Banks' business with their related 'other financial intermediaries' is also excluded, based on anecdotal information provided to the Bank of England by several banks.

1.4 Money

In 2010 Q4, the four-quarter growth rate of broad money was 2.3%, still well below its average rate in the years preceding the financial crisis. During 2010, broad money growth was weaker than nominal GDP growth or, equivalently, the velocity of circulation increased. The box on page 17 discusses the relationship between broad money and nominal GDP and suggests that the Bank's asset purchase programme may have been an important influence on velocity recently. In the twelve months to January 2011, narrow money increased by 3.2%, compared with 3.7% in the twelve months to December 2010.

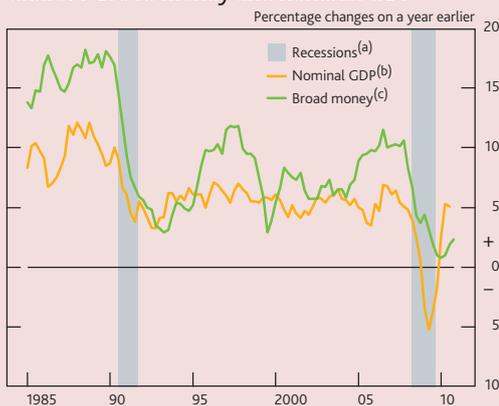
The weakness of broad money growth relative to its pre-crisis level reflects subdued growth in both households' and PNFCs' money, although the latter has recovered somewhat since the end of 2008. Non-bank financial institutions' money growth picked up in 2010 Q4 (Chart 1.18).

What has driven recent developments in broad money and nominal GDP?

Following the onset of the financial crisis, both broad money and nominal GDP growth slowed markedly. More recently, nominal GDP growth has picked up, but broad money growth has remained at low rates. This box considers possible explanations for these developments.

Nominal spending must equal the quantity of broad money multiplied by the number of times money circulates through the economy during a given period — known as the velocity of circulation. Broad money has typically grown more quickly than nominal GDP (**Chart A**) or, put differently, the velocity of circulation has tended to fall over time. That downward trend is likely to reflect, in part, increased financial liberalisation and the associated increase in credit growth. But the rate of decline of velocity varies significantly, and is likely to be affected by cyclical factors.⁽¹⁾

Chart A Broad money and nominal GDP



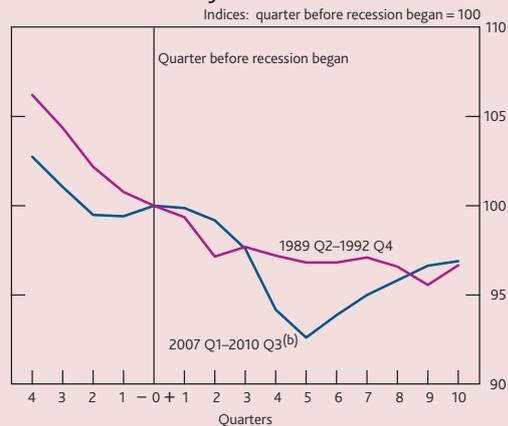
(a) Recessions are defined as in **Chart 1.11**.
 (b) At current market prices. The latest observation is 2010 Q3.
 (c) The series are constructed using headline M4 and M4 lending (excluding securitisations) growth prior to 1998 Q4, and M4 and M4 lending (excluding securitisations) growth excluding intermediate OFCs thereafter. Intermediate OFCs are defined as in **Chart 1.18**. The latest observation is 2010 Q4.

Given the possible influence of cyclical factors, developments in velocity around the time of the 1990s recession may be instructive in understanding more recent trends. During the 1990s recession and the period afterwards, the downward trend in velocity slowed (**Chart B**). That is likely to have reflected a sharp slowdown in bank credit growth and hence broad money growth, which persisted well into the recovery (**Chart 1.11** shows bank lending to PNFs, for example). Rapid credit growth before the 1990s recession reflected, in part, spending on financial and housing assets. So it is likely that the swings in credit growth had a larger impact on demand for these assets than on nominal GDP.

Recent influences on velocity

Velocity moved somewhat differently during and after the recent recession, falling sharply in late 2008 and early 2009, before picking up in the year to 2010 Q3 (**Chart B**). As in the 1990s recession, a sharp slowdown in credit growth is likely to

Chart B The velocity of circulation^(a)



(a) Nominal GDP divided by the outstanding stock of broad money. Broad money is defined as in footnote (c) of **Chart A**.
 (b) The Bank's asset purchase programme began in March 2009, corresponding to quarter 4 on the horizontal axis.

have pushed up velocity recently, relative to its downward trend. But other factors, such as the Bank's asset purchase programme and bank recapitalisation, are also likely to have been important.

In the first instance, asset purchases will have boosted the supply of broad money, pushing down velocity. But in order for investors to be comfortable holding fewer government bonds and more deposits, gilts must become more expensive, that is, their yields fall. And substitutes for gilts, such as corporate bonds or equities, also become more attractive, so their prices rise too. In time, these higher asset prices should encourage more consumption and investment, thus boosting nominal spending. So taken together, the immediate impact of asset purchases on broad money and the more gradual impact on nominal GDP probably contributed to the decline and subsequent rise in velocity.

Bank issuance of long-term liabilities such as equities or bonds will push up velocity, if those bonds and equities are purchased by non-banks, thus reducing the stock of broad money. Between 2008 and 2010, UK banks issued a significant amount of equity and bonds in order to strengthen their balance sheets in the aftermath of the banking crisis.

Recent increases in velocity may also reflect the return on money relative to goods and services and financial assets. Falls in real deposit rates may have encouraged some households and companies to rebalance their portfolio away from money and towards goods and services. Alternatively, they might acquire financial assets, boosting asset values and hence spending.

The factors influencing recent trends in broad money and nominal GDP will also influence the outlook. In particular, a further rebuild of banks' capital positions could continue to depress broad money relative to nominal GDP. In that case, a given rate of nominal GDP growth would be associated with a lower rate of broad money growth, other things equal.

(1) For further details see 'Interpreting movements in broad money', *Bank of England Quarterly Bulletin*, Vol. 47, No. 3, pages 376–88.

2 Demand

After four consecutive quarters of rising activity, UK real GDP is provisionally estimated to have fallen in 2010 Q4. Growth in the third quarter was largely driven by fixed investment as the contribution from stockbuilding started to wane and growth in consumer spending fell back. The solid recovery in global demand continued, driven in part by emerging economies. UK exports and imports both rose, but overall net trade reduced growth slightly.

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

Percentage changes on a quarter earlier

	Averages			2010		
	1997–2008	2009 H1	2009 H2	Q1	Q2	Q3
Household consumption ^(b)	0.7	-1.0	0.5	-0.1	0.8	0.2
Government consumption	0.6	-0.3	0.1	0.7	0.6	-0.4
Investment	0.9	-6.7	-0.7	3.1	1.0	3.4
<i>of which, business investment</i>	1.2	-9.4	-3.3	7.9	0.7	3.1
<i>of which, dwellings investment^(c)</i>	0.3	-9.1	-0.5	0.8	6.8	3.8
Final domestic demand	0.7	-1.7	0.2	0.5	0.8	0.5
Change in inventories ^{(d)(e)}	0.0	-0.1	0.3	0.0	0.9	0.2
Alignment adjustment ^(e)	0.0	0.3	-0.2	0.7	-0.8	0.1
Domestic demand	0.7	-1.6	0.3	1.2	0.9	0.8
'Economic' exports ^(f)	0.9	-4.5	2.2	-0.9	3.1	1.5
'Economic' imports ^(f)	1.2	-4.8	2.6	2.1	2.0	1.7
Net trade^{(e)(f)}	-0.1	0.2	-0.1	-0.8	0.2	-0.1
<i>of which, goods^{(e)(f)}</i>	<i>-0.1</i>	<i>0.3</i>	<i>-0.3</i>	<i>-0.5</i>	<i>0.5</i>	<i>-0.4</i>
<i>of which, services^(e)</i>	<i>0.0</i>	<i>-0.2</i>	<i>0.1</i>	<i>-0.4</i>	<i>-0.3</i>	<i>0.3</i>
Real GDP at market prices	0.6	-1.5	0.1	0.3	1.1	0.7

(a) Chained-volume measures.

(b) Includes non-profit institutions serving households.

(c) Whole-economy dwellings investment.

(d) Excludes the alignment adjustment.

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

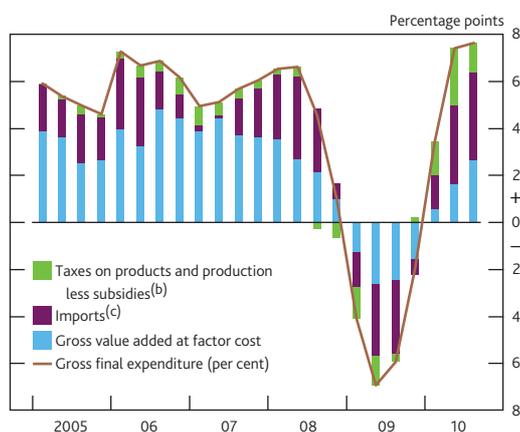
(f) Excluding the estimated impact of missing trader intra-community (MTIC) fraud.

Having fallen by around 6.5% during the recession, real GDP rose by 2.7% over the four quarters to 2010 Q3. The ONS provisionally estimated that output fell by 0.5% in Q4, in part reflecting the impact of heavy snowfall (Section 3).

Expenditure data up to Q3 suggest that all components of domestic demand contributed to the recovery in GDP (Table 2.A). But with a major fiscal consolidation under way and a waning boost from stockbuilding, continued growth will depend heavily on the path of private sector final domestic demand (Section 2.1).

External demand for UK goods and services, together with the extent to which UK producers can capture domestic demand, will play a key role in determining the pace of the recovery. UK exports grew strongly in the four quarters to Q3, but UK imports rose at an even faster rate, with net trade reducing GDP growth. The prospects for exports (Section 2.3) will be influenced by the outlook for global growth. Global activity continued to expand but the pattern of growth remained uneven (Section 2.2).

Chart 2.1 Counterparts to four-quarter growth in nominal gross final expenditure^(a)



(a) At current market prices.

(b) Includes a statistical discrepancy.

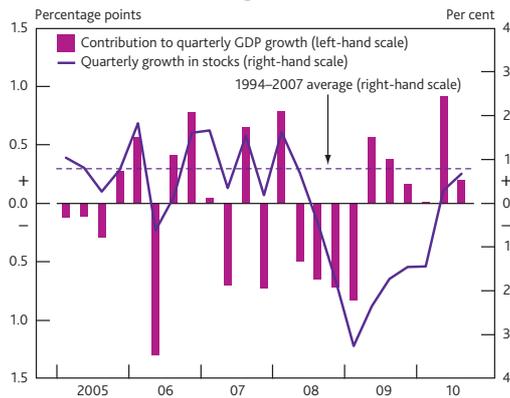
(c) Excluding the estimated impact of MTIC fraud.

2.1 Domestic demand

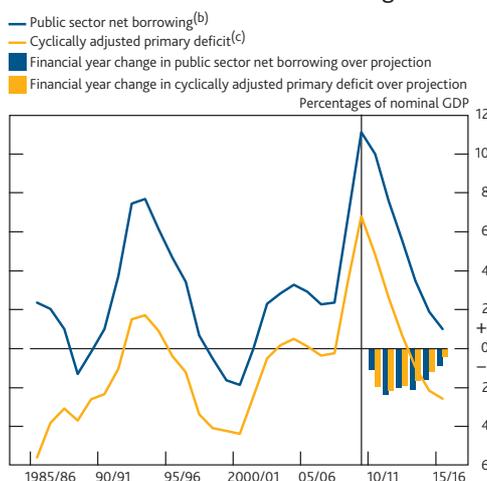
Nominal demand

Nominal spending has continued to increase robustly following its sharp fall during the recession. Gross final expenditure — the sum of domestic spending and overseas spending on UK exports — rose by 7.6% in the four quarters to 2010 Q3. Much of that increase reflected stronger spending on imports and, to a lesser degree, the impact of higher taxes including VAT (Chart 2.1).⁽¹⁾ Annual growth in nominal UK gross value added — the remaining component of gross final expenditure — was weaker than its average in the decade prior to the recession.

(1) These factors are discussed in more detail in the box on page 19 of the November 2010 Report.

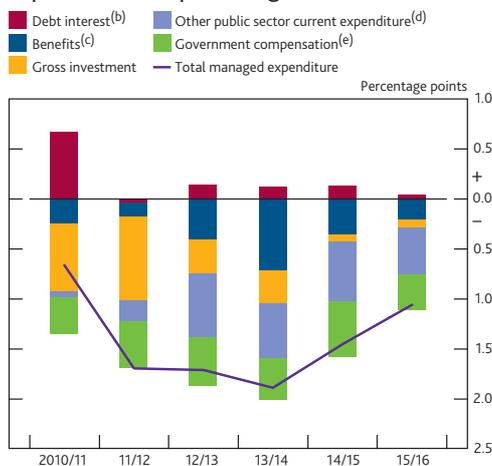
Chart 2.2 Stockbuilding^(a)

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

Chart 2.3 Public sector net borrowing^(a)

Sources: HM Treasury, Office for Budget Responsibility (OBR), ONS and Bank calculations.

- (a) Measures exclude the temporary effects of financial interventions. Observations to the right of the vertical line are projections.
 (b) Projections for public sector net borrowing come from the OBR's November 2010 *Economic and Fiscal Outlook*. Data prior to 2009/10 are based on ONS data.
 (c) Public sector net borrowing minus net debt interest payments, adjusted for the effects of the economic cycle. Bank calculation based on the OBR's November 2010 projections for the primary deficit and its projection of the output gap from 2009/10. Estimates prior to 2009/10 based on ONS data and HM Treasury's March *Budget 2010* estimates of the output gap.

Chart 2.4 Financial year changes in total managed expenditure as a percentage of GDP^(a)

Sources: OBR, ONS and Bank calculations.

- (a) At current market prices.
 (b) Central government debt interest.
 (c) Includes social security benefits and tax credits.
 (d) Calculated as a residual.
 (e) Bank calculations based on the OBR's November 2010 projection for resource Departmental Expenditure Limits and components of Annually Managed Expenditure that are likely to include significant amounts of pay.

The implications for the outlook for nominal spending of stronger spending on imports and taxes, but weaker gross value added, are difficult to judge. In the absence of higher import prices and VAT, nominal spending on domestically produced goods may have been stronger in 2010, and growth in that spending may pick up as these price effects wane. But it is also possible that households and companies were slow to adjust their real spending as prices rose, suggesting that gross final expenditure growth may fall back. Nominal GDP is discussed alongside money data in a box on page 17. The remainder of this section considers developments in real activity.

Stockbuilding

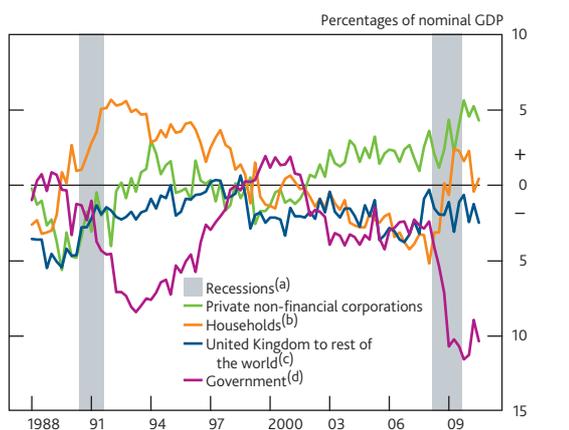
Stockbuilding contributed 1.3 percentage points to GDP growth over the four quarters to 2010 Q3. In previous recessions, stock cycles have tended to contribute strongly to the recovery in output growth as the pace of de-stocking first eases, and then companies begin to rebuild stock levels. In 2010 Q3, the pace of re-stocking picked up slightly towards its pre-recession average (Chart 2.2). But the contribution to GDP growth, which reflects changes in the growth rate of stocks, was smaller than in Q2.

Government spending and fiscal policy

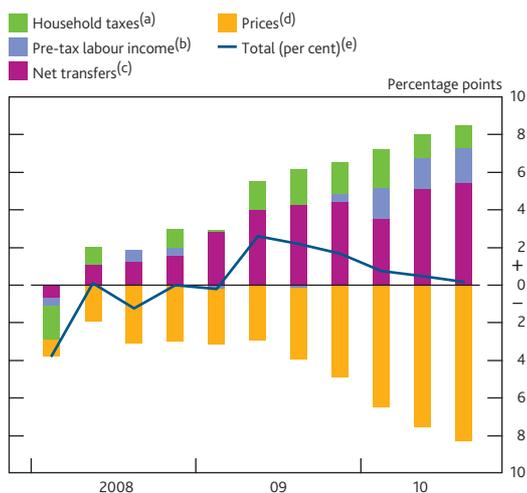
Government consumption contributed positively to GDP growth in 2010 H1, but contracted by 0.4% in Q3. The MPC's forecast is conditioned on the fiscal plans set out in the June *Budget* and the October *Spending Review*, supplemented by the assumed composition of government spending underlying the Office for Budget Responsibility's (OBR's) November *Economic and Fiscal Outlook*. With a substantial fiscal consolidation under way in the United Kingdom, government spending is unlikely to contribute much to GDP growth over the coming years.

The OBR's central forecast is for a large decline in public sector borrowing. Stripping out fluctuations in interest payments — which may have a relatively small direct impact on demand — and controlling for the position of the economic cycle, a similar proportion of the consolidation occurs in financial years 2010/11, 2011/12 and 2012/13 (Chart 2.3).

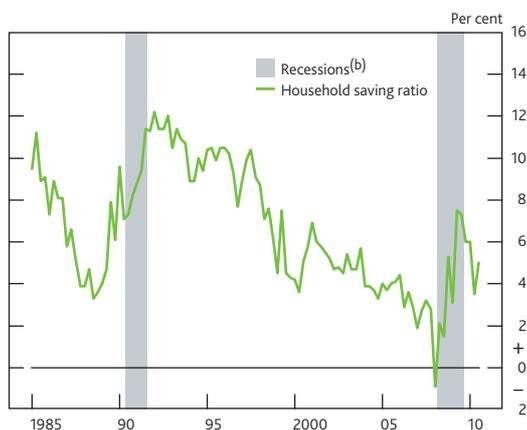
Around 80% of the consolidation is expected to be achieved through public sector expenditure growing at a more modest pace than nominal GDP. Within that, wage restraint and declining public sector employment (Section 3) are assumed to lead to a reduction in the share of GDP spent on wages and salaries over the next five financial years (Chart 2.4). Falling nominal government investment drives the majority of the consolidation in expenditure in both 2010/11 and 2011/12, with the main reductions as a share of GDP in other government expenditure — such as purchases of goods and services, and benefit payments — not occurring until 2012/13.

Chart 2.5 Financial balances 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) Net lending by the United Kingdom to the rest of the world is equivalent to the sum of the current and capital accounts of the balance of payments.
 (d) Excludes public corporations.

Chart 2.6 Contributions to growth in real post-tax labour income since 2007 Q4

- (a) Household taxes include income tax and Council Tax.
 (b) Wages and salaries plus mixed income.
 (c) General government benefits minus employees' National Insurance contributions.
 (d) Calculated as a residual.
 (e) Nominal post-tax labour income divided by the consumer expenditure deflator (including non-profit institutions serving households).

Chart 2.7 Household saving ratio^(a)

- (a) Percentage of household post-tax income (not adjusted to account for the impact of FISIM).
 (b) Recessions are defined as in Chart 2.5.

The contribution of higher receipts to the fiscal consolidation is more front loaded than spending, rising by around 1.5 percentage points of nominal GDP by 2012/13. The increase in the standard rate of VAT is the single biggest driver of this increase — reflecting the restoration of VAT to 17.5% in January 2010 and the rise to 20% in January 2011.

Lower government borrowing will need to be counterbalanced by adjustments in the financial balances of the private and external sectors (Chart 2.5). How that is achieved will have implications for the strength of the recovery.

Recent household spending

Consumer spending increased by 1.8% in the four quarters to 2010 Q3, but the quarterly profile has been volatile. In particular, bad weather in January 2010 reduced spending in Q1, boosting growth in Q2 as that effect unwound.⁽¹⁾ Growth slowed to 0.2% in Q3 (Table 2.A). It is unlikely that temporary factors had a significant impact on Q3 growth.

Consumer spending growth may continue to be volatile over the near term. The increase in the standard rate of VAT in January 2011 may have encouraged some consumers to bring forward some planned spending into 2010 Q4. But the disruption associated with heavy snowfall in December is likely to have more than offset this. The sharp fall in service sector output in Q4 (Section 3) and the Bank's Agents' reports for December are consistent with significant weather-related disruption in consumer-facing services. Retail sales volumes rose by just 0.2% in Q4 after growing by 0.9% in Q3, but growth in private new car registrations increased.

Influences on household spending

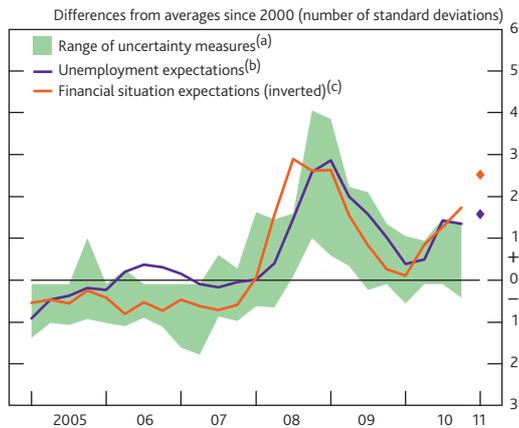
The future path of spending will depend, in part, on developments in incomes. Real post-tax labour incomes were stagnant, on average, between 2007 Q4 and 2010 Q3 (Chart 2.6). Within that, higher nominal post-tax labour incomes were offset by higher prices (Section 4).

Spending will also depend on the proportion of their income that households choose to save. Consumer spending in Q3 was around 3% below its pre-recession level. With broadly flat real incomes over the same period, that implies that households are saving a higher proportion of their incomes than before the recession. Indeed, in 2010 Q3 the household saving ratio was 5.0% — nearly double its 2007 average (Chart 2.7). As discussed in previous Reports, the rise in the saving ratio is likely to reflect a combination of factors.

A perceived reduction in households' future income may have occurred following the financial crisis, for example if households expected the recession to have a long-lived effect

(1) The temporary factors affecting outturns for GDP in 2010 H1 are discussed in more detail in the box on page 27 of the May 2010 Report.

Chart 2.8 Measures of uncertainty and households' unemployment and financial situation expectations



Sources: CBI, Consensus Economics, Dow Jones Factiva, GfK NOP on behalf of the European Commission, ONS, Thomson Reuters Datastream and Bank calculations.

- (a) Range includes: CBI measures of demand uncertainty as a factor likely to limit capital expenditure for manufacturing and business/consumer services weighted together using nominal shares in value added. Quarterly average standard deviation of monthly Consensus Economics forecasts for GDP one and two years ahead seasonally adjusted by Bank staff. The standard deviation of daily price movements in the FTSE index and sterling ERI within a quarter. The IBES weighted average standard deviation of twelve-month forward earnings per share forecasts. And the quarterly average of media reports citing 'demand uncertainty' in five national broadsheet newspapers. A higher number indicates greater uncertainty.
- (b) The question asks how households expect the number of people unemployed to change over the next twelve months. Data are quarterly averages, the diamond shows January 2011 data.
- (c) The question asks how households expect their personal financial situation to change over the next twelve months. Data are quarterly averages, the diamond shows January 2011 data.

on their earnings (Section 3). These expectations may have led, temporarily, to higher saving if households wished to smooth their consumption profile over time.

Uncertainty about future income prospects is also likely to have been a key influence on household saving. During the financial crisis, a sharp rise in uncertainty about the path for the economy (**Chart 2.8**) and so future incomes may have led some households to build up precautionary savings balances. As activity has begun to recover and that uncertainty has dissipated, some households' desire to save may have lessened. But other households, particularly those employed in parts of the public sector, may have become more uncertain about their income prospects. For example, according to the GfK survey, households' unemployment and financial expectations have recently deteriorated again (**Chart 2.8**), with households' concerns about their future financial situation back at levels reached during the height of the recession.

Tighter credit conditions than before the financial crisis may also be causing increased saving; for example, first-time homebuyers may need to save more for a deposit (Section 1). In addition, some households may want to reduce their debt levels. For example, a net balance of respondents to the 2010 NMG survey reported that they had become more concerned about their level of debt over the past two years. And some respondents also reported that they planned to, or had started to, increase their saving as a result of the need to reduce their debts.⁽¹⁾

Monetary policy, however, continues to support spending. Low interest rates encourage households to bring spending forward, and the Bank's asset purchases have also encouraged spending, in part by raising asset prices (Section 1) and hence wealth. The outlook for saving and consumer spending is discussed in Section 5.

Investment

Investment fell sharply during 2008 and early 2009, but over the first three quarters of 2010, whole-economy investment rose by 7.7%. That reflected strength across all components of investment spending (**Table 2.B**). Within that, business investment — roughly 60% of total investment — rose by 12% with a marked recovery in spending by both service and manufacturing sector companies. More recent official data are not yet available, but survey measures of investment intentions are consistent with continued growth around the turn of the year: both CBI and BCC manufacturing sector investment intentions are above their series averages, though the evidence is more mixed in the service sector (**Chart 2.9**).

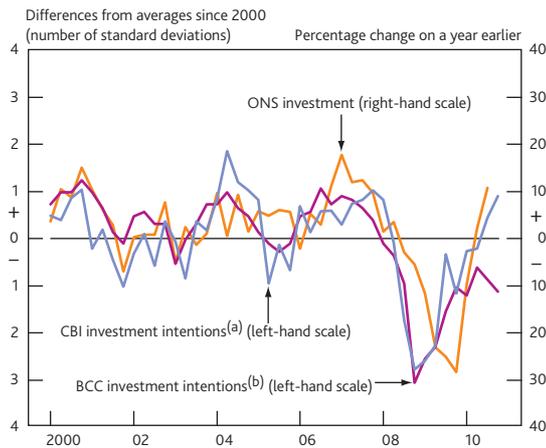
Table 2.B Whole-economy investment^(a)

Percentage changes on a quarter earlier

	Averages				2010 Q3	Percentage change 2008 Q1– 2010 Q3
	2000–07	2008	2009	2010 H1		
Total	1.0	-2.7	-3.7	2.1	3.4	-13.0
of which, business (59%)	1.0	-1.6	-6.3	4.3	3.1	-14.6
of which, government (18%)	3.1	2.5	3.9	-2.2	4.9	29.9
of which, dwellings (19%)	1.0	-4.1	-4.8	3.7	3.8	-22.8
of which, other (4%)	0.4	-21.0	25.7	-8.6	-2.3	-46.6

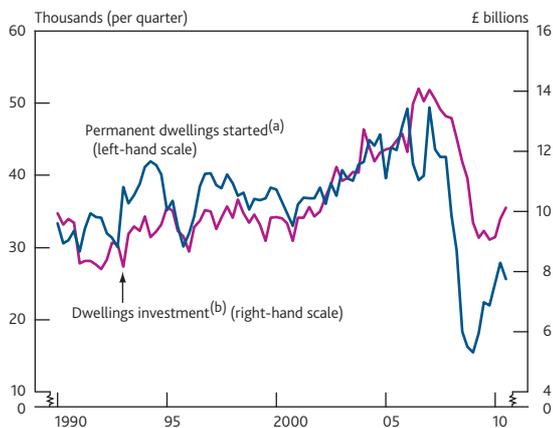
(a) Chained-volume measures. Shares of 2009 whole-economy investment are in parentheses.

(1) For further details on households' responses in the NMG Financial Services Consulting survey, see 'The financial position of British households: evidence from the 2010 NMG Consulting survey', *Bank of England Quarterly Bulletin*, Vol. 50, No. 4, pages 333–45.

Chart 2.9 Indicators of service sector investment

Sources: BCC, CBI, CBI/PwC and ONS.

- (a) Net percentage balances of companies that say they have revised up planned investment in plant and machinery over the next twelve months. Data cover the financial, retail and consumer/business services sectors and are weighted together using shares in real business investment.
- (b) Net percentage balances of companies that say they have increased planned investment in plant and machinery over the past three months. Data are non seasonally adjusted.

Chart 2.10 Dwellings investment and private sector permanent dwellings started

Sources: Department for Communities and Local Government and ONS.

- (a) Permanent dwellings started by private enterprises and housing associations in England.
- (b) Chained-volume measure.

The pickup in investment in part reflects the recovery in demand. Some companies are likely to have restarted investment projects put on hold during the recession: survey evidence from the CBI suggests that the drag on investment from uncertainty about demand prospects has fallen back from high levels. Companies may also have been investing to increase capacity: although it is likely that spare capacity remains in aggregate, surveys suggest that the degree of spare capacity within companies has probably lessened somewhat over the past year (Section 3).

As well as reflecting improved demand prospects, the recovery in investment may also reflect an improvement in companies' ability to fund investment. Credit conditions have improved somewhat over the past year, especially for larger companies. And some may have become more able to finance investment from internally generated funds — private sector non-financial corporations continued to run a substantial surplus of profits over investment in Q3 (Chart 2.4).

These factors, including the strength of companies' cash balances, are likely to continue to support investment, and with business investment still 15% below its pre-recession level in 2010 Q3, further recovery is likely. But some forces could limit the strength of that recovery. For example, some companies may be unsure about how the fiscal consolidation will affect the demand for their products. Credit conditions for smaller companies remain tighter than before the crisis (Section 1). And some companies may have built up cash buffers as a precaution against reduced credit availability, in which case they may be less willing to use those cash balances to fund investment.

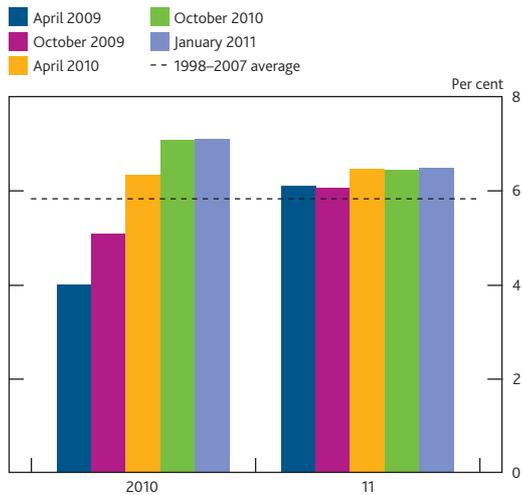
Other components of investment have also grown strongly over 2010, according to the latest data. Dwellings investment, which includes both house building and home improvements, picked up over the first three quarters of 2010 following a sharp fall during the recession.⁽¹⁾ Those trends were consistent with those in housing starts (Chart 2.10). But with housing market activity remaining very weak, the near-term outlook for dwellings investment remains uncertain (Section 1). Government investment continued to rise during the recession and into 2010. But the planned fiscal consolidation includes a fall in nominal government investment relative to GDP, particularly over 2010/11 and 2011/12 (Chart 2.4).

2.2 External demand

The world economy has continued to grow in recent quarters driven, in part, by continued strength in emerging economies. Domestic demand has also strengthened in some developed economies, including the United States and Germany.

(1) For further details on dwellings investment, see 'Understanding dwellings investment', *Bank of England Quarterly Bulletin*, Vol. 48, No. 4, pages 393–403.

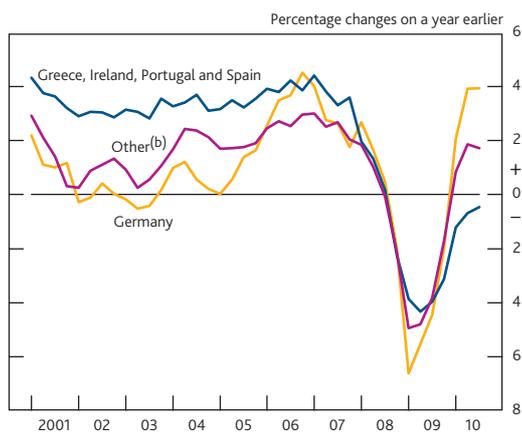
Chart 2.11 IMF projections for calendar-year GDP growth in emerging and developing economies^(a)



Source: IMF *World Economic Outlooks*.

(a) At constant prices. Composed of between 140 and 150 individual countries.

Chart 2.12 Euro-area GDP^(a)



Sources: Eurostat and Bank calculations.

(a) Chained-volume measures.

(b) Austria, Belgium, Cyprus, Finland, France, Italy, Luxembourg, Malta, Netherlands, Slovakia and Slovenia.

Emerging economies

Emerging economies have contributed significantly to global growth during 2010, and IMF projections suggest that growth has been much faster than previously expected (**Chart 2.11**). Industrial production in emerging economies has slowed over recent months, however. That may partly reflect the waning influence of the global stock cycle on output, together with recent policy tightening in some countries, including China, India and Brazil. Nonetheless, IMF projections for emerging economies suggest robust growth in 2011 (**Chart 2.11**).

The direct impact of strong growth in emerging economies on UK GDP has been increasing over time, but remains limited. Only around 5% of UK exports go to the four largest emerging economies of Brazil, Russia, India and China. But indirect linkages — for example, via euro-area economies — also matter. And emerging economies are an increasingly important influence on global inflationary pressures (Section 4).

The euro area

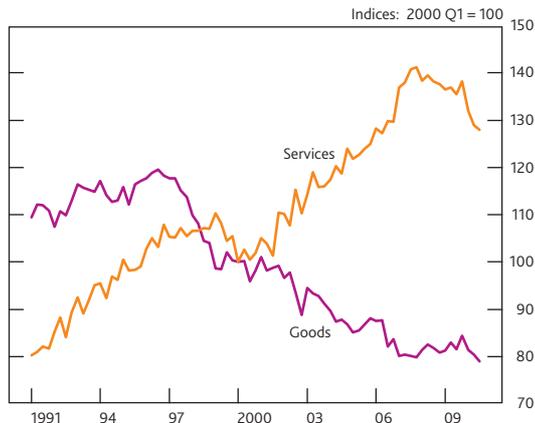
Euro-area GDP rose by 1.9% in the four quarters to Q3, but growth rates varied markedly across countries (**Chart 2.12**). German output grew by 3.9%, driven by strength in both domestic demand and exports. But growth in the euro-area periphery — where countries face substantial challenges in improving their competitiveness, achieving sustainable fiscal positions and supporting their banking systems — remained weak. Authorities have put in place facilities to support countries that get into difficulties — the European Financial Stability Facility and the European Financial Stability Mechanism. But yields on sovereign debt for peripheral economies remain elevated (Section 1).

The impact of that weakness for UK demand is uncertain. Around 6% of UK exports go to Ireland, with only 5% going to Greece, Portugal and Spain combined, suggesting that the direct trade channel is relatively limited. But financial market linkages between banking systems (Section 1), and effects on broader euro-area confidence could pose a more significant downside risk to UK activity. To date, however, there is little sign of a drag to the rest of the euro area from developments in the periphery. But household and business confidence could be sensitive to developments in financial markets.

The United States

GDP increased by 0.8% in Q4, faster than in Q3, supported by strong consumption growth. The near-term outlook for consumer spending will be supported by the Federal Open Market Committee's large-scale asset purchase programme announced in November, and by a further fiscal package announced in December, including lower payroll taxes and an extension to the emergency unemployment insurance programme. But demand may continue to be constrained by developments in the labour and housing markets. The

Chart 2.13 Ratios of UK exports to UK-weighted M6 imports^(a)



Sources: ONS, Thomson Reuters Datastream and Bank calculations.

(a) Chained-volume measures excluding the estimated impact of MTIC fraud. UK goods (services) exports divided by imports of goods (services) in Canada, France, Germany, Italy, Japan and the United States, weighted using UK 2009 goods (services) export shares from the 2010 *Pink Book*.

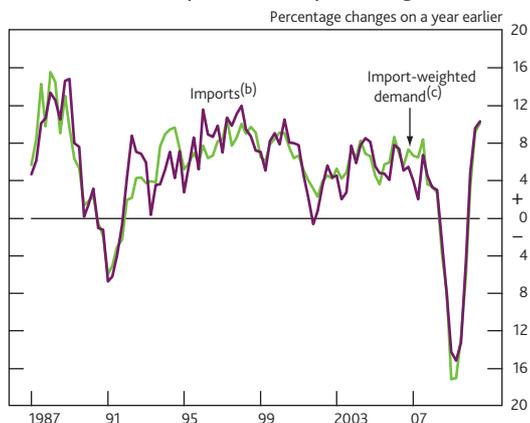
Table 2.C UK exports and export orders^(a)

	Averages				2010		2011
	1998–2007	2008	2009	2010 H1	Q3	Q4	Jan.
Manufacturing							
BCC orders ^(b)	5	4	-6	24	18	39	n.a.
CBI orders ^(c)	-13	-13	-20	19	6	13	n.a.
Agents' scores ^(d)	0.8	1.9	-1.1	1.5	2.8	3.1	n.a.
CIPS/Markit orders ^(e)	50.3	45.5	47.4	56.8	50.3	57.6	58.9
ONS ^{(f)(g)}	0.6	-0.9	-0.7	2.9	1.6	3.1	n.a.
Services							
BCC orders ^(b)	7	3	-4	9	8	12	n.a.
ONS ^(g)	1.8	-0.3	-1.7	-1.5	1.9	n.a.	n.a.

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

- (a) Dates refer to the period in which the survey was conducted.
 (b) Percentage balances of respondents reporting orders to be 'up' relative to 'down' over the past three months. Data are non seasonally adjusted.
 (c) Percentage balance of respondents reporting volume of orders to be 'above' relative to 'below' normal.
 (d) Volume of sales over past three months compared with the same period a year ago. End-quarter observation. The scores are on a scale of -5 to +5, with positive scores indicating higher sales.
 (e) A reading above 50 indicates increasing orders/new business this month relative to the situation one month ago. Quarterly data are averages of monthly indices.
 (f) Goods exports excluding the estimated impact of MTIC fraud.
 (g) Growth on a quarter earlier. Chained-volume measures.

Chart 2.14 UK imports and import-weighted demand^(a)



- (a) Chained-volume measures.
 (b) Excluding the estimated impact of MTIC fraud.
 (c) Scaled to match the mean and variance of imports since 1987. 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, 1995*.

unemployment rate remained at 9.6% in Q4 — over double its 2006 Q4 trough — while around 9% of US mortgages remain more than three months in arrears or in the process of foreclosure.

2.3 Exports and imports

UK exports

Demand conditions abroad, along with the sterling exchange rate, will determine the outlook for UK exports. Exports rose by 7.5% in the four quarters to Q3, significantly above their 2000–07 average growth rate.

Improved competitiveness for some companies following sterling's depreciation since mid-2007 should continue to support the demand for UK exports. As discussed in the November *Report*, indicative estimates of UK export shares suggest that the fall in sterling has supported goods exports relative to the previous declining trend. In contrast, services exports appeared to have underperformed relative to global demand (Chart 2.13), in part reflecting weak financial services exports.

Survey data were consistent with continued export growth for both goods and services in Q4 (Table 2.C). And according to the ONS, goods exports grew at a robust pace in Q4 despite a relatively weak performance in December, which could have reflected disruption to the transportation of goods caused by snow.

Imports

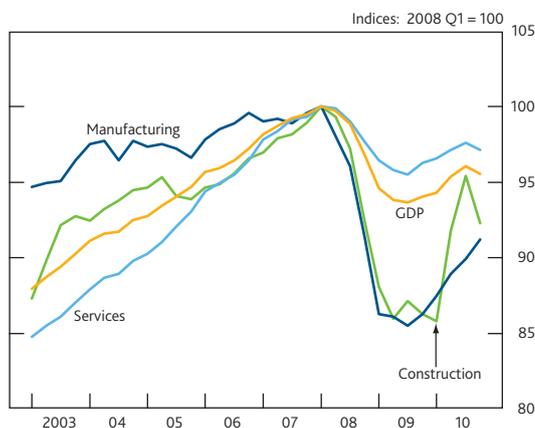
Imports are closely related to the level and composition of demand: for example, investment is particularly import-intensive. But demand for imports also depends on their price relative to the price of domestically produced goods and services: higher import prices (Section 4) should encourage households and companies to switch away from imports.

Four-quarter import growth was, however, strong at 10.3% in Q3, and goods imports rose by a further 3.2% in Q4. The rise up to Q3 was broadly in line with a sharp rise in import-weighted demand (Chart 2.14), as, for example, stockbuilding and investment picked up. That suggests little expenditure switching so far, perhaps because of a lack of domestic capacity to produce goods and services that are currently imported. But over time, domestic companies may build a presence in some of the markets currently supplied by imports.

3 Output and supply

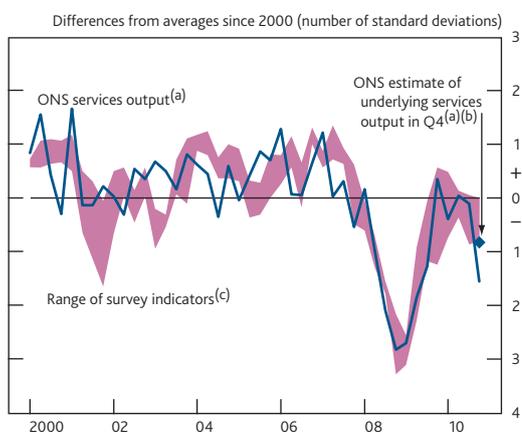
Output was estimated to have fallen by 0.5% in Q4. That weakness reflected, in part, the impact of heavy snowfall on activity. The ONS estimated that, in the absence of the bad weather, output would have been broadly flat. There has been mixed evidence on the strength of labour demand since the middle of 2009. It remains difficult to judge the extent of spare capacity within businesses. It is likely, however, that the growth rate of companies' effective supply capacity slowed during the recession. Labour market slack remains.

Chart 3.1 GDP and sectoral output^(a)



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

Chart 3.2 Indicators of service sector output growth



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

- (a) Quarterly growth, chained-volume measure at basic prices.
 (b) Estimate of services output growth in Q4 excluding the effect of snow, based on the ONS estimate that 0.4 percentage points of the snow impact on overall GDP growth was accounted for by the service sector.
 (c) Measures included are the BCC, CIPS/Markit and the CBI financial services, business/consumer services and distributive trades surveys weighted together using nominal shares in value added. The BCC data are non seasonally adjusted.

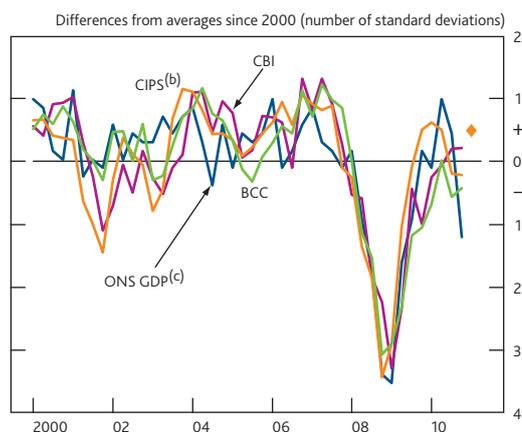
Output fell in 2010 Q4. That in part reflected the impact of heavy snow, but underlying output was estimated by the ONS to be flat (Section 3.1). There has been mixed evidence on developments in labour demand since mid-2009 (Section 3.2). It remains difficult to judge the amount of spare capacity within companies. It is likely that companies' supply capacity remains below a level suggested by a continuation of its pre-recession trend. But the extent to which that shortfall in capacity is temporary, or proves more persistent, is uncertain (Section 3.3). There appears to be considerable slack in the labour market (Section 3.4).

3.1 Output

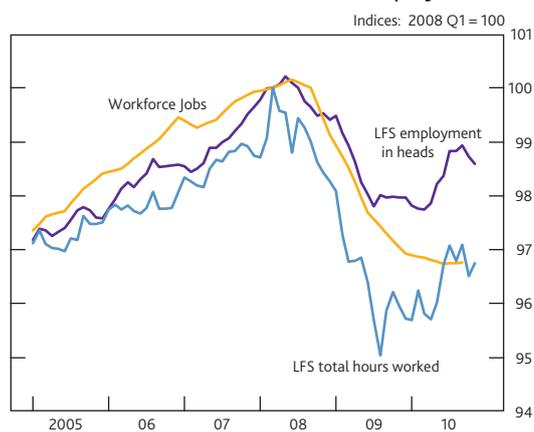
GDP was provisionally estimated to have fallen by 0.5% in 2010 Q4. That represents a substantial slowing from growth of 0.7% in Q3, and leaves the level of output about 4.5% below its pre-recession peak (Chart 3.1).

Output in Q4 is likely to have been temporarily depressed by the impact of heavy snow. That makes it difficult to assess the path of underlying activity. ONS estimates suggest that if there had been no weather-related disruption, output would have been broadly flat. But these data are based on limited information, so are subject to significant uncertainty.

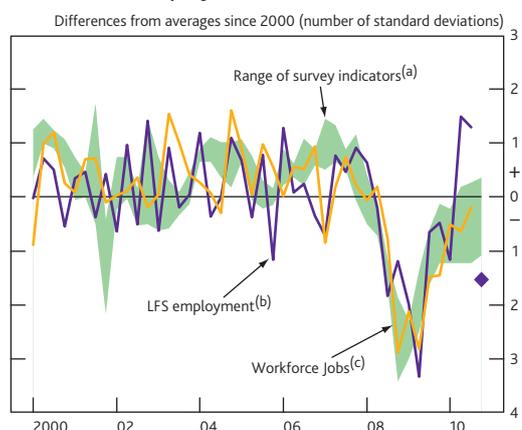
Weaker growth in the service sector accounted for a large part of the slowing in GDP growth: services output fell by 0.5% in Q4, following a 0.5% rise in Q3. The ONS estimates that service sector output — in particular, transport services and hotels and restaurants — is likely to have been severely affected by the adverse weather. But underlying service sector growth is also estimated to have slowed in Q4, and monthly Index of Services data indicate that output declined in October and November, prior to the worst of the weather. Most survey measures are consistent with somewhat stronger services growth in Q4 than the ONS estimate of underlying growth, however (Chart 3.2).

Chart 3.3 Indicators of aggregate output growth^(a)

- (a) These measures are produced by weighting together surveys from the BCC (manufacturing and services), the CBI (manufacturing, financial services, business/consumer services and distributive trades) and CIPS/Markit (manufacturing, services and construction) using nominal shares in value added. The BCC data are non seasonally adjusted.
- (b) The diamond shows January data.
- (c) Quarterly growth, chained-volume measure at market prices.

Chart 3.4 Total hours worked and employment^(a)

- (a) LFS data are rolling three-month measures. Workforce Jobs data are quarterly.

Chart 3.5 Surveys of employment intentions and measures of employment

- (a) Measures included are based on employment intentions balances from the Bank's Agents (manufacturing and services), the BCC (manufacturing and services) and the CBI (manufacturing, financial services and business/consumer services) and are weighted using employment shares from Workforce Jobs. The BCC data are non seasonally adjusted. The Manpower data, which are also included, cover the whole economy.
- (b) Percentage change on a quarter earlier. The diamond shows data for the three months to November.
- (c) Percentage change on a quarter earlier. Data are to 2010 Q3.

Construction sector output was estimated to have fallen by 3.3% in Q4. That only in part reflects the impact of the weather: surveys of construction output and data on new construction orders had suggested that a marked slowing from the rapid growth in mid-2010 was likely.

Manufacturing output continued to grow robustly in Q4, and may have been less affected by snow than other sectors. As discussed in previous *Reports*, recent strong manufacturing growth relative to services is consistent with manufacturing being more cyclical than services, in part given the greater role played by stocks. It also reflects recent buoyant goods export growth (Section 2).

Overall, underlying GDP growth appears to have been weak in Q4. But recoveries tend to be uneven. Assuming no further disruption to output, it is likely that GDP growth will pick up in Q1, reflecting both a slight pickup in underlying growth and output in snow-affected sectors recovering to more normal levels. Consistent with this, CIPS/Markit activity indices in January were higher than their Q4 averages (Chart 3.3). But some survey indicators of business confidence were below historical averages, suggesting that underlying growth at the start of 2011 might be relatively subdued. Prospects for activity further ahead are discussed in Section 5.

3.2 Labour demand

As discussed in previous *Reports*, employment fell during the recession, but by less than output. How employment evolves as output recovers may reveal information about the extent of spare capacity within companies: companies that have ample capacity should be able to meet higher demand without additional hiring (Section 3.3). Labour demand will also be a key determinant of labour market slack (Section 3.4).

Recent developments in employment

According to the Labour Force Survey (LFS), employment fell by 69,000 in the three months to November, compared with the three months to August, after rising by 178,000 over the previous three-month period. The number of occupied jobs, according to the latest Workforce Jobs data, increased slightly, by 9,000, between June and September (Chart 3.4). Smoothing through recent volatile LFS employment growth, and taking that together with the Workforce Jobs and survey evidence, suggests stable or gradually rising employment during 2010 H2 (Chart 3.5). And surveys of employment intentions are broadly consistent with modest growth continuing in the near term.

Although recent smoothed LFS and Workforce Jobs growth rates are broadly consistent, there remains considerable uncertainty about the level of employment. Since the middle of 2009, LFS employment has risen by around 250,000, while Workforce Jobs have fallen by about 300,000 (Chart 3.4): a difference of almost 2% of employment.

The LFS and the Workforce Jobs data reflect different information about employment. The LFS asks households how many members are working, while Workforce Jobs data are based on companies' responses on the number of filled jobs. These concepts differ as people can have more than one job, and some jobs can be shared by more than one person. Although the ONS can quantify some of the factors that tend to lead to differences between LFS employment and Workforce Jobs, these factors do not appear to be sufficient to explain the recent divergence.⁽¹⁾

Evidence from other sources is also mixed. The Annual Survey of Hours and Earnings and the Business Register Employment Survey — alternative ONS surveys of employers — are only available with a lag, but were both more consistent with LFS employment. But survey measures of employment intentions were more consistent with Workforce Jobs data over 2010 (Chart 3.5).

These disparities mean that it is difficult to assess developments in the demand for labour since mid-2009. The Committee places some weight on both the LFS and the Workforce Jobs data.

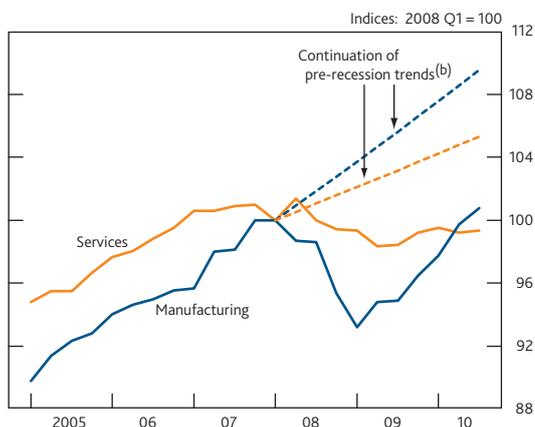
Prospects for employment

Employment prospects will depend in part on the impact of the fiscal consolidation. According to Office for Budget Responsibility projections, general government employment is expected to fall by about 330,000 — around 1% of total employment — over the next four years. But private sector employment will remain the key driver of overall labour market trends.

The outlook for private sector employment depends on the evolution of labour costs (Section 4), developments in demand (Section 2), and the extent to which businesses can meet higher demand with their existing workforce. In particular, some companies — for example, those that hoarded labour during the downturn — may be able to increase the hours worked by their employees, or raise the productivity of their current workforce.

Both LFS and Workforce Jobs data suggest that the level of labour productivity fell during the recession, and has since recovered somewhat. But uncertainty over the path of employment makes it difficult to judge precisely how much productivity fell. It is also difficult to be sure how much it is likely to recover. If the recession did not significantly impair potential productivity growth, businesses would be able to continue to increase output with little hiring by raising productivity back towards a level broadly consistent with a continuation of its pre-recession trend (Chart 3.6). But if underlying productivity has grown more slowly than its pre-recession trend, further increases in demand would be associated with somewhat faster employment growth.

Chart 3.6 Labour productivity by sector^(a)

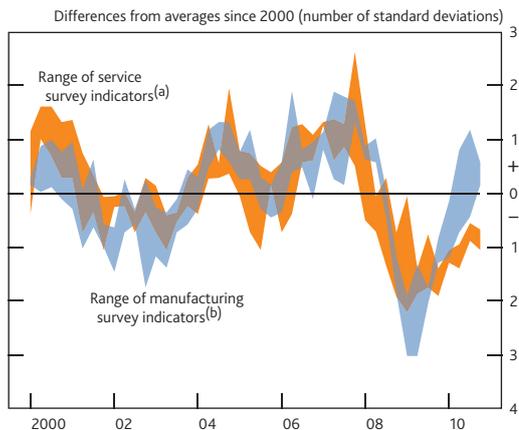


(a) Output per hour.

(b) Pre-recession trends are calculated by projecting forward labour productivity from 2008 Q2 using the average quarterly growth rate between 1996 Q1 and 2008 Q1.

(1) See the ONS *Labour Market Overview*, December 2010.

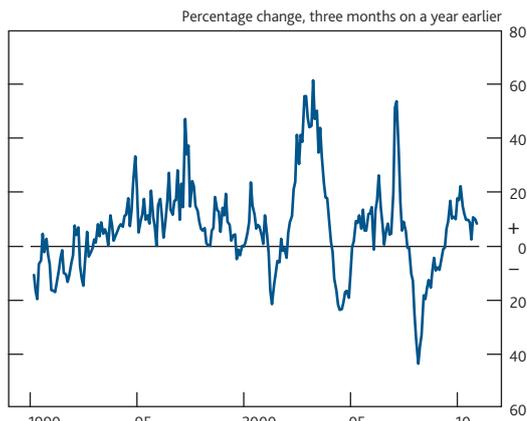
Chart 3.7 Survey measures of capacity utilisation by sector



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

- (a) Includes measures of services capacity utilisation from the Bank's Agents, BCC and CBI. The CBI measure weights together financial services, business/consumer services and distributive trades surveys using shares in nominal value added. The BCC data are non seasonally adjusted.
- (b) Includes measures of manufacturing capacity utilisation from the Bank's Agents, BCC and CBI. The BCC data are non seasonally adjusted.

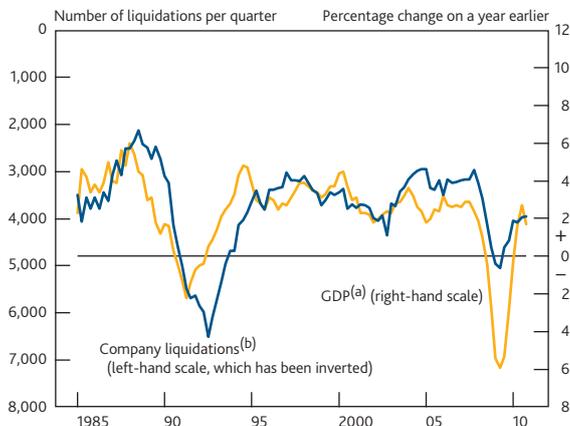
Chart 3.8 Company incorporations^(a)



Source: Companies House.

- (a) Data are for Great Britain and are non seasonally adjusted.

Chart 3.9 Company liquidations in England and Wales and GDP



Sources: The Insolvency Service and ONS.

- (a) Chained-volume measure at market prices.
- (b) Changes to legislation, data sources and methods of compilation mean the statistics should not be treated as a continuous and consistent time series. Since the Enterprise Act 2002, a number of administrations have subsequently converted to creditors' voluntary liquidations. These liquidations are excluded from both the headline figures published by The Insolvency Service and the chart.

Section 3.3 considers evidence on the evolution of underlying productivity within companies.

3.3 Companies' supply capacity and capacity pressures

As well as influencing the outlook for employment, underlying productivity growth is a key influence on the supply potential of businesses and therefore on inflationary pressure.

Capacity utilisation within companies

A margin of spare capacity opened up within companies during the recession, but it is difficult to judge its size precisely. One approach is to use evidence from business surveys. Another method compares the level of productivity with an estimate of its trend, which acts as a proxy for how companies' supply capacity might have evolved in the absence of the recession. These approaches continue to give very different signals.

Survey measures of capacity utilisation point to a limited amount of spare capacity (Chart 3.7). Consistent with this, survey evidence also suggests that some companies have been investing to expand their supply capacity. But labour productivity remains well below pre-recession trends (Chart 3.6), and so indicates more spare capacity.

One way that the different messages from these two approaches could be reconciled is if companies' supply capacity grew more slowly during the recession than a continuation of its previous trend would suggest. But the persistence of any weakness in supply capacity will depend on the factors that have caused it.

Companies' supply potential

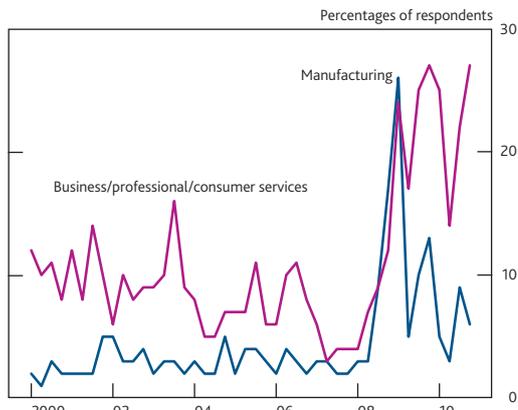
Supply capacity may have decreased persistently relative to a continuation of its pre-recession trend owing to fewer companies being formed: new companies tend to be more productive than existing ones.⁽¹⁾ Company incorporations declined during the recession, but have picked up recently (Chart 3.8).

The level of potential supply may also have fallen relative to a continuation of its pre-recession trend as the number of companies going out of business rose. As companies go out of business, it is likely that some of their capital will be scrapped, reducing the supply capacity of the economy. But the impact of this may be attenuated somewhat if businesses that exit markets tend to be less productive than those that survive. Company liquidations did increase during the recession, but by much less than in the 1990s recession, and have fallen back since 2009 Q2 (Chart 3.9).

The sharp fall in investment spending during the recession (Section 2), in part due to tighter credit conditions, will have

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

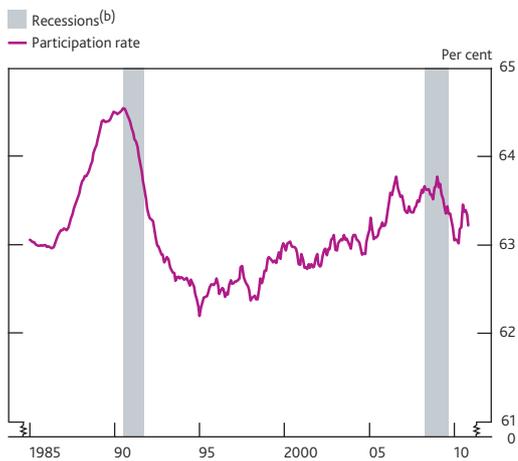
Chart 3.10 Credit and finance as a constraint on output by sector^(a)



Source: CBI.

(a) Manufacturing companies are asked: 'What factors are likely to limit output over the next three months?'. Service sector companies are asked: 'What factors are likely to limit your ability to increase the level of business over the next twelve months?'.

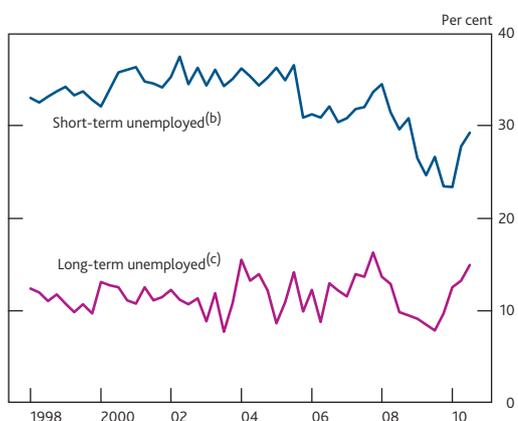
Chart 3.11 Participation rate^(a)



Source: ONS (including the Labour Force Survey).

(a) Percentage of the 16+ population. Rolling three-month measure.
(b) Recessions are defined as at least two consecutive quarters of falling output (at constant market prices) estimated using the latest data. The recessions are assumed to end once output began to rise.

Chart 3.12 Flows from unemployment to employment^(a)



Sources: Labour Force Survey and Bank calculations.

(a) Based on LFS quarterly microdata that have been seasonally adjusted by Bank staff.
(b) Flows into LFS employment by those who had been unemployed for fewer than twelve months divided by the number of people who were unemployed for fewer than twelve months in the previous quarter.
(c) Flows into LFS employment by those who had been unemployed for more than twelve months divided by the number of people who were unemployed for more than twelve months in the previous quarter.

reduced capital stock growth. But, given that the life of capital assets tends to be long, weak investment must be sustained in order to have a significant impact on the level of supply. So the impact of this to date should be relatively small.

Restrictive credit conditions could have also limited companies' ability to meet demand by making the working capital needed to finance day-to-day business operations more difficult or expensive to access. The number of manufacturing companies citing credit as a constraint on their production has decreased from its peak during the recession, but access to finance continued to limit the output of some service sector companies (Chart 3.10).

In addition, some employees are likely to acquire skills as a by-product of their work. Consequently, supply growth may have been impaired following the reduction in employment and hours worked during the recession (Chart 3.4). This 'learning by doing' channel will lead to a persistent effect on supply if it is difficult for these missed learning opportunities to be fully recovered over coming years. It could be mitigated to some extent, however, if some foregone working hours were spent gaining skills by other means — for example, higher education enrolment rates picked up during the recession.

Companies' supply capacity may also have been affected by temporary factors, the influence of which may dissipate as the economy recovers, revealing more spare capacity within businesses. For example, some companies responded to the fall in demand during the recession by reducing the number of shifts worked or the number of production lines in operation. Such decisions do not affect businesses' long-run supply potential, but, if they are costly or difficult to reverse quickly, could affect the effective supply capacity available to businesses in the short run. And, if demand remains weak, temporary changes to supply could become permanent.

In some industries, productivity may be closely related to the demand for goods and services, but effort, and therefore perceived capacity pressures, may not be. In these sectors, companies may have had to continue to work their factors of production, even as output fell. As an example, estate agents may be working intensively even though the volume of business has declined, because it has become harder to match buyers and sellers in a thin market. But if demand recovers, they could increase output without increasing labour input.

The MPC's judgement is that there has been some persistent fall in companies' supply capacity relative to a continuation of pre-recession trends, but that substantial spare capacity within companies remains (Section 5). Some spare capacity is probably available to be used instantly. And some has probably been temporarily suspended but could return as demand recovers. But if demand remains weak for a prolonged period, this capacity may gradually erode, or companies may decide to make temporary changes permanent.

3.4 Labour supply and labour market tightness

Labour supply

The impact of changes in employment on inflationary pressures will depend in part on effective labour supply. That is affected by the number of people working or seeking work — which reflects both the population, and the proportion of people participating in the labour market — and the ability of those people to find matches with suitable vacancies.

Migration continues to boost the population, and hence labour supply growth. ONS estimates suggest that, after falling in 2008, net inward migration has returned to around its pre-recession level.

Labour market participation tends to fall in recessions as people perceive that their prospects of finding work have deteriorated, or as weaker real wage growth lowers the returns to working. The participation rate fell in the three months to November, but participation has fallen by less in this recession than in the 1990s (Chart 3.11).

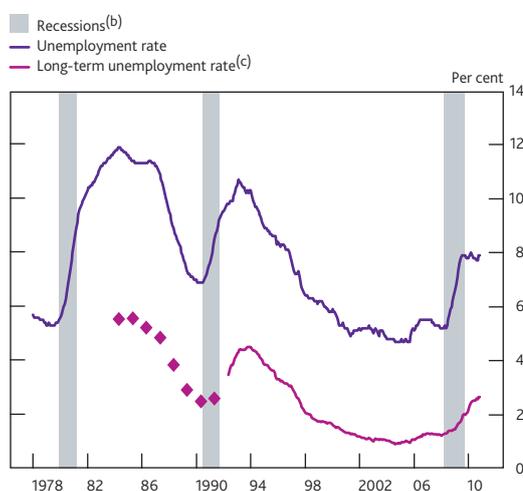
Increases in long-term unemployment may reduce effective labour supply. For example, people who suffer an extended period of unemployment may lose, or be unable to acquire, the skills sought by employers. On average, the probability of finding work tends to be lower for the long-term unemployed than for those who have been without work for less time (Chart 3.12). The long-term unemployment rate has increased over the past three years (Chart 3.13), probably lowering effective labour supply. But it has not risen as much as in previous recessions. And the share of the long-term unemployed finding work is around its pre-recession level (Chart 3.12).

Structural changes in the economy could also lead to lower effective supply, with mismatch between the demand for, and supply of, labour possibly arising across skills, regions or sectors. For example, less demand for financial services and more for manufactured products could lead to a mismatch between people's skills and those needed by employers. That could mean that, until people relocate or retrain, elevated unemployment puts less downward pressure on wages.

Labour market tightness

Nonetheless, it is likely that considerable slack remains in the labour market. The LFS unemployment rate was 7.9% in the three months to November, a slight increase relative to the three months to August, and up from 5.2% in early 2008 (Chart 3.13). Other indicators also point to some degree of labour market slack: for example, survey measures of recruitment difficulties are still below historic averages (Table 3.A).

Chart 3.13 Unemployment rates^(a)



Source: ONS (including the Labour Force Survey).

- (a) Rolling three-month measures, unless otherwise stated.
 (b) Recessions are defined as in Chart 3.11.
 (c) Defined as those people who have been unemployed for more than twelve months divided by the economically active population. Data prior to 1992 are based on non seasonally adjusted, annual LFS microdata. These annual observations correspond to the March-May quarter.

Table 3.A Selected indicators of labour market pressure

	Averages since 1998	2010			
		Q1	Q2	Q3	Q4
LFS unemployment rate ^(a)	5.7	8.0	7.8	7.7	7.9
Claimant count unemployment rate	3.4	4.9	4.6	4.5	4.5
Vacancies/unemployed ratio ^{(a)(b)}	0.36	0.19	0.20	0.19	0.19
Recruitment difficulties					
Agents' scores ^(c)	0.7	-2.8	-1.9	-1.6	-1.0
BCC ^(d)	60	43	53	50	49
CBI skilled staff ^(e)	24	11	13	11	14
CBI unskilled staff ^(e)	6	2	2	4	1

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

- (a) The figure for 2010 Q4 shows data for the three months to November.
 (b) Number of vacancies divided by LFS unemployment. Vacancies exclude agriculture, forestry and fishing. Average since June 2001.
 (c) Agents' scores for recruitment difficulties in the most recent three months compared with the situation a year earlier. End-quarter observations. The scores are on a scale of -5 to +5, with positive scores indicating greater recruitment difficulties.
 (d) Percentage of respondents reporting recruitment difficulties over the past three months. Non seasonally adjusted. Manufacturing and services balances are weighted by shares in employment.
 (e) Balances of respondents expecting skilled/unskilled labour to limit output/business over the next three months (in the manufacturing sector) or over the next twelve months (in the financial, business and consumer service sectors), weighted by shares in employment. Averages since 1998 Q4.

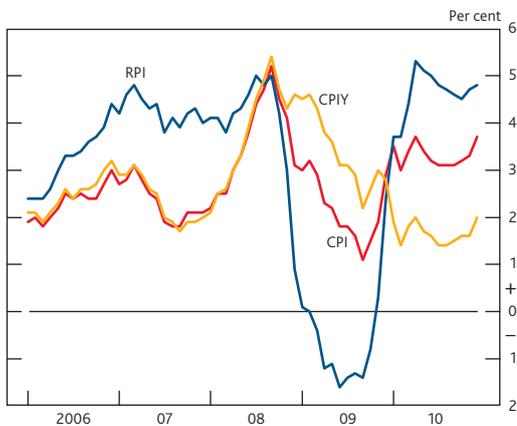
4 Costs and prices

CPI inflation was 3.7% in December, well above the 2% target. The current elevated rate of inflation reflects increases in VAT, rises in energy prices and continued pass-through of higher commodity and import prices. Inflation is likely to increase further in the near term, to between 4% and 5%, following recent rises in commodity and import prices and an increase in the contribution from VAT. Spare capacity has put downward pressure on costs and prices, and this is likely to continue. Some measures of inflation expectations have increased. Wage growth has picked up, but remains below pre-recession rates.

CPI inflation remained well above the 2% target at the end of 2010. The elevated rate of inflation reflects a number of factors, the impact of which are likely to be temporary (Section 4.1). These include: the restoration of the standard rate of VAT to 17.5% in January 2010 and some anticipation of the further rise to 20% in January 2011; increases in energy prices; and continued pass-through of higher import prices. CPI inflation is likely to rise further, to above 4%, in early 2011. The contribution of VAT is expected to increase. And recent increases in the prices of gas, oil and other commodities will also add to near-term inflationary pressure.

Excluding estimates of the contribution of VAT, energy prices and import prices, prices of other goods and services appear, on average, to have increased at a rate below the inflation target in 2010. Spare capacity, within both companies and the labour market, should continue to bear down on costs and prices. But companies may seek to rebuild their profit margins. And a rise in inflation expectations may put upward pressure on wages and prices (Section 4.2). Wage growth picked up as productivity recovered but remained below pre-recession rates (Section 4.3).

Chart 4.1 Measures of inflation^(a)



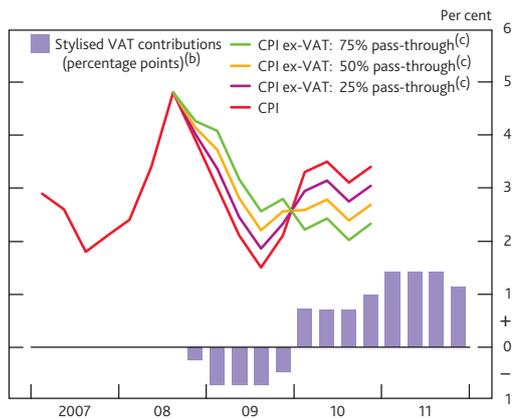
(a) Data are non seasonally adjusted.

4.1 Consumer prices

CPI inflation rose to 3.7% in December. RPI inflation also increased, reaching 4.8% (Chart 4.1). With CPI inflation lying more than 1 percentage point away from target in October, the Governor, on behalf of the Committee, wrote an open letter to the Chancellor.⁽¹⁾

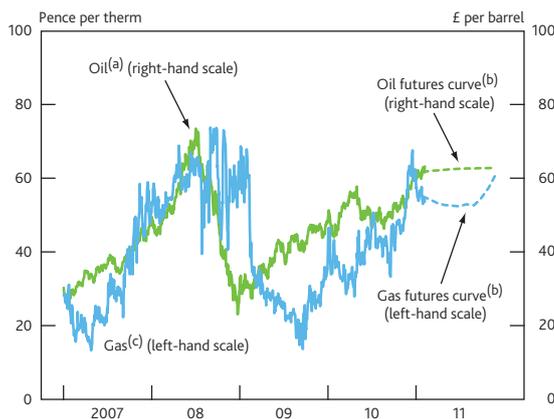
Three factors can help to explain why inflation remained elevated throughout 2010: increases in VAT; rises in energy prices; and higher import prices — reflecting both the

(1) The letter is available at www.bankofengland.co.uk/monetarypolicy/pdf/cpiletter101116.pdf.

Chart 4.2 Estimated effects of VAT on CPI inflation^(a)

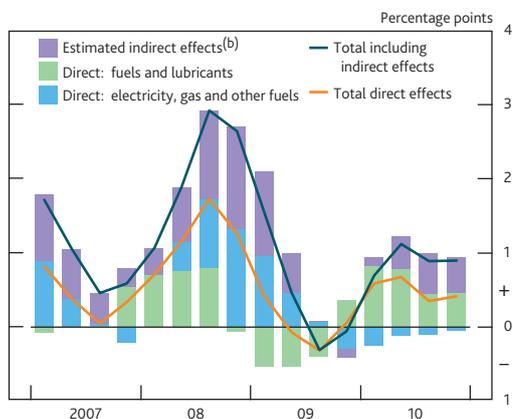
Sources: ONS and Bank calculations.

- (a) Data are shown at a quarterly frequency and are non seasonally adjusted.
 (b) The prices of 50% of the CPI basket subject to the standard rate of VAT are assumed to vary in response to the December 2008 and January 2010 changes in VAT, rising to 100% for the January 2011 VAT increase. Businesses are assumed to only adjust their prices in the months when VAT changes, except for the January 2011 VAT increase where one third of affected businesses are assumed to raise their prices pre-emptively by the end of 2010.
 (c) The prices of 25%, 50% and 75% of the CPI basket subject to the standard rate of VAT are assumed to vary in response to the changes in VAT. The examples make the simplifying assumption that businesses only change their prices in the months when VAT was changed.

Chart 4.3 Sterling oil and gas prices

Sources: Bloomberg, Thomson Reuters Datastream and Bank calculations.

- (a) Brent forward prices for delivery in 10–21 days' time converted into sterling.
 (b) Futures prices are averages during the fifteen working days to 9 February. The oil futures curve assumes that the sterling-dollar exchange rate remains at its average during the fifteen working days to 9 February.
 (c) One-day forward price of UK natural gas.

Chart 4.4 Contribution of energy prices to CPI inflation^(a)

Sources: ONS and Bank calculations.

- (a) Data are non seasonally adjusted.
 (b) Estimated indirect energy effects are calculated as the average of the direct energy effects in the current and previous two quarters.

depreciation in sterling between mid-2007 and the end of 2008, and more recent increases in commodity and world export prices. The rest of this subsection discusses the factors that have raised inflation in 2010 and their role in explaining why inflation is likely to rise to between 4% and 5% in the near term. It also discusses the effects of spare capacity and companies' profit margins on inflation.

VAT

CPI inflation was boosted throughout 2010 by the restoration of the standard rate of VAT to 17.5% at the beginning of the year. And price rises in anticipation of the increase in VAT to 20% in January 2011 may have further added to inflation in 2010 Q4; evidence from the Bank's Agents suggests that there has been some pre-emptive pass-through. There is considerable uncertainty about the precise impact of the fluctuations in VAT on CPI inflation. But evidence from the ONS appears broadly consistent with around half of the cut in VAT to 15% in December 2008, and the subsequent reversal in January 2010, having been passed through into consumer prices. **Chart 4.2** shows a stylised illustration of CPI inflation excluding the contribution of VAT using different assumptions about the extent of pass-through. These illustrations do not show how inflation would have evolved in the absence of those changes in VAT, since other aspects of the economy would also have been different.

The contribution of VAT to CPI inflation is likely to rise in 2011 (**Chart 4.2**), even though the January 2011 increase is similar in size to the increase in January 2010. Evidence from the Bank's Agents indicates that the pass-through of the 2011 VAT increase is likely to be close to full. A greater degree of pass-through than in 2010 probably reflects the 2011 VAT increase being a permanent rise, rather than the reversal of a temporary cut. There is uncertainty about the precise timing, as well as the size, of the impact on inflation. Although the prices of some products may have been raised pre-emptively, it is possible that others may not increase until after January.

The contribution of VAT to CPI inflation would have been 0.7 percentage points through most of 2010 if there had been 50% pass-through of the 2010 VAT rise. That is likely to have increased a little in Q4, as some prices rose in anticipation of the 2011 VAT increase. And the contribution would be around 1.4 percentage points in most of 2011 if full pass-through occurs.

Energy prices

Energy prices have been an important determinant of movements in CPI inflation in recent years. Over the past year, in sterling terms Brent oil prices have risen by around 35% and wholesale gas prices by around 45% (**Chart 4.3**). In sterling terms, oil prices are now only around 15% below their 2008 peak.

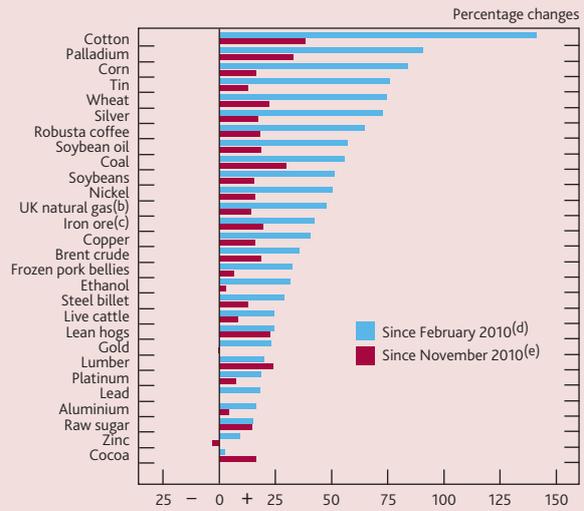
Recent developments in commodity prices

A broad range of global commodity prices, which affect import prices and hence UK inflation, have risen strongly over the past year (Chart A).⁽¹⁾ Such broad-based strength in commodity prices probably stems, in large part, from the surprisingly robust recovery in the global economy during 2010. For example, the IMF’s 2010 world GDP growth projection has been revised up from about 3% in October 2009 to 5% in its latest *World Economic Outlook* update, driven by surprisingly strong growth in both advanced and emerging economies. Over the past five years, much of the growth in world demand for commodities has come from emerging economies, in part because the composition of their output is particularly resource-intensive. Continued strength in emerging economies’ demand is expected in 2011 (Section 2); a factor that should already be reflected in current prices.

While strong demand growth is likely to have been a common factor driving prices, prices of some commodities have been further boosted by supply developments over the past year. That reflects a number of adverse weather events including a heatwave in Russia and Eastern Europe, and more recently flooding in Australia and droughts in China. That has reduced the expected size of the harvest for a number of crops, pushing up their prices. For example, wheat prices are around 75% higher than a year ago. The upward pressure on prices from such supply constraints should be temporary, however.

The MPC’s forecast is conditioned on broadly flat paths for commodity prices, but there is great uncertainty, in both directions, about those paths (Section 5).

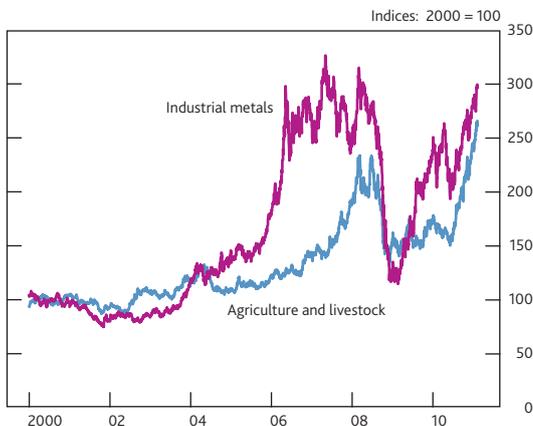
Chart A Selected primary commodity prices^(a)



Sources: Bloomberg, Chicago Board of Trade, Chicago Mercantile Exchange, IntercontinentalExchange, London Metal Exchange, NYSE Liffe, Steel Business Briefing and Bank calculations.

- (a) Prices are US dollars per unit of commodity unless otherwise stated, and refer to the spot price or first futures contract where appropriate.
- (b) Pence per therm.
- (c) Price index compiled by Steel Business Briefing.
- (d) Percentage change over the fifteen working days to 9 February 2011 compared with the same period a year earlier.
- (e) Percentage change between the fifteen working days to 9 February 2011 and the fifteen working days to 3 November 2010.

Chart 4.5 Commodity prices^(a)



Sources: Standard & Poor’s and Thomson Reuters Datastream.

(a) The agriculture and livestock, and industrial metals series are calculated using S&P (dollar) commodity price indices.

Energy prices affect CPI directly through the prices of petrol and domestic gas and electricity bills. Petrol prices contributed 0.5 percentage points to CPI inflation in 2010 Q4 (Chart 4.4). Retail gas and electricity bills made little contribution over Q4 as a whole, but recent increases in utility prices by some suppliers boosted CPI inflation in December.

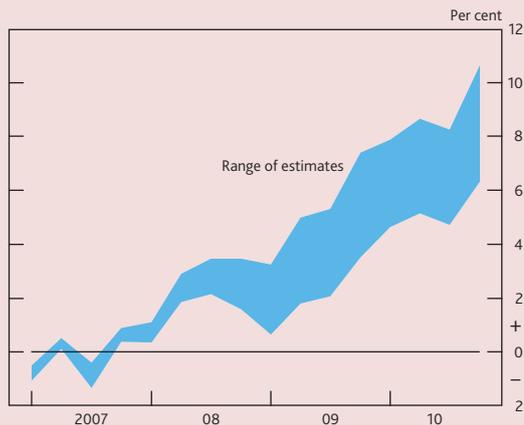
Energy prices also have indirect effects on inflation. For example, they affect the production and transport costs of companies producing a wide range of goods and services. Evidence from input-output tables — which show how the output of one industry is used as an input into other industries — suggests that these indirect effects could plausibly be of a similar size to the direct contribution of energy prices to CPI inflation, although they may come through more slowly. That would imply that increases in energy prices added almost 1 percentage point to inflation in 2010 Q4 (Chart 4.4).

The contribution of energy prices to CPI inflation is likely to increase in the near term. The increases already seen in oil

Estimating the impact of VAT, energy prices and import prices on CPI inflation

Chart 4.8 on page 36 shows a range of estimates of the combined contribution of VAT, energy prices and import prices to CPI inflation. These are estimated to have added 6%–10½% to the level of prices between 2007 and the end of 2010 (**Chart A**). The January 2011 VAT rise and additional increases in energy and import prices mean that a further significant increase in the combined impact of these factors on the price level is likely in Q1, perhaps as much as 2 to 3 percentage points. This box sets out the assumptions behind these estimates. They are necessarily uncertain and alternative approaches could give estimates that lie outside of this range. Moreover, these calculations do not show how prices would have evolved in the absence of those factors, since many other aspects of the economy would probably have also been different.

Chart A Estimates of the impact of VAT, energy prices and import prices on the level of consumer prices^(a)



Sources: ONS and Bank calculations.

(a) Percentage changes in the level of CPI relative to 2006 Q4. See footnote to **Chart 4.8** on page 36 for details on the assumptions underlying the range of estimates.

Impact of VAT on CPI inflation

Evidence from the ONS is broadly consistent with around half of the cut in VAT in December 2008, and the subsequent reversal in January 2010, being passed through into consumer prices. But it is difficult to estimate pass-through precisely. Plausible alternative assumptions of 25% and 75% pass-through imply that the average impact of VAT changes on CPI inflation in 2010 would have been somewhere between 0.4 and 1.1 percentage points, based on the simplifying assumption of no pre-emptive price rises in Q4 ahead of the 2011 VAT increase.

Impact of energy prices on CPI inflation

The contribution from petrol and utility prices provides a lower bound of the impact of energy prices on CPI inflation

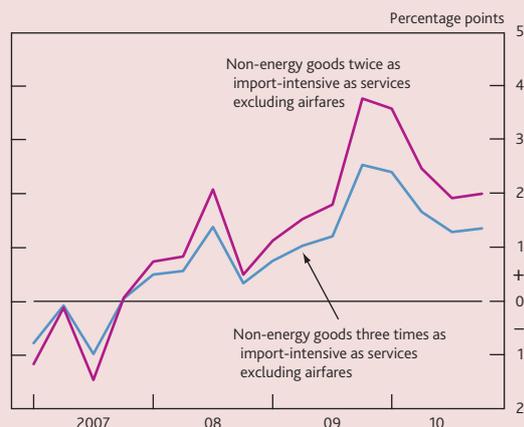
(**Chart 4.4** on page 32). But higher energy prices also have indirect effects that are more difficult to quantify. For example, they affect production and transport costs. Evidence from input-output tables suggests that the indirect energy share of the CPI basket is about the same as the direct share. This doubles the contribution of energy prices to CPI inflation, although the indirect effects are likely to come through more slowly: in the calculations, the contributions are spread over three quarters.

Impact of import prices on CPI inflation

Imports are used in the production of a range of goods and services but the exact import content of the CPI basket is unknown; that makes it hard to identify precisely the contribution of import prices to CPI inflation. The impact can be estimated, however, using changes in the difference between goods (excluding energy) and services (excluding energy-intensive airfares) inflation rates, referred to as the 'wedge' in this box.

The relative import intensity of goods and services is also uncertain, but based on evidence from input-output tables, a plausible assumption is that goods are between two and three times more import-intensive than services. If it is assumed that import prices are the only factor affecting the wedge, then for a given change in the wedge, say 2 percentage points, this gives a range of estimates of the overall impact on CPI inflation. For example, if goods were twice as import-intensive as services, then that implies that import prices would have raised services prices by 2% and

Chart B Estimates of the contribution of import prices excluding fuels to CPI inflation^(a)



Sources: ONS and Bank calculations.

(a) All movements in CPI non-energy goods inflation relative to CPI services inflation excluding airfares compared to its 2006 Q4 level are attributed to import prices. Data are adjusted for the impact of VAT changes assuming that 50% of the prices in the CPI basket that are subject to VAT vary in response to changes in VAT. The ranges use the simplifying assumption that companies only adjust their prices in the months that VAT was changed. Goods prices excluding energy are adjusted for an estimate of the impact of changes in price collection practices for clothing and footwear prices (see the box on page 39 for details). That impact is likely to build gradually: clothing and footwear prices are assumed to be 2% lower than in the measured CPI data between April and August 2010 and 4% lower from September 2010 onwards.

goods prices by 4%. But if goods were three times as import-intensive, import prices must have raised services prices by only 1% and goods prices by 3%. The overall impact on CPI inflation is then given by the weighted average of the goods and services estimates.

Since 2006 Q4, goods prices (excluding energy) have risen relative to services prices (excluding airfares) by around 5%. Assuming that import prices account for all of this increase would suggest that import prices have added 4% to 6% to the overall price level and raised CPI inflation by 1.3 to 2 percentage points in 2010 Q4 (**Chart B**). It should be noted that these results are sensitive to the choice of starting point and rely on the assumption that all movements in the wedge reflect only movements in import prices. In practice, other factors, such as differential VAT pass-through or differences in

the relative demand for goods and services may have also affected the wedge.

The estimates in **Chart B** do not appear implausible, however. With import prices having risen by around 20% since 2007, a 6% impact on the price level is consistent with full pass-through of the increases in import prices to CPI if the import intensity of the CPI basket is around 30%. Differences between UK and euro-area inflation provide a cross-check on the impact of increases in import prices associated with the exchange rate. This approach yields broadly similar estimates to those based on UK goods and services data up to mid-2010, although it cannot be used over the more recent past when increases in import prices mainly reflect higher world prices, which affect both UK and euro-area inflation.

prices, the increase in VAT and planned rises in fuel duty in January and April mean that petrol prices are likely to add more to inflation. In addition, some utility suppliers have announced price rises that take effect during Q1, and cuts in gas bills in Spring 2010 will drop out of the inflation rate. The contribution of utilities to CPI inflation is therefore likely to increase by a further 0.2 percentage points by April, assuming no additional announcements on charges. And continued pass-through of indirect energy effects will add more to CPI inflation.

Import and non-energy commodity prices

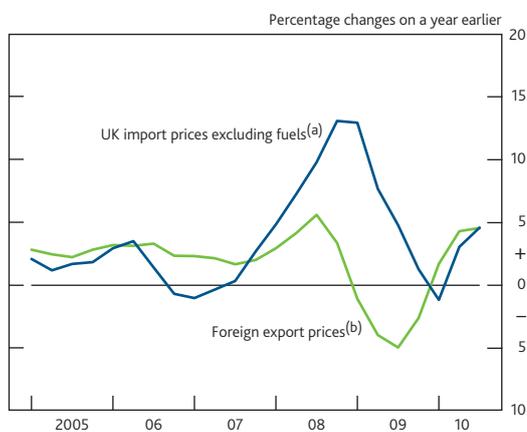
Import prices depend on the foreign currency prices of foreign goods and the exchange rate. The depreciation of sterling between mid-2007 and the end of 2008 led to substantial increases in import prices. More recently, rises in global prices have put further upward pressure on UK import prices.

Commodity prices have increased sharply over the past year: agriculture and livestock prices have risen by 55% and industrial metals prices by 30% (**Chart 4.5**). Recent rises in commodity prices are discussed in the box on page 33.

Higher commodity prices affect UK import prices directly, by raising the price of imported commodities, and indirectly, by increasing the prices of imports that use commodities as an input. Increases in world export prices in 2010, which are likely in part to reflect these direct and indirect effects, have raised UK import prices excluding fuels over the recent past (**Chart 4.6**).

The extent and timing of pass-through of rises in import prices to UK inflation is uncertain. Companies may accept lower profit margins for a period before passing through price rises, or they may bear down on other costs, such as wages, when the cost of imports rises.

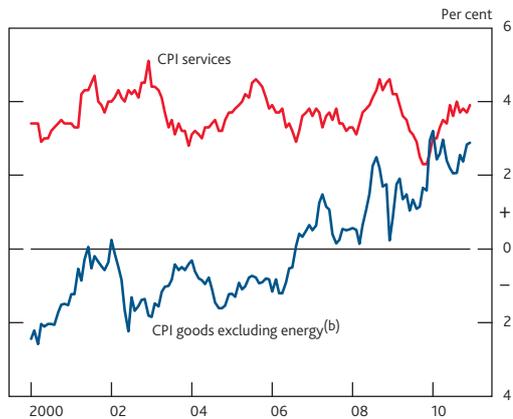
Chart 4.6 UK import prices and foreign export prices



Sources: ONS, Thomson Reuters Datastream and Bank calculations.

- (a) Goods and services deflator, excluding the impact of MTIC fraud.
 (b) Domestic currency export prices of goods and services of 45 countries weighted according to their shares in UK imports.

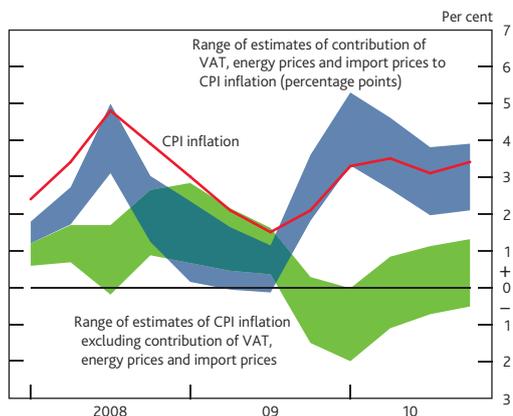
Chart 4.7 CPI goods inflation excluding energy and CPI services inflation^(a)



Sources: ONS and Bank calculations.

- (a) Data are non seasonally adjusted.
 (b) CPI goods excluding electricity, gas and other fuels and fuels and lubricants.

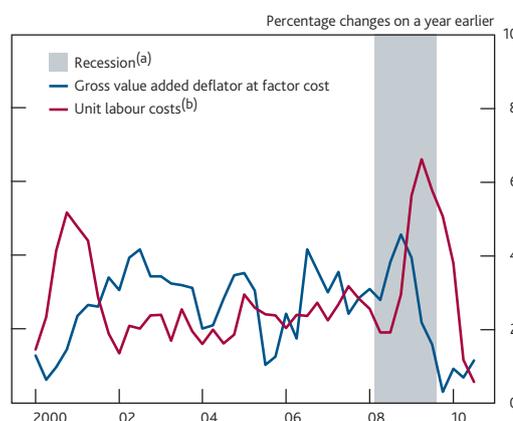
Chart 4.8 CPI inflation and the contribution of VAT, energy prices and import prices^(a)



Sources: ONS and Bank calculations.

- (a) The blue swathe sums the minimum and maximum of the individual estimated impacts of VAT, energy prices and import prices on CPI inflation. The VAT impacts are based on the 25% and 75% pass-through assumptions shown in Chart 4.2, adjusted for changes in petrol prices that are incorporated in the energy price impacts. The energy price impacts are the direct and total including indirect estimates shown in Chart 4.4. The import price effects are based on the estimates shown in Chart B in the box on page 34. The green swathe shows CPI inflation less the minimum and maximum of the blue swathe.

Chart 4.9 Unit labour costs and the GDP deflator



Sources: ONS and Bank calculations.

- (a) A recession is defined as at least two consecutive quarters of falling output (at constant market prices) estimated using the latest data. The recession is assumed to end once output began to rise.
 (b) Employees' compensation at current market prices divided by chained-volume measure of GDP at market prices.

Disaggregated data may help to assess the extent of pass-through of import prices to inflation. Differences between UK goods and services prices provide a signal about the effect of import prices because goods are more import-intensive than services. Non-energy goods price inflation has risen relative to services price inflation since 2006 (Chart 4.7). Estimates based on these relative movements in goods and services prices suggest that import prices could have contributed between 1.3 and 2 percentage points to CPI inflation in 2010 Q4. These calculations are discussed in the box on pages 34–35.

One component of CPI where changes in import prices may be passed through relatively quickly to consumer prices is food. The contribution of food to CPI inflation has risen by 0.4 percentage points since June, in part reflecting rises in agricultural commodity prices.

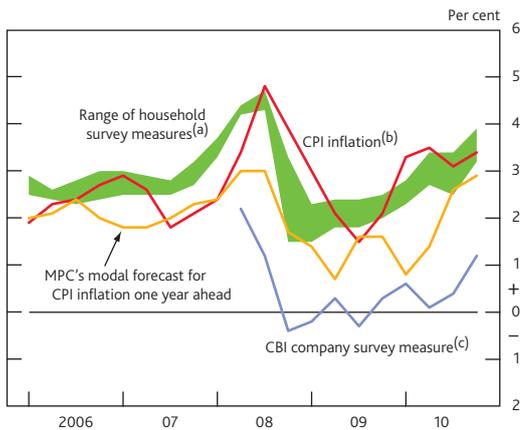
Clothing and footwear is a second component of CPI that is particularly influenced by import prices. That has made an increasing contribution to inflation during 2010. But higher CPI clothing inflation may also reflect recent changes to price collection practices by the ONS. These changes, which are discussed in the box on page 39, have added significantly to measured clothing and footwear inflation recently. A plausible upper estimate of the impact of these changes on aggregate CPI inflation is in the region of 0.3 percentage points, although the impact in 2010 Q4 may be a little less.

In the near term, import prices are likely to continue to make a substantial contribution to inflation as recent increases in commodity prices and global prices more generally are passed through into consumer prices. These rising cost pressures are already evident in the supply chain: manufacturing input prices rose by 12.5% over the year to December, while output prices increased by 4.2% over the same period.

The contribution of VAT, energy prices and import prices to CPI inflation

The calculations set out in the box on pages 34–35 suggest that VAT, energy prices and import prices could be adding a total of 2 to 4 percentage points to CPI inflation in 2010 Q4 (Chart 4.8). These effects are hard to calibrate precisely, but the combined contributions of these three factors are likely to increase further in 2011 Q1, perhaps by more than 1 percentage point, because of higher pass-through of the 2011 VAT increase, and additional rises in energy prices and import prices.

Excluding these estimates of the contribution of VAT, energy prices and import prices, prices of other goods and services appear to have, on average, increased at a rate below the inflation target in 2010 (Chart 4.8). But this is not a measure of what inflation would have been in the absence of these factors. For example, in the absence of a rise in the price of

Chart 4.10 Inflation expectations for the year ahead

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

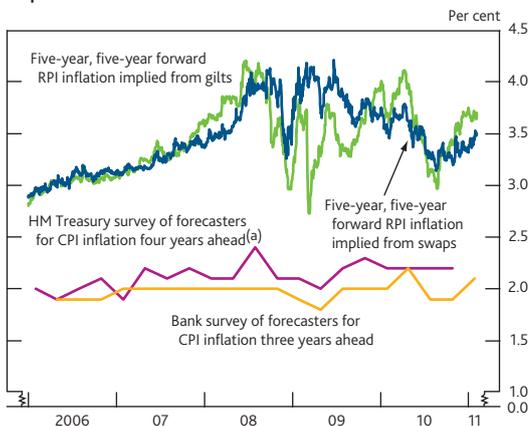
- (a) Includes measures of households' median inflation expectations one year ahead from the Bank/NOP, Barclays Basix and YouGov/Citigroup surveys. The questions ask about expected changes in prices, but do not reference a specific price index.
 (b) Data are non seasonally adjusted.
 (c) Manufacturing, business/consumer services and distribution sectors data are weighted together using nominal shares in value added. Companies are asked about the expected percentage price change over the coming twelve months in the markets in which they compete.

Table 4.A Households' inflation expectations beyond a year ahead^(a)

Per cent	Averages ^(b)	2008	2009	2010				2011
				Q1	Q2	Q3	Q4	Jan.
Expectations (number of years ahead)								
Bank/NOP (2)	2.5	n.a.	2.2	2.4	2.8	2.9	3.2	n.a.
Barclays Basix (2)	3.2	3.7	3.0	3.2	3.8	2.8	3.6	n.a.
Barclays Basix (5)	3.9	n.a.	3.8	3.8	4.1	3.1	4.0	n.a.
YouGov/Citigroup (5–10)	3.4	3.5	3.1	3.2	3.1	3.3	3.6	3.7

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

- (a) The questions ask about expected changes in prices, but do not reference a specific price index. All measures are based on the median estimated price change. YouGov/Citigroup data are monthly, other measures are quarterly.
 (b) Since 2009 Q1 for Bank/NOP data. Since 2000 for Barclays Basix two-year data. Since 2008 Q3 for Barclays Basix five-year data. Since November 2005 for YouGov/Citigroup data.

Chart 4.11 Market-based indicators of inflation expectations and selected forecasters' inflation expectations

Sources: Bank of England, Bloomberg, HM Treasury and Bank calculations.

- (a) Taken from *Forecasts for the UK economy: a comparison of independent forecasts*. Based on the average of medium-term projections published in February, May, August and November.

imported goods, households would have had more disposable income available to spend on domestically produced goods and services, putting possible upward pressure on their prices. Nonetheless, when combined together, the scale of these effects on inflation does suggest that, had these shocks not occurred, inflation would probably have been substantially lower, particularly over the course of 2010.

Companies' pricing decisions and spare capacity

The significant margin of spare capacity in the economy created by the large fall in output (Section 3) has reduced the cost of expanding output for companies, and also helped to keep wage growth low. The downward impact of spare capacity is probably a key reason why domestically generated inflation is likely to have been low for much of the past three years. As the temporary impact of the factors raising inflation wanes, inflation should fall anyway. But the presence of spare capacity suggests that inflation is likely to fall further than would otherwise have been the case.

The smaller falls in employment than in output during the recession meant that, even though earnings growth was weak, labour costs rose relative to output (Chart 4.9). That rise in unit labour costs was larger than the rise in prices, and so companies' profit margins fell. Unit labour cost growth has fallen back during 2010 as productivity has begun to recover. But it is likely that margins remain depressed and companies may increase prices to rebuild their margins, partially offsetting the downward impact of spare capacity (Section 5).

4.2 Inflation expectations

The degree to which inflation will fall back from elevated levels depends on developments in inflation expectations. If companies and households expect that inflation will remain high, or simply take somewhat longer to fall back, they may build these expectations into their wage and price-setting decisions.

Companies' inflation expectations are a key determinant of their price-setting behaviour. The only direct survey evidence available comes from the CBI; these data suggest that companies' short-term inflation expectations have picked up somewhat since 2009 (Chart 4.10).

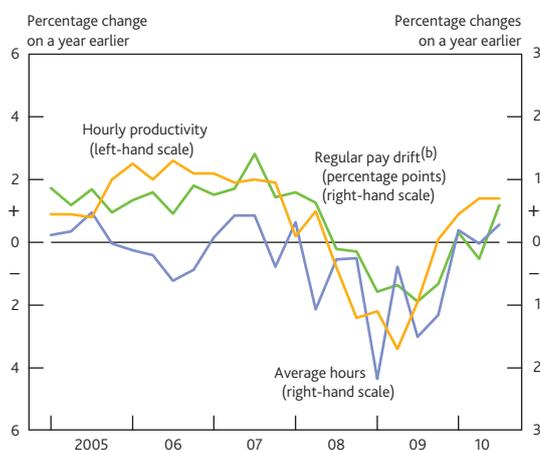
Households' inflation expectations may be less directly relevant for prices than companies' expectations, but there is a wider range of indicators available. On average, households' expectations of inflation one year ahead have picked up by slightly more than companies' expectations since early 2009 (Chart 4.10), although they refer to different sets of prices. The rises in households' short-term inflation expectations since 2009 are similar both to the revisions to the MPC's view

Table 4.B Private sector earnings^(a)

Percentage changes on a year earlier	Averages 2001–07	2009	2010			
			Q1	Q2	Q3	Nov. ^(b)
(1) AWE regular pay	3.9	1.2	0.9	0.6	2.1	2.3
(2) Pay settlements ^(c)	3.3	2.5	1.6	1.6	1.7	1.7
(1)–(2) Regular pay drift ^(d)	0.6	-1.3	-0.7	-1.0	0.4	0.6
(3) Total AWE	4.3	-1.0	4.1	0.2	1.9	1.9
(3)–(1) Bonus contribution ^(d)	0.4	-2.1	3.2	-0.4	-0.2	-0.5

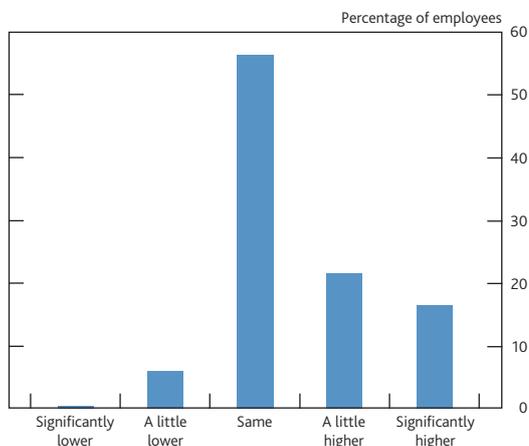
Sources: Bank of England, Incomes Data Services, the Labour Research Department, ONS and XpertHR.

- (a) Based on quarterly data unless otherwise stated.
 (b) Data in the two months to November.
 (c) Average over the past twelve months, based on monthly data.
 (d) Percentage points.

Chart 4.12 Whole-economy regular pay drift, hourly productivity and average hours^(a)

Sources: Bank of England, Incomes Data Services, the Labour Research Department, ONS (including the Labour Force Survey) and XpertHR.

- (a) Quarterly measures.
 (b) Calculated as the difference between AWE regular pay growth (percentage change on a year earlier) and pay settlements (averaged over the past twelve months).

Chart 4.13 Agents' survey: pay settlements in 2011 compared with 2010^(a)

- (a) The survey asks respondents: 'How does your likely average pay settlement in the next pay round compare with your average settlement last year?'. A little higher (lower) is defined as 0.1% to 1% higher (lower) than in 2010. Significantly higher (lower) is defined as more than 1% higher (lower). Responses are weighted by respondents' number of employees. Based on 360 responses (covering nearly 900,000 employees) to a survey of companies by the Bank's Agents carried out during December 2010 and January 2011.

of the most likely path for inflation one year ahead and to increases in actual inflation.

If rises in short-term inflation expectations feed through into longer-term measures, that may put more upward pressure on wages and prices. Evidence on recent movements in longer-term expectations has been mixed. Measures of households' medium-term inflation expectations have increased (**Table 4.A**). And although the rises have been smaller than for the corresponding near-term indicators, these measures are all at above-average levels. But other indicators of medium-term inflation expectations have not risen; some market-based measures and the expectations of professional forecasters have changed little over the past year (**Chart 4.11**).

If high inflation expectations persist and lead to higher wages and prices, then that would cause inflation to fall back by less than it otherwise would. While there is some evidence of a rise in inflation expectations, there is little sign of this leading to significant increases in pay growth at present (Section 4.3).

4.3 Labour costs

Nominal wage growth picked up during 2010, but remained subdued relative to its pre-recession average (**Table 4.B**). Regular pay drift — the difference between total earnings growth excluding bonuses and settlements — accounts for much of the rise in earnings growth since 2010 Q2. Increases in settlements have been modest and bonuses have not added to earnings growth.

In part, the recovery in regular pay drift probably reflects increases in hours worked and higher hourly productivity (**Chart 4.12**), and so has added little upward pressure to companies' unit labour costs. Consistent with that, the pickup in regular pay drift has been larger in manufacturing, where the recovery in productivity and hours has been faster, than in services.

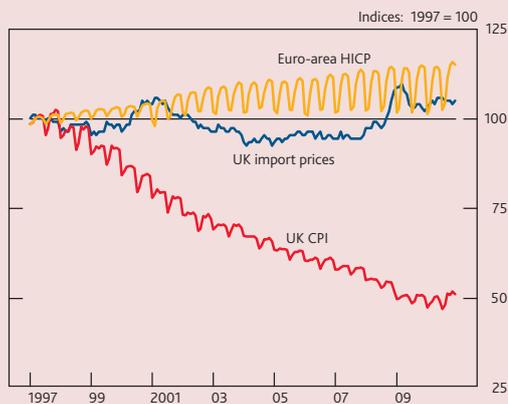
Spare capacity is likely to have put downward pressure on wages as high levels of unemployment discourage employees from pushing for higher wages. That may explain why settlements have remained well below their pre-recession average.

Settlements are also the component of wage growth that is most likely to be affected by inflation expectations; according to the *XpertHR Pay Prospects Survey*, 60% of businesses take account of some measure of inflation during pay negotiations. Evidence from the Bank's Agents suggests that settlements may rise modestly in 2011. In a recent survey almost 40% of respondents expected their 2011 settlement to be higher than in 2010 (**Chart 4.13**). But at least in part, that could reflect a recovery in productivity.

Clothing and footwear prices

Increases in CPI clothing and footwear prices during 2010 in part reflect factors that have been putting upward pressure on UK inflation more broadly; commodity prices — in particular, cotton prices have more than doubled over the past year; sterling's past depreciation; the rise in VAT; and increases in transport costs (Section 4.1). But, as discussed in this box, the increases probably also reflect a change in price collection practices by the ONS. Previous collection methods may have biased down estimates of CPI clothing prices. Imported clothing and footwear prices and euro-area clothing prices should both be affected by some of the same factors as the UK CPI measure. But between 1997 and 2009, measured UK CPI clothing prices halved, while the corresponding import and euro-area prices both rose slightly (**Chart A**).

Chart A Clothing and footwear prices^(a)



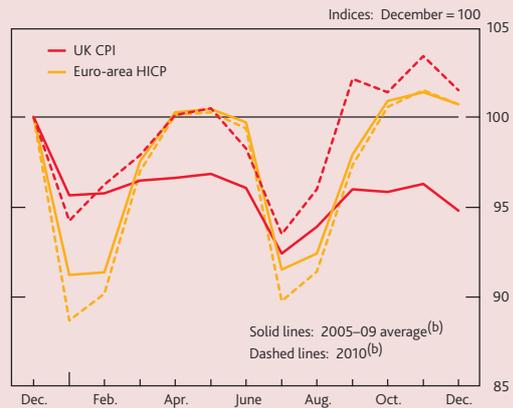
Sources: Eurostat and ONS.

(a) Data are non seasonally adjusted.

Changes to price collection practices

The ONS started to implement changes to the way clothing and footwear prices are collected in January 2010.⁽¹⁾ Clothing and footwear prices are highly seasonal, falling during sales periods as retailers try to clear that season's stock and then recovering as new stock is brought in. Due to such changes in stock, identical garments are often no longer available, making it difficult to capture post-sale increases in prices. It is likely that the previous collection practices picked up the seasonal falls in prices during the winter and summer sales, but did not fully capture the recovery in prices after sales had finished; with CPI calculated from monthly changes in prices, this would have biased down both the price levels and annual inflation rates. The revised collection practices should provide a more accurate measure of true changes in clothing prices, for example by collecting more prices and allowing for small changes in quality and style. **Chart B** illustrates that UK prices appeared to recover fully following the end of price discounting in 2010, unlike in the past, and more in line with experience in the euro area.

Chart B Seasonality in clothing and footwear prices^(a)



Sources: Eurostat and ONS.

(a) Data are non seasonally adjusted.

(b) Periods refer to the thirteen months from the previous December. For example, 2005 data cover December 2004 to December 2005, where December 2004 equals 100.

Impact on CPI inflation

A plausible upper estimate of the impact of changes in price collection practices on CPI inflation can be derived by assuming that UK CPI clothing prices were on average unchanged between 1997 and 2009, broadly in line with import price and euro-area HICP data. That suggests that true clothing prices were around 5.5% a year higher than measured in the CPI, equivalent to adding 0.3 percentage points to aggregate annual CPI inflation. But since the changes to collection practices will not yet have fully affected the twelve-month inflation rate, the impact in 2010 Q4 may be a little less than this.

The changes to price collection practices will potentially affect clothing and footwear inflation persistently; they do not represent a one-off adjustment to the price level. But whatever the impact on measured inflation, these changes do not affect the actual clothes prices faced by UK consumers.

Impact on RPI inflation

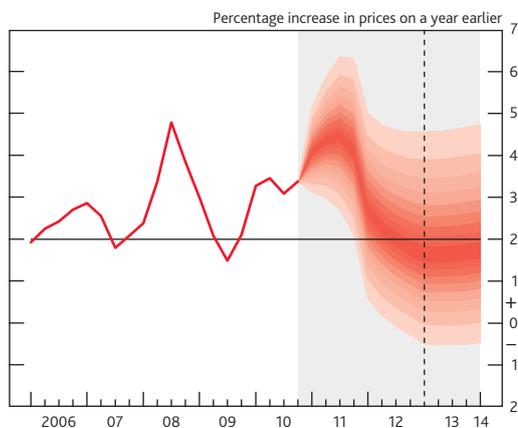
The changes to clothing price collection methods are likely to have a larger impact on RPI inflation than on CPI inflation. RPI is calculated using an arithmetic mean to aggregate individual prices into a single price index, while CPI uses a geometric mean. For any given sample, the arithmetic mean will be larger than, or equal to, the geometric mean, by an amount dependent on the dispersion within the sample. This is often referred to as the 'formula effect'. The changes to price collection practices will increase the dispersion of clothing and footwear prices, and therefore the impact on RPI will be larger than the impact on CPI. In 2010, the contribution of the formula effect to the CPI/RPI wedge increased by 0.3 percentage points, entirely reflecting clothing and footwear prices.

(1) See www.statistics.gov.uk/downloads/theme_economy/info-note-cpiandrpi-impact-formula-effect2010.pdf.

5 Prospects for inflation

Inflation has been significantly above the MPC's 2% target throughout the past year, and is likely to rise further in 2011, reflecting high import and energy price inflation, the recent increase in VAT and some rebuilding of companies' margins. Inflation is likely to fall back as those effects diminish and downward pressure from spare capacity persists, but the timing and extent of that decline in inflation are uncertain. Growth is likely to resume following the contraction in output at the end of 2010, supported by the past depreciation of sterling, continued global recovery, and the boost from monetary policy, but tempered by a continuing drag from weak real income growth and the fiscal consolidation. Under the assumptions that Bank Rate moves in line with market interest rates and the stock of purchased assets financed by the issuance of central bank reserves remains at £200 billion, the chances of inflation being either above or below the target are judged to be broadly equal in the medium term.

Chart 5.1 CPI inflation projection based on market interest rate expectations and £200 billion asset purchases



Charts 5.1 and 5.4 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 £200 billion throughout the forecast period. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any particular quarter would lie within the darkest central band on only 10 of those occasions. The fan charts are constructed so that outturns of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. In any particular quarter of the forecast period, inflation is therefore expected to lie somewhere within the fans on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions inflation can fall anywhere outside the red area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In Charts 5.1 and 5.4, the ratios of the probabilities in the lower bands to those in the upper bands are approximately 4:6 at Years 2 and 3. The upward skew at Year 1 is smaller. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed lines are drawn at the respective two-year points.

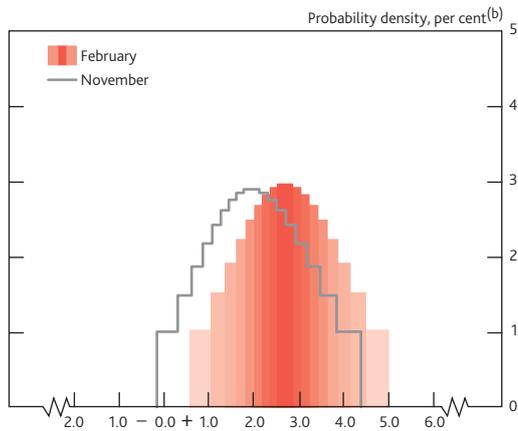
5.1 The projections for inflation and demand

There are substantial, but opposing risks, to inflation. Inflation has been above the MPC's 2% target for most of the past three years, and is likely to remain so throughout 2011. If businesses and households come to expect inflation to remain elevated for longer, that may lead them to set higher prices and wages than are consistent with meeting the inflation target in the medium term. But, as the effects of higher VAT and imported inflation diminish, there is also a risk that weak growth and persistent spare capacity may cause inflation to fall well below the target. The MPC needs to set monetary policy to balance these opposing risks to inflation in the medium term.

Chart 5.1 shows the outlook for CPI inflation, on the assumption that Bank Rate follows a path implied by market interest rates. That path is somewhat higher than the profile for Bank Rate underlying the November projections. The chart, along with all the others describing the MPC's projections shown in this section, is conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £200 billion throughout the forecast period.

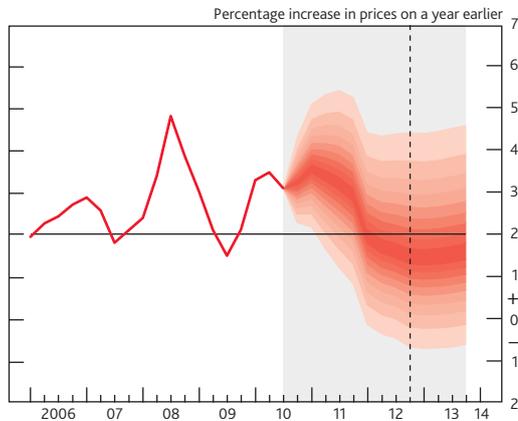
The near-term outlook for inflation is markedly higher than in November (Chart 5.4), largely because of further recent increases in energy, other commodity and world export prices. Inflation is likely to fall back during 2012, but the timing and extent of that fall are both uncertain, and will depend on the evolution of global prices, on the degree to which inflation expectations rise following a sustained period of elevated

Chart 5.2 Projected probabilities of CPI inflation outturns in 2012 Q1 (central 90% of the distribution)^(a)



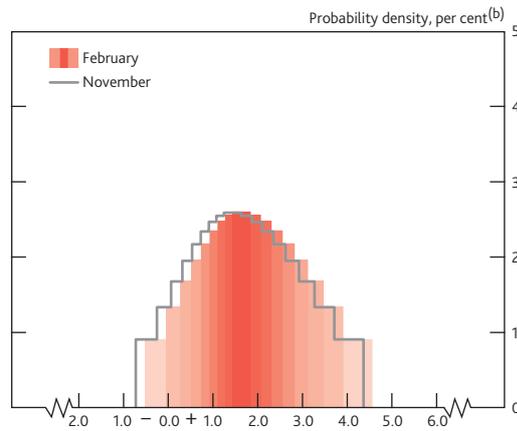
- (a) Charts 5.2 and 5.3 represent cross-sections of the CPI inflation fan chart in 2012 Q1 and 2013 Q1 for the market interest rate projection. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £200 billion throughout the forecast period. The coloured bands in Charts 5.2 and 5.3 have a similar interpretation to those on the fan charts. Like the fan charts, they portray the central 90% of the probability distribution. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in 2012 Q1 and 2013 Q1 would lie somewhere within the range covered by the histogram on 90 occasions. Inflation would lie outside the range covered by the histogram on 10 out of 100 occasions. The grey outlines in Charts 5.2 and 5.3 represent the corresponding cross-sections of the November 2010 *Inflation Report* fan chart, which was conditioned on 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 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 5.4 CPI inflation projection in November based on market interest rate expectations and £200 billion asset purchases



See footnote to Chart 5.1.

Chart 5.3 Projected probabilities of CPI inflation outturns in 2013 Q1 (central 90% of the distribution)^(a)

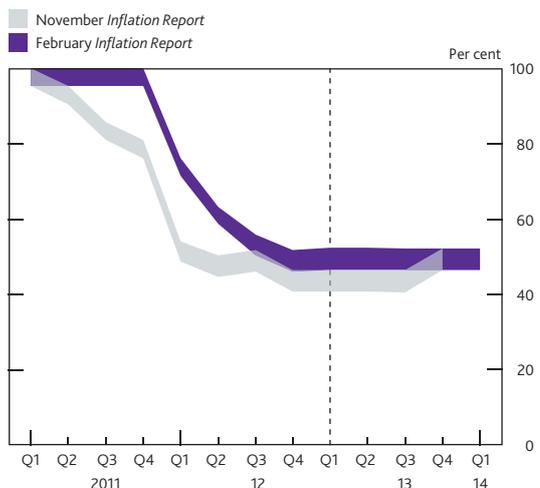


inflation, and on how much businesses seek to restore profit margins. The outlook for inflation also hinges on the degree of spare capacity within businesses and the labour market, and the sensitivity of prices and wages to that spare capacity. There remains a wider range of views than usual among Committee members about the likely effects of these various influences on inflation, and so the associated overall balance of risks. The Committee's best collective judgement is that the chances of inflation being above or below the target are broadly equal in the medium term; the most likely outcome is for inflation to fall a little below the target in the second half of the period, but the risks relative to that most likely path are skewed to the upside.

Charts 5.2 and 5.3 show the spread of outcomes for CPI inflation at the one and two-year points, and Chart 5.5 shows the Committee's best collective judgement of the probability of inflation being above the 2% target over the forecast period, and the probability implied by the November *Report* projection. The overall distribution for inflation is markedly higher than in November during the first half of the forecast period, and a little more elevated further ahead, despite a higher assumed path for Bank Rate. Chart 5.6 shows frequency distributions for inflation. The Committee judges that at both the two and three-year points, there is a roughly three-in-four chance that inflation will be at least half a percentage point away from the target — but the chances of it being more than half a percentage point above or below are roughly equal.

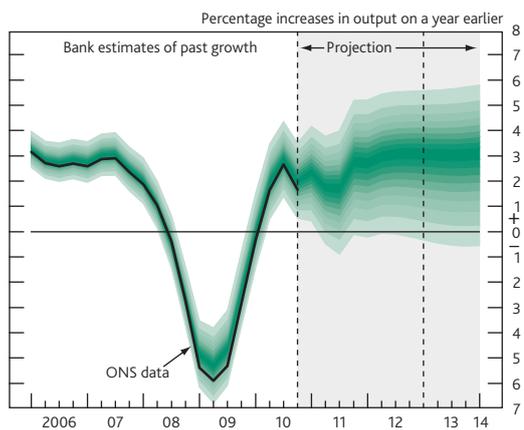
The extent of spare capacity over the forecast period, and so the degree of downward pressure exerted on inflation, will depend not only on the path of potential output and therefore underlying productivity, but also on the strength of demand.

Chart 5.5 An indicator of the probability inflation will be above the target



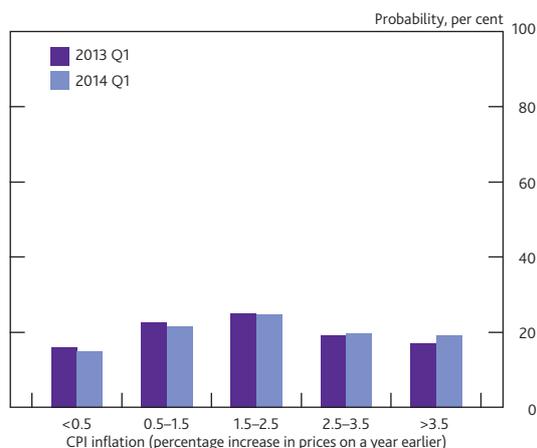
The February and November swathes in this chart are derived from the same distributions as Charts 5.1 and 5.4 respectively. They indicate the assessed probability of inflation being above target in each quarter of the forecast period. The width of the swathe at each point in time corresponds to the width of the band of the fan chart in which the target falls in that quarter, or, if the target falls outside the coloured area of the fan chart, the width of the band closest to the target. The bands in the fan chart illustrate the MPC's best collective judgement that inflation will fall within a given range. The swathes in Chart 5.5 show the probability within the entire band of the corresponding fan chart of inflation being close to target; the swathes should not therefore be interpreted as a confidence interval. The dashed line is drawn at the two-year point of the February projection. The two-year point of the November projection was one quarter earlier.

Chart 5.7 GDP projection based on market interest rate expectations and £200 billion asset purchases



The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £200 billion throughout the forecast period. To the left of the first vertical dashed line, the distribution reflects the likelihood of revisions to the data over the past; to the right, it reflects uncertainty over the evolution of GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that the mature estimate of GDP growth would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outcomes are also expected to lie within each pair of the lighter green areas on 10 occasions. In any particular quarter of the forecast period, GDP is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions GDP growth can fall anywhere outside the green area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In Chart 5.7, the ratios of the probabilities in the lower bands to those in the upper bands are approximately 6:4 at Years 2 and 3; the downward skew is somewhat smaller at Year 1. See the box on page 39 of the November 2007 Inflation Report for a fuller description of the fan chart and what it represents. The second dashed line is drawn at the two-year point of the projection.

Chart 5.6 Frequency distribution of CPI inflation based on market interest rate expectations and £200 billion asset purchases^(a)

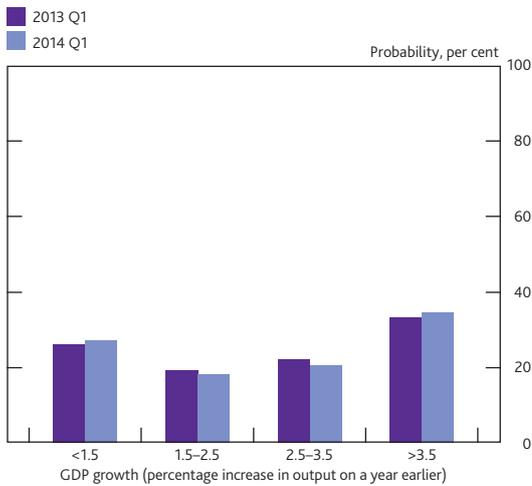


(a) These figures are derived from the same distribution as Chart 5.1. They represent the probabilities that the MPC assigns to CPI inflation lying within a particular range at a specified time in the future.

Chart 5.7 shows the outlook for real GDP growth, on the assumption that Bank Rate follows a path implied by market interest rates. Growth appears to have weakened in the final quarter of 2010, even after adjusting for the temporary effects of bad weather. It is difficult to judge whether that will prove to have been just a temporary weakening in growth, as occurred during previous recoveries, or the harbinger of a more persistent slowdown. But the Committee's central judgement is that the underlying rate of growth is likely to pick up gradually over 2011, supported by the boost to net trade from the global recovery and the past depreciation of sterling, together with the stimulus from monetary policy. Offsetting those forces, a substantial squeeze on households' purchasing power, the wider effects of the fiscal consolidation and tight credit conditions are likely to act as a continued drag on spending.

There is a high degree of uncertainty over the outlook for GDP, together with a wider than usual range of views among Committee members. Households' and companies' current and future incomes, and therefore their likely spending over the forecast, will depend, in part, on the extent to which productivity recovers from its fall during the recession. But there are also significant uncertainties about the likely path of the household saving rate, and over the size and timing of the boost from net trade. The Committee's best collective judgement is that four-quarter growth is more likely to be below than above its historical average rate for much of 2011, largely reflecting the weak data around the turn of the year. But in the second and third years of the forecast, the chances of growth being above or below its past average rate are broadly equal (Chart 5.8). Relative to the most likely path — which lies within the darkest central band in Chart 5.7 — the

Chart 5.8 Frequency distribution of GDP growth based on market interest rate expectations and £200 billion asset purchases^(a)



(a) These figures are derived from the same distribution as Chart 5.7. They represent the probabilities that the MPC assigns to GDP growth lying within a particular range at a specified time in the future.

risks to growth are judged to be weighted to the downside. From the one-year point onwards, the outlook for four-quarter growth is broadly similar to that in the November *Report* (Charts 5.9 and 5.10).

That projection for growth implies a somewhat lower level of output throughout the forecast than was judged likely in November, reflecting the weakness of output around the turn of the year and the higher assumed path for Bank Rate. So, as in November, GDP is judged likely to remain significantly below the level implied by a continuation of its pre-recession trend (Chart 5.11). In large part, that reflects the Committee's judgement that some of the fall in productivity, relative to its pre-recession trend, reflects a fall in underlying productivity, which is likely to persist. But the Committee also judges it likely that some margin of spare capacity will remain throughout the forecast period.

5.2 Key judgements and risks

How will global prices evolve, and will inflation expectations rise?

Increases in energy and other commodity prices have raised world trade prices, UK import prices and so UK consumer price inflation. Together with the impact of a higher standard rate of VAT, these forces mean that the twelve-month rate of inflation is likely to stay well above the target over the next year or so. The scale and persistence of that overshoot will depend, in part, on the future path of global prices.

The MPC's central forecast is conditioned on futures prices for commodities, which are broadly flat. If commodity prices do stabilise, then UK import price inflation should fall back after the first year of the forecast. But there is great uncertainty, in

Chart 5.9 Projected probabilities of GDP growth in 2012 Q1 (central 90% of the distribution)^(a)

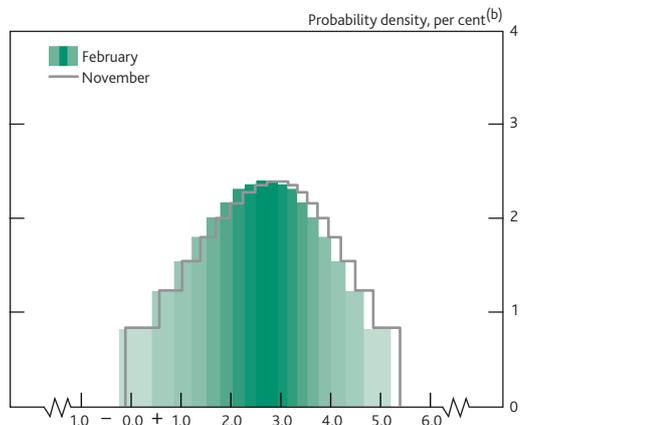
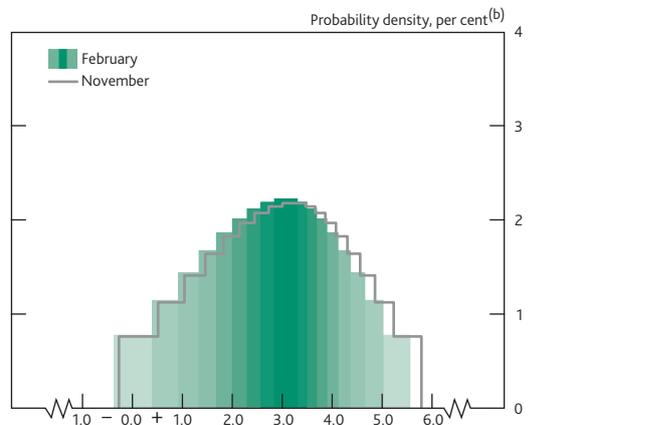


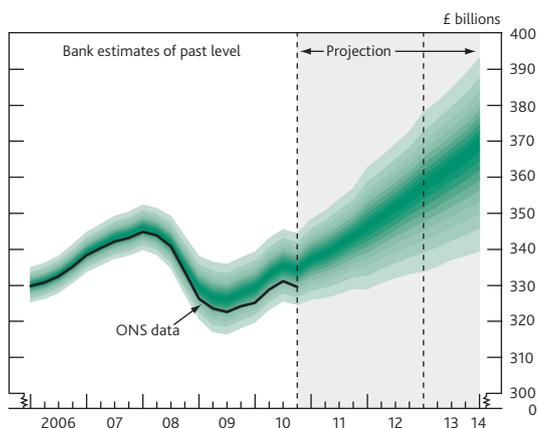
Chart 5.10 Projected probabilities of GDP growth in 2013 Q1 (central 90% of the distribution)^(a)



(a) Charts 5.9 and 5.10 represent cross-sections of the GDP growth fan chart in 2012 Q1 and 2013 Q1 for the market interest rate projection. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £200 billion throughout the forecast period. The coloured bands in Charts 5.9 and 5.10 have a similar interpretation to those on the fan charts. Like the fan charts, they portray the central 90% of the probability distribution. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that GDP growth in 2012 Q1 and 2013 Q1 would lie somewhere within the range covered by the histogram on 90 occasions. GDP growth would lie outside the range covered by the histogram on 10 out of 100 occasions. The grey outlines in Charts 5.9 and 5.10 represent the corresponding cross-sections of the November 2010 *Inflation Report* fan chart, which was conditioned on the same assumption about the stock of purchased assets financed by the issuance of central bank reserves.

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

Chart 5.11 Projection of the level of GDP based on market interest rate expectations and £200 billion asset purchases



Chained-volume measure (reference year 2006). See the footnote to Chart 5.7 for details of the assumptions underlying the projection for GDP growth. The width of this fan over the past has been calibrated to be consistent with the four-quarter growth fan chart, under the assumption that revisions to quarterly growth are independent of the revisions to previous quarters. Over the forecast, the mean and modal paths for the level of GDP are consistent with Chart 5.7. So the skews for the level fan chart have been constructed from the skews in the four-quarter growth fan chart at the one, two and three-year horizons. This calibration also takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to GDP growth in one quarter will continue to have some effect on GDP growth in successive quarters. This assumption of path dependency serves to widen the fan chart.

both directions, about the outlook for commodity prices, including a risk that continued robust global growth, or political tensions in some oil-producing regions, could cause them to rise further. And buoyant global demand may lead to further upward pressure on world export prices, thus raising UK import prices unless offset by an appreciation of the sterling exchange rate. These possibilities pose upside risks to inflation throughout the forecast period.

In part because of rising commodity and import prices, CPI inflation has been above the MPC's target for all but nine months of the past four years. And it is likely to rise further during 2011. Such a sustained period of elevated inflation could cause businesses and households to expect inflation to remain above the target for a further period, even as the effects of higher import prices and VAT diminish, thus pushing up money wages and prices further.

By how much will companies rebuild their profit margins?

Although rising energy and other import prices have kept CPI inflation well above the MPC's target for much of the past three years, domestically generated inflation has been much lower (Section 4). At the same time, many businesses' unit labour costs have increased significantly, given the large falls in output relative to employment during the recession. That suggests that companies' profitability has been squeezed, particularly in the case of those selling predominantly to the domestic market, who, unlike some exporters, did not benefit from an increase in the sterling value of their sales following the fall in the exchange rate.

The Committee judges that a recovery of those profit margins is likely to lead to higher domestically generated inflation for a period, offsetting to some degree the waning impact of import price inflation. But the extent of the rebuild in margins, and the pace at which it occurs, are uncertain, and different paths for companies' profit margins could have significant implications for inflation. Persistently weak demand could lead domestic profit margins to remain below their normal levels for longer. But the past depreciation of sterling could cause an even larger increase in domestic profit margins, if some UK businesses are able to raise their prices because they are competing with foreign suppliers whose sterling prices have risen.

How persistent will the reduction in productivity prove?

As well as contributing to a squeeze in companies' profit margins, the large fall in output relative to employment during the recession has left labour productivity far below the level it would have reached had it continued to rise in line with its pre-recession trend (Section 3). The implication of that shortfall in productivity for inflation depends crucially on the extent to which it reflects significant spare capacity within

Financial and energy market assumptions

As a benchmark assumption, the projections for CPI inflation and GDP growth described in **Charts 5.1** and **5.7** are conditioned on a path for Bank Rate implied by market interest rates (**Table 1**). In the period leading up to the MPC's February decision, the path implied by forward market interest rates was for Bank Rate to rise to 1.0%, on average, in 2011 Q4. Bank Rate was assumed to continue to rise thereafter, with the path 0.8 percentage points higher, on average, over the remainder of the forecast period than assumed in the *November Report*.

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

Per cent	2011				2012				2013				2014
	Q1 ^(b)	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
February	0.6	0.7	0.8	1.0	1.2	1.5	1.8	2.1	2.3	2.6	2.8	2.9	3.1
November	0.5	0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.4	1.6	1.7	1.9	

(a) The data are fifteen working day averages of one-day forward rates to 9 February 2011 and 3 November 2010 respectively. The curves are based on overnight index swap (OIS) rates.

(b) February figure for 2011 Q1 is an average of realised spot rates to 9 February, and forward rates thereafter.

The February projections are conditioned on an assumption that the total stock of asset purchases financed by the creation of central bank reserves remains at £200 billion throughout the forecast period, the same total scale of purchases assumed in the *November* projections.

The starting point for sterling's effective exchange rate index (ERI) in the MPC's projections was 80.9, the average for the fifteen working days to 9 February. That was 1.8% above the

starting point for the *November* projections. Under the MPC's usual convention,⁽¹⁾ the exchange rate is assumed to be similar in 2013 Q1, and is higher throughout the forecast period than assumed in *November*.

The starting point for UK equity prices in the MPC's projections was 3094 — the average of the FTSE All-Share for the fifteen working days to 9 February. That was 4.7% above the starting point for the *November* projection. In the long run, equity wealth is assumed to grow in line with nominal GDP; in the short run, it also reflects changes in the share of profits in GDP.

Energy prices are assumed to evolve broadly in line with the paths implied by futures markets over the forecast period. Average Brent oil futures prices for the next three years were around 14% higher (in US dollar terms) than at the time of the *November Report*. Wholesale gas futures prices were around 7% higher over the forecast period. There is considerable uncertainty about the scale and pace of the pass-through of changes in wholesale energy prices to the prices of gas and electricity faced by households and companies. The February projections for CPI inflation reflect the continuing impact of recently announced increases in gas and electricity prices. In addition, the projections are conditioned on a benchmark assumption of around a 5% rise in domestic gas prices in 2011 Q4.

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

companies, or a more persistent reduction in underlying productivity, and so a deterioration in the economy's supply potential.

If the fall in productivity reflected some businesses hoarding labour in anticipation of a recovery in demand, then that would suggest a large degree of underutilised capacity at present. But the MPC places some weight on business surveys of capacity, as well as the resilience in employment and investment over the past year, which point to a more limited degree of slack within businesses (Section 3). The Committee's central judgement is that around half of the reduction in observed productivity, relative to its pre-recession trend, reflects a loss of underlying productivity, which is likely to persist throughout the forecast and possibly beyond. Nonetheless, that would still imply a considerable margin of spare capacity within companies at present, including some that may have been mothballed but could be brought back into use if demand were strong enough.

As companies make use of spare capacity, observed productivity should grow somewhat more rapidly than usual, allowing companies to increase their output at relatively low cost. But there is a wide degree of uncertainty, in both directions, around the degree of spare capacity available to businesses, and therefore over the downward pressure exerted on their costs and prices.

How rapidly will companies' labour costs grow?

Faster productivity growth than usual should also enable some further pickup in wage growth without upward pressure on companies' unit labour costs and prices. But those costs will also depend on labour market conditions, and on the effect on wages of temporarily elevated inflation.

A degree of slack in the labour market is likely to bear down on money wage growth throughout the forecast period. That drag may diminish somewhat over time, however, if some people who have been unemployed for a long period become detached from the labour market, or are unable to retain the skills sought by employers. Further offsetting the drag of labour market slack on wage growth, some employees may bid for higher nominal earnings in order to try to resist the necessary reduction in their real wages stemming from higher import prices and VAT. Moreover, some increase in expectations of future inflation is likely to provide an additional impetus to wage growth.

Given persistently loose labour market conditions, the Committee's central judgement is that these factors are likely to lead to a further rise in nominal earnings growth, but only to a rate at, or a little below, its pre-recession average. As that increase in wage growth is associated with a recovery in productivity, unit labour cost growth is likely to remain subdued throughout the forecast period. But there are risks in both directions around the outlook for wages, given the opposing effects of persistent slack in the labour market and elevated inflation.

How strongly will demand recover?

The extent to which productivity recovers from its sharp fall during the recession will be a key determinant of households' and companies' future incomes, and so of the strength of the recovery in demand. But there are two further key uncertainties around the likely strength of growth over the forecast: households' saving decisions; and the extent to which domestic production will be supported by a boost from net trade.

How will household spending evolve?

Despite some recovery during the past year, household spending remains well below its level at the end of 2007. In part, that reflects stagnant real household incomes over that period (Section 2). Real income growth is likely to remain subdued over the forecast, given the effects of high energy and

import price inflation, the increase in VAT, and some rebuilding of companies' margins.

But the weakness of consumption since the beginning of the recession has also been associated with a rise in the household saving rate. Some of that rise could reverse over the forecast. For example, it is likely to have partly reflected an increase in precautionary saving, as economic uncertainty rose during the recession. Once households feel that they have built up a sufficient stock of extra liquid assets, the saving rate could begin to decline again. And a recovery in productivity growth, and hence corporate profitability, may also support household spending, for example through higher equity prices or dividend growth, or if households anticipate stronger income growth in the future.

Other factors, however, could push up the household saving rate. Consumer confidence has fallen sharply over recent quarters: that could, in part, reflect uncertainty about the impact of the fiscal consolidation, particularly among those employed in parts of the public sector. Some people may still need to reduce their levels of debt. And households may feel that current rates of saving are inadequate to meet future retirement needs: despite its recent rise, the household saving rate remains below its 20-year average level.

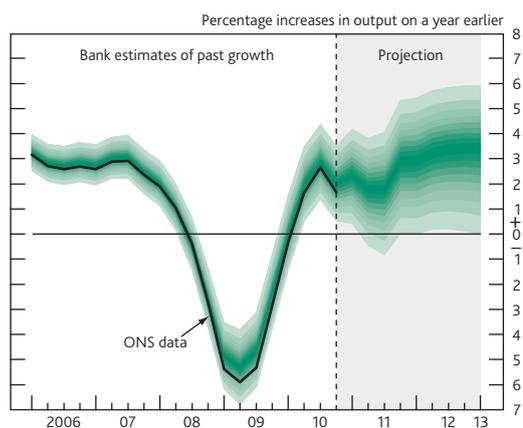
The Committee's central judgement is that, taken together, these factors may cause the household saving rate to fall over the forecast period. Nonetheless, given persistently weak real income growth, consumption is likely to continue to grow more slowly throughout the forecast than its average rate over the past 20 years. And the risks around that path for household spending are judged to be skewed to the downside.

How much support will net trade provide the recovery?

The past depreciation of sterling, together with the recovery in global demand, should provide continued support to the recovery in output. The Committee judges that net trade is likely to add to GDP growth throughout the forecast period, as export volumes continue to grow rapidly, and substitution of domestic spending away from imported goods and services towards home products takes place.

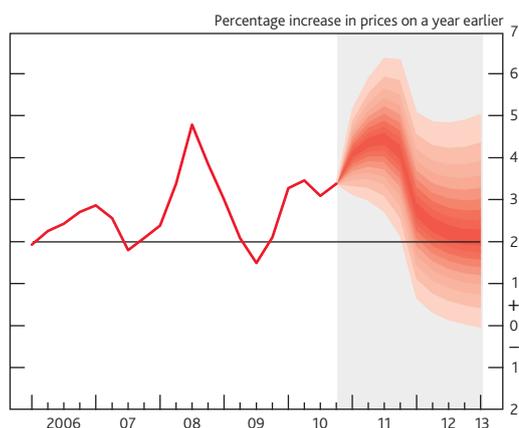
There are substantial risks on both sides of that judgement, however, stemming in part from uncertainties over the pace of the global recovery. So far, the recovery has been driven by strong growth in emerging economies. But there have also been indications of strengthening demand in some large developed economies, including the United States and Germany (Section 2). If those recoveries were to become more firmly established, that could generate faster growth in UK exports and a more rapid rebalancing of the UK economy.

Chart 5.12 GDP projection based on constant nominal interest rates at 0.5% and £200 billion asset purchases



See footnote to Chart 5.7.

Chart 5.13 CPI inflation projection based on constant nominal interest rates at 0.5% and £200 billion asset purchases



See footnote to Chart 5.1.

There are also downside risks to demand stemming from the global economy. In particular, euro-area periphery countries continue to face substantial challenges in improving their competitiveness, achieving sustainable fiscal positions and supporting their banking systems. Unexpectedly weak growth in those countries could reduce the demand for UK exports somewhat. But if it triggered an intensification of market concerns over the challenges facing those economies, then it could have much larger implications for demand in the United Kingdom, through falls in confidence and financial market linkages. For example, renewed financial market turbulence might aggravate the funding challenge facing banks in the United Kingdom and elsewhere, leading them to shrink their balance sheets more rapidly and tightening credit conditions further.

The strength of net trade will also depend on the speed with which UK companies are able to capitalise on the lower level of sterling and the global recovery. Exports of goods have grown rapidly over the past year. But exports of services have been weak, perhaps reflecting reduced global demand for services in which UK businesses have tended to specialise, such as financial services. Moreover, the degree of substitution away from imports has been relatively muted so far, possibly because of a lack of domestic capacity to produce goods and services that are currently imported. More of that capacity should come on stream over the forecast period, but the pace at which that will occur remains uncertain.

5.3 Summary and the policy decision

CPI inflation is likely to remain well above the target throughout 2011, given the rise in VAT and increases in import and energy prices. Further ahead, inflation is likely to fall back, as import price inflation declines, and spare capacity continues to weigh on prices and wages. But the extent of the fall in inflation is likely to be moderated by some increase in inflation expectations, a recovery in companies' profit margins, and some resilience in global demand and inflation. There is a high degree of uncertainty, and a wider than usual range of views among Committee members, about the likely strength of these various forces, and therefore around the overall outlook for inflation. The Committee's best collective judgement is that, conditioned on market interest rates, the chances of inflation being either above or below the target are broadly equal in the medium term.

Charts 5.12 and **5.13** show the GDP and CPI inflation projections for the next two years under the alternative assumption that Bank Rate is held constant at 0.5%. Under that assumption for monetary policy, inflation is more likely to be above the target than below it at the two-year point.

In evaluating the outlook for inflation, the Committee will focus on: the likely path of commodity and import prices;

measures of inflation expectations, and the extent to which they are influencing price and wage-setting; and evidence regarding the evolution of potential supply and spare capacity, including outturns for employment and investment.

In evaluating the outlook for growth, the Committee will focus on: indicators of the extent to which the slowing in underlying growth in 2010 Q4 was temporary; evidence on the likely path of household consumption and saving; developments in financial markets and the banking sector; and indicators of the extent to which exports and imports are responding to the past depreciation of sterling.

At its February meeting, the Committee judged it likely that growth would resume and that inflation would remain well above the target for the next year or so. Under the assumption that Bank Rate rose in line with market yields, inflation was likely to fall back to around the target in the medium term, as the temporary impact of the factors currently raising inflation waned and some downward pressure from a margin of spare capacity persisted. But both the extent and timing of that fall were uncertain. In the light of that outlook, the Committee judged it appropriate at that meeting to maintain Bank Rate at 0.5% and the stock of asset purchases at £200 billion, in order to meet the 2% CPI inflation target over the medium term.

Other forecasters' expectations

Every three months, the Bank asks a sample of external forecasters for their latest economic projections. This box reports the results of the most recent survey, carried out during January. On average, CPI inflation was expected to fall back to the 2% target by 2012 Q1, and remain near the target over the following two years (Table 1). Compared with three months ago, that central projection for inflation was a little higher in the medium term. The distribution of central views about inflation at the three-year horizon has also shifted upwards slightly compared with three months ago (Chart A).

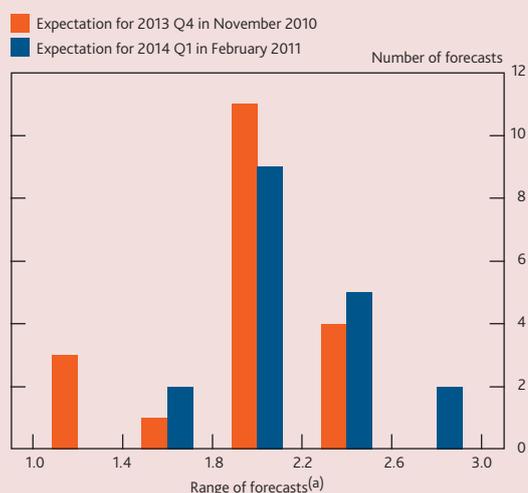
Table 1 Averages of other forecasters' central projections^(a)

	2012 Q1	2013 Q1	2014 Q1
CPI inflation ^(b)	2.0	2.0	2.1
GDP growth ^(c)	2.0	2.4	2.5
Bank Rate (per cent)	1.1	2.2	3.2
Sterling ERI ^(d)	82.5	83.2	84.4

Source: Projections of outside forecasters as of 31 January 2011.

- (a) For 2012 Q1, there were 21 forecasts for CPI inflation, GDP growth and Bank Rate and 17 for the sterling ERI. For 2013 Q1, there were 19 forecasts for CPI inflation and GDP growth, 17 for Bank Rate and 15 for the sterling ERI. For 2014 Q1, there were 18 forecasts for CPI inflation and GDP growth, 17 for Bank Rate and 14 for the sterling ERI.
 (b) Twelve-month rate.
 (c) Four-quarter percentage change.
 (d) Where necessary, responses were adjusted to take account of the difference between the old and new ERI measures, based on the comparative outturns for 2006 Q1.

Chart A Distribution of CPI inflation central projections three years ahead



Sources: Projections of 19 outside forecasters as of 21 October 2010 and 18 outside forecasters as of 31 January 2011.

- (a) A projection that is on the boundary of these ranges is classified in the higher bucket. For example, a 1.8% projection is included within the 1.8% to 2.2% bucket.

On average, forecasters expected four-quarter GDP growth to be 2% at the one-year horizon and around 2½% in the medium term. Those averages were a little higher than three months ago at the one and two-year horizons.

Almost all forecasters expected Bank Rate to have risen by 2012 Q1, and anticipated further increases over the following

two years. The average level of Bank Rate expected was higher than three months ago, with the largest upward revision, of around 0.3 percentage points, at the three-year horizon. On average, the sterling ERI was projected to appreciate gradually over the next three years.

The Bank also asks forecasters for an assessment of the risks around their central projections (Table 2). On average, respondents thought that inflation was slightly more likely than not to be above the target at the one, two and three-year horizons. Those probabilities were slightly higher two and three years ahead than three months ago. The probability distribution of CPI inflation three years ahead shifted upwards a little compared with three months ago (Chart B). On average, forecasters attached about a 25% chance to GDP growth being above 3% in the medium term, a slightly higher probability than three months ago.

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

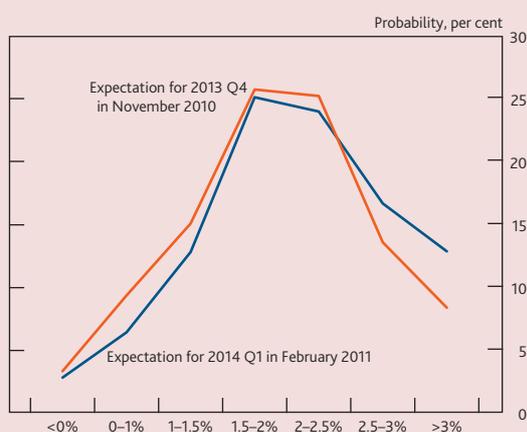
CPI inflation	Probability, per cent						
	<0%	0–1%	1–1.5%	1.5–2%	2–2.5%	2.5–3%	>3%
2012 Q1	2	5	12	25	26	19	11
2013 Q1	3	7	14	25	23	16	11
2014 Q1	3	6	13	25	24	17	13

GDP growth	Probability, per cent						
	<-1%	-1–0%	0–1%	1–2%	2–3%	>3%	
2012 Q1		2	6	16	35	28	13
2013 Q1		3	6	12	24	31	23
2014 Q1		3	6	10	22	32	27

Source: Projections of outside forecasters as of 31 January 2011.

- (a) For 2012 Q1, 21 forecasters provided the Bank with their assessment of the likelihood of twelve-month CPI inflation and four-quarter GDP growth falling in the ranges shown above; for 2013 Q1, 19 forecasters provided assessments for CPI and GDP; for 2014 Q1, 18 forecasters provided assessments for CPI and GDP. The table shows the average probabilities across respondents. Rows may not sum to 100 due to rounding.

Chart B Average of other forecasters' probability distributions for CPI inflation three years ahead



Sources: Projections of 19 outside forecasters as of 21 October 2010 and 18 outside forecasters as of 31 January 2011.

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Text of Bank of England press notice of 9 December 2010**Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £200 billion**

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £200 billion.

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

Text of Bank of England press notice of 13 January 2011**Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £200 billion**

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £200 billion.

The minutes of the meeting will be published at 9.30 am on Wednesday 26 January.

Text of Bank of England press notice of 10 February 2011**Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £200 billion**

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £200 billion.

The Committee's latest inflation and output projections will appear in the *Inflation Report* to be published at 10.30 am on Wednesday 16 February.

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

Glossary and other information

Glossary of selected data and instruments

ABS – asset-backed security.
AWE – average weekly earnings.
CDS – credit default swap.
CMBS – commercial mortgage-backed security.
CPI – consumer prices index.
CPI inflation – inflation measured by the consumer prices index.
CPIY – consumer prices index excluding indirect taxes.
ERI – exchange rate index.
GDP – gross domestic product.
HICP – harmonised index of consumer prices.
LFS – Labour Force Survey.
Libor – London interbank offered rate.
M4 – UK non-bank, non-building society private sector's holdings of sterling notes and coin, and their sterling deposits (including certificates of deposit, holdings of commercial paper and other short-term instruments and claims arising from repos) held at UK banks and building societies.
OIS – overnight index swap.
RMBS – residential mortgage-backed security.
RPI – retail prices index.
RPI inflation – inflation measured by the retail prices index.

Abbreviations

BCC – British Chambers of Commerce.
CBI – Confederation of British Industry.
CFO – chief financial officer.
CGS – Credit Guarantee Scheme.
CIPS – Chartered Institute of Purchasing and Supply.
EU – European Union.
FISIM – Financial Intermediation Services Indirectly Measured.
FTSE – Financial Times Stock Exchange.
GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.
IBES – Institutional Brokers' Estimate System.
IMF – International Monetary Fund.
M6 – Canada, France, Germany, Italy, Japan and the United States.
MPC – Monetary Policy Committee.
MTIC – missing trader intra-community.
OBR – Office for Budget Responsibility.
OFCs – other financial corporations.

ONS – Office for National Statistics.
PNFCs – private non-financial corporations.
PwC – PricewaterhouseCoopers.
RICS – Royal Institution of Chartered Surveyors.
S&P – Standard & Poor's.
SLS – Special Liquidity Scheme.
VAT – Value Added Tax.

Symbols and conventions

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

n.a. = not available.

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

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

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