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Economic and fiscal outlook

November 2010

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the Economic Secretary for HM Treasury
by Command of Her Majesty

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Foreword

The Office for Budget Responsibility was established earlier this year to provide independent and authoritative analysis of the UK's public finances.

As part of this role, we have been tasked with producing the official economic and fiscal forecasts. These were previously the responsibility of the Chancellor of the Exchequer in Budgets and Pre-Budget Reports prior to June this year. In this *Economic and fiscal outlook* we set out our forecasts for the period to 2015–16. As required by our terms of reference, we also assess whether the Government is on course to meet the medium-term fiscal objectives that it has set itself. And we offer preliminary observations on the long-run sustainability of the public finances, although we shall return to this issue in more detail in our *Fiscal sustainability report* next summer.

The forecasts presented in this document represent the collective view of the three independent members of the OBR's Budget Responsibility Committee (BRC). We take full responsibility for the judgements that underpin them and for the conclusions we have reached.

We have, of course, been hugely supported in this by the full-time staff of the OBR. We are enormously grateful for the hard work, expertise and professionalism that they have brought to the task. Given the highly disaggregated nature of the forecasts we have to produce, we have also drawn heavily on the help and expertise of officials across government, including in HM Revenue and Customs, HM Treasury, the Department for Work and Pensions, the Department for Communities and Local Government, the Department for Business, Innovation and Skills, the Department of Energy and Climate Change, the Office for National Statistics, the Government Actuary's Department, the UK Debt Management Office and the various public sector pension schemes. We are very grateful for their time and patience. We have also had useful exchanges with staff at the Bank of England and the National Institute of Economic and Social Research, regarding their recent forecasts, for which again we are very grateful.

The forecast process for this *Outlook* has been long and complex. To summarise:

- we began by commissioning forecasts from the relevant Government departments for the various tax and spending streams that determine the state of the public finances, based on economic determinants (such as growth, inflation and unemployment) derived from the OBR's last published forecast in June. We then discussed these in detail with the officials producing them, which allowed us to investigate proposed changes in forecasting methodology and to assess the significance of recent tax and spending outturns. In many cases, the BRC requested changes to methodology and/or the interpretation of recent data;

- the OBR staff then prepared a new set of economic determinants, drawing primarily on economic data released since the last published forecast. These provided the basis for a second round of fiscal forecasts. Discussion of these forecasts gave us the opportunity to follow up the various requests for further analysis, methodological changes and alternative judgements that we made during the previous round. We also took the opportunity to revisit the costing of previously announced policies;

- as the fiscal forecasting process continued, we identified the key judgements that we would have to make in order to generate our full economic forecast. Where we thought it would be helpful, we held discussions with the relevant experts in the Treasury and consulted outside forecasters to help inform our views. The BRC then agreed the key judgements, allowing the production by OBR staff of a full draft economic forecast. This was used to provide determinants for a third round of fiscal forecasts;

- with the completion of the third forecast round, we prepared a summary of our economic and fiscal projections and presented them to the Chancellor of the Exchequer and his officials on 18 November. This gave him an opportunity to ask questions about the forecasts and to confirm that he did not plan to make any policy announcements that would need to be incorporated in them. Later this week we will be publishing a list of all substantive contacts that BRC and OBR staff have had with ministers, their special advisers and their private office staff during the forecasting process; and

- during the week before publication, we produced a fourth and final round of forecasts. This allowed us to deal with any remaining fiscal forecasting issues and to take account of the latest labour market and third quarter GDP releases. We also used this period to finalise our sensitivity and scenario analysis. No substantive changes were made in response to our meeting with the Chancellor and his officials. The Treasury received a draft of the final document 24 working hours prior to the publication, in line with pre-release access arrangements for data releases from the Office for National Statistics.

During the forecasting period, the BRC has held over forty scrutiny and challenge meetings with officials from other departments, in addition to numerous further meetings at staff level. We have been provided with all the information and analysis that we requested, and have also identified further information and analysis that would be of use in future forecasts. We have come under no pressure from ministers, advisers or officials to change any of our conclusions.

In order to build public confidence in the rigour and objectivity of our analysis, the OBR is committed to making its central forecast, and the sensitivity of that forecast to the high level of uncertainty that lies around all economic and fiscal projections, as transparent as possible. Building on presentational improvements in recent Treasury and OBR forecasts, this *Outlook*:

- identifies and explains more clearly changes since the previous published forecast;

- presents central forecasts for receipts on an accruals rather than a cash basis;

- includes a detailed analysis of the changes to key revenue forecasts, separating the impact of methodological changes, economic determinants and other factors;

- presents a more detailed explanation of forecasts for tax credit, public sector pensions and benefit spending;

- quantifies the sensitivity of our fiscal forecast to key parameters in our economic forecast, notably the size of the output gap and the pace of economic growth;

- uses illustrative scenarios to demonstrate the potential effect of delayed rebalancing or persistent weak demand, reflecting the concerns of some external forecasters;

- explains more clearly the relative importance of changes in spending and receipts in determining the path of public sector net borrowing (PSNB);

- presents long-term projections for public sector net debt (PSND), illustrating their sensitivity to different assumptions about growth rates and interest rates, and to the inclusion of demographic pressures on spending; and

- is accompanied by an Excel spreadsheet giving convenient access to a wider set of forecast data.

We hope that these changes will help people use our analysis to assess the prospects for the public finances and the Government's adherence to its fiscal objectives. The substance and presentation of our forecasts remains work in progress and we would be very pleased to receive suggestions of further improvements. These should be sent to OBRenquiries@obr.gsi.gov.uk.

In everything that we have done in this document, and the associated materials we are releasing today, we are building on the firm foundations laid by the interim OBR and the members of the interim BRC. We are very grateful to Geoffrey Dicks for his input into the early stages of this forecast and to Sir Alan Budd for his continued encouragement and support.

We hope and believe that the work of the OBR can continue over time to enhance public confidence in and understanding of official analysis of the UK's public finances, and that this in turn will lead to better fiscal policy and a more informed public debate.

Robert Chote S. J. Nickell

Robert Chote Steve Nickell Graham Parker

The Budget Responsibility Committee

1 Executive summary

Developments since the June forecast

1.1 The UK economy has recovered more strongly since the spring than the interim OBR expected at the time of the June Budget. GDP growth was greater than expected in both the second and third quarters, while employment has risen (and unemployment has fallen) to levels that the June forecast did not expect until the middle of 2012. The world economy has also grown more strongly than expected. CPI inflation has remained slightly higher than expected in June, while the public finances have performed broadly as anticipated. Interest rates on UK government debt are lower than in June, but have risen since August.

1.2 On average external forecasters have raised their GDP growth forecasts for 2010 and reduced them for 2011. External growth and inflation forecasts for 2011 are fairly dispersed. External forecasts of unemployment in 2011 are more optimistic than in June, but have risen since September. Forecasts for both CPI and RPI inflation in 2011 have risen.

The economic outlook

1.3 Our central forecast is that the economy will continue to recover from the recession, but at a slower pace than in the recoveries of the 1970s, 1980s and 1990s. This relatively sluggish medium-term outlook reflects the gradual normalisation of credit conditions, efforts to reduce private sector indebtedness and the impact of the Government's fiscal consolidation.

Table 1.1: Economic forecast summary table

	Percentage change on a year earlier, unless otherwise stated						
		Forecast					
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Output at constant market prices							
Gross domestic product (GDP)	-5.0	1.8	2.1	2.6	2.9	2.8	2.7
GDP Levels (2009=100)	100.0	101.8	103.9	106.7	109.7	112.8	115.9
Expenditure components of GDP at constant market prices							
Household consumption[2]	-3.3	1.1	1.3	1.5	1.9	2.1	2.2
Business investment	-18.8	1.3	8.6	8.4	10.2	9.8	7.6
General government consumption	1.0	1.8	-0.4	-1.3	-1.8	-2.4	-1.7
General government investment	14.2	1.0	-15.3	-9.7	-5.9	-1.5	2.6
Net trade[3]	0.7	-0.9	0.7	0.9	0.7	0.6	0.5
Inflation							
CPI (Q4)	2.1	3.0	2.8	1.9	2.0	2.0	2.0
Labour market							
Employment (millions)	29.0	29.0	29.1	29.3	29.6	29.8	30.1
Average earnings[4]	1.8	2.3	2.2	2.4	3.8	4.4	4.4
ILO unemployment (% rate)	7.6	7.9	8.0	7.7	7.2	6.7	6.1
Claimant count (Q4, millions)	1.62	1.47	1.49	1.41	1.30	1.21	1.10
Output Gap	-4.2	-3.3	-3.4	-3.0	-2.3	-1.6	-0.9
			Changes since June forecast				
Output at constant market prices							
Gross domestic product (GDP)	-0.1	0.6	-0.2	-0.2	0.0	0.1	0.0
GDP Levels (2009=100)	0.0	0.6	0.4	0.2	0.2	0.2	0.2
Expenditure components of GDP at constant market prices							
Household consumption[2]	-0.1	0.8	0.1	-0.3	-0.2	-0.1	0.0
Business investment	0.5	-0.2	0.5	-1.6	-0.7	0.4	-0.6
General government consumption	-1.2	0.1	0.8	0.7	0.5	0.6	0.4
General government investment	-1.6	5.8	3.7	-1.2	0.7	-2.1	0.7
Net trade[3]	0.0	-0.4	-0.2	0.0	0.0	0.0	0.0
Inflation							
CPI (Q4)	0.0	0.2	0.4	-0.1	0.0	0.0	0.0
Labour market							
Employment (thousands)	-1	206	159	131	105	48	11
Average earnings[4]	0.9	0.2	0.3	0.1	0.0	0.0	0.0
ILO unemployment (% rate)	0.0	-0.2	0.0	0.1	0.1	0.1	0.1
Claimant count (Q4, thousands)	0	-33	37	45	45	40	21
Output Gap	0.0	0.4	0.2	0.1	0.1	0.2	0.2

[1] *The forecast is consistent with the UK Output, Income and Expenditure data for the third quarter of 2010, released by the Office for National Statistics on 24th November 2010.*

[2] *Includes households and non-profit institutions serving households.*

[3] *Contribution to GDP growth, percentage points.*

[4] *Wages and salaries divided by employees.*

1.4 We believe that the unexpected strength of GDP growth in the second and third quarters was largely a timing effect, with firms rebuilding stocks more quickly than seemed likely in June. Construction growth has also been unsustainably strong. Both factors should unwind and point to weaker near-term growth ahead. That said, we do expect some of the recent strength to persist and have therefore revised up slightly the expected level of GDP across the forecast horizon.

1.5 Partly as a result of the increase in VAT to 20 per cent due in January, we expect quarter-on-quarter growth to be at its slowest at 0.3 per cent in the first quarter of next year, picking up thereafter. As a result of this quarterly profile, we have revised up our forecast for GDP growth this calendar year from 1.2 per cent to 1.8 per cent while revising down our forecast for 2011 from 2.3 per cent to 2.1 per cent.

1.6 Over the medium term, we expect growth to accelerate to 2.6 per cent in 2012 and 2.9 per cent in 2013, before slowing to 2.7 per cent in 2014 and 2015 as the working population grows less quickly. We continue to expect a rebalancing toward business investment and net trade, with private consumption growth more subdued than in recent years.

1.7 As growth slows in the near-term we expect the ILO unemployment rate to rise again to a peak of just over 8 per cent of the labour force next year. We then expect it to fall steadily to just over 6 per cent by 2015. We expect employment to rise from 29 million this year to 30 million in 2015, as private sector job creation more than offsets falling public sector employment – just as it did during the fiscal consolidation of the 1990s.

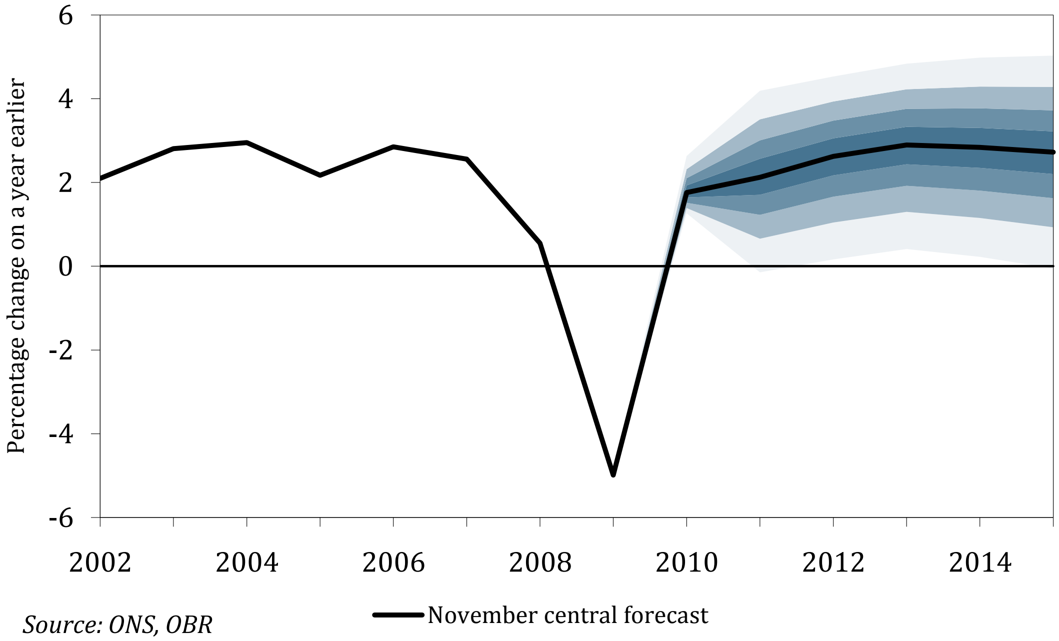
1.8 With the Government deciding in the Spending Review to reduce somewhat its planned cuts in public services spending, by announcing additional cuts in welfare spending, we expect general government employment to fall by 330,000 over the next four years, compared to the 490,000 predicted by the interim OBR in June. We estimate that the Government's plans to freeze real total public spending in 2015–16 imply a further 80,000 fall in that year, in the absence of further cuts in welfare or other annually managed spending.

1.9 We estimate that our central growth forecast would eliminate the remaining spare capacity in the economy by 2016-17. This reflects our assessment that the amount of spare capacity had fallen from around 4 per cent of potential GDP at the end of 2009 to around 3¼ per cent in the second quarter of 2010. There is considerable uncertainty around even contemporaneous estimates of this unobservable 'output gap', but ours are within the range of other leading forecasters. We assume that potential GDP will grow by 2.35 per cent a year, falling to 2.1 per cent a year from 2014 as population growth slows – both unchanged since June.

1.10 We predict that CPI inflation will fall from 3.2 per cent in 2010 to 1.9 per cent in 2012 as the short-term effects of the increase in the VAT rise and other temporary factors fall away. We assume that monetary policy evolves in line with market expectations and that CPI inflation settles at the Bank of England's 2 per cent target from 2013.

1.11 There is considerable uncertainty around any central economic forecast, with a number of significant risks both to the upside and to the downside. Chart 1.1 shows our central forecast for GDP growth with the probability of different outcomes implied by the Treasury's past forecasting performance shown in a fan chart (see Annex B for technical details). The solid black line shows the median forecast, with the successive pairs of lighter shaded areas around it representing 10 per cent probability bands.

Chart 1.1: GDP growth fan chart



Source: ONS, OBR

1.12 We also illustrate the uncertainty around our central forecast by presenting two illustrative alternative scenarios: a delayed rebalancing scenario, in which consumption is stronger and net trade weaker than in our central forecast, and a persistent weak demand scenario, in which growth is slower than in the central forecast and this pulls down the level of potential GDP somewhat. We test the fiscal implications of these scenarios when we come to judge the Government's progress against its fiscal objectives.

The fiscal outlook

1.13 Our central forecast for the next five years is that public sector net borrowing (PSNB) will continue to decline steadily as a share of national income from the post-war peak it reached in 2009-10. Revenues are projected to increase and spending on public services and social security to fall, partly offset by an increase in debt interest, and net public sector pension payments.

1.14 We expect PSNB to total £148.5 billion this year, which is £1 billion lower than the interim OBR forecast at the time of the June Budget. PSNB is expected to fall from 11.1 per cent of GDP in 2009-10 to 1.0 per cent of GDP in 2015–16, slightly less than the 1.1 per cent of GDP expected in June. The cyclically-adjusted current balance moves from a deficit of 4.7 per cent of GDP this year to a surplus of 0.5 per cent of GDP in 2014-15 and 0.9 per cent of GDP in 2015-16, 0.1 per cent of GDP higher than in June. Public sector net debt (PSND) is forecast to peak at 69.7 per cent of GDP in 2013–14, then decline to 67.2 per cent of GDP in 2015-16, which is 0.1 per cent of GDP lower than forecast in June.

Table 1.2: Fiscal forecast overview

	Per cent of GDP						
	Outturn	Forecasts					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Surplus on current budget	-7.6	-7.2	-5.6	-3.9	-2.1	-0.6	0.3
Public sector net borrowing	11.1	10.0	7.6	5.6	3.5	1.9	1.0
Public sector net debt[1]	53.5	60.8	66.3	69.1	69.7	68.8	67.2
Cyclically-adjusted surplus on current budget	-5.3	-4.7	-3.3	-1.8	-0.5	0.5	0.9
Cyclically-adjusted net borrowing	8.8	7.6	5.3	3.5	1.9	0.8	0.3
	Changes since June forecast						
Surplus on current budget	-0.1	0.3	0.2	0.1	0.2	0.3	0.3
Public sector net borrowing	0.1	-0.1	0.1	0.1	0.0	-0.1	-0.1
Public sector net debt[1]	0.0	-1.1	-0.9	-0.7	-0.7	-0.6	-0.1
Cyclically-adjusted surplus on current budget	0.0	0.1	0.0	0.1	0.1	0.2	0.1
Cyclically-adjusted net borrowing	0.1	0.2	0.3	0.1	0.0	0.0	0.0

[1] *Debt at end March; GDP centred on end March.*

1.15 Our projection of PSNB is very similar to the June forecast. However, as Chart 1.2 shows there are larger but broadly offsetting changes to the receipts and expenditure forecasts which drive PSNB. The main changes compared to June are:

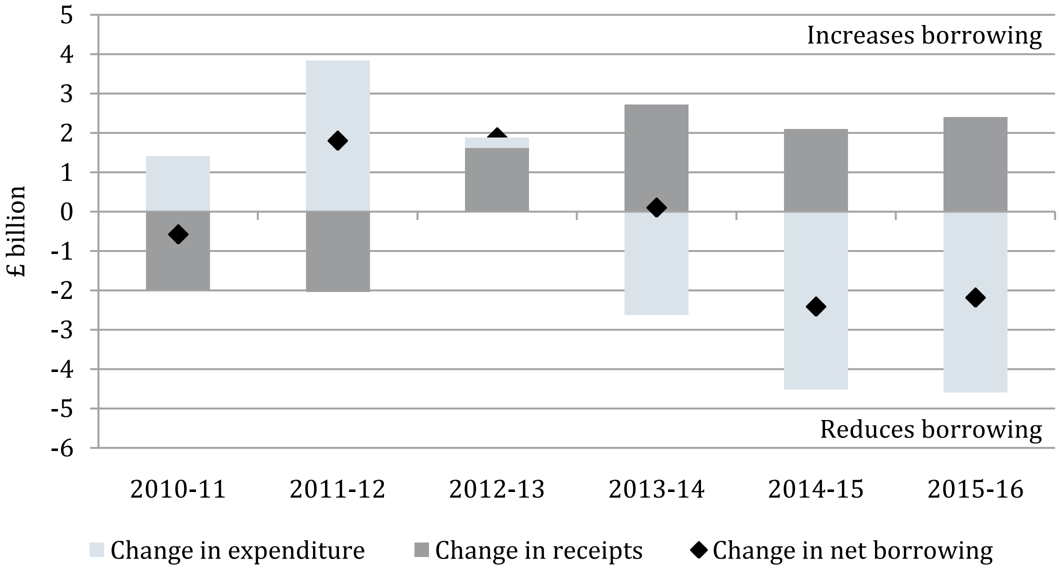
- the Spending Review decision to cut capital spending slightly less sharply than was planned in June raises borrowing in the medium term. The welfare spending cuts announced in the Spending Review were broadly used to reduce previous planned cuts to non-capital spending on public services. Including direct tax effects and updated Annually Managed Expenditure (AME) costings, but excluding the Government's AME margin from our projections, the overall effect of the Spending Review is to reduce borrowing in 2014-15 by around £1.5 billion;

- we expect receipts to be higher than previously forecast in the short term, especially VAT. But this will be offset in the medium term by lower onshore corporation tax receipts and factors such as lower expected property prices, interest rates and oil prices. This leaves the receipts forecast in 2015-16 around £2.4 billion lower than the June forecast; and

- current expenditure is expected to be lower in the medium term than looked likely in June, due to lower debt interest costs and a fall in expected net spending on public sector pensions. Changes to the forecast result in marginally higher capital expenditure than forecast in June.

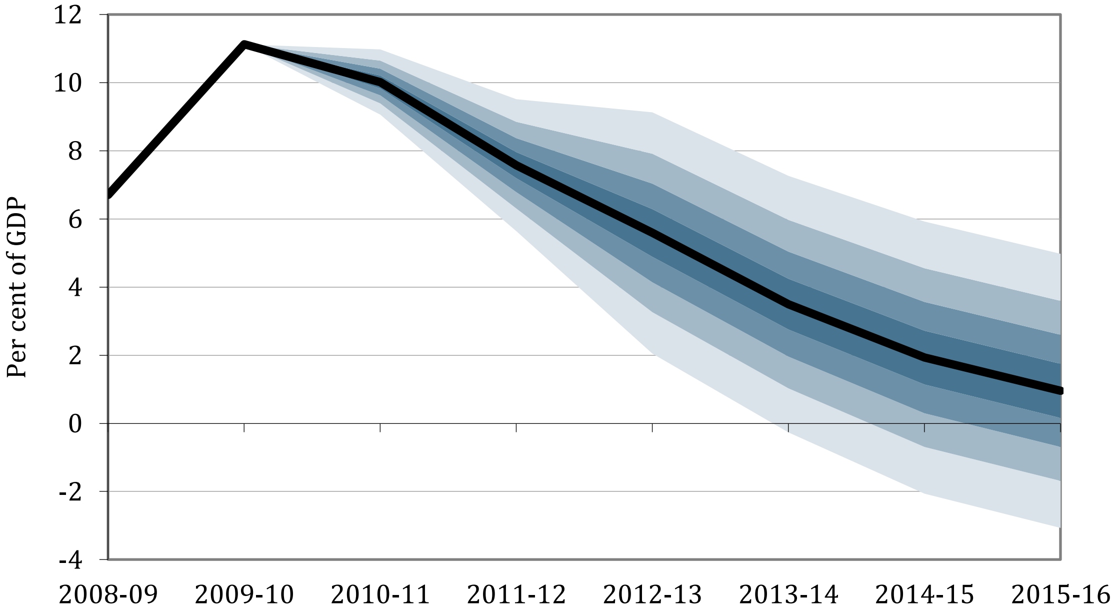
1.16 Overall, the combination of lower receipts, lower expenditure and the impact of the Spending Review decisions implies slightly lower levels of borrowing in the medium term compared to the June forecast. As we expect the level of real GDP to be higher than we thought in June, the improvements in the cyclically-adjusted measures of government borrowing relative to June are slightly smaller than the improvements in the headline figures.

Chart 1.2: Changes to public sector net borrowing since the June Budget forecast



1.17 The changes in the fiscal aggregates compared to the June forecast are small relative to the uncertainties that surround any fiscal forecast, particularly in the medium term. PSNB represents the difference between total public sector receipts and expenditure, both of which are very large numbers influenced by numerous economic and non-economic determinants. Chart 1.3 shows our central forecast for PSNB with the probability of different outcomes, based purely on the Treasury's past forecasting performance.

Chart 1.3: Public sector net borrowing fan chart



Performance against the Government's fiscal objectives

1.18 Our best judgement is that the Government has a better than 50 per cent chance of meeting its mandate for a cyclically-adjusted current budget balance in 2015–16 and of achieving its supplementary target of seeing public sector net debt fall between 2014–15 and 2015–16. We also believe that it has slightly more margin for error in meeting the mandate than the interim OBR thought likely in June. That said, there is clearly significant uncertainty around our central forecast, with risks both to the upside and to the downside.

Table 1.3: Performance against fiscal mandate and supplementary target

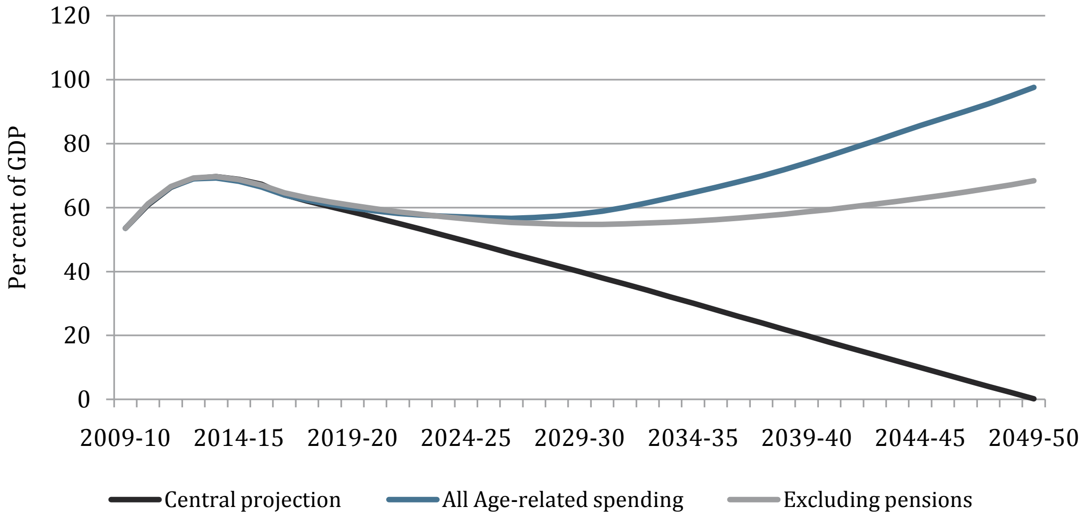
Per cent of GDP		2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Cyclically-adjusted current budget balance	**November forecast**	-5.3	-4.7	-3.3	-1.8	-0.5	0.5	0.9
	June forecast	-5.3	-4.8	-3.2	-1.9	-0.7	0.3	0.8
Public sector net debt	**November forecast**	53.5	60.8	66.3	69.1	69.7	68.8	67.2
	June forecast	53.5	61.9	67.2	69.8	70.3	69.4	67.4

1.19 The pace of the economic recovery, and the interest rates that the government pays on its debt, both have an important impact on the evolution of the public finances. But plausible divergences in either from our central forecast do not at present seem to pose much threat to the specific targets that the Government has set itself. If the rebalancing of the economy that we expect is delayed, this will actually improve the Government's chances of meeting its targets as consumption is a relatively 'revenue-rich' form of expenditure. But, to the extent that higher borrowing allows households to exchange consumption tomorrow for consumption today, these positive fiscal influences would likely reverse in later years.

1.20 The biggest economic risk to the achievement of the mandate is the possibility that we may have significantly overestimated the level of economic potential, either now or in the future. Roughly speaking, the level of potential GDP and the output gap would have to about 1.5 per cent of GDP smaller than our central estimates to make it more likely than not that the mandate would be missed. The levels of spending and revenue for any given state of the economy are also important sources of uncertainty, with both upside and downside risks.

1.21 We expect current policies to deliver a sufficiently large primary budget surplus by 2015-16 to put public sector net debt on a clear downward trajectory beyond the forecast horizon (see Chart 1.4). Illustrative projections suggest that this downward trend would be robust to somewhat higher interest rates or somewhat lower GDP growth rates than we assume in our central projections. But, if left unaddressed, upward pressure on spending from the ageing of the population might well eliminate the primary budget surplus and eventually put public sector net debt on an unsustainable upward trajectory. The UK is far from unique in facing such pressures. It will be one of many countries needing to decide how to address them when the immediate challenge of delivering the current fiscal consolidation has passed.

Chart 1.4: Impact of demographic change on PSND



2 Developments since the last forecast

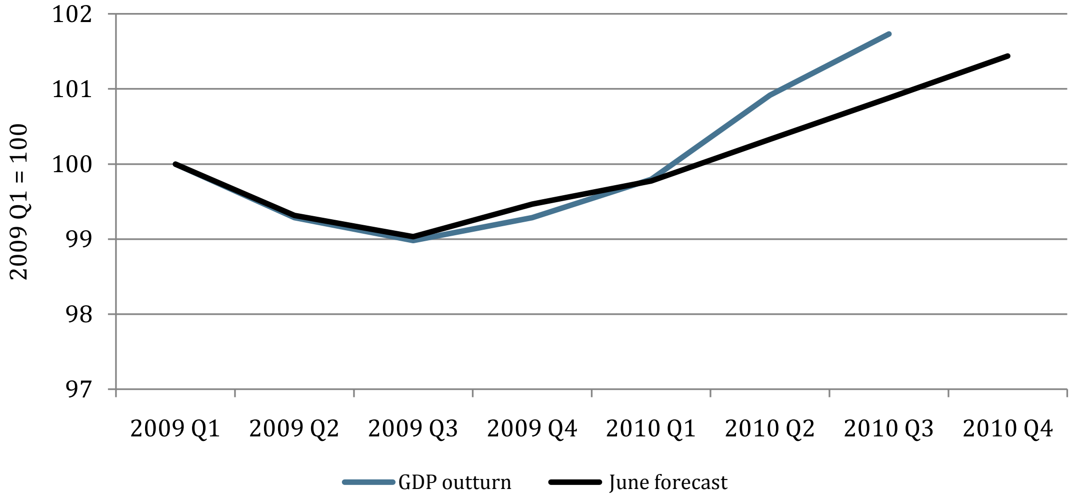
Introduction

2.1 This chapter summarises the main economic and fiscal data developments and government policy announcements since the June Budget. It also summarises recent external forecasts for the UK economy (from paragraph 2.19) and explains how these have responded to data developments (from paragraph 2.30).

Economic developments since the June Budget

2.2 UK GDP growth has been stronger than expected in the interim OBR's June forecast, with both second and third quarter growth coming in above forecast, significantly so in the second quarter. The OBR forecast for 0.6 per cent growth in both periods was respectively 0.6 and 0.2 percentage points lower than outturn. Chart 2.1 shows the level of GDP in the third quarter is 0.8 per cent higher than forecast in June.

Chart 2.1: GDP growth: June forecast and outturns



Source: ONS, Statistical Bulletin

2.3 GDP growth in both the second quarter and the third quarter was boosted by a strong contribution from the construction sector, which, despite representing only 6 per cent of UK output, accounted for half of second quarter growth. However, other things being equal, more recent evidence from the construction sector suggests that growth in the second quarter may be revised down by 0.2 percentage points. On the expenditure side, the recent unexpected GDP strength came primarily from stock-building and consumer spending.

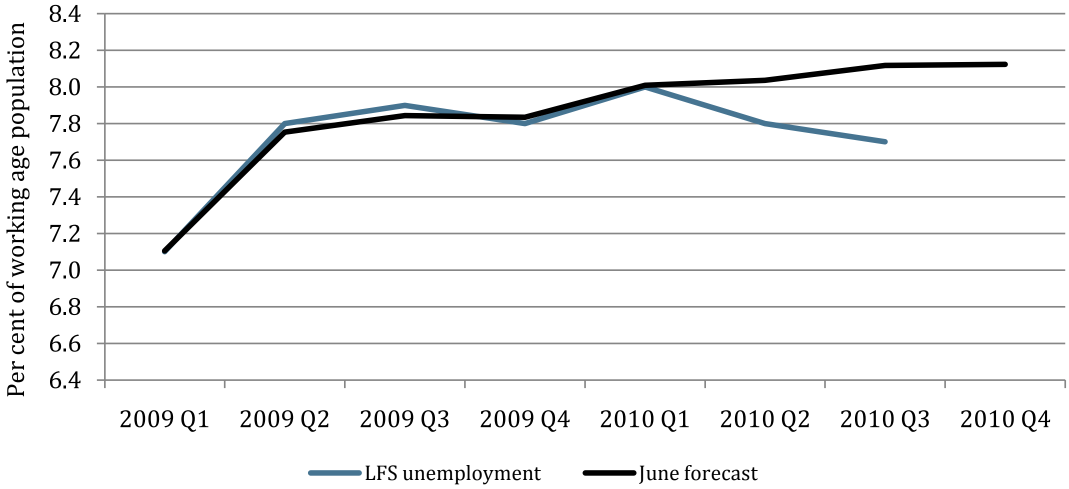
2.4 Growth in previous years has also been subject to revision since the June Budget forecast. The ONS's *Blue Book* is the major annual update of the UK National Accounts. It generally covers the introduction of new methodology, benchmark data and updates to the reference year for real GDP calculations. This year's *Blue Book* was released on 30 July and contained revisions going back to 2006, although the major revisions were concentrated in 2008, as shown in Table 2.1. Domestic expenditure was also revised down in 2009, due mainly to downward revisions in household consumption expenditure, gross fixed capital formation and inventories.

Table 2.1: Revisions to GDP expenditure components

Percentage point differences to annual growth	**2006**	**2007**	**2008**	**2009**
Domestic expenditure on goods and services at market prices				
Household	0.3	-0.3	-0.3	-0.2
Non-profit institutions serving households	-0.1	8.7	-5.7	3.5
General government	-0.2	0.0	-1.0	-1.0
Gross fixed capital formation	-0.1	0.1	-0.8	-0.1
Total	**0.1**	**0.1**	**-0.8**	**-0.1**
Total export	-0.2	0.2	-0.1	0.0
Total imports	0.3	-0.1	-0.7	-0.5

2.5 Labour market indicators have also generally performed better than expected in the June forecast. As Chart 2.1 demonstrates, the International Labour Organisation (ILO) unemployment rate, as measured by the Labour Force Survey (LFS), fell to 7.7 per cent in the third quarter. This is 0.4 percentage points lower than the interim OBR expected in June, and a level that they did not expect to be reached until the middle of 2012.

Chart 2.2: LFS unemployment and June forecast

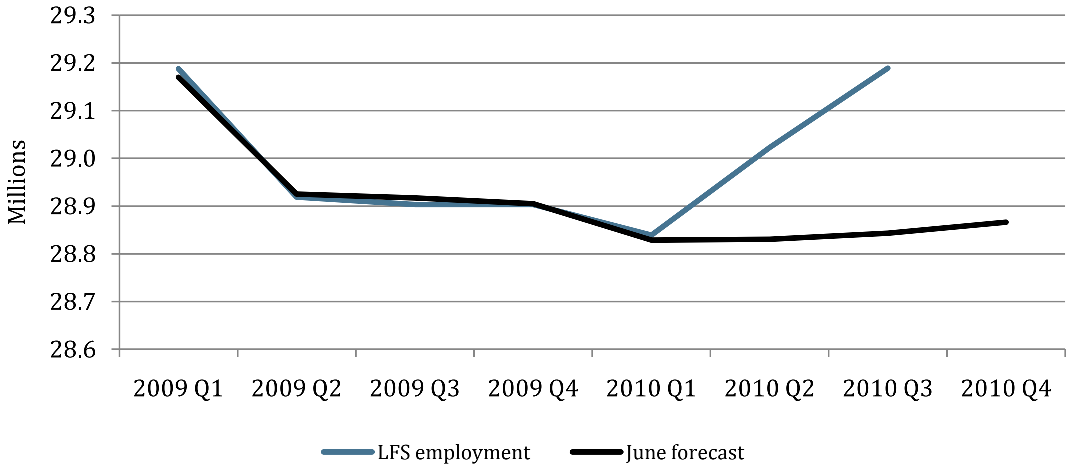


Source: ONS, Statistical Bulletin

2.6 The claimant count similarly improved through the first half of 2010, falling from around 1.62 million and flattening out at just under 1.47 million from June. The inactivity rate has also decreased over the course of 2010.

2.7 The overall employment rate has risen over the course of the year. Around three-quarters of the increase is attributable to a pick-up in part-time employment. The recent data show that part-time workers are also working longer hours. The number of people in employment rose from 28.8 million in the first quarter of 2010 to 29.2 million in the third quarter, as shown in Chart 2.3. Again, this is a level that the interim OBR did not expect to be reached until the middle of 2012. Around 20 per cent of the forecast 1.4 million increase in employment by 2016 had already occurred by the third quarter of 2010.

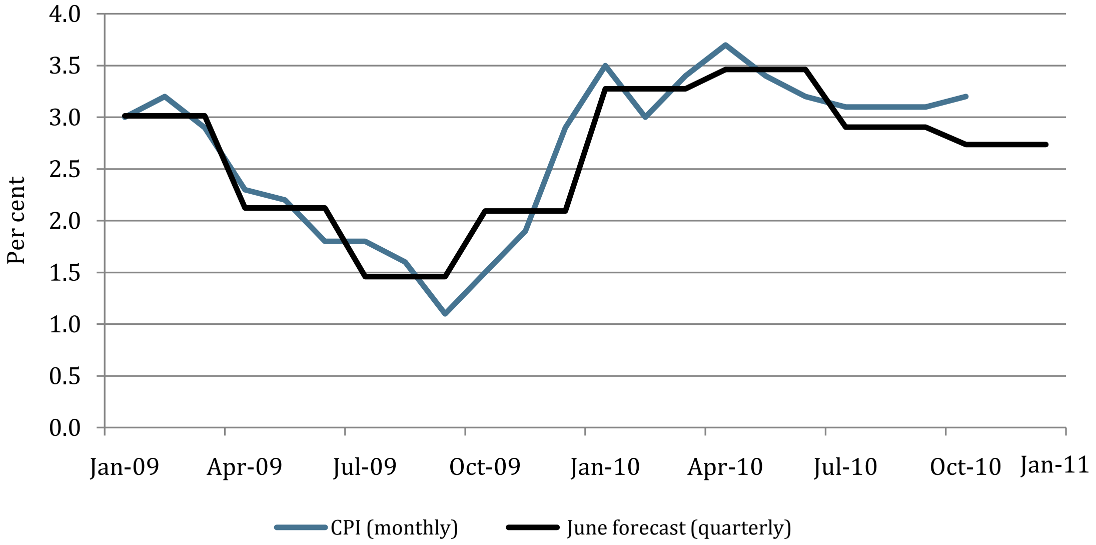
Chart 2.3: LFS employment and June forecast



Source: ONS, Statistical Bulletin

2.8 CPI inflation has remained at or above 3 per cent since the June Budget forecast, although it is lower than the April peak of 3.7 per cent. There are many temporary factors that continue to influence CPI, such as the reversal of the VAT cut and the pass-through of higher import prices resulting from the depreciation of sterling.

Chart 2.4: CPI inflation and June forecast



Source: ONS, Statistical Bulletin

2.9 World growth has been stronger in 2010 than forecast in June. Germany saw particularly strong growth, which helped euro area GDP to increase by 1 per cent in the second quarter of 2010. More recently, there have been increased concerns around the fiscal positions of a number of periphery euro area economies, including Ireland (see Box 3.5). The United States has also continued to grow, although not at the pace expected in the June forecast. GDP growth in most developing economies has continued to be robust. In this context, UK exports of goods and services increased by 2.2 per cent in the third quarter of 2010.

2.10 On a trade-weighted basis, the sterling exchange rate has been relatively stable since the June forecast. The effective exchange rate had been falling since the financial crisis. The slight appreciation after the June forecast has been offset by further depreciation, but recent weeks have seen a slight rise.

2.11 Equities have performed strongly since the last forecast. At the time this forecast was finalised, the FTSE all-share index had risen by around 11 per cent since June. It is likely that this increase has been supported by lower long-term interest rates, with 10 year gilt yields falling. Between June and August these declined from around 3.6 per cent to around 2.9 per cent, before recently increasing again to near 3.3 per cent.

2.12 Survey indicators have remained supportive of continued growth, although a number of readings have softened in recent months. Forward looking indicators have also generally remained positive. In the Bank of England Agents' survey, manufacturing and services both reported an expectation of reduced capacity over the next six months. A composite of the Markit/CIPS Purchasing Manager's Indices, showing expectations of the level of business activity in twelve months time, suggests that firms expect activity to increase. This indicator is lower than at the time of the June forecast, but has remained in positive territory and has recently been increasing.

Fiscal developments since the June Budget

2.13 The joint ONS/HM Treasury *Public sector finances* release provides monthly data on public sector receipts, expenditure and the fiscal aggregates. The pattern of public finances data through the year can be very volatile making it difficult to draw conclusions for the full year forecasts. This is particularly the case in the early months of the year.

2.14 Debt interest payments have been especially high in the first half of 2010-11 with growth of 79 per cent over the first half, well above the interim OBR's forecast of 40 per cent growth for 2010-11 as a whole. However, the high growth in the early part of the year is largely due to the effect of RPI changes on index-linked gilts interest. The pattern of movements in RPI over the relevant periods means that this effect is likely to unwind over the second half of 2010-11.

2.15 In broad terms monthly receipts and expenditure data has been approximately in line with the OBR's June forecast. Receipts growth in the first half of this year was expected to be higher than for the full year. One reason for this is the bank payroll tax paid in August which raised £3.5bn, compared to the June Budget forecast of £2.5bn.

Table 2.2: Public finances in the first half of 2010-11

	Per cent year-on-year growth	
	Apr-Sep	**June forecast for full year 10-11**
Central Government Current Receipts	9.2	6.7
of which:		
Taxes on Production	16.4	11.1
Taxes on Income and Wealth	7.9	5.8
National Insurance Contributions	2.6	1.8
Central Government Current Expenditure	6.8	5.6
of which:		
Debt Interest Payments	79.3	39.8
Net Social Benefits	3.4	3.1
Other	3.6	3.9
	£ billion	
	Apr-Sep 2010	**Apr-Sep 2009**
Public sector net borrowing	73.5	77.4
Public sector net investment	15.1	15.2
Surplus on current budget	-58.4	-62.2

Policy announcements since the June Budget

2.16 This forecast incorporates the effects of all firm policy announcements made by the Government that are quantifiable at this point. Since the June forecast, major policy announcements that potentially affect our projections were made at the Spending Review and subsequently on higher education funding and migration. These are discussed in more detail in Chapter 4.

2.17 The Spending Review set out the allocation of Departmental Expenditure Limits (DEL) to departments for the period to 2014-15 and a number of policy announcements that affect the forecast of Annually Managed Expenditure (AME). The OBR scrutinised and certified the Government's estimates of the direct costs of AME policies at the time of the Spending Review.[1] These costings did not include the following effects which are now captured in the November forecast, and are included in Annex A:

- the direct impact of AME measures on tax receipts. For example, a portion of tax credit payments are defined by the ONS as negative tax, so policy changes to tax credits have a direct impact on tax receipts; and

- wider indirect effects of these measures on the economy. For example the loss of tax revenue from the AME measure on public sector pensions, which by increasing employer pension contributions will indirectly reduce taxable income.

2.18 The allocation of DELs will also affect the economy, though these effects are likely to be subject to particular uncertainties and may take place over a long time period. A summary of the overall potential implications of the Spending Review for the economy is presented in Box 3.1 in Chapter 3.

[1] See *Spending Review 2010 Policy Costings*, HM Treasury, October 2010. Available from http://cdn.hm-treasury.gov.uk/sr2010_policycostings.pdf

Box 2.1: Approach to incorporating the effect of policy decisions in the forecast

As set out in the OBR's terms of reference, the Government is responsible for the analysis of the direct impact of policy on the public finances. The OBR provides independent scrutiny of these costings and determines any resultant impact on the economic forecast. We include an estimate of the impact of a policy measure in the public finances only when a firm policy has been announced and provides sufficient detail to quantify the effect of the policy. Accordingly, this forecast includes the impacts of the following policies where significant:

- tax and expenditure measures that were announced and quantified at the time of the June Budget or at previous Budgets and Pre-Budget Reports;
- measures that were announced and quantified at the Spending Review; and
- the post Spending Review announcements on higher education funding and migration.

The projections do not include policies that are under consideration by the Government but where, at the time the forecast was completed, full details had not been announced that would allow the effects to be quantified. This includes policies such as the Universal Credit and any UK contribution to the international package of support for Ireland.

Developments in external forecasts

2.19 Forecasts for the UK economy are conducted by many organisations and commentators, using a wide array of forecasting techniques and data. A number of publications present averages, collating the views of subsets of these forecasters.[2] This section sets out some of the movements in the forecasts collected over the months since the June forecast.

Growth

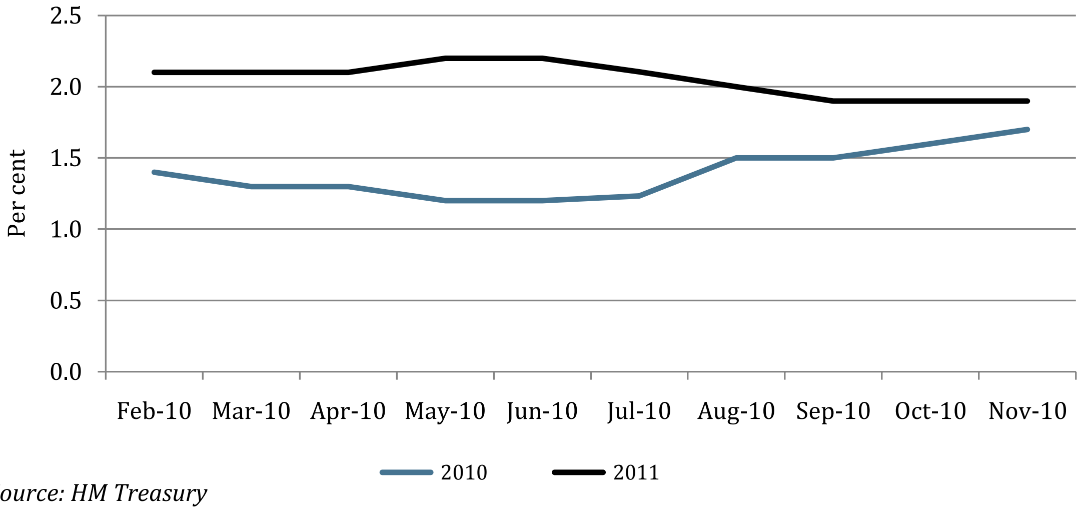
2.20 In November, across all forecasts submitted in the last three months, the mean average for GDP growth in 2010 is 1.7 per cent. This is a small increase from the October estimate of 1.6 per cent, but a large increase from the May and June forecast for 1.2 per cent.

2.21 The average forecast for 2011 is 1.9 per cent. This represents a marginal fall from the summer forecasts and is lower still compared to forecasts conducted around the June Budget, when it stood at 2.2 per cent. On average, forecasters appear to have reacted to the unexpected strength of growth in 2010 by revising up their growth forecasts for 2010 and revising down their growth forecasts for 2011. This

[2] See *Consensus Forecasts*, Consensus Economics and *Forecasts for the UK economy: a comparison of independent forecasts*, HM Treasury. A number of financial reporting services also monitor these average or consensus figures.

may be on the grounds that they see some of the recent strength as a timing effect rather than evidence of an enduring strengthening in the momentum of recovery. But, as we note below, this is not a universally held view.

Chart 2.5: Average forecasts for GDP growth in 2010 and 2011



Source: HM Treasury

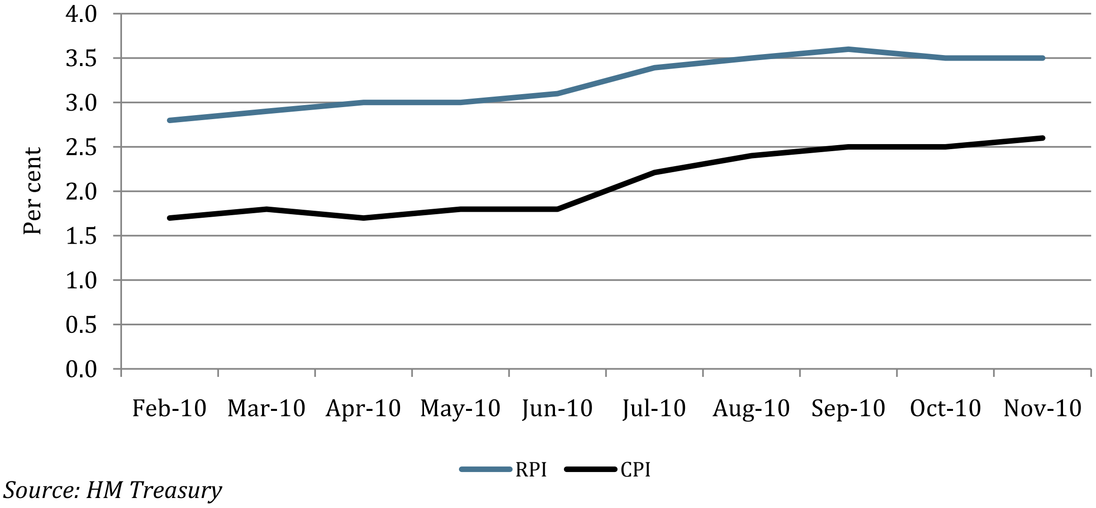
2.22 The composition of demand in forecast averages for 2011 changed between June and November. Expected private consumption growth decreased by 0.4 percentage points. Expected Government consumption contracted by 0.6 per cent rather 0.7 per cent. The forecast average for growth in fixed investment increased from 3.4 per cent to 3.6 per cent, after declining to 3.1 per cent in October.

2.23 The Treasury also reports a small number of medium-term forecasts. In August the average medium-term forecast for GDP growth was 2.2 per cent in 2012, 2.7 per cent in 2013 and 2.5 per cent in 2014. The November release shows the average falling to 2.1 per cent in 2012, 2.4 per cent in 2013 and remaining at 2.5 per cent in 2015. The medium term forecasts have, on average, marginally reduced the contribution of domestic demand to growth. This drives the overall decrease in GDP growth, as the contribution of net exports is unchanged.

Inflation

2.24 The average forecasts of CPI and RPI inflation in the fourth quarter of 2011 are 2.6 per cent and 3.5 per cent respectively. The average forecast for CPI inflation has been gradually increasing since May, when it stood at only 1.7 per cent. However, between August and November there was no change in the average forecasts for CPI inflation from 2012 to 2014, so this increase in the 2011 estimate drops out after a single year.

Chart 2.6: Average forecasts for CPI and RPI inflation in 2011

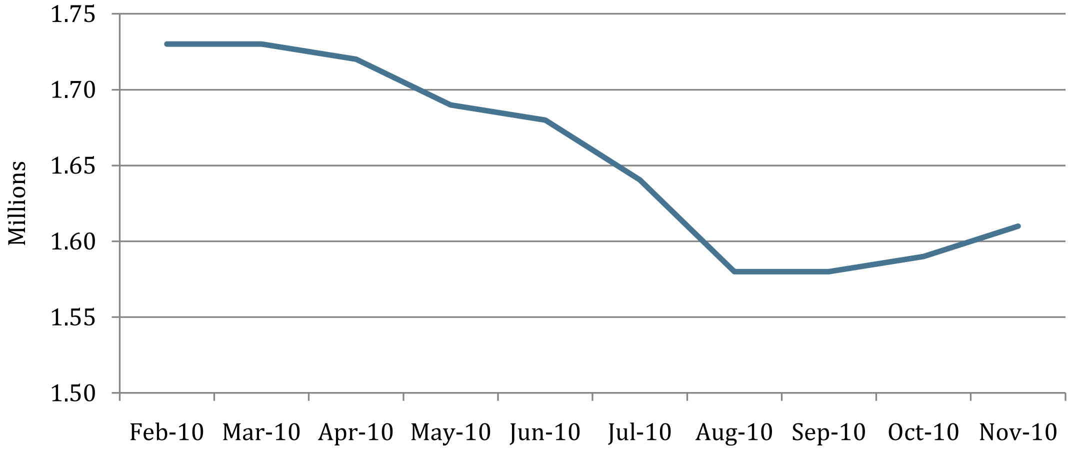


Source: HM Treasury

Labour market

2.25 Forecasts for claimant count unemployment in the fourth quarter of 2011 average 1.61 million. This is an increase of 0.2 million from the October average, which was itself a slight increase on the August and September estimates. However, this increase comes after a significant decrease, from about 1.73 million in March and 1.68 million in June. The average for City forecasters is consistently lower than for academic and other independent forecasters, currently standing at 1.57 million in November.

Chart 2.7: Average forecast for claimant count in the fourth quarter of 2011



Source: HM Treasury

2.26 Despite the increase in the forecast for unemployment, the average forecast for employment growth has also increased from around 0.1 per cent throughout June to September, to 0.3 per cent in November.

2.27 The average forecast for claimant count unemployment in the medium term, measured as an annual average rather than in the fourth quarter, is lower for 2012 in this forecast round than in August. However, this now declines at a slower rate, so that by 2014 the November forecast is 300,000 higher, at 1.43 million.

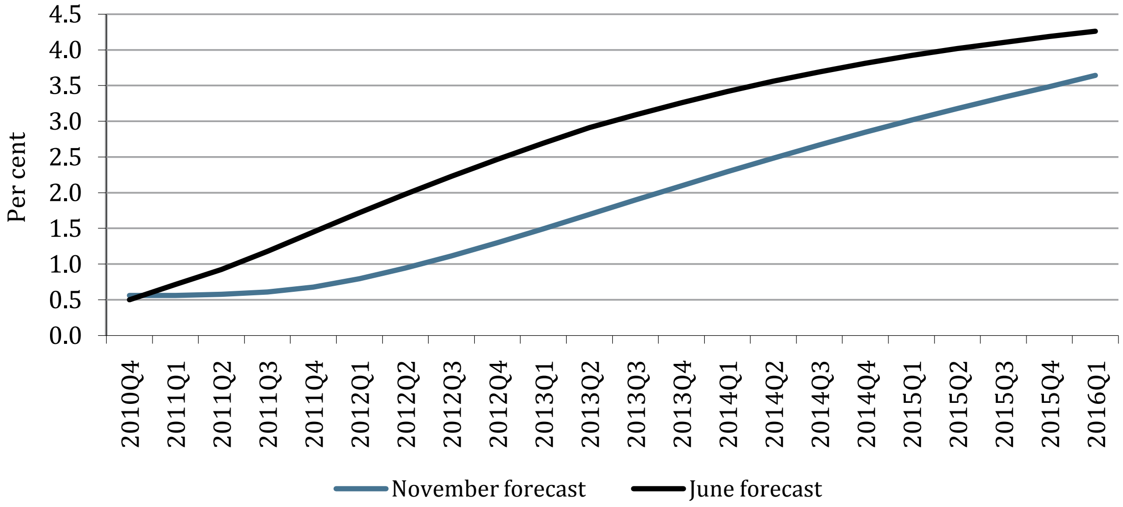
Public finances

2.28 The average forecast for Public Sector Net Borrowing (PSNB) is £143 billion for 2010–11 and £118 billion in 2011-12. This is almost unchanged from the October average estimate, but there has been a steady decrease in the average forecast since the beginning of the year. The average forecast in June for 2011-12 was £131 billion. The average medium-term forecasts for 2012-13 and 2013-14 are also lower, falling by around 0.2 per cent of GDP for 2012-13 between August and October. By 2013-14 the average forecast for PSNB is £75 billion, or 4.5 per cent of GDP.

Market expectations of interest rates

2.29 Whilst they are not forecasts in the vein of the previous sections, market expectations of interest rates have direct implications for the OBR forecast, as it is assumed that monetary policy follows the path expected by participants in financial markets. As chart 2.8 demonstrates, expectations of three month gilt rates are lower than was previously anticipated in June.

Chart 2.8: Market expectation of three month gilt rates



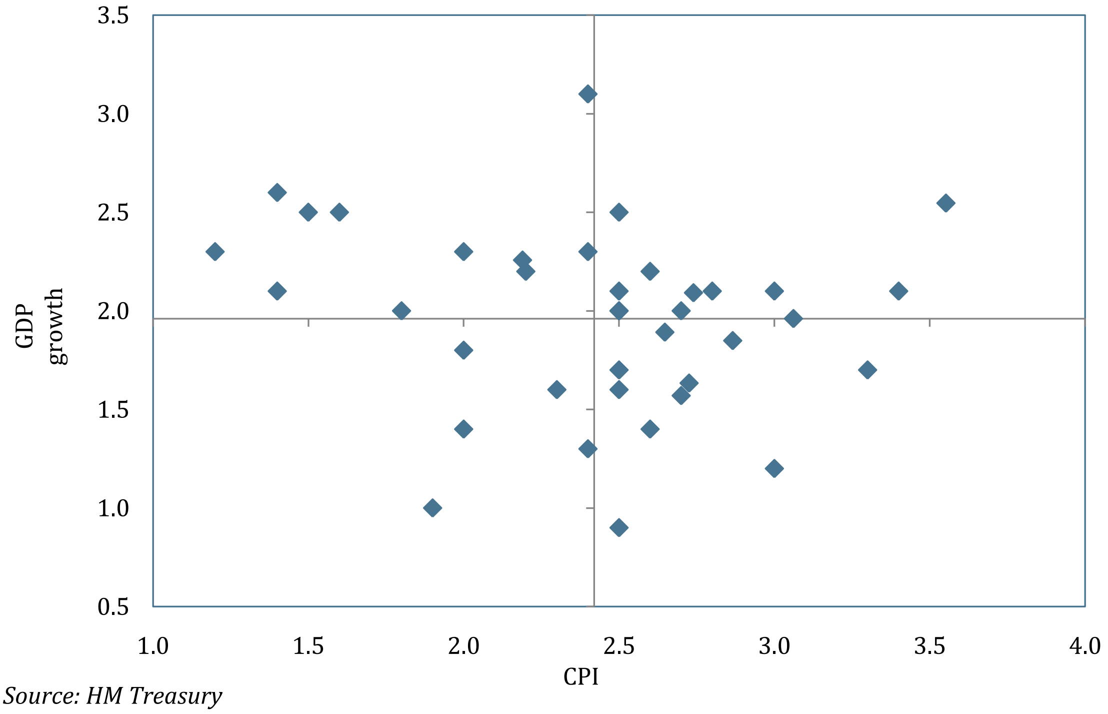
Source: Bank of England

Forecast dispersion

2.30 Looking at average forecasts allows for easy comparison, and can sometimes be revealing. However, when comparing figures in this way there can be a tendency to believe there is greater consensus than is actually the case. So it is informative to look at the dispersion of forecasts too. Even here, it is easy to overestimate the level of certainty and accuracy in the average view, as each forecaster's central estimate does not reveal the judgements that have lead to that central estimate, or the risks around it.

2.31 The chart below illustrates the dispersion of short-term forecasts by plotting GDP growth and CPI inflation forecasts for 2011. There is no clear pattern between the two variables. One explanation could be that there are varying views on the current 'output gap', or the difference between the economy's actual level of output and its estimated trend level.

Chart 2.9: Distribution of independent forecasts for CPI and GDP growth in 2011



Source: HM Treasury

2.32 Forecasters differ not just in their numerical forecasts for key variables, but also in their assessment of important economic and policy trends. Current topics of debate include:

- rebalancing: most forecasters expect the composition of demand in the economy to shift away from consumption and towards business investment and net exports. But views on the likelihood and extent of such rebalancing depend on expectations of determinants such as world economic activity and the impact of sterling's depreciation as well as the likely saving behaviour of households and businesses;

- fiscal tightening: commentators differ in the extent to which they believe that fiscal consolidation will act as a drag on economic growth over the next few years, both directly and after taking account of any offsetting monetary policy response. Estimates of 'fiscal multipliers ' – the impact of fiscal policy changes on overall demand in the economy – vary widely in the academic and other policy literature; and

- monetary stimulus: independent forecasts for monetary policy over the near term seem to be determined primarily by views of the balance between risks to growth and inflation over the first half of 2011. Many forecasters downgraded their expectations of further quantitative easing in winter 2010 or 2011 in the light of the recent unexpected strength of GDP growth.

2.33 One specific area of difference between forecasters is in their explanation of the surprising strength of GDP growth in 2010 compared to most expectations. Some forecasters focus on the strength of construction and government sector output and the likelihood that both these contributions to growth decline given the ongoing fiscal consolidation. This suggests that the growth surprises do not primarily reflect a change in underlying activity, but rather a reallocation of economic activity from 2011 to 2010. However, other forecasters see the pick-up in services as evidence of a sustainably stronger growth profile, and have thus revised growth forecasts for next year upwards. On average, as we noted above, the former view predominates.

2.34 We try to reflect the variation in views regarding these topics by incorporating different economic scenarios in our analysis. These are explained in the next chapter, and their implications for the Government's fiscal mandate and supplementary target are reported in Chapter 5.

Conclusion

2.35 Since the interim OBR's forecast in June there have been new data on the economy and changes in Government policy. These help inform the forecasts that we set out in the following chapters. In this chapter we have seen how they have helped shape forecasts by external bodies, which in turn have also helped inform our judgements. We have also seen that there is wide dispersion in independent forecasts. The term 'consensus forecast' is something of a misnomer, as the average masks a wide range of views. Given the uncertain outlook that confronts all forecasters in the wake of the unprecedented events of the past three years this is hardly a surprise.

3 Economic outlook

Summary

3.1 Our central forecast is that the economy will continue to recover from the recession, but at a slower pace than in the recoveries of the 1970s, 1980s and 1990s. This relatively sluggish medium-term outlook reflects the gradual normalisation of credit conditions, efforts to reduce private sector indebtedness and the impact of the Government's fiscal consolidation.

3.2 This is our central projection, or in other words, we believe there is an equal likelihood that growth will turn out to be higher or lower than we forecast. We also recognise upside and downside risks to this view and these are explored in our presentation of alternative economic scenarios beginning in 3.104 and in the sensitivity analysis in Chapter 5.

3.3 Compared to the interim OBR's June forecast we have increased our expectation of GDP growth this year and reduced it for 2011. We believe that the unexpected strength of GDP growth in the second and third quarters of 2010 was largely a timing effect, with firms rebuilding stocks more quickly than seemed likely in June. That said, we do expect some of the recent strength to persist and have therefore revised up slightly the expected level of GDP across the forecast horizon. Key judgements in our central forecast include that:

- the trend rate of growth is projected to be 2.35 per cent, falling back to 2.10 per cent from 2014 due to demographic effects. This is unchanged from the assessment made by the interim OBR;

- based on the latest evidence from cyclical indicators, the output gap was around -3¼ per cent in the second quarter of 2010, narrowing from around -4 per cent at the end of 2009. The reduction in the size of the output gap is in line with the strong growth seen so far in 2010;

- CPI inflation falls from 3.2 per cent in 2010 to 1.9 per cent in 2012 as the short-term effects of the increase in VAT rise and other temporary factors fall away, before returning to the Bank of England's target of 2.0 per cent by 2014; and

- as the economy recovers employment rises over the projection period, increasing from 29.0 million in 2010 to 30.1 million in 2015. The unemployment rate is forecast to peak at just over 8 per cent in 2011 before falling back to just over 6 per cent by 2015.

Table 3.1: Summary of central forecast[1] and changes since June

	Percentage change on a year earlier, unless otherwise stated						
		Forecast					
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Output at constant market prices							
Gross domestic product (GDP)	-5.0	1.8	2.1	2.6	2.9	2.8	2.7
GDP Levels (2009=100)	100.0	101.8	103.9	106.7	109.7	112.8	115.9
Expenditure components of GDP at constant market prices							
Household consumption[2]	-3.3	1.1	1.3	1.5	1.9	2.1	2.2
Business investment	-18.8	1.3	8.6	8.4	10.2	9.8	7.6
General government consumption	1.0	1.8	-0.4	-1.3	-1.8	-2.4	-1.7
General government investment	14.2	1.0	-15.3	-9.7	-5.9	-1.5	2.6
Net trade[3]	0.7	-0.9	0.7	0.9	0.7	0.6	0.5
Inflation							
CPI (Q4)	2.1	3.0	2.8	1.9	2.0	2.0	2.0
Labour market							
Employment (millions)	29.0	29.0	29.1	29.3	29.6	29.8	30.1
Average earnings[4]	1.8	2.3	2.2	2.4	3.8	4.4	4.4
ILO unemployment (% rate)	7.6	7.9	8.0	7.7	7.2	6.7	6.1
Claimant count (Q4, millions)	1.62	1.47	1.49	1.41	1.30	1.21	1.10
Output Gap	-4.2	-3.3	-3.4	-3.0	-2.3	-1.6	-0.9
			Changes since June forecast				
Output at constant market prices							
Gross domestic product (GDP)	-0.1	0.6	-0.2	-0.2	0.0	0.1	0.0
GDP Levels (2009=100)	0.0	0.6	0.4	0.2	0.2	0.2	0.2
Expenditure components of GDP at constant market prices							
Household consumption[2]	-0.1	0.8	0.1	-0.3	-0.2	-0.1	0.0
Business investment	0.5	-0.2	0.5	-1.6	-0.7	0.4	-0.6
General government consumption	-1.2	0.1	0.8	0.7	0.5	0.6	0.4
General government investment	-1.6	5.8	3.7	-1.2	0.7	-2.1	0.7
Net trade[3]	0.0	-0.4	-0.2	0.0	0.0	0.0	0.0
Inflation							
CPI (Q4)	0.0	0.2	0.4	-0.1	0.0	0.0	0.0
Labour market							
Employment (thousands)	-1	206	159	131	105	48	11
Average earnings[4]	0.9	0.2	0.3	0.1	0.0	0.0	0.0
ILO unemployment (% rate)	0.0	-0.2	0.0	0.1	0.1	0.1	0.1
Claimant count (Q4, thousands)	0	-33	37	45	45	40	21
Output Gap	0.0	0.4	0.2	0.1	0.1	0.2	0.2

[1] *The forecast is consistent with the UK Output, Income and Expenditure data for the third quarter of 2010, released by the Office for National Statistics on 24th November 2010.*

[2] *Includes households and non-profit institutions serving households.*

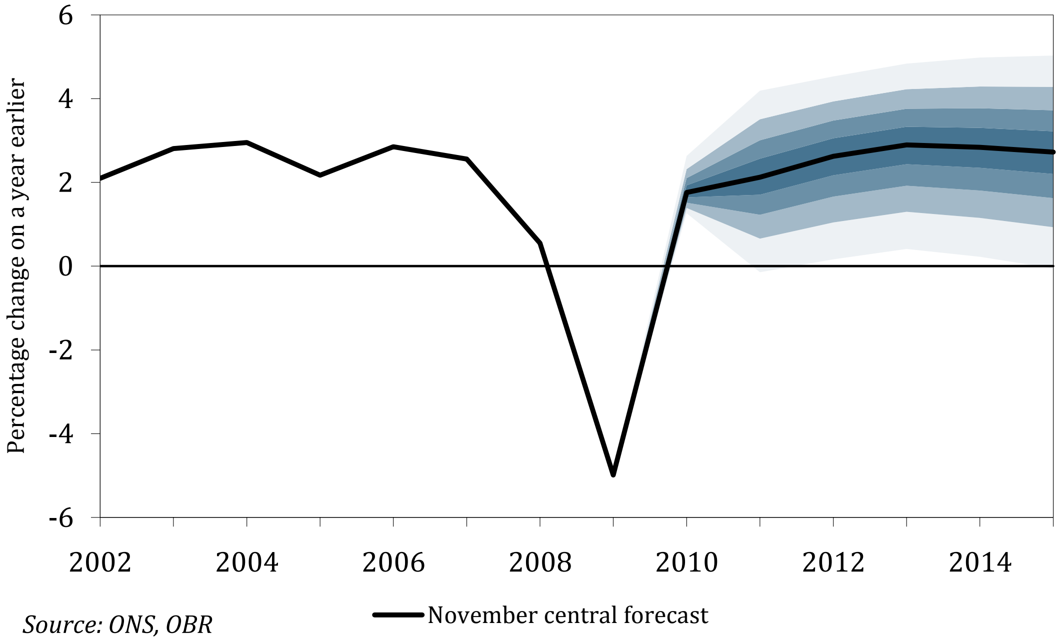
[3] *Contribution to GDP growth, percentage points.*

[4] *Wages and salaries divided by employees.*

3.4 The composition of growth over the forecast period is consistent with that projected by the interim OBR. Accordingly we believe there will be a rebalancing toward business investment and net trade, with weaker private consumption than in recent years.

3.5 There is considerable uncertainty around all the forecast judgements – and around the conclusions that we reach. To reflect this we present our central growth forecast with a fan chart showing the probability distribution of outcomes based on past forecast errors (Chart 3.1). We judge that growth is as likely to exceed our central projection as it is to fall short. However, while the fan chart is a useful tool for quantifying uncertainty, it does not represent our subjective assessment of the specific upside and downside risks that we see to this forecast. The solid black line shows our median forecast, with the successive pairs of lighter shaded areas around it representing 10 per cent probability bands – more details on the methodology are set out in Annex B.

Chart 3.1: GDP fan chart



Source: ONS, OBR

3.6 Later in this chapter we detail two alternative economic scenarios, which help to illustrate two of the risks to our central forecast. These are also used in Chapter 4 to illustrate their implications for the public finances. In summary these scenarios are:

- delayed rebalancing: our central economic forecast is based on the judgement that there will be a rebalancing of growth away from private consumption and toward business investment and net exports. This judgement has been a feature of many forecasters' growth projections over recent years, but has not materialised. In this scenario we consider the implications of an alternative growth path driven by a return to relatively strong private consumption growth; and

- persistent weak demand: in this scenario, reduced real wage flexibility makes it harder for the Bank of England to offset weaker demand and growth is lower than expected. We explore how this might pull down not just the expected level of economic activity but also (to a lesser but uncertain degree) the economy's productive potential.

Our approach to economic forecasting

3.7 Broadly speaking, we approach our economic forecast in three stages:

- we begin by assessing how much spare capacity there was in the economy in the most recent quarter for which we have sufficient data. In other words, we estimate the size of the "output gap" between the actual level of national income and the potential level consistent with stable inflation. We then consider how quickly the potential of the economy is likely to grow over the next few years;

- we next assess how quickly any spare capacity in the economy is likely to be used up, bearing in mind that the Bank of England uses monetary policy to achieve and maintain the inflation target set by the Government (and that spare capacity is an important influence on domestic inflationary pressures). In current circumstances, this judgement is informed by looking at the paths of recovery from past recessions and by assessing the impact of factors such as credit conditions, the adjustment of balance sheets and the impact of the fiscal consolidation; and

- in thinking about how exactly such a recovery might come about, we look at likely influences on different components of expenditure and income over the medium term. In assessing the outlook for the next few quarters, we draw heavily on what recent statistical and survey data tell us about the momentum and composition of activity.

Potential output, trend growth and the output gap

3.8 Estimating the size of the output gap is difficult because we cannot observe the supply potential of the economy directly. We need to do so, in part, because we are required to judge whether the Government is on course to achieve a fiscal mandate expressed in cyclically-adjusted terms i.e. adjusted for the size of the output gap.

More fundamentally, we cannot assess the prospects for economic growth over a five-year period without taking some view – implicit or explicit – of the level of economic activity that the economy can sustain, how that level is likely to change, and how far above or below it the economy is currently operating. So some view of the likely evolution of potential output and the output gap is necessary to judge progress towards any medium-term target for the public finances, not just a cyclically-adjusted one.

3.9 As we cannot observe the level of potential output directly, we have to estimate the size of the output gap from available indicators or from assumptions about the path of potential output. Estimating the output gap in real time is particularly difficult: changes in data may reflect movements in potential output, cyclical fluctuations, or both. Distinguishing between the underlying trend in potential output and cyclical fluctuations around it can be hard, even once a much longer run of data become available.

3.10 These uncertainties have been exacerbated by the financial crisis. While it is likely that the crisis has had a bearing on potential output, the size and persistence of the effect remains unclear, as does the size of the output gap before the downturn.

3.11 The significant uncertainty surrounding the size of the output gap is reflected in the latest estimates by other forecasters:

- in their latest *Economic Outlook*, the Organisation for Economic Cooperation and Development (OECD) estimated that there was an output gap of -4.4 per cent of potential in 2010, narrowing from -5 per cent in 2009;

- using a variety of different approaches, the International Monetary Fund (IMF) suggested after their recent 'Article IV' consultation that the output gap probably lay between -1.8 per cent and -3.9 per cent in the second quarter. For the purposes of their latest *World Economic Outlook*, the IMF assumed an output gap of -2.7 per cent in 2010;

- the European Commission's Spring economic forecast assumed an output gap of -3.9 per cent in 2010; and

- the National Institute for Economic and Social Research (NIESR) suggested in their October *Economic Review* that the output gap is around -4 per cent at present, based on a fall in potential output of around 4 per cent as a result of the crisis.

3.12 In its June Budget forecast the interim OBR judged that the output gap was around -4 per cent at the end of 2009. This judgement drew on a range of indicators of spare capacity, including survey indicators of capacity utilisation and recruitment difficulties, as well as indicators of price and wage inflation from the Office for

National Statistics. To produce direct estimates of the degree of spare capacity in the economy, these indicators can be weighted together in various ways:

- "composite" estimates are generated by weighting together capacity utilisation and recruitment difficulties indicators from the British Chambers of Commerce (BCC), Confederation of British Industry (CBI) and Bank of England Regional Agents' surveys, using estimates of the labour and profit share of income. This produces an implied output gap estimate corresponding to each survey;

- indicators of recruitment difficulties and capacity utilisation used to produce these composite estimates can then be combined across all surveys to produce a single "aggregate composite" measure of the output gap, by bringing together similar indicators from each survey; and

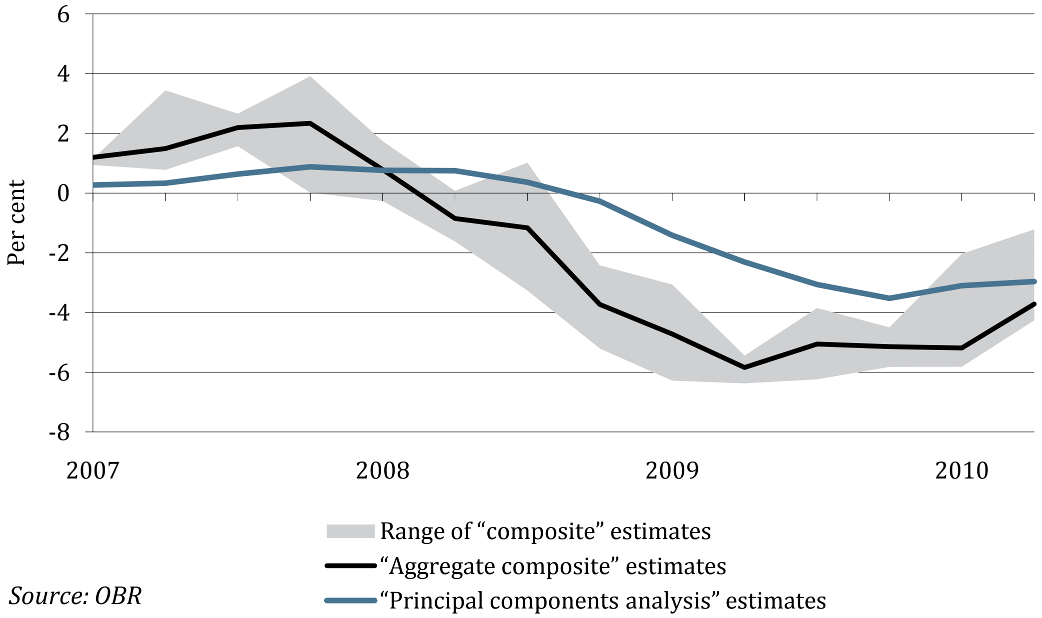
- spare capacity indicators can be weighted together using "principal components analysis", a statistical technique used to identify the common cyclical component in a set of indicators. Unlike composite estimates, the principal components estimates take into account ONS indicators of spare capacity (such as price and wage inflation) as well as survey-based measures.

3.13 One feature of this approach is that output gap estimates are independent of the latest GDP data, as they are based solely on an assessment of cyclical indicators. Accordingly, estimates of the output gap based on this approach are likely to be less susceptible to revisions to National Accounts data. In addition, the latest output gap estimate does not require an estimate of what trend growth has been over the recent past, or what the output gap was prior to the most recent observation. We continue to use this approach in this forecast. Like the interim OBR, we have not estimated a historical series for the output gap prior to 2009. However, we plan to return to this issue in future work, taking into consideration a variety of different methodologies.

Latest OBR estimates of the output gap

3.14 Chart 3.2 sets out updated estimates of the output gap using the three approaches described above. The indicators remain consistent with the interim OBR's June Budget forecast judgement that there was an output gap of around -4 per cent at the end of 2009. All three methods point to a narrowing of the output gap through the first half of 2010 as capacity utilisation and recruitment difficulties picked up. However, there remains some variation between sectors, with utilisation indicators in manufacturing increasing more through 2010 than those in the service sector. Other indicators also point to spare capacity in the economy. Average earnings growth has remained subdued, with annual private sector average weekly earnings growth (including bonuses) falling to 0.2 per cent in the second quarter of 2010 before picking up to just under 2 per cent in the following quarter.

Chart 3.2: Estimates of the output gap based on the cyclical indicators



Source: OBR

3.15 On the basis of this evidence, we judge that there was an output gap of around -3¼ per cent in the second quarter of 2010. This is within the wide range of estimates published by other institutions. The dispersion of views highlights the uncertainty surrounding the current output gap, motivating the sensitivity testing of our fiscal forecasts to bigger and smaller estimates of the output gap in Chapter 5.

Decomposing the output gap

3.16 The level of potential output at any time can be split into its underlying components: trend productivity (output per hour), trend average hours, the trend employment rate (16+ basis) and the trend population (16+ basis). Similarly the output gap can be decomposed into a productivity gap, an average hours gap, an employment rate gap and a population gap (Table 3.2).

3.17 Of the -3¼ per cent output gap in the second quarter of 2010, we estimate that:

- around -1 percentage point is accounted for by output per head operating below potential;
- around -¾ percentage point reflects below-trend average hours, which have fallen back significantly since the start of 2008;
- around -2 percentage points reflects the employment rate lying below its potential level. This is consistent with indicators of recruitment difficulties, which remain below their long-run averages; and

- the gap between the level of the 16+ population and its estimated trend contributes just over +¼ percentage point.

Table 3.2: Output gap decomposition in the second quarter of 2010

	Percentage point contribution
Output gap (per cent)	-3.25
of which:	
Productivity[1]	-0.9
Average hours[1]	-0.7
Employment rate[1]	-2.0
Population[1]	0.3

[1] *Component gaps shown in the table may not sum to output gap due to rounding.*

The growth of potential

3.18 For the June Budget the interim OBR assumed that potential output would grow by 2.35 per cent a year up to the end of 2013, slowing to 2.1 per cent a year from 2014 onwards as demographic changes reduce the growth rate of the labour supply. This was based on:

- trend productivity growth of 2 per cent a year, slightly below the productivity growth rate observed immediately prior to the recession but in line with previous UK trends;
- trend average hours growth of -0.2 per cent a year, reflecting a continuation of the steady decline in average hours since the 1970s;
- trend employment rate growth of -0.15 per cent a year up to the end of 2013, based on a constant Non-Accelerating Inflation Rate of Unemployment (NAIRU) of around 5¼ per cent and a decline in the activity rate as the baby-boom generation moves beyond the State Pension age. From the start of 2014 the decline in the trend employment rate was assumed to pick up slightly to -0.2 per cent as demographic change exerts extra downward pressure on labour market participation; and
- trend population growth of 0.7 per cent a year up to the end of 2013, based on an average net migration assumption of 140,000 per annum and the ONS's latest projections of natural population change. Beyond 2014, trend population growth was assumed to slow to 0.5 per cent, as natural population change slows in response to reductions in the fertility rate during the 1990s and increases in longevity.

3.19 We have judged it appropriate to use the same trend growth assumptions as those used by the interim OBR for its June Budget forecast. However, significant uncertainties surround the outlook for trend growth. The prospects for supply potential are not unrelated to the outlook for demand: significant changes in investment growth, for example, would change the rate of capital accumulation and subsequently the supply capacity of the economy. Later in this chapter we discuss a scenario in which a period of persistent weak demand depresses the prospects for potential output, so as to discuss its possible fiscal impact in Chapter 5.

Table 3.3: Trend output assumptions (annualised growth rates, per cent)

	Trend productivity[1]	Trend average hours	Trend employment rate[2]	Trend population[2]	Trend output
2010Q2 to 2013Q4	2.00	-0.20	-0.15	0.70	**2.35**
2014Q1 to 2016Q1	2.00	-0.20	-0.20	0.50	**2.10**

[1] Output per hour

[2] 16+ basis.

3.20 In principle, the outlook for potential output could have changed as a result of the policy measures included in the 2010 Spending Review. Box 3.1 discusses some of the possible effects. There are potential influences in both directions and we have concluded that there is insufficient evidence to justify changing the trend growth assumptions in either direction, not least because of the uncertainty that lies around the existing estimate based on previous policies. We will continue to monitor potential influences on the trend growth rate and update our central view if and when it is appropriate.

Box 3.1: Impact of the Spending Review on potential output

For its June Budget forecast, the interim OBR said that while Budget measures could affect potential output, it would assume, for the purposes of its forecast, that there was no effect. Since the June Budget, the Government has set out further details of the planned reductions in government expenditure in the 2010 Spending Review, including additional measures to reduce welfare spending.

The possible effects of reductions in government expenditure on the economy's trend growth rate are subject to great uncertainties. For example, some evidence[a] suggests that government investment in public capital can provide long-term "spill-overs" to output in the market sector – such as investment in infrastructure. The impact on potential growth is likely to be observed over a relatively long time horizon for certain types of government expenditure, such as education. However, this assessment is complicated by uncertainty around the counterfactual. For example, we do not know what the prospects for long-term interest rates and private sector investment would have been in the absence of changes to government spending. This compounds the uncertainties around the impact on the trend growth outlook, which is itself subject to a wide margin of error even without taking into account possible policy effects.

A further uncertainty is the response of the labour market to reductions in general government employment (see Box 3.7 for a discussion of our latest forecast of general government employment). On the one hand, a smooth transfer of employment to the market sector may have the effect of raising overall output per head if measured productivity differences between the market and government sectors are maintained. On the other, if market sector wages fail to adjust fully or if public sector employment reductions bring about significant sectoral or regional mismatch, then the risk of higher structural unemployment or lower output per head is greater.

Changes to welfare spending may also have an effect on labour supply and potential output. The government has announced a number of reforms to welfare expenditure, including (but not limited to) the withdrawal of Child Benefit from families with a higher rate taxpayer from January 2013; tighter eligibility requirements for Contributory Employment and Support Allowance (ESA); a three year freeze in the basic and 30 hour elements of the Working Tax Credit (WTC) from 2011-12; an increase in the working hours requirement for couples with children for the Working Tax Credit; and an increase in the child element of the Child Tax Credit. By changing out-of-work incomes and eligibility for benefits it is possible that these measures will have some bearing on individuals' labour supply decisions. However, the overall effect of changes to welfare spending remains unclear: the Institute for Fiscal Studies, for example, have suggested that the Spending Review is likely to have mixed effects on work incentives in the short run.[b]

[a] Crafts (2009) summarises existing evidence on the relationship between public capital and output. See *Transport infrastructure investment: implications for growth and productivity,* Crafts, N, Oxford Review of Economic Policy, Volume 25, No.3, 2009.

[b] *Cuts to welfare spending, take 2*, Mike Brewer, Institute for Fiscal Studies, 2010. Available at http://www.ifs.org.uk/budgets/sr2010/welfare.pdf.

3.21 As set out in Box 3.2, changes to migration could also affect trend growth. The interim OBR's June Budget estimates of trend growth estimates were based on an average net inward migration assumption of 140,000 per annum, in line with the average assumption underpinning the ONS's 2008-based low migration variant population projections over the next few years.

3.22 Since June, the Government has announced a limit of 21,700 for non-EU migrants coming into the UK under the skilled and highly skilled routes from April 2011, a reduction of 6,300 on 2009. The Government has asked the Migration Advisory Committee to review the limit next year for 2012-13. At this stage, we judge that there is insufficient reason to change our average net migration assumption of 140,000 per year from 2010, which remains well below the net inflows of 198,000 seen in 2009. Our assumption that average levels of net migration will be weaker in forthcoming years reflects our judgement that the removal of restrictions on A8 inward migration by other EU countries and relatively weaker economic activity are likely to reduce the average level of net inflows relative to the recent past.

Box 3.2: Net migration and trend growth

Net migration can directly affect the economy's trend growth rate by affecting potential labour supply growth. All else equal, a reduction in 16+ net migration of 50,000 per annum would reduce 16+ population growth by around 0.1 per cent each year. The effect would be approximately symmetrical, so that an increase in net migration of 50,000 per year would raise 16+ population growth by around 0.1 per cent per annum. The impact on trend growth will partly depend on the characteristics of migrants. If migrants have a similar employment rate and level of productivity to the existing average, a reduction or increase in population growth of 0.1 per cent would translate one-for-one to a reduction or increase in trend growth of 0.1 per cent respectively.

On the other hand, if migrants have higher or lower employment rates or productivity relative to the UK average, then this would tend to scale up or down the impact of a given change in net migration on potential growth.[a] Similarly, if net migration is associated with wider "spillover" effects on the existing workforce then this would also affect potential growth. However, existing analysis suggest little evidence of a significant effect from immigration on earnings or employment, although there is some evidence of a small effect in the low-skilled sector.[b]

Such considerations are important when assessing the impact of net migration on trend output *per capita*: if migrants have similar employment rates and productivity levels to the existing workforce then we might expect output per capita to be largely unaffected if potential output moves proportionately with the 16+ population. By contrast if migrants have different characteristics, or if net migration yields spillovers to the rest of the workforce, then output per capita may change in response to changes in net inflows

[a] In particular, the effect would scale up or down by the ratio of migrants employment rates (or productivity levels) to the prevailing average.

[b] For a recent summary of existing evidence, see *The UK labour market and immigration*, Wadsworth, J, in National Institute Economic Review No.213, National Institute for Economic and Social Research, July 2010.

The pace of the recovery

The short-term outlook

3.23 The economy has grown more strongly between the spring and autumn of 2010 than the interim OBR expected in June. GDP growth came in above forecast in both the second and third quarters of the year. We should not be surprised that growth has been volatile, as this is a common characteristic of post recession recoveries. Averaging the four quarters of positive growth we have seen since growth resumed at the end of 2009, gives an average growth rate of 0.7 per cent quarter-on-quarter. This is a little above the estimated trend growth rate of potential. We expect this general pattern to continue throughout the forecast period as the spare capacity in the economy is gradually taken up.

3.24 A key judgement to be made in this forecast is how we should interpret the unexpectedly strong growth of the last two quarters. Taking the two quarters together, the level of GDP is currently 0.8 per cent above the level expected in the interim OBR's June forecast. To what extent should we treat this as simply a timing effect, in which stronger recent growth has brought forward some of the good news that the interim OBR was expecting over the subsequent few quarters, suggesting that future quarters will now be weaker? Or to what extent should we see it as evidence of greater lasting momentum in the recovery, such that the level of output is likely to be persistently higher over the rest of the forecast period than the interim OBR expected?

3.25 On the expenditure measure of GDP, the unexpectedly strong growth in the second quarter was concentrated in private consumption and stockbuilding. Consumption growth held up despite a significant weakening in household income, resulting in an unexpected fall in the saving ratio. Only limited information is available for the third quarter at this stage, but the strength in GDP relative to the June forecast looks to have come from government expenditure, with further small upside news on stocks.

3.26 Stock levels fell sharply during the recession. On the basis that firms are trying to rebuild stocks to their pre-recession share of output, then it appears that the stock cycle has progressed more quickly than anticipated in June. This implies that we should expect this quicker readjustment by firms to their desired stock level to be offset by weaker contributions in future quarters. External forecasters appear to have reached this conclusion, with most forecasts being revised up for 2010 but down for 2011, as discussed in Chapter 2.

3.27 The output measure of GDP shows that growth in the second and third quarters was boosted by a strong contribution from the construction sector. Despite constituting only 6 per cent of UK output, construction accounted for half the growth in GDP in the second quarter and a quarter of growth in the third quarter.

3.28 The most recent release of the monthly construction survey used in the National Accounts suggests that the original estimate of construction growth in the second quarter was too high. Other things being equal, it would imply a downward revision of 0.2 percentage points to growth in the second quarter and a smaller revision to the first quarter. However, these data will not be incorporated into the GDP figures until the ONS publishes the Quarterly National Accounts release on 22 December, which will contain revisions back to the first quarter of 2009. If the data are revised, our 1.8 per cent forecast for GDP growth in 2010 would be correspondingly weaker at around 1.6 per cent, with most of the effect likely to be concentrated in the residential investment component of aggregate demand. Notwithstanding potential further revisions (which may be up or down), we regard the recent strength in the construction sector as unlikely to continue.

3.29 The evidence from the expenditure and output measures together suggests that stronger-than-expected growth in the last two quarters is likely to be followed by weaker-than-expected growth in the next few quarters. This is consistent with NIESR's latest monthly estimate of GDP showing a slowing to a pace of 0.5 per cent in the three months ending in October. However, we do not believe that all of the recent strength is due to timing effects. Looking at the output measure, GDP growth over the past year has been quite broadly based. Even excluding the potentially volatile construction and energy sectors, the economy has grown by 2.4 per cent over that period. On balance we believe that about two-thirds of the unexpected growth since the spring is a timing effect that will be lost in future quarters and one-third represents a permanently higher level of output.

3.30 Table 3.4 shows the net effect of these influences on quarterly growth rates through to the end of 2011. We see quarter-on-quarter growth decelerating to a low of around 0.3 percent in the first quarter of 2011 before rising back to around the trend growth rate by the middle of the year. This short-term growth profile is also influenced by the rise in VAT from 17.5 per cent to 20 per cent next January, which is likely to shift some consumer spending out of (mostly) the first quarter of 2011 and into (mostly) the fourth quarter of 2010.

3.31 As a result of these changes we have revised up the interim OBR's June calendar year growth estimate from 1.2 to 1.8 percent for 2010 and down from 2.3 to 2.1 per cent for 2011. But the level of GDP in 2011 remains around ½ per cent higher on average in 2011 than looked likely in June. Needless to say, as the past few months have illustrated, there is considerable uncertainty around this quarterly profile.

Table 3.4: Quarterly GDP growth profile

	Percentage change on previous quarter											
	2009				**2010**				**2011**			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
GDP[1]	-2.3	-0.8	-0.3	0.4	0.4	1.2	0.8	0.5	0.3	0.4	0.6	0.7
GDP at June forecast[2]	-2.6	-0.7	-0.3	0.4	0.3	0.6	0.6	0.6	0.5	0.6	0.6	0.7
Change	*0.3*	*-0.1*	*0.0*	*-0.1*	*0.1*	*0.6*	*0.2*	*-0.1*	*-0.2*	*-0.2*	*-0.1*	*0.0*

[1] *Forecast from fourth quarter of 2010*

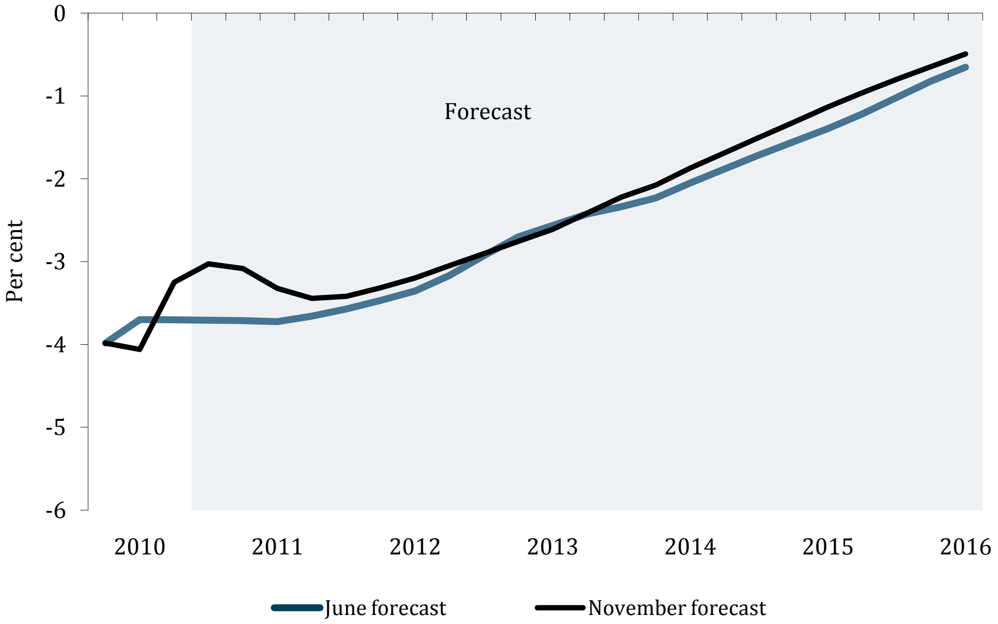
[2] *Forecast from second quarter of 2010*

The medium-term outlook

3.32 Prospects for growth in the medium term are inherently uncertain. At this time horizon, growth forecasts reflect our judgement on the potential output growth of the economy and the speed at which the output gap can be expected to close. Our forecast is for the output gap to narrow by approximately 0.7 percentage points a year from 2013–14, which would imply that it closes in 2016–17. The sensitivity of the fiscal forecast to this assumption is discussed in Chapter 5. On this basis, GDP growth is forecast to rise steadily from 2010, reaching a peak of 2.9 per cent in 2013. Growth then eases slightly in 2014 and 2015 as demographic changes reduce the growth of potential labour supply.

3.33 We assume that the Bank of England sets monetary policy to achieve the Government's inflation target. The policy rate profile we present reflects market expectations of Bank Rate over the forecast period although this does not fully capture the monetary stance due to the introduction of quantitative easing. Given our judgement on the degree of spare capacity in the economy, we assume that the Bank will permit above-trend growth in order for the economy to return to its trend level of output.

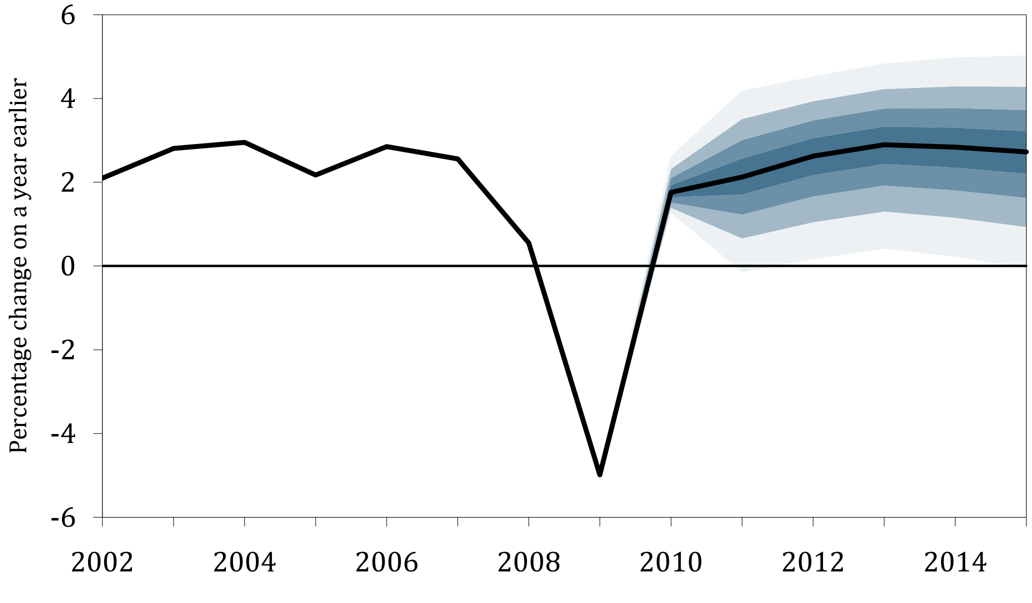
Chart 3.3: The output gap



[1] Output gap estimates on a quarterly basis, based on the latest National Accounts data and expressed as actual output less trend output as a percentage of trend output (non-oil basis).
Source: OBR

3.34 Our central growth forecast is shown in Chart 3.4. The distribution surrounding it shows the probability of different growth outcomes one might anticipate if you expected our forecasts to be as accurate now and in the future as the Treasury's Budget and PBR forecasts have been in the past. The solid black line shows our median forecast, with the successive pairs of lighter shaded areas around it representing 10 per cent probability bands – more details on the methodology behind this are set out in Annex B.

Chart 3.4: GDP fan chart

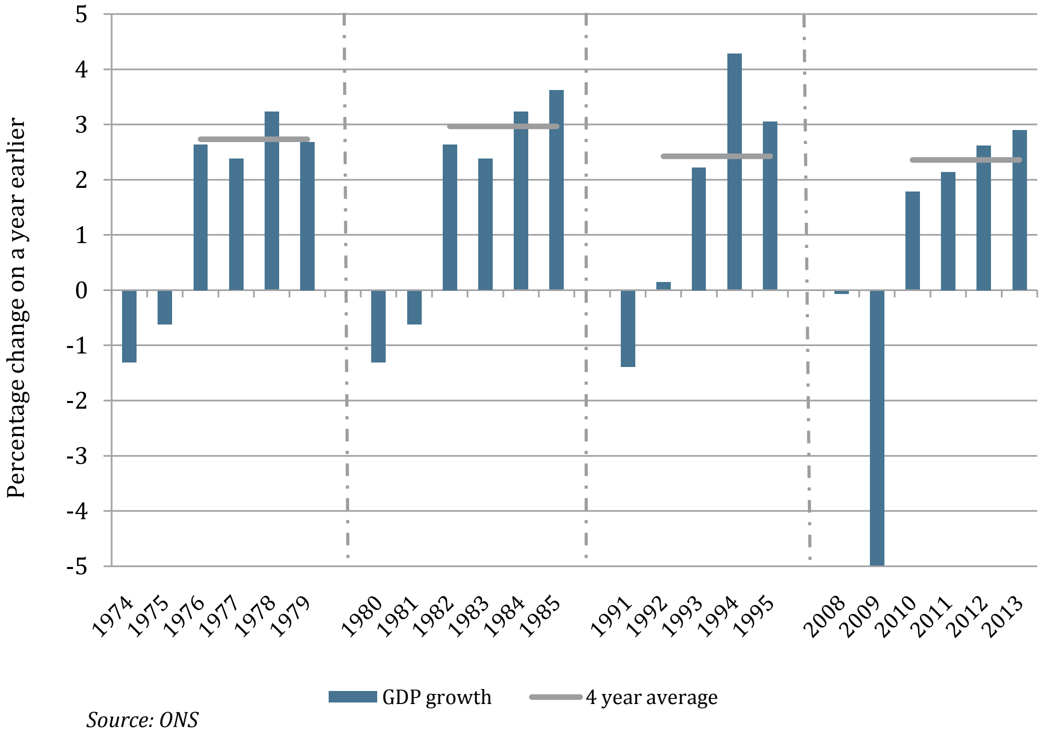


Source: ONS, OBR

3.35 Our central forecast implies a relatively slow recovery from recession by historical standards. As Chart 3.5 illustrates, it would be unprecedented in the post war period for economic growth to not exceed 3 per cent in a calendar year during the recovery phase of the economic cycle. The average growth rate in the recovery period is also expected to be weaker than the UK's historical experience. Output remained below its pre-recession level for around three years following the 1980s and 1990s recessions; the equivalent recovery takes over 4 years in our forecast.

3.36 The relative weakness of our forecast reflects the headwinds to growth from the outlook for credit conditions, efforts to reduce private sector indebtedness and the scale of the fiscal consolidation, which is yet to have its full effect on the economy. Our view of the size of the relevant fiscal multipliers is no different to the assumptions in the interim OBR's June forecast. As set out in Chapter 4, decisions made at the Spending Review have changed marginally the overall size of the forthcoming consolidation. These changes are too small to affect our assessment of the impact of the consolidation on the economy. In addition, sovereign debt concerns in the euro area pose some risk to the forecast and the potential implications of recent events in Ireland are discussed in more detail in Box 3.5.

Chart 3.5: Recoveries from past recessions



Source: ONS

The composition of growth

Income and expenditure

3.37 This section considers from which sectors growth might come over the next few years. We focus on the income and expenditure measures of GDP, the broad outlook for each we briefly set out here.

3.38 Looking first at the income measure, Chapter 2 discussed the significant downward revision to household disposable income in this year's Blue Book. We also believe that the outlook for household income will remain subdued. Although labour income is expected to hold up, the lower levels of benefit payments announced in the Spending Review and the weakening in the housing market will weigh down on household consumption. In the corporate sector, profitability remains high and a continued easing in funding costs should help to support investment.

3.39 Turning to the expenditure measure, the expected composition of growth is little changed from the interim OBR's forecast in June. The key feature remains a 'rebalancing' of demand away from consumption and towards business investment and net exports. As discussed in Chapter 2, other forecasters have taken different views on the extent of likely rebalancing, notably NIESR whose forecast shows significantly more rebalancing than we currently expect.

Table 3.5: Contributions to GDP growth[1]

	Percentage points, unless otherwise stated						
		Forecasts					
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
GDP growth, per cent	-5.0	1.8	2.1	2.6	2.9	2.8	2.7
Main contributions							
Private consumption	-2.1	0.7	0.9	0.9	1.2	1.3	1.4
Business investment	-2.0	0.1	0.8	0.8	1.0	1.0	0.9
Dwellings investment[2]	-0.8	0.1	0.1	0.2	0.3	0.3	0.2
Government[3]	0.6	0.4	-0.5	-0.5	-0.5	-0.5	-0.3
Change in inventories	-1.1	1.3	0.1	0.0	0.0	0.0	0.0
Net trade	0.7	-0.9	0.7	0.9	0.7	0.6	0.5

[1] Components may not sum to total due to rounding, omission of transfer costs of land and existing buildings, and the statistical discrepancy.

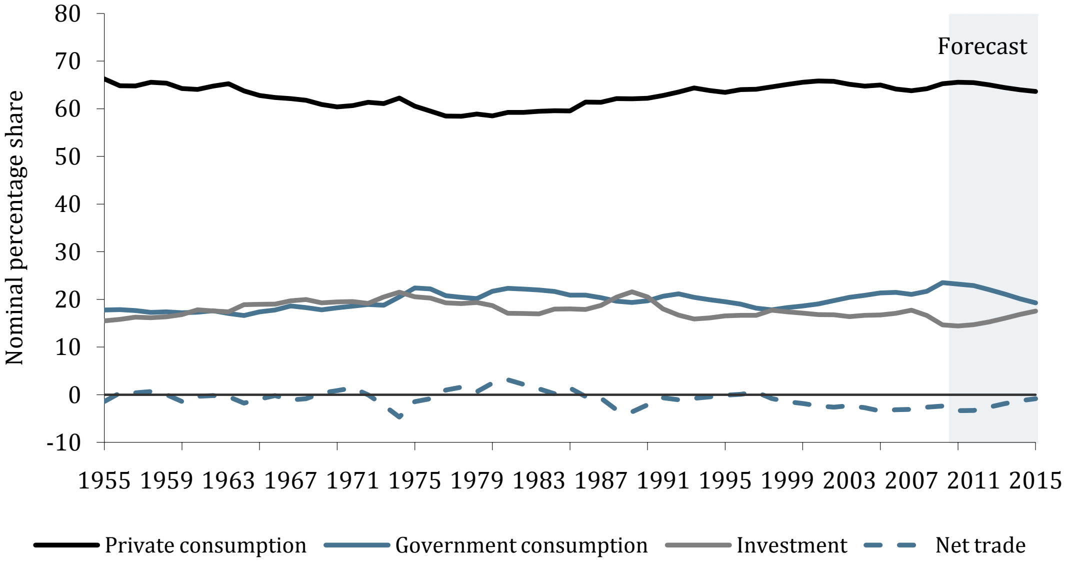
[2] The sum of public corporations and private sector investment in new dwellings and improvements to dwellings.

[3] The sum of government consumption and general government investment.

3.40 Some degree of rebalancing has long been a feature of many macroeconomic forecasts for the UK, but for various reasons it has not come to pass. Given this history, we have set out an alternative "delayed rebalancing" scenario later in this chapter, and illustrate its potential fiscal consequences in Chapter 5.

3.41 The continued build-up of leverage was one reason why past forecasts proved inaccurate. As set out in Box 3.3 the UK household sector has, in aggregate, been a net borrower over the past decade, with the sum of household consumption and investment exceeding income. However this borrowing was not used to finance a consumption 'boom'. Chart 3.6 demonstrates that consumption has been broadly stable as a share of GDP so that the sharp decline in the saving ratio was therefore driven by a declining household income share of GDP. At the same time, households increased their residential investment spending – effectively borrowing money to purchase increasingly expensive houses.

Chart 3.6: GDP expenditure shares

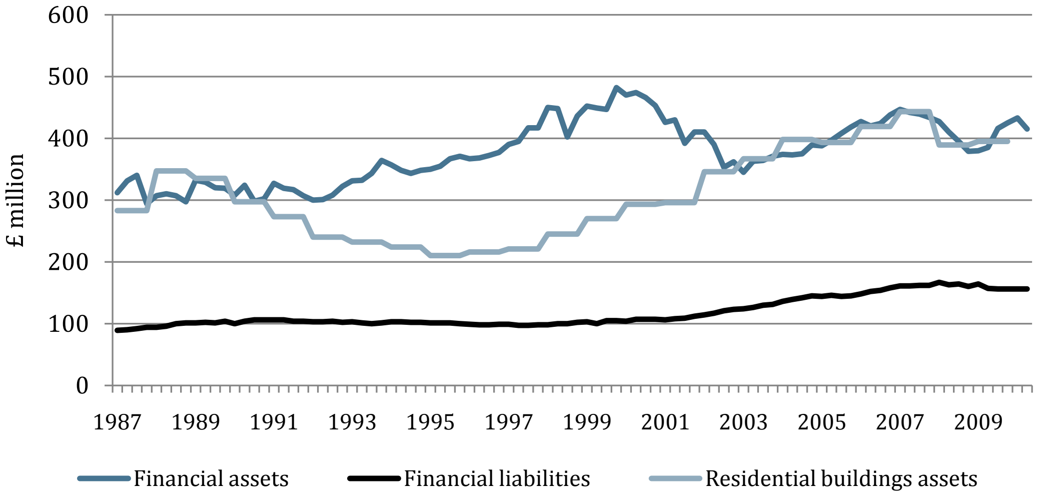


Source: ONS, OBR

3.42 Part of the fall in the saving ratio can be explained by the rise in asset prices, which allowed households to maintain their net financial wealth while accumulating increasing levels of debt. Chart 3.7 shows that the increase in households' debt was matched by an increase in the value of their financial assets. Looking at the households' net asset position, rather than simply their debt to income ratio, gives a more positive view of their balance sheet. However, the sharp fall in asset prices in the recession has not been fully recovered which will have worsened households' financial position, at least relative to their previous expectations. It therefore seems likely that households think some adjustment to their balance sheets will be necessary in the medium term.

3.43 We judge that this adjustment process is likely to bear down on the prospects for consumption growth over the forecast period. The forecast for the net exports element of our rebalancing profile is underpinned by the significant sterling depreciation since mid-2007 and the historical experience of previous depreciations.

Chart 3.7: Household financial assets, residential buildings assets and financial liabilities



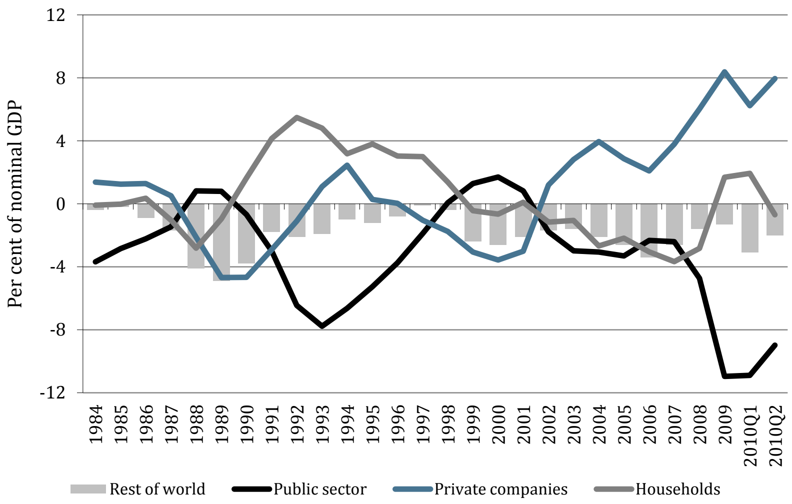
Source: ONS

Box 3.3: Sectoral net lending

Rebalancing away from private consumption towards investment and net trade is a theme of our central forecast. However, the possibility that the economy will return to an unbalanced growth path persists and forms one of the illustrative scenarios considered later in the chapter. This box briefly sets out the key features of domestic sectoral imbalances over the past couple of decades.

The income side of the National Accounts is broken down into five sectors. Based on total resources, the largest is the household sector, followed by the government, private non-financial corporations, financial corporations and the external sector. Sectoral net lending is how much is borrowed or saved by a particular sector once consumption and investment activity are accounted for. Some of these sectors may be net lenders and others net borrowers but if, in aggregate, the domestic sectors borrow more than they save, the shortfall must be made up by the rest of the world, leading to a current account deficit.

Aggregating the domestic sectors' net lending positions, the UK has run an annual current account deficit since 1984, borrowing an average of 1.8 per cent of GDP every year. From the early 2000s, long-standing net lending positions within the domestic economy reversed; the household sector became a net borrower while private



Source: ONS

non-financial and financial corporations became net lenders. Over 2008 and 2009 both households and corporations saved more but, as the government sector also borrowed more, the current account deficit continued.

In the decade from 2000 to 2009 the household sector borrowed, on average, around 1.6 per cent of GDP each year. Despite this, household net worth rose by around a half. Over the same period house prices almost doubled, contributing strongly to net worth through the revaluation of household assets. In 2009 households consolidated, lending around 1.7 per cent of GDP, but very recent data suggest households have now become net borrowers again.

In 2002, the corporate sector moved from being a net borrower to a net lender. Corporate lending averaged 2.8 per cent of GDP from 2002 to 2007 rising to over 7 per cent over the course of the financial crisis. From a National Accounts perspective, the government sector was last a net lender in 2001.

The public sector is forecast to borrow less as a percentage of GDP over the coming years. Whether this translates into lower whole economy net borrowing depends crucially on household and corporate saving behaviour and on the demand for UK exports from the rest of the world.

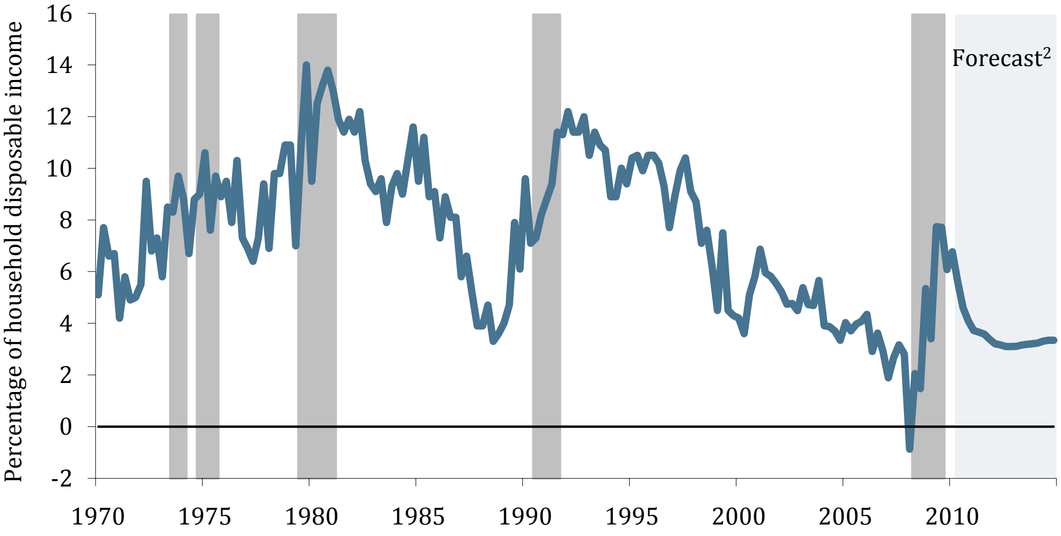
Components of demand

Consumer spending

3.44 The forecast for consumption growth in 2010 is significantly stronger than in June, reflecting the stronger data released since the summer. In the near term, the weakening in some consumer confidence surveys, such as those produced by Nationwide and the European Commission since the summer, points to a subdued outlook for the end of 2010. But this underlying weakness in consumption will be masked somewhat in the fourth quarter by the effect of the January increase in VAT, which will cause some consumers to bring forward spending prior to the price rise. We anticipate this effect will be similar in size to the effect arising from last year's increase. However the 'spike' in our consumption forecast is slightly smaller than occurred in the fourth quarter of 2009, as the previous VAT increase coincided with the car scrappage scheme, which also acted to boost consumption in that quarter.

3.45 From 2011 onwards, consumption growth is forecast to be a little weaker than in the June forecast. This primarily reflects our forecast for relatively sluggish growth in real household disposable incomes. Labour income is projected to grow at only moderate rates, with real earnings growth not picking up to annualised rates of over 1 per cent a year until 2013. In addition, incomes move lower as the automatic stabilisers subside and the additional welfare measures announced in the Spending Review reduce transfers. In our forecast, households are expected to compensate for some of the effect of lower income growth by reducing saving. The lower saving ratio observed in the second quarter of 2010 suggests that this may already have begun. Thereafter, as in June, consumption growth is forecast to grow in line with income growth leaving the saving ratio broadly flat throughout the forecast.

Chart 3.8: Saving ratio[1]



[1] *Recessions are highlighted by the grey bars.*

[2] *Four-quarter average over the forecast period.*

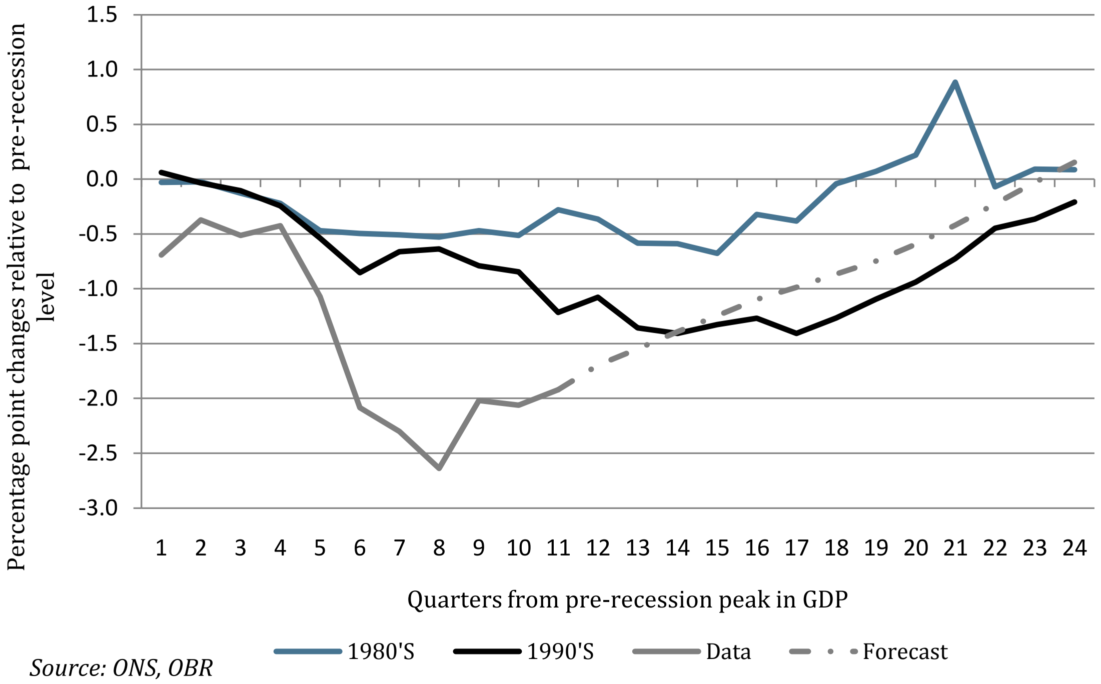
Source: ONS, OBR

Business investment

3.46 UK companies, like households, have acquired historically large amounts of debt. This was particularly true in the real estate sector. However, in aggregate, UK companies entered the recession having spent the period from 2002 to 2007 as net lenders to the rest of the economy, in the process, accumulating significant financial assets. This means that, in aggregate, corporate sector balance sheets are not as impaired as those of households.

3.47 Despite this relatively strong starting position, the dramatic deterioration in the outlook for demand in the second half of 2008 and the large rise in the cost of capital caused firms to postpone or cutback severely their investment plans through the recession. Chart 3.9 shows that both the speed and depth of this decline was far larger than in previous recessions and the largest fall in the post-war period.

Chart 3.9: Business investment to GDP ratio



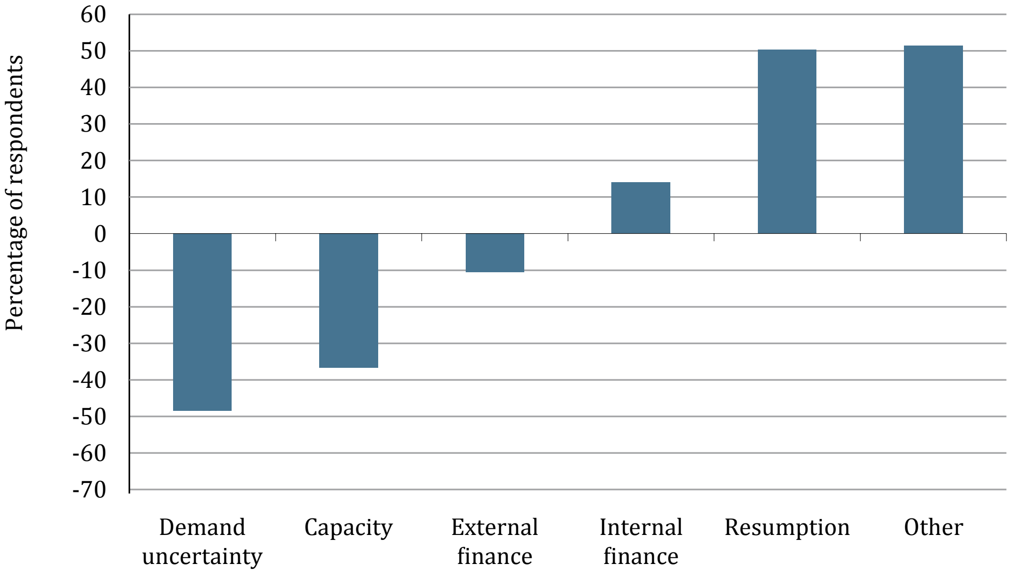
Source: ONS, OBR

3.48 Interpreting quarterly movements in business investment is challenging as the series is volatile (and subject to revision) but there are tentative signs that business investment is now beginning to recover. The latest ONS estimate of business investment showed a small fall of 0.2 per cent in the third quarter, but business investment is still estimated to have grown by 4.6 per cent over the past year.

3.49 Over the next few quarters we expect more of an immediate 'bounce-back' in business investment. We assume that some firms will have put existing investment or asset replacement plans on hold, which will come back on line relatively quickly as financing difficulties continue to ease and demand prospects improve. Indeed the flow of investment may have fallen to such a low level that firms are barely covering depreciation. This effect accounts for the dip in the profile of our business investment growth forecast, which falls back slightly in 2012 once the temporary boost from the completion of delayed projects has receded.

3.50 Evidence for this effect can be found in the Bank of England's latest Agents' report which contained a special survey on firms' capital expenditure plans. The survey indicates that firms are currently holding above-normal level of cash and that, on balance, companies intend to reduce cash holding over the next 12 months, in part by increasing investment. The resumption of postponed asset replacement is the strongest single driver of investment intentions (Chart 3.10).

Chart 3.10: Key drivers of investment plans



Source: Bank of England

3.51 Furthermore the CBI Industrial Trends survey of investment intentions has reported a positive net balance since the end of 2009, and turned positive more quickly than in previous recoveries. This investment profile is also consistent with the recent strength of growth in both the output and import of capital goods, which have grown by 8 per cent and 19 per cent in the last year respectively.

3.52 Looking across the years from 2011-15, our forecast is for business investment to grow by between 7 to 10 per cent in each year, and average 9 per cent growth across the five year period. However, even a run of several years with growth at this rate will not return business investment to its pre-recession level until the second quarter of 2013. This is one year later than whole economy output (GDP), and in line with previous recoveries (Chart 3.9).

3.53 At first sight, this forecast may appear to be inconsistent with the relatively modest improvement in credit availability we describe later in Box 3.4. With restricted access to capital, firms that seek to enhance their capital stock may not be able to invest. However the size of the reduction in investment combined with relatively high profitability (Chart 3.11) also means that the corporate sector is now running – at 8 per cent of GDP – its largest financial surplus on record. This means that although credit conditions remain tight, for many UK companies there is a strong flow of internal finance – and a large proportion of investment is financed from retained earnings, which have been growing rapidly.

3.54 That said, access to credit through external financing remains difficult for many firms, particularly small firms less able to access capital markets. And it was smaller companies that cut investment most sharply in the downturn. Net corporate bond issuance has also fallen back this year following the large increase in 2009 although it is notable that a high proportion of this issuance has been by first-time issuers.

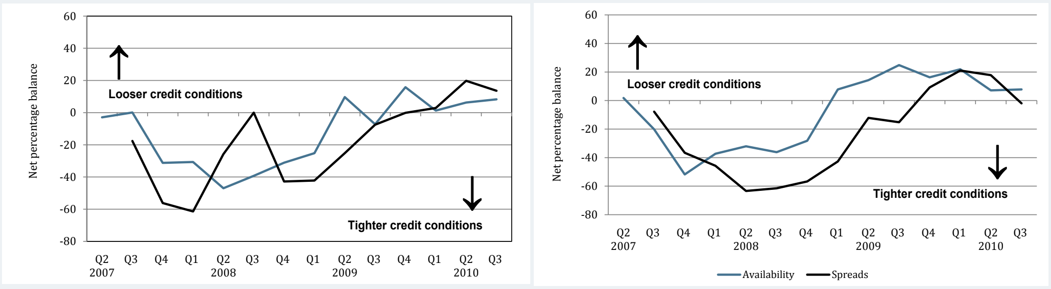
Box 3.4: Credit conditions

A commonly used metric of credit market impairment since the financial crisis began has been the price at which banks lend to one another in the short term relative to the interest rate on short term government debt. However, this measure tells us nothing about the quantity of interbank lending, which fell significantly. The link between interbank lending and the wider economy is also unclear. An alternative, qualitative, approach is to assess what survey evidence tells us about the cost and availability of credit to households and firms.

The Bank of England credit conditions survey points to a modest loosening in both the terms of credit and its availability to households. Medium sized corporations have limited access to capital markets and depend more heavily on banks to finance their investments. On average, these firms have also reported a slight easing in credit conditions over 2010, although the price of credit relative to the prevailing Bank Rate is reported to have risen slightly in the third quarter, reflecting changes in the price of wholesale funding. The charts set out the direction of credit availability and prices for households (secured credit only) and medium-sized firms respectively.

The current credit environment should be considered against a backdrop of severe deterioration in credit conditions over the course of the financial crisis. The modest easing over 2010 has done little to alleviate the constraints faced by borrowers relative to their pre-crisis levels and lending growth remains weak by historical standards. Our central forecast is for credit market impairment to unwind over the coming years, but we do not anticipate price or availability returning to their pre-crisis levels.

The financial instability arising from developments in Ireland and UK banks' exposures present a downside risk to our central view (see Box 3.5), as does the possibility that continued deleveraging in the financial sector might curtail credit growth and lending to the broader economy. Credit conditions remain a key area of uncertainty over the forecast period.

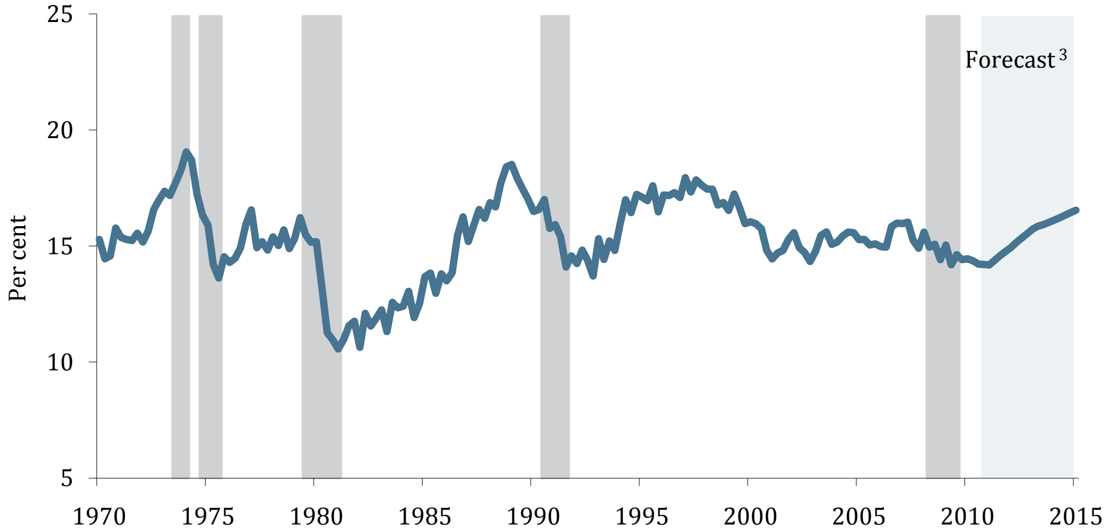


Source: Bank of England

3.55 A further risk to our forecast is firms' perception of the demand outlook. Firms are unlikely to invest if they do not expect the recovery in demand to be sustained. In recent months, indicators of business confidence have fallen (the ICAEW/Grant Thornton UK Business Confidence index has halved since the start of the year). This may have reflected uncertainty about the potential impact of the Spending Review.

One third of the respondents to the Bank Agents' special survey on investment intended to review their investment plans following the Spending Review.

Chart 3.11: Non-oil PNFC[1] profits as a share of GDP[2]



[1] Private non-oil, non-financial corporations.

[2] Recessions are highlighted by the grey bars.

[3] Four-*quarter average over the forecast period.*

Source: ONS, OBR

Residential investment

3.56 Residential investment is inherently volatile as relatively small changes in the desired housing stock require large changes in housing investment (i.e. the rate of addition to that stock). It is also the component of aggregate demand that is most dependent on credit. That helps to explain the dramatic peak-to-trough fall of nearly 40 per cent from the start of 2007 to the end of 2009, as house builders cut production sharply in response to restricted credit availability and lower house prices and housing market activity. At its trough, the level of private residential investment had fallen back to its 1995 level.

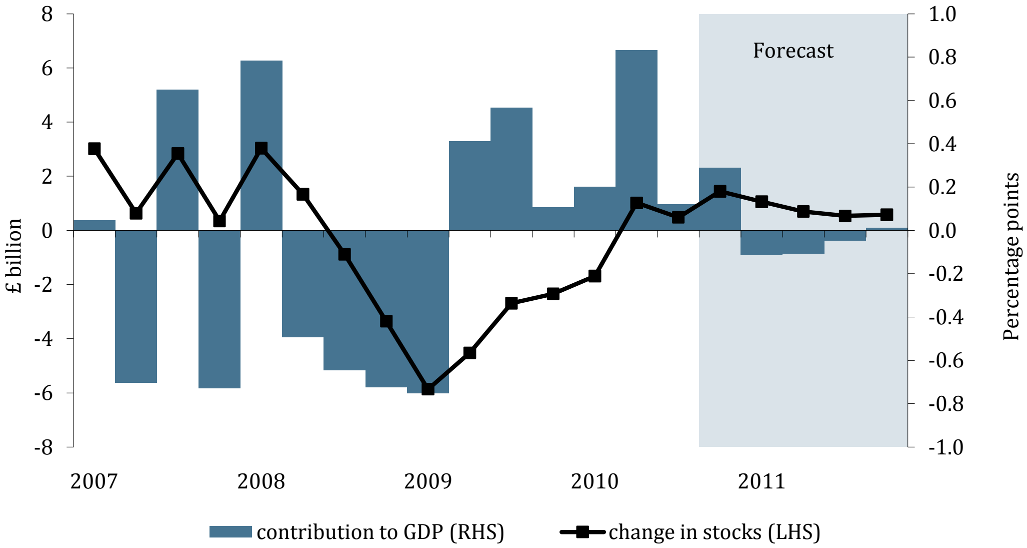
3.57 Given the size of this decline it is perhaps not surprising that private dwelling investment recorded a surge of over 11 per cent in the second quarter of 2010. However, as discussed earlier, the strength of construction sector activity, which has driven much of the recent increase in GDP, appears in this expenditure component and we might expect some downward revision to this estimate in future releases. In line with weaker prospects for the construction sector, we therefore expect a fallback in private dwelling investment around the turn of the year. We expect this weaker performance to continue in the medium term, with the downward revision to growth in 2012 relative to June driven by the weaker outlook for the housing market.

Stock building

3.58 Stock building is not typically an important component of the economic forecast. However as we set out in the discussion of the short-term outlook, the pace at which the stock cycle progresses can significantly influence the first few quarters of the GDP forecast, particularly during and after recessions. Chart 3.12 shows that the stock cycle now appears to be close to complete. Stockbuilding contributed 2.6 percentage points to the decline in GDP at the start of the recession but in the five quarters to the second quarter of 2010 it has now added 2.1 percentage points to growth.

3.59 In the second quarter of 2010 the *level* of inventories recorded the first increase since the second quarter of 2008 and firms appear to have added further to their stocks in the third quarter. As it is the rate of change in inventories that impacts on GDP growth, this implies a further positive contribution to growth. However, this component includes an 'alignment adjustment', which the ONS uses to bring the expenditure measure of GDP into line with the output measure, so the underlying movement is less clear at this stage.[1] Now that the level of stockbuilding has stabilised we expect no more major contributions from this component. In the medium term the forecast is anchored on a stable stock-output ratio.

Chart 3.12: Stocks contribution to growth



Source: ONS, OBR

Government

3.60 Our forecast for government consumption and investment is conditioned on the Government's fiscal consolidation plans. In broad terms, prospects for government consumption can be thought of as roughly following the Government's plans

[1] This adjustment can and has been removed from previous quarters shown in Chart 3.12.

for central government expenditure on the public services and administration (known as 'Resource Departmental Expenditure Limits' (RDEL)). The forecast for real government consumption has therefore changed since June due to the incorporation of the new departmental settlements announced in the Spending Review.

3.61 The planned reductions in RDEL are lower than assumed in June as more of the spending consolidation is to be achieved via a reduction in welfare payments – specifically household benefits. We have already discussed the implications of this reduction in household benefits on the outlook for household disposable income. The implications for general government employment are set out in Box 3.7.

3.62 Government fixed investment is forecast to fall sharply in 2011. The pace of decline then eases through the forecast before growth is resumed in 2015. The forecast is stronger than in June, reflecting the decision in the Spending Review to increase the level of public sector gross investment in 2011-12 and 2012-13 by £2 billion, and by £2.3 billion in 2013-14 and 2014-15.

World economy and net trade

3.63 World growth has been stronger in 2010 than forecast in June, with particularly strong growth recorded in the euro area. However, this growth has not been uniform – Germany grew by 2.3 and 0.7 per cent in the second and third quarters of 2010 and relative to a euro area average of 1 per cent and 0.4 per cent respectively. Looking forward, continued volatility in the market for sovereign debt would likely impair the proper functioning of the region's financial markets. There remains a risk that this could spill over into the real economy and weigh on growth. Box 3.5 sets out the potential implications of the situation in Ireland for our forecast.

3.64 GDP in the United States grew 0.4 per cent in the third quarter of 2010 with a proportionately stronger increase in private consumption. However, residential investment, in particular, is weak, having fallen 7.7 per cent. There are continued uncertainties over the likely effect of further quantitative easing both on the US economy and from a world trade perspective.

3.65 Growth in emerging markets has picked up in 2010 but there is some evidence to suggest that momentum is weakening in the second half of 2010. Chinese quarterly growth slowed from 10.4 to 9.3 per cent in the third quarter of 2010 and a stronger yuan may weigh on export growth over the coming year.

3.66 Our growth forecast for the advanced economies has been revised down relative to the June Budget forecast, partly reflecting a softer patch in the pace of the world recovery. The profile of this slowdown is similar to that of our domestic forecast, which is partly conditioned on the outlook for external demand for UK goods and services. We expect the global economic recovery to gather momentum in 2012 with growth of 4.3 per cent before returning to growth of 4.5 per cent by 2015.

3.67 Following four consecutive quarters in which net trade made a negative contribution to UK growth, 0.4 percentage points were added to growth in the third quarter of 2010 (revised up from the preliminary estimate). This is consistent with the significant depreciation of sterling since mid-2007. However, most of this contribution came from a fall in services imports and exports volumes have yet to respond to improvements in UK competitiveness.

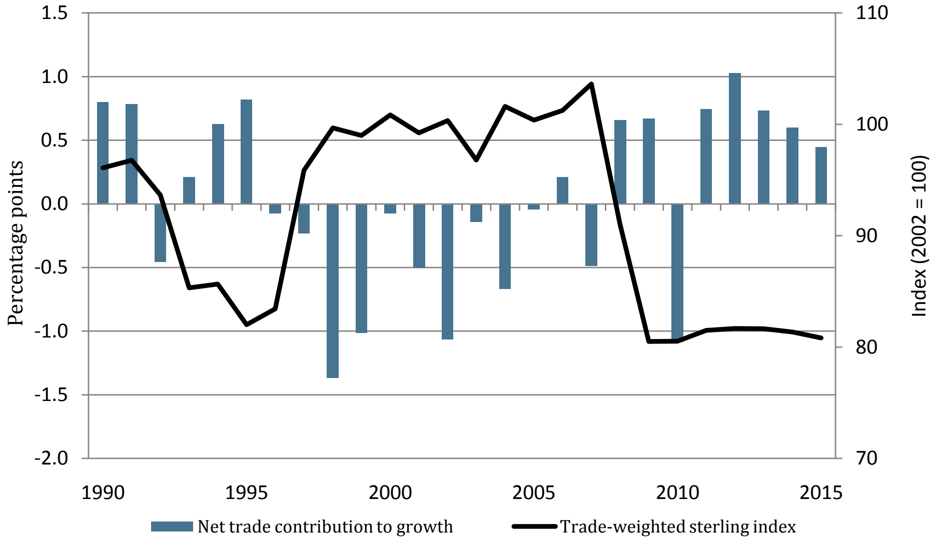
3.68 Part of the explanation is that UK exporters have preferred to take the improvement in the terms of trade in profit margins rather than try to increase their volume of sales. Small firms in particular may have needed to boost margins as, given credit constraints, it will have provided one of few sources of finance.

3.69 However, even if sterling export prices did not respond fully to the fall in sterling we might still expect an effect on trade volumes as firms re-orientate towards the export sector to take advantage of the higher profit margins available in the sector. This effect is likely to take time due to adjustment and entry costs but we expect a stronger contribution from exports to growth over the coming years.

3.70 We therefore forecast a strong contribution to growth from net trade throughout the forecast horizon. Chart 3.13 shows how this compares with the experience following the 1990s recession and sterling depreciation. In that episode a 15 per cent decline in sterling translated into an average trade contribution of 0.6 percentage points a year from 1993-95. Our forecast is for a 0.7 percentage point contribution across the 5 year forecast horizon against a backdrop of a 25 per cent decline in sterling.

3.71 However our forecast for the trade contribution in 2010 is weaker than was forecast in June and we are assuming a smaller total contribution. This reflects the weaker outturn data earlier in the year and the risks to the global outlook. Despite this, there are good grounds for remaining confident that the increase in trade volumes will appear, although the size and timing of that boost remain highly uncertain. This uncertainty is reflected in the range of external forecasts discussed in Chapter 2.

Chart 3.13: Net trade and sterling in the 1990s



Source: Bank of England, ONS, OBR.

Exports

3.72 A closer look at developments in UK exports reveals that the aggregate figures mask divergent trends. Goods exports have in fact been growing robustly and are now 13 per cent higher than a year ago. This strength has been largely offset by weaker services performance, which have been broadly flat over the same period. This weakness is particularly marked in financial services (although the measurement difficulties are acute in this area). On the assumption that the strength in goods exports can be attributed to the decline in sterling, we expect this growth to persist.

3.73 By contrast, we judge the current weakness in services exports to be a temporary effect. The latest trade data provide some encouragement for this assessment. Goods exports continued to grow robustly in the third quarter of 2010 and services exports look to have also grown by around 2 per cent on the quarter, after recording negative growth in 9 out of the last 11 quarters.

3.74 In the short term, survey evidence points to continued growth in the coming quarters with both the CBI and PMI surveys of export orders above their long run averages.

3.75 This forecast is consistent with exporters gaining market share through the early part of the forecast. Exporters look to have a recorded a loss of market share in 2010 as global trade flows bounced back. Consistent with the most recent data, we expect this to turn around sharply in 2011, with a further gain of share in 2012. This would be similar to the experience over the 1990s recession. From 2013 onwards the path for market share resumes its longer term downward trend, driven by fast-growing emerging economies expanding their share of the global economy.

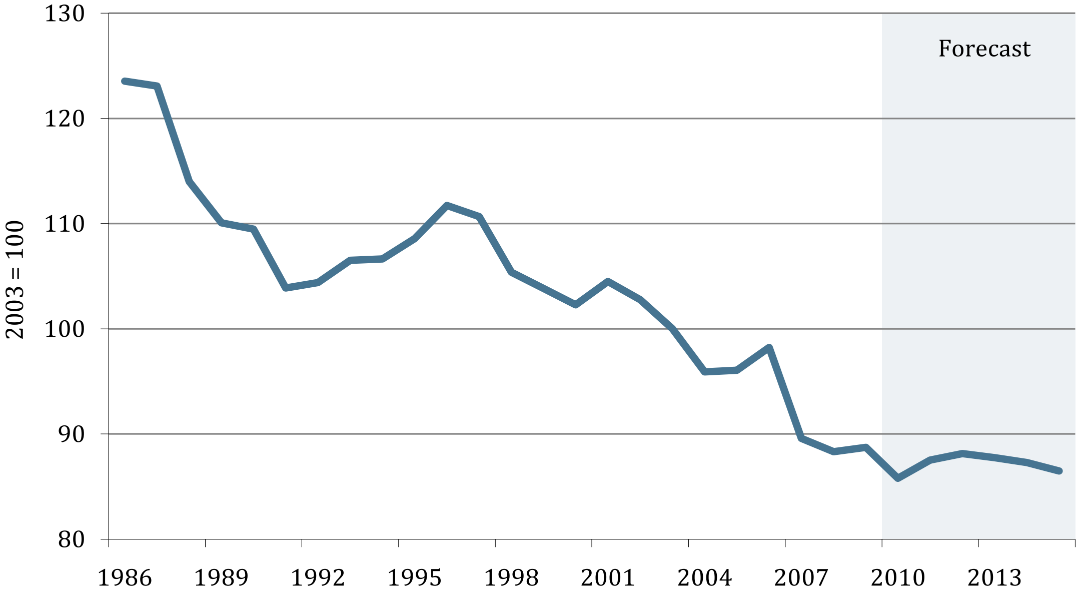
Box 3.5: Developments in Ireland

In recent weeks there has been increasing pressure on Irish financial markets. Ireland's sovereign debt markets have effectively closed and interest rates have risen to record levels. In response, on 21 November it was announced that the IMF, EU and its member states, including the UK, would provide an international financial assistance package following a request from the Irish Government. The Chancellor set out that he was considering offering a bilateral loan to Ireland, as part of the IMF and European package, in a statement to Parliament on 22 November.

The pressure on Ireland's economy has a number of potential implications for our forecast:

- Ireland is the UK's fifth largest export market and accounts for 6.2 per cent of total exports – larger than the combined share of the 'BRIC' economies (Brazil, Russia, India and China). If recent events significantly reduced Irish demand for UK exports there would be a material impact on UK export growth. However, much of this effect may have already occurred: the very sharp decline in Irish domestic demand, which was a precursor to recent events in financial markets, caused UK exports to Ireland to fall by 14 per cent in 2009, worsening the UK's trade balance by around £4.3 billion. The UK's trade links with other euro area periphery countries that have come under pressure on financial markets, such as Greece and Portugal, is relatively small;
- the UK banking sector's total exposure to Ireland is around £82 billion (end June 2010) or 28 per cent of core Tier 1 capital. Around £4.6 billion of this total represents exposure to Irish sovereign debt. This exposure is a risk to our forecast but we do not currently expect this effect to derail the gradual improvement in the financial sector anticipated in our forecast;
- related to this our estimate of the eventual direct net cost to the taxpayer of the financial interventions undertaken in 2008 and 2009 to stabilise the UK financial sector is affected by the exposure of RBS and LBG to Irish liabilities. Further details are provided in Chapter 4;
- any effects on UK interest rates from the increased uncertainty in sovereign debt markets will be captured in our market rate assumption, which is based on average market expectations. The UK 10-year gilt yield has risen by around 35 basis points over the past month, but remains at historically low levels. Similarly, the spread over German bunds has returned to its mid-2010 levels. It is difficult to isolate from wider market developments any direct effect from developments in Ireland on UK rates and spreads; and
- we have not, at this point, incorporated into our central forecast any effect from the UK's potential contribution to the Irish assistance programme. This is because, at the time the forecast was finalised, no final announcements had been made by the Government, so the effects could not be quantified. We will include the impact in our next forecast assuming the details are finalised. Further detail is set out in Chapter 4.

Chart 3.14: UK share of world export markets[1]



[1] Excluding the effects of activity relating to Missing Trader Intra-Community (MTIC) fraud.

Source: ONS, OECD, OBR.

Imports

3.76 The path for imports will be determined by the prospects for private domestic demand and the terms of trade. Domestic demand is forecast to be much stronger in 2010 than anticipated in June and to grow much more strongly than GDP. This is consistent with the strong growth in imports seen to date in the recovery; imports are now up 10 per cent on a year earlier.

3.77 Part of the strength in 2010 will be attributable to the more rapid cyclical growth in stockbuilding, which is the component of demand with the highest import content[2]. Import growth is forecast to fall back in 2011, in line with the weakening in import weighted domestic demand growth, and remain broadly flat for the rest of the forecast.

3.78 In response to the decline in sterling we should also expect firms and consumers to switch to more cheaply produced domestic goods. However, as is the case with fixed investment, trade flows have been exceptionally volatile in the recession and the early phases of the recovery. This volatility makes judging the degree of expenditure switching difficult to discern - in the recession imports fell by more than import-weighted domestic demand but have grown more strongly in 2010. There is not much evidence of this effect visible in the data to the date, although the disaggregated data indicate a large fall in the imports of travel services - the 'staycation' effect. As is the case with exporters, it is likely to take some time for

[2] Based on United Kingdom input-output analytical tables, 1995.

firms to adjust to the change in relative prices with less readily substitutable goods and services.

Balance of payments

3.79 The current account deficit is currently significantly wider than forecast in June, following a very large downward revision to the UK's net investment income balance in the first quarter of 2010. From this weaker starting position, the current account deficit narrows at roughly the same pace as in June, reflecting a similar profile for net export growth. The effect of the narrowing real trade balance on the current account is expected to be partly offset by a deterioration in the terms of trade, as the impact of the sterling depreciation continues to feed through. As the data revisions indicate, volatility in net investment income has increased recently, but the surplus is forecast to remain close to recent levels. By 2015, the current account is forecast to have narrowed by 2 percentage points, but to remain in deficit.

Inflation and nominal GDP

3.80 In assessing the outlook for the economy and the public finances, we are interested in a number of measures of inflation - the rate of change of prices. The Consumer Price Index (CPI) and the Retail Price Index (RPI) are both average measures of change in prices of goods and services, based on the changing cost of a basket of goods and services. The basic approach to the measurement of inflation using these indices is the same, although differences arise due to their coverage. For example, the RPI measure of inflation includes housing costs and mortgage interest payments that are not included in the CPI. These are, though, not the only differences between these measures of inflation. The way in which the RPI and CPI measures of inflation are constructed is also different; the RPI measure of inflation is calculated using an arithmetic mean, whereas the CPI is constructed using a geometric mean, a method that better allows for the effects of substitution between goods and services when relative prices change. In addition, the CPI measure covers a broader representative population[3].

3.81 The Bank of England's policy target, as set by the Government, is a CPI inflation rate of 2 per cent. Other measures of inflation include the RPIX, which excludes mortgage interest payments and was the target measure until it was switched to the CPI in 2003. The broadest measure of price movements is the GDP deflator, which reflects the prices of domestic value added in its entirety.

[3] For example, the RPI excludes high-income households, defined as those households whose total household income lies within the top 4 per cent of all households, as measured by the Living Costs and Food Survey and pensioner households that derive at least three quarters of their total income from state pensions and benefits. The CPI is representative of all private UK households, foreign visitors to the UK and institutional households' expenditure. More information on the CPI and RPI can be found on the Office for National Statistics website; www.statistics.gov.uk

CPI inflation

3.82 Since the interim OBR's June Budget forecast, CPI inflation has remained at or above 3 per cent, declining from a peak of 3.7 per cent in April 2010. Movements in CPI inflation continue to reflect a number of temporary factors, such as the return of the VAT rate to 17.5 per cent in January 2010 and the continued pass-through of higher import prices as a result of sterling's depreciation from the middle of 2007 and over 2008.

3.83 The timing, magnitude and speed with which the fall in sterling passes through to consumer prices are uncertain. The effects of higher import prices may be reflected in goods price inflation, which has a higher import content than service prices and has remained relatively high over 2010 compared to its average over the past decade. The Bank of England's November Inflation Report suggested that higher import prices continue to have a substantial effect on CPI inflation and that, while the peak impact may have occurred around the end of 2009, the effect is likely to have remained significant into 2010.

3.84 This suggests temporary upward influences on inflation may have masked the domestic disinflationary impact of spare capacity in the economy. But it is difficult to judge the degree to which spare capacity has been exerting downward pressure on inflation over 2010 and the precise strength of these temporary upward effects. This makes the future path of CPI inflation more uncertain.

3.85 A significant influence on CPI inflation over the last few years has been the impact of energy prices. We judge that, despite increases in oil futures prices in US dollar terms since June, the impact of this on CPI inflation has been offset by an appreciation of sterling against the US dollar. Spot wholesale gas prices have been rising during 2010 and the Office of Gas and Electricity Markets (Ofgem)[4] forecast that wholesale costs will increase up to March 2011, consistent with recent increases in wholesale forward prices. A number of UK major suppliers have recently announced increases in domestic gas and electricity prices. Reflecting this, utility prices are expected to continue to make a positive contribution to CPI inflation over coming months.

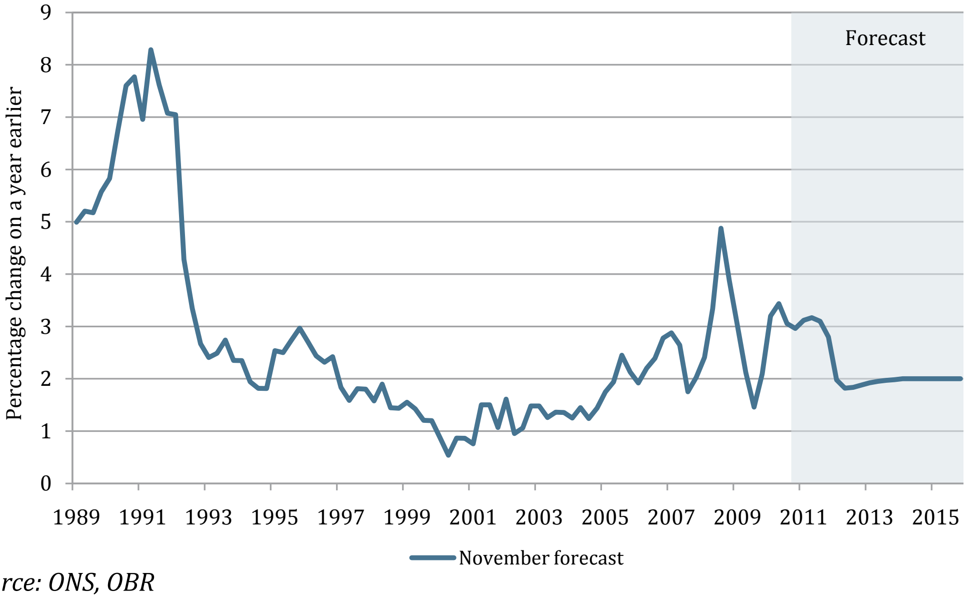
3.86 We expect that upward pressure from higher import and fuel prices will moderate over the near term. CPI is expected to remain close to 3 per cent over much of 2011 following the increase in VAT to 20 per cent in January 2011. We then forecast that CPI inflation will move marginally below target in early 2012, as the pass-through from the increase in VAT to 20 per cent in January 2011 falls out of the comparison. CPI inflation is expected to rise back to target by the beginning of 2014.

[4] More information can be found in Ofgem's December 2010 *Energy and Gas Supply Market Report*; www.ofgem.gov.uk

3.87 When assessing the prospects for CPI inflation a key consideration is the degree of spare capacity and the extent to which this weighs on inflationary pressures. Both elements of the calculation are subject to uncertainty. A larger output gap and/or a greater sensitivity to it would imply greater downward pressure on inflation. The reverse would also hold, particularly if the greater inflationary pressures led to an increase in inflation expectations.

3.88 The proposed reforms to higher education (HE) tuition fees in England (Box 4.3) are likely to have some effect on the rate of inflation. In general, it might be expected that the effects will be phased in over a few years following the introduction of the reforms as the new 'cohort' of students paying higher fees replace the existing cohort of students. The introduction of the reforms is likely to have some effect on the path of inflation from the end of 2012. However, we do not currently judge that the effect will be significant enough to change our medium term forecast, as we expect that the path of CPI inflation will be guided by monetary policy moving back to 2 per cent by the beginning of 2014.

Chart 3.15: CPI



Source: ONS, OBR

RPI Inflation

3.89 Since the interim OBR's June Budget forecast, annual RPI inflation has fallen back slightly, rising by 4.5 per cent in October, down from 5.3 per cent in April. RPI inflation is expected to follow a similar profile to that of CPI inflation, but, unlike the CPI, it is also influenced by movements in mortgage interest payments and housing depreciation.

3.90 Independent forecasts of house prices in 2011 are weaker than in June reflecting recent weakness in the housing market and the continued risk that credit constraints could curtail demand during 2011. The Royal Institution of Chartered

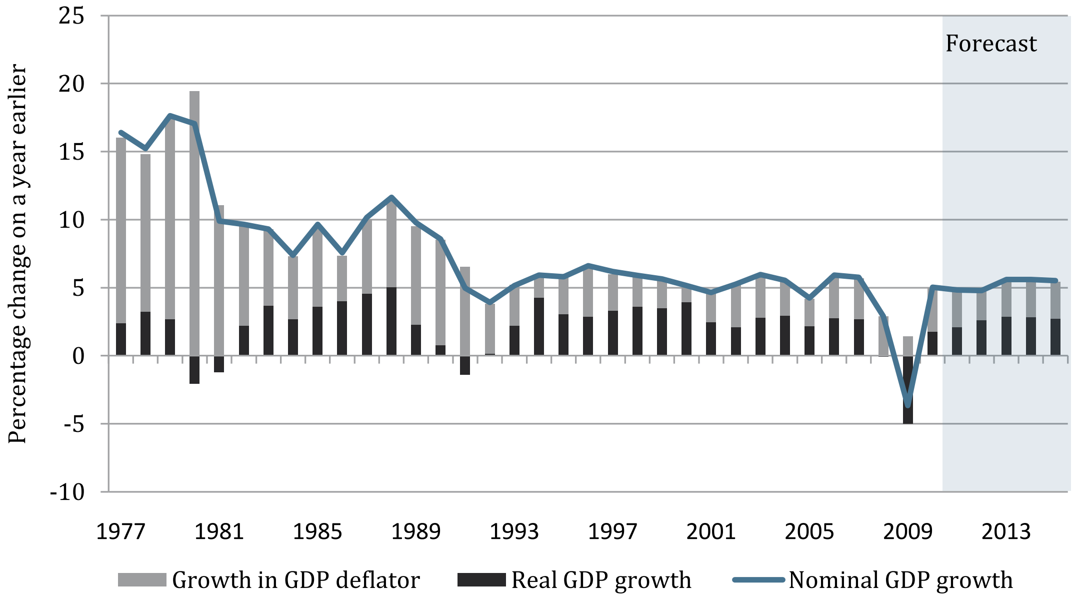
Surveyors (RICS) housing market survey reported a fall in the net balance of house prices over recent months. The Halifax price index registered a three-month on three-month fall of 1.2 per cent in October and the Nationwide house price index has also reported falling or subdued house prices over recent months. The median of independent forecasts for the next two calendar years is 1.7 per cent growth in the year to the fourth quarter of 2010 and -1.4 per cent growth in the year to the fourth quarter of 2011. Partly as a result of the expected slowdown in house price inflation, the wedge between RPI inflation and CPI inflation is expected to narrow over 2011.

Nominal GDP

3.91 The GDP deflator is a broad measure of general inflation in the domestic economy. This measures the changes in the overall level of prices for the goods and services that make up GDP, including price movements in household spending, government spending, investment and net trade.

3.92 Between the early 1990s and the recent recession, nominal GDP (i.e. the cash value of final goods and services produced in the economy) in general grew within a narrow range of around 5 to 7 per cent a year. In contrast to the previous two recessions, nominal GDP then shrank in 2009 as real output and growth in the GDP deflator fell in tandem. But, if we look at the last two quarters, nominal GDP growth has already rebounded to year-on-year growth rates of close to 6 per cent, comparable to its pre-recession performance. This reflects relatively high inflation as well as the pick-up in real growth. This mix is likely to remain in place in the near term as inflation remains elevated over 2011. However, we expect the balance to change in early 2012 as temporary inflationary factors diminish while real GDP growth picks up. As inflation returns to target through 2013 and real GDP growth remains above trend, nominal GDP is expected to rise by over 5 per cent a year from 2013 onwards.

Chart 3.16: Nominal, real GDP and the GDP deflator



Source: ONS, OBR

The labour market

Employment, unemployment and inactivity

3.93 Labour market indicators have performed significantly more strongly than the interim OBR expected in its June Budget forecast.

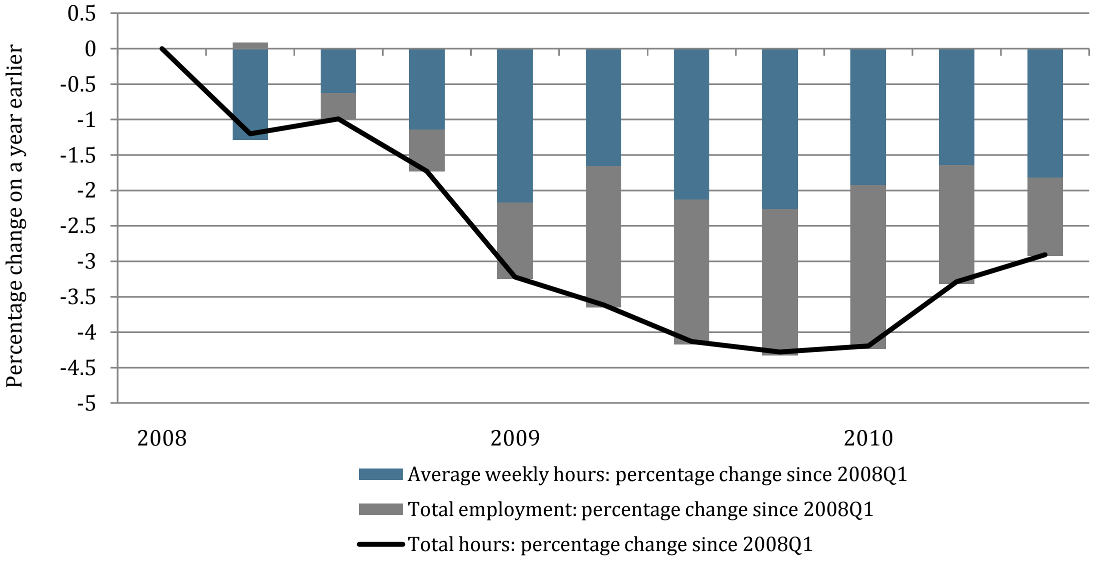
3.94 Having peaked at 8 per cent in the first quarter of 2010, the ILO unemployment rate subsequently fell back to 7.7 per cent in the third quarter – a level that the interim OBR had not expected to be reached until the middle of 2012. The claimant count similarly fell through the first half of 2010 from around 1.62m, flattening out at just under 1.47m from June.

3.95 The inactivity rate has also decreased over the course of 2010, having peaked in the first quarter of the year. Taken together, the falls in the inactivity rate and the unemployment rate imply that the overall employment rate (on a 16+ basis[5]) has risen over the course of the year. The number of people in employment has risen by around 350,000 since the first quarter of 2010, which means that of the 1.4 million increase in employment that the interim OBR had forecast over the subsequent five years in its June Budget forecast, around a fifth of this increase has occurred in six months.

[5] Note that this is not the headline employment rate produced by the Office for National Statistics, which is defined on a 16-64 basis.

3.96 Within the increase in the level of employment over 2010 so far, around three-quarters is attributable to a pick-up in part-time employment. The increasing relative importance of part-time employment has acted as a drag on average hours, but this has been offset by an increase in the average hours worked by part-time workers. As a result average hours have been broadly flat and total weekly hours worked have risen by just over 12 million since the start of the year, having fallen back through 2008 and 2009 (Chart 3.17).

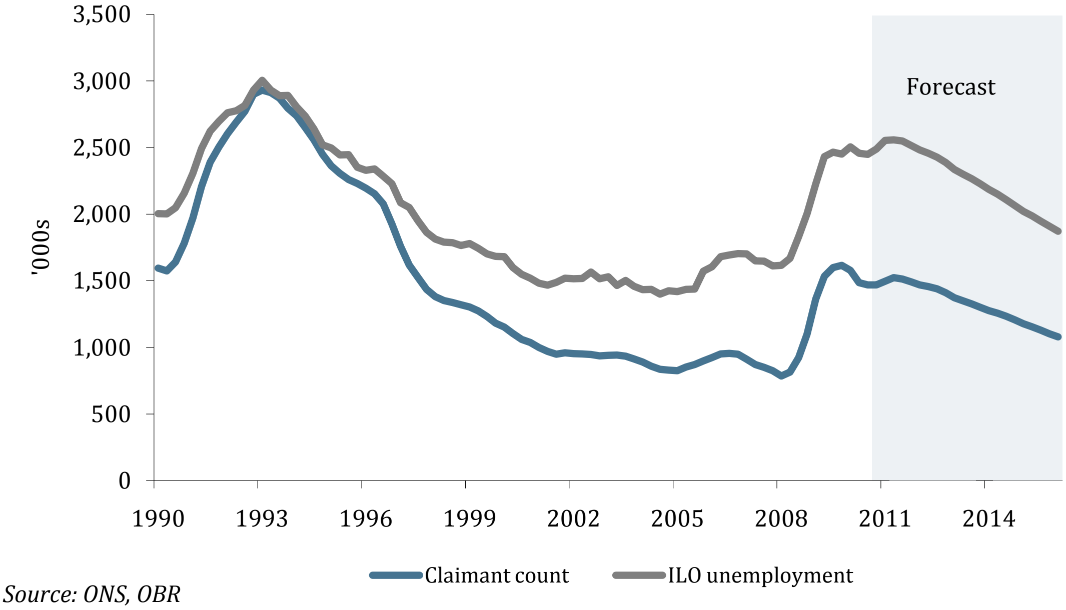
Chart 3.17: Change in total hours worked over the recession



Source: ONS, total employment changes exclude individuals in college-based schemes.

3.97 Over the near term, we expect the ILO unemployment rate to pick up slightly as growth slows in 2011, peaking at 8.1 per cent before falling back again from 2012, consistent with with the interim OBR's June Budget forecast. In line with this, the claimant count is also expected to pick up over the near term. Compared to the interim OBR's June Budget forecast, we also expect the level of unemployment (on both a claimant count and ILO basis) to be slightly higher and inactivity slightly lower over the medium term, mainly reflecting an increase in assumed flows from Employment and Support Allowance (ESA) on to Jobseeker's Allowance (JSA), in line with recent outturns. Having picked up over the first half of the year, the overall level of employment is expected to fall back slightly at the end of 2010 as the unemployment rate picks up, before rising steadily from the second quarter of next year.

Chart 3.18: Unemployment levels



Source: ONS, OBR

3.98 Over the coming five years, we expect total employment to rise from 29.0 million in 2010 to 30.1 million in 2015, an increase of 3½ per cent. This comprises a rise in market sector employment of around 1.5 million, partially offset by a fall in general government employment of just over 400,000 between 2010-11 and 2015-16 (see Box 3.7).

3.99 A period of rising total employment alongside falling general government employment is in line with employment trends during the 1990s. According to the latest labour market statistics, total employment (16+ basis) increased by 1.3 million between 1992 and 1998, while general government employment contracted by around ½ million (see Box 3.6).

Box 3.6: Reclassification effects on general government employment

The latest data indicate that general government employment fell by 550,000 between 1992 and 1998. However, part of this reduction reflects a reclassification of further education colleges and sixth-form school employees from the public to private sector in 1993.

While there is currently no specific estimate of this effect, we can obtain some idea of the impact from changes in the level of employment in education. General government employment in education fell by 162,000 between 1992 and 1993, compared to a fall of 23,000 between 1991 and 1992. If we assume that the *additional* reduction between 1992 and 1993 relative to the previous year reflects the effect of reclassification, this would imply approximately 140,000 of the fall in general government employment in that year can be attributed to classification changes. Removing this effect would imply a fall in general government employment of just over 400,000 between 1992 and 1998.

We stress that this is not an official estimate of the impact of classification changes in general government employment. The ONS have also announced plans to re-classify most sixth form and further education colleges back to the public sector, and to implement this re-classification in the public sector employment estimates (including past data) to be published in March 2011.

3.100 It is also useful to compare the expected change in general government employment to the aggregate flows in and out of the labour market. Experimental statistics published by the ONS[6] indicate flows from unemployment to employment (working-age basis) of 597,000 in the third quarter of 2010, with flows of 386,000 in the opposite direction. The forecast change in general government employment over the next five years is, therefore, slightly below the flows from unemployment to employment (and vice-versa) in the last quarter alone.

3.101 While average hours are forecast to pick up over the short term, from recent lows, they are expected to return to their trend decline over the medium term, ending up around ½ per cent lower than current levels by the start of 2016. Taking this into consideration, total weekly hours worked are still expected to increase by just over 28 million over the projection period, as the forecast increase in total employment offsets the fall in average hours worked.

Earnings

3.102 Despite picking up slightly since the start of the year, average earnings growth remains subdued. Whole economy regular average weekly earnings (excluding bonuses) increased from 1.8 per cent in the first quarter to 2.2 per cent in the third, as an increase in private sector earnings growth more than offset slower earnings growth in the public sector.

3.103 We expect average earnings growth to remain relatively subdued in the near term, consistent with ongoing spare capacity in the labour market. Whole economy average weekly earnings are expected to grow by around 2¼ per cent in 2011, before picking up over the medium term in line with the improvement in productivity growth. Aggregate wages and salaries, a measure of total labour income, is expected to grow in line with whole economy average earnings growth over the short term as total employment remains flat. As employment growth and average earnings growth rise over the medium term, we expect wages and salaries growth to increase, reaching around 5¼ per cent by the end of the forecast.

[6] See *Labour Market Overview: November 2010*, Office for National Statistics, available at http://www.statistics.gov.uk/downloads/theme_labour/LMS_Q&A.pdf.

Box 3.7: General government employment

For its June Budget forecast the interim OBR projected general government employment.[a] The projection was driven by two factors:

- implied resource Departmental Expenditure Limits (RDEL),[b] which determines the growth of funds available for total paybill; and
- projected paybill per head growth rates.

Total paybill growth and paybill per head growth can be combined to produce a forecast for general government employment. In the absence of specific estimates for departmental paybill growth, we have followed this same broad 'top-down' approach to update our forecast of general government employment, incorporating revisions to RDEL plans since the June Budget. In doing so we have made two refinements to the methodology used by the interim OBR:

1. The June Budget forecast used growth in implied RDEL as a proxy for total paybill growth, except for local government paybill, which was assumed to grow in line with total local government expenditure. Total local government expenditure is made up of central government contributions, part of RDEL, and local authority self-financed expenditure (LASFE), which scores in Annually Managed Expenditure (AME) and not in RDEL. For the June Budget central government contributions were assumed to grow in line with total RDEL. Since then, the Spending Review has set out plans for local government spending. To account for this, we can project total general government paybill growth using growth in the sum of RDEL and LASFE. This captures total local government spending so we do not project local government paybill separately. The June Budget approach also excluded expenditure on the BBC, which is not part of RDEL but is part of central government,[c] and so should be incorporated in general government paybill growth.

In summary, our approach is to use growth in the sum of RDEL and those components of AME likely to include significant amounts of pay. For this forecast we have therefore assumed that total paybill growth is in line with the growth in the sum of RDEL, LASFE and BBC current expenditure.

2. Paybill per head growth is affected by changes in basic pay settlements, pay drift, employer pensions contributions and other factors, such as National Insurance contributions. The June Budget forecast included a number of workforce-specific adjustments. Our approach for the November forecast is to take a consistent approach across the projection, so we have removed these adjustments.

In addition, since the June Budget the Government has published the outcome of its 2010 Spending Review. The Spending Review revises upwards the profile for RDEL relative to the June Budget (see Table 4.15). This implies a smaller decline in total paybill growth than assumed at the time of the June Budget.

The table below sets out:

(i) the June Budget forecast for general government employment;

(ii) the profile for general government employment using the June Budget expenditure plans, but using our new approach of modelling paybill growth as equal to RDEL plus LASFE and BBC current expenditure. This includes an updated estimate for general government employment in 2010-11;

(iii) the profile for general government employment using the June Budget plans expenditure, modelling paybill growth as equal to RDEL plus LASFE and BBC current expenditure, but without the workforce-specific adjustments made in June.

Lines (ii) and (iii) show how the OBR's June Budget estimate would have changed if we apply our new methodological approach to spending plans from the June Budget. The final line shows our November forecast using our new methodology and based on Spending Review plans:

(iv) our updated forecast for general government employment, using the Spending Review plans for RDEL, modelling paybill growth as equal to RDEL plus LASFE and BBC current expenditure, but without the workforce-specific adjustments made in June

All these projections are inevitably subject to a large degree of uncertainty: they are based on a set of stylised assumptions and do not reflect departmental paybill plans or policy.

General government employment (millions)

	Paybill growth	Paybill per head growth: other factors	2010-11[1]	2011-12[1]	2012-13[1]	2013-14[1]	2014-15[1]	2015-16[1]
(i)OBR June Budget forecast[2]	June Budget implied RDEL[3] and total local government expenditure[4]	Inclusion of workforce-specific other factors	5.53	5.47	5.39	5.23	5.04	4.92
(ii)	June Budget RDEL[3] + LASFE[5] + BBC current expenditure	Inclusion of workforce-specific other factors	5.49[6]	5.41	5.35	5.20	5.01	4.90[7]
(iii)	June Budget RDEL[3] + LASFE[5]+ BBC current expenditure	No workforce-specific other factors	5.49[6]	5.43	5.37	5.23	5.04	4.93[7]
(iv)November forecast[2]	Latest RDEL[3] + LASFE[5] + BBC current expenditure	No workforce-specific other factors	5.49[6]	5.45	5.42	5.34	5.17	5.09[7]

[1] *Estimates refer to the final quarter of the financial year.*

[2] *Estimates cannot be compared directly to the interim OBR's June pre-Budget forecast because of changes to the underlying methodology and assumptions between the OBR's June pre-Budget forecast and the OBR's June Budget forecast. For more information see http://budgetresponsibility.independent.gov.uk/d/general_gov_employment_forecast_130710.pdf.*

[3] *Excluding depreciation.*

[4] *Local government paybill was assumed to grow in line with total local government spending.*

[5] *Local Authority Self-Financed Expenditure.*

[6] *ONS latest estimate for general government employment in 2010/11.*

[7] *Estimates for implied resource DEL growth in 2015/16 are derived from the Government's plan for constant real Total Managed Expenditure growth and our updated forecast for Annually Managed Expenditure.*

The updated forecast implies a reduction in general government employment of around 330,000 between 2010/11 and 2014/15.[d] This reduction is around 160,000 smaller than the reduction of 490,000 implied by the June Budget forecast; of this, around 30,000 is accounted for by methodological refinements and around 130,000 is attributable to changes in spending plans since the June Budget.

In particular, the difference of around 130,000 reflects the higher nominal growth in the sum of RDEL, LASFE and BBC current expenditure in the final Spending Review plans compared to the June Budget. This can be shown by comparing expenditure growth rates at the Spending Review and the June Budget. The sum of RDEL, LASFE and BBC current expenditure fell by a cumulative

0.5 per cent between 2010-11 and 2014-15 in nominal terms on the basis of the plans set out in the June Budget, compared to cumulative positive growth of 2 per cent on the basis of the latest plans. Multiplying this change in nominal growth of around 2.5 per cent by the June Budget estimate for 2014-15 general government employment (just over 5 million) gives the approximate change in forecast general government employment attributable to the change in spending plans since the June Budget (equal to around 130,000).

[a] http://budgetresponsibility.independent.gov.uk/d/general_gov_employment_forecast_130710.pdf

[b] Total resource DEL excluding depreciation.

[c] The ONS reclassified the BBC from the public non-financial corporations sector to central government in 2006. More information is available at http://www.statistics.gov.uk/pdfdir/cpst0106.pdf.

[d] These estimates cannot be compared directly to the interim OBR's June pre-Budget forecast because of changes to the underlying methodology and assumptions between the June pre-Budget forecast and the June Budget forecast. For more information see http://budgetresponsibility.independent.gov.uk/d/general_gov_employment_forecast_130710.pdf.

Table 3.6: Detailed summary of central forecast

	Percentage change on a year earlier, unless otherwise stated						
		Forecast[1]					
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
World economy							
World GDP - purchasing power parity	-0.7	4.7	4.1	4.3	4.4	4.5	4.6
Euro Area GDP	-4.0	1.6	1.3	1.8	2.0	2.3	2.4
World trade in goods and services	-11.0	9.6	6.4	7.0	7.2	7.2	7.3
UK export markets[2]	-11.5	9.1	4.8	6.3	6.9	6.5	6.6
UK economy							
Gross domestic product (GDP)	-5.0	1.8	2.1	2.6	2.9	2.8	2.7
Expenditure components							
Domestic demand	-5.5	2.6	1.4	1.6	2.2	2.2	2.3
Household consumption[3]	-3.3	1.1	1.3	1.5	1.9	2.1	2.2
General government consumption	1.0	1.8	-0.4	-1.3	-1.8	-2.4	-1.7
Fixed investment	-15.1	2.0	3.3	6.5	8.3	8.3	6.6
Business	-18.8	1.3	8.6	8.4	10.2	9.8	7.6
General government	14.2	1.0	-15.3	-9.7	-5.9	-1.5	2.6
Private dwellings	-25.5	5.4	4.5	6.2	8.6	7.9	5.9
Change in inventories[4]	-1.1	1.3	0.1	0.0	0.0	0.0	0.0
Exports of goods and services[5]	-11.1	5.4	6.9	7.1	6.4	5.9	5.6
Imports of goods and services[5]	-12.3	8.1	3.8	3.4	3.9	3.9	4.1
Balance of payments current account							
£ billion	-18	-37	-37	-31	-26	-19	-12
Per cent of GDP	-1.3	-2.5	-2.4	-1.9	-1.5	-1.1	-0.6
Inflation							
CPI (Q4)	2.1	3.0	2.8	1.9	2.0	2.0	2.0
RPI (Q4)	0.6	4.0	3.4	3.1	3.1	3.4	3.6
Terms of trade[6]	-1.0	-0.2	-2.7	-1.1	-0.1	0.0	0.0
GDP deflator at market prices	1.4	3.2	2.6	2.1	2.6	2.7	2.7
Labour market							
Employment (millions)	29.0	29.0	29.1	29.3	29.6	29.8	30.1
Wages and salaries	- 0.1	2.1	2.3	3.1	4.8	5.2	5.2
Average earnings[7]	1.8	2.3	2.2	2.4	3.8	4.4	4.4
ILO unemployment (% rate)	7.6	7.9	8.0	7.7	7.2	6.7	6.1
Claimant count (Q4, millions)	1.62	1.47	1.49	1.41	1.30	1.21	1.10
Household sector							
Real household disposable income	1.0	-0.1	0.8	1.2	2.0	2.1	2.1
Saving ratio (level, per cent)	6.3	4.1	3.4	3.1	3.2	3.4	3.4
House prices	-7.8	6.7	-3.1	1.1	3.7	4.3	4.3
Nominal indicators							
Nominal GDP	-3.7	5.0	4.8	4.8	5.6	5.6	5.5
Non-oil PNFC profits[8]	-6.5	2.4	8.9	10.3	8.9	8.4	8.2

[1] *All growth rates in this table are rounded to the nearest 1 decimal place. This is not intended to convey a degree of unwarranted accuracy.*

[2] *Other countries' imports of goods and services weighted according to the importance of those countries in the UK's total exports.*

[3] *Includes households and non-profit institutions serving households.*

[4] *Contribution to GDP growth, percentage points.*

[5] *Trade levels are distorted by MTIC fraud.*

[6] *Ratio of export to import prices.*

[7] *Wages and salaries divided by employees.*

[8] *Private non-oil non-financial corporations' gross trading profits.*

Table 3.7: Changes to detailed summary of central forecast since June Budget

	Percentage change on a year earlier, unless otherwise stated						
			Forecast[1]				
	2009	2010	2011	2012	2013	2014	2015
World economy							
World GDP - purchasing power parity	0.1	0.7	-0.1	-0.2	-0.1	-0.1	0.0
Euro Area GDP	0.0	0.9	-0.1	0.1	0.1	0.0	0.0
World trade in goods and services	0.0	3.5	0.2	-0.2	-0.1	-0.1	-0.1
UK export markets[2]	0.0	4.9	0.0	-0.1	-0.1	0.1	0.1
UK economy							
Gross domestic product (GDP)	-0.1	0.6	-0.2	-0.2	0.0	0.1	0.0
Expenditure components of GDP							
Domestic demand	-0.2	1.0	-0.1	-0.2	-0.1	0.1	0.0
Household consumption[3]	-0.1	0.8	0.1	-0.3	-0.2	-0.1	0.0
General government consumption	-1.2	0.1	0.8	0.7	0.5	0.6	0.4
Fixed investment	-0.2	2.4	-0.7	-1.4	-0.5	0.3	-0.3
Business	0.5	-0.2	0.5	-1.6	-0.7	0.4	-0.6
General government	-1.6	5.8	3.7	-1.2	0.7	-2.1	0.7
Private dwellings	-5.8	11.9	-1.1	-2.1	0.0	0.8	-0.7
Change in inventories[4]	0.1	0.1	-0.2	0.0	0.0	0.0	0.0
Exports of goods and services[5]	-0.5	1.1	1.4	0.8	0.3	0.0	-0.1
Imports of goods and services[5]	-0.4	2.5	1.7	0.7	0.2	-0.1	-0.1
Balance of payments current account							
£ billion	1	-11	- 9	- 9	-11	-11	-10
Per cent of GDP	0.1	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5
Inflation							
CPI (Q4)	0.0	0.2	0.4	-0.1	0.0	-0.0	0.0
RPI (Q4)	0.0	0.3	0.2	-0.1	-0.2	-0.0	0.1
Terms of trade[6]	-0.2	0.7	-0.3	-0.1	0.0	0.0	0.0
GDP deflator at market prices	0.1	0.0	0.6	0.0	0.1	0.0	0.0
Labour market							
Employment (millions)	- 0.0	0.2	0.2	0.1	0.1	0.0	0.0
Wages and salaries	0.8	0.9	-0.1	-0.0	-0.1	-0.2	-0.1
Average earnings[7]	0.9	0.2	0.3	0.1	0.0	0.0	0.0
ILO unemployment (% rate)	0.0	-0.2	0.0	0.1	0.1	0.1	0.1
Claimant count (Q4, thousands)[7]	0	-33	37	45	45	40	21
Household sector							
Real household disposable income	-2.2	-0.4	-0.4	-0.1	0.4	0.5	0.3
Saving ratio (level, per cent)	-0.7	-2.8	-3.4	-3.3	-2.7	-2.3	-2.0
House prices	0.0	0.8	-4.7	-2.8	-0.8	-0.2	-0.2
Nominal indicators							
Nominal GDP	0.0	0.6	0.4	-0.2	0.0	0.2	0.0
Non-oil PNFC profits[8]	-1.4	0.9	0.0	0.1	-0.4	0.8	-0.5

[1] *All growth rates in this table are rounded to the nearest 1 decimal place. This is not intended to convey a degree of unwarranted accuracy.*

[2] *Other countries' imports of goods and services weighted according to the importance of those countries in the UK's total exports.*

[3] *Includes households and non-profit institutions serving households.*

[4] *Contribution to GDP growth, percentage points.*

[5] *Trade levels are distorted by MTIC fraud.*

[6] *Ratio of export to import prices.*

[7] *Wages and salaries divided by employees.*

[8] *Private non-oil non-financial corporations' gross trading profits.*

Table 3.8: Independent forecasts comparisons table

	2010	2011	2012	2013	2014	2015
OBR [November]						
GDP growth	1.8	2.1	2.6	2.9	2.8	2.7
CPI inflation	3.2	3.0	1.9	2.0	2.0	2.0
Output gap	-3.3	-3.4	-3.0	-2.3	-1.6	-0.9
IMF [October]						
GDP growth	1.7	2.0	2.3	2.4	2.5	2.5
CPI inflation	2.8	2.5	1.8	1.9	2.0	2.0
Output gap	-2.9	-2.5	-2.1	-1.7	-1.3	-0.7
OECD [November]						
GDP growth	1.8	1.7	2.0			
CPI inflation	3.1	2.6	1.6			
Output gap	-4.4*					
EC [Spring]						
GDP growth	1.2	2.1				
CPI inflation	2.4	1.4				
Output gap	-3.9	-3.1				
NIESR [October]						
GDP growth	1.6	1.6	2.0	2.5	2.4	2.5
CPI inflation	3.1	2.8	1.4	1.8	2.1	2.1
Output gap	-4*					
**Output gap gap not provided in main features of forecast*						
Bank of England [November]						
GDP growth (median)**	3.0	2.4	2.9	2.8		
CPI inflation (median)**	3.3	3.0	1.8	1.9		

***Median forecast based on market interest rates. Figures relate to year-on-year fourth quarter. Median figures represent central forecast of probability distribution illustrated by fan charts.*

Scenario analysis

3.104 In assessing the outlook for the public finances, it is useful to think about possible ways in which the economy might diverge from our central forecast and what the fiscal consequences might be. In this section we set out two illustrative economic scenarios, which address the concerns of many outside commentators. The fiscal implications of these are assessed in Chapter 5. We stress that these scenarios are not intended to capture all possible ways in which the economy might deviate from the central forecast and we do not attempt to attach particular probabilities to their occurrence. They are a:

- delayed rebalancing scenario: in this scenario, the outlook for growth, inflation and the output gap is the same as in our central forecast, but the mix of economic activity is different and household consumption is stronger.

- persistent weak demand scenario: in this scenario, demand in the economy remains persistently weaker than we expect in our central forecast, pulling down not just the expected level of economic activity but also (to a lesser degree) the economy's productive potential.

Producing illustrative forecasts

3.105 Our central fiscal projection is produced using a wide range of economic determinants from a large-scale macroeconomic model. The approach we take in producing scenarios is simpler and depends on 'ready-reckoning' the effect of changes in a small selection of determinants on the central forecast. The forecasts are produced without using the model, are based on stylised assumptions and depend heavily on judgement. One implication is that the bands of error surrounding the central forecast fan chart (Chart 4.1) are not applicable here and the results should be approached with a higher degree of caution.

Scenario One: Delayed rebalancing

3.106 As households repair their balance sheets and the fiscal consolidation is implemented, our central expectation is for the economy to rebalance away from consumption and towards investment and net exports. But forecasters have predicted such rebalancing before, only for it not to materialise. There is clearly a risk that some of the unbalanced features of the UK economy that were present in the build up to the financial crisis could re-emerge.

3.107 High levels of household sector net borrowing were an important feature of the unbalanced growth experienced in the run up to the financial crisis. The availability of credit and the buoyant housing market likely boosted both household sector consumption and residential investment. As credit conditions tightened sharply in 2008, the UK economy slipped into recession and households began to repair their balance sheets. This was reflected in a higher saving ratio for 2008 and 2009, a trend that many observers expected to continue.

3.108 The saving ratio has fallen back during 2010, while consumption growth has been strong and the household sector has, once again, become a net borrower. In this scenario we consider circumstances under which these recent trends might persist and in which the expected rebalancing of the UK economy might be delayed.

Characteristics of the delayed rebalancing scenario

3.109 In this scenario, there are a number of features held in common with the central forecast. These include trend growth and output, the output gap, GDP growth, the inflation profile, Bank Rate, government consumption and investment, employment and export growth. There are other similarities but this discussion focuses on the differences relative to the central projection.

3.110 A key characteristic of this scenario is that restrictive credit conditions ease faster than in the central forecast. This is reflected in lower spreads of retail deposit, mortgage and interbank lending rates over Bank Rate. However, it is worth noting that household borrowing might also be encouraged if quantitative easing (QE) and/or fiscal consolidation did more to hold down long-term interest rates than markets currently expect.

3.111 The wider availability and lower cost of credit, combined with rising asset values, supports household consumption. With incomes the same as in the central forecast, stronger consumption translates into lower saving and household sector net borrowing is higher than in the central forecast.

3.112 Encouraged by the consumption outlook, business investment is also stronger than in the central forecast. Combining the household and corporate sector lending positions and assuming an unchanged government forecast implies that whole-economy borrowing would rise. This is reflected in UK trade – import growth is higher in this scenario due to the weight of imported products in consumption expenditure, while export growth is unchanged. The net trade contribution to growth is smaller over the entire forecast period except in 2010.

Table 3.9: Delayed rebalancing forecast table.

	Percentage change on a year earlier, unless otherwise stated						
		Forecast					
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Output at constant market prices							
Gross domestic product (GDP)	-5.0	1.8	2.1	2.6	2.9	2.8	2.7
GDP Levels (2009=100)	100.0	101.8	103.9	106.7	109.7	112.8	115.9
Expenditure components of GDP at constant market prices							
Household consumption[2]	-3.3	1.1	1.6	1.8	2.5	2.6	2.5
Private investment	-20.4	2.3	8.6	8.4	10.0	9.6	7.4
General government consumption	1.0	1.8	-0.4	-1.3	-1.8	-2.4	-1.7
General government investment	14.2	1.0	-15.3	-9.7	-5.9	-1.5	2.6
Net trade[3]	0.7	-0.8	0.3	0.6	0.3	0.2	0.2
Inflation							
CPI (Q4)	2.1	3.0	2.8	1.9	2.0	2.0	2.0
Labour market							
Employment (millions)	29.0	29.0	29.1	29.3	29.6	29.8	30.1
Average earnings[4]	1.8	2.3	2.2	2.4	3.8	4.4	4.4
ILO unemployment (% rate)	7.6	7.9	8.0	7.7	7.2	6.7	6.1
Claimant count (millions)	1.53	1.50	1.51	1.44	1.34	1.24	1.14
Output Gap	-4.2	-3.3	-3.3	-2.9	-2.3	-1.6	-0.9

[1] *The forecast is consistent with output, income and expenditure data for the third quarter of 2010, released by the Office for National Statistics on 24th November 2010.*

[2] *Includes households and non-profit institutions serving households.*

[3] *Contribution to GDP growth, percentage points.*

[4] *Wages and salaries divided by employees.*

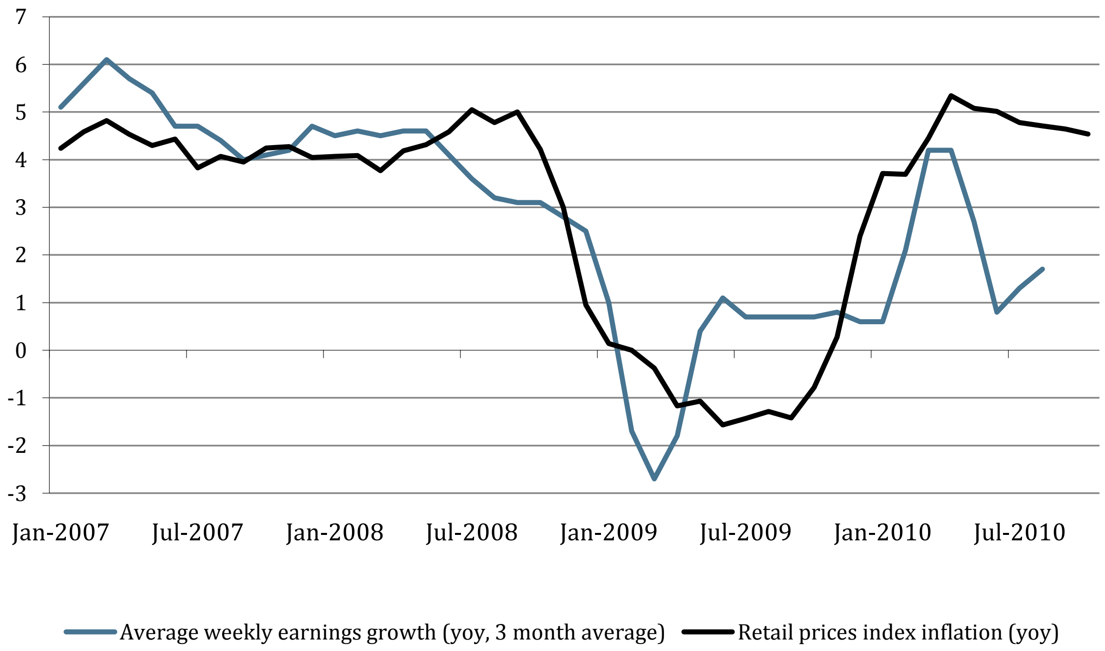
Scenario Two: Persistent weak demand

3.113 Over the next few years our central forecast shows activity in the economy growing more quickly than its productive potential, gradually eroding the spare capacity created by the recession. If the recovery was to be slower than expected, while the productive potential of the economy was unaffected, this would mean a temporary deterioration in the public finances. A more serious outcome would be one in which weaker-than-expected growth in turn weakened the economy's productive potential. This would mean that a higher proportion of the budget deficit would persist when the economy returns to full capacity.

3.114 This scenario explores how weaker growth might be allowed to persist and bring down the productive potential of the economy. It focuses on the possibility that, faced with demand shocks, reduced wage flexibility might drive up unemployment while making it difficult for the Bank of England to offset a weakening in demand with a looser monetary policy.

3.115 Average earnings growth has been muted during the recession and real wage flexibility is thought to have helped reduce job losses. But some of this perceived flexibility might instead reflect inflation having risen above wage setters' expectations (Chart 3.19). Although inflation is thought to have remained above target largely thanks to factors whose impact will diminish over time (such as VAT changes and sterling depreciation), there remains a risk that inflation expectations and wage demands could pick up. In this scenario the Bank of England might not offset weaker demand because further stimulus and rising wage demands might present an upward risk to inflation.

Chart 3.19: Average earnings growth and retail price inflation



3.116 As well as increasing unemployment, reduced real wage flexibility could also magnify the effect of demand shocks. Following the onset of the financial crisis, nominal interest rates fell to unprecedentedly low levels as the Bank acted swiftly to stimulate demand. The Bank might, again, wish to offset weaker demand by running a looser monetary policy. However, further quantitative easing might be less effective in reducing already low bond yields than the initial round.

3.117 Whether wage pressures make it harder for the Bank to run looser policy or further QE is less effective at stimulating the economy, weaker demand could be expected to persist in this scenario. In what follows it is assumed that, faced with a shock to demand, the Bank judges the upside risk to medium-term price stability from increased wage pressures is balanced against the downside risk presented by the weaker demand outlook. Consequently, monetary policy and inflation are the same as in the central forecast but economic activity and demand are weaker. This assumption is consistent with the output gap, and thus underlying domestic inflationary pressures, being broadly unchanged relative to the central forecast as weaker growth is offset by weaker trend growth.

Secondary effects

3.118 Weaker demand and economic growth would increase government borrowing, but whether this would be temporary or permanent depends crucially on the extent to which slower growth damages the productive potential of the economy. This is an ongoing debate among forecasters. In the following analysis, we consider two channels – unemployment and trend productivity.

3.119 Higher wage demands would likely result in higher unemployment and weaker growth relative to the central scenario. And if weak economic activity persists, the likelihood of higher long-term and structural unemployment also increases. In this scenario, we assume that this is reflected in a higher NAIRU than in the central forecast. This would reduce both the level and growth rate of potential output over the forecast period.

3.120 If the outlook for demand were to be consistently weaker than in our central forecast, firms may invest less over the forecast period. This would reduce the trend rate of growth, as the rate of capital accumulation would be lower over the forecast, reducing trend productivity growth. In the medium term, this would result in a lower trend level of output through a lower equilibrium capital stock. Also, the longer capital sits idle, the higher the risk that it will fall into disrepair or be scrapped, further depressing the capital stock.

3.121 The effects on productivity primarily reflect two things. First, to the extent that capital per worker is lower in this scenario, trend productivity growth will be reduced relative to the central forecast. Second, as the duration of unemployment increases it is possible that output per head will be reduced as workers lose skills.

Characteristics of the persistent weak demand scenario

3.122 The differences between this scenario and our central forecast are more profound than the in the first scenario but there remains some commonality. The path of monetary policy, the inflation profile, government consumption and investment, output gap and asset prices are all unchanged.

3.123 In this scenario we assume that further increases in unemployment lead to a rise in structural unemployment. The NAIRU rises by around 0.5ppts over the forecast period. The impact of lower equilibrium capital per worker through weaker business investment and capital scrapping, and workforce deskilling is assumed to reduce trend labour productivity growth (and, therefore, trend output growth) by around 0.2ppts. Trend output is around 1.5 per cent lower in the final year of the forecast than in the central projection.

3.124 The output gap is similar to that of the central scenario as the slower growth profile is broadly offset by changes to trend output. GDP growth is weaker than in the central forecast, reflecting higher unemployment and weaker aggregate demand. ILO unemployment rises above that of the central forecast each year to 2015, by which time the effect on the NAIRU is stable and unemployment is higher by around 150,000.

3.125 Real household disposable income is lower than in the central forecast because unemployment is higher and the slower pace of recovery dampens average earnings growth. Weaker consumption over the forecast period reduces corporate profitability and the returns to investment. This leads to persistently lower business investment, the level of which is around 8.5 percent lower than the central projection by 2015. We assume that the rate of capital depreciation is unchanged, so lower equilibrium investment implies that the equilibrium capital stock is permanently lower.

3.126 The net trade contribution to growth in this scenario is generally weaker than in the central forecast reflecting a loss of export market share. However, it is slightly stronger in 2011 because lower, import-heavy, consumption offsets the loss of export market share in that year.

Table 3.10: Persistent weak demand forecast table

	Percentage change on a year earlier, unless otherwise stated						
		Forecast					
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Output at constant market prices							
Gross domestic product (GDP)	-5.0	1.8	1.6	2.2	2.6	2.5	2.4
GDP Levels (2009=100)	100.0	101.8	103.4	105.7	108.5	111.2	113.9
Expenditure components of GDP at constant market prices							
Household consumption[2]	-3.3	1.0	0.8	1.2	2.0	2.0	1.8
Private fixed investment	-20.4	2.3	4.2	5.3	7.3	8.3	7.6
General government consumption	1.0	1.8	-0.4	-1.3	-1.8	-2.4	-1.7
General government investment	14.2	1.0	-15.3	-9.7	-5.9	-1.5	2.6
Net trade[3]	0.7	-0.8	0.8	0.8	0.4	0.3	0.1
Inflation							
CPI (Q4)	2.1	3.0	2.8	1.9	2.0	2.0	2.0
Labour market							
Employment (millions)	29.0	29.0	29.1	29.2	29.5	29.7	29.9
Average earnings[4]	1.8	2.3	2.2	2.4	3.8	4.4	4.4
ILO unemployment (% rate)	7.6	7.9	8.2	8.0	7.6	7.2	6.6
Claimant count (millions)	1.53	1.51	1.56	1.54	1.47	1.38	1.30
Output Gap	-4.2	-3.3	-3.5	-3.1	-2.4	-1.8	-1.2

[1] *The forecast is consistent with output, income and expenditure data for the third quarter of 2010, released by the Office for National Statistics on 27th November 2010.*

[2] *Includes households and non-profit institutions serving households.*

[3] *Contribution to GDP growth, percentage points.*

[4] *Wages and salaries divided by employees.*

4 Fiscal outlook

Summary

4.1 Our central forecast for the next five years is that public sector net borrowing (PSNB) will continue to decline steadily as a share of national income from the post-war peak it reached in 2009-10. Revenues are projected to increase and spending on public services and social security to fall, partly offset by increases in debt interest and net public sector pension payments.

4.2 We expect PSNB to total £148.5 billion this year, which is £1 billion lower than the interim OBR forecast at the time of the June Budget. PSNB is expected to fall from 11.1 per cent of GDP in 2009-10 to 1.0 per cent of GDP in 2015-16, slightly less than the 1.1 per cent of GDP expected in June. The cyclically-adjusted current balance moves from a deficit of 4.7 per cent of GDP this year to a surplus of 0.5 per cent GDP in 2014-15 and 0.9 per cent of GDP in 2015-16, 0.1 per cent of GDP higher than in June. Public sector net debt (PSND) is forecast to peak at 69.7 per cent of GDP in 2013–14, then decline to 67.2 per cent of GDP in 2015-16, which is 0.1 per cent of GDP lower than forecast in June.

4.3 Table 4.1 sets out our central fiscal forecast, as explained in detail in this chapter, and compares the central forecast with the interim OBR's June Budget forecast.

Table 4.1: Fiscal forecast overview

	Per cent of GDP						
	Outturn	Forecasts					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Surplus on current budget	-7.6	-7.2	-5.6	-3.9	-2.1	-0.6	0.3
Public sector net borrowing	11.1	10.0	7.6	5.6	3.5	1.9	1.0
Public sector net debt[1]	53.5	60.8	66.3	69.1	69.7	68.8	67.2
Cyclically-adjusted surplus on current budget	-5.3	-4.7	-3.3	-1.8	-0.5	0.5	0.9
Cyclically-adjusted net borrowing	8.8	7.6	5.3	3.5	1.9	0.8	0.3
	Changes since June forecast						
Surplus on current budget	-0.1	0.3	0.2	0.1	0.2	0.3	0.3
Public sector net borrowing	0.1	-0.1	0.1	0.1	0.0	-0.1	-0.1
Public sector net debt[1]	0.0	-1.1	-0.9	-0.7	-0.7	-0.6	-0.1
Cyclically-adjusted surplus on current budget	0.0	0.1	0.0	0.1	0.1	0.2	0.1
Cyclically-adjusted net borrowing	0.1	0.2	0.3	0.1	0.0	0.0	0.0

[1] *Debt at end March; GDP centred on end March.*

4.4 Our projection of PSNB is very similar to the June forecast. However, as Chart 4.1 shows there are larger but broadly offsetting changes to the receipts and expenditure forecasts which drive PSNB. The main changes compared to June are:

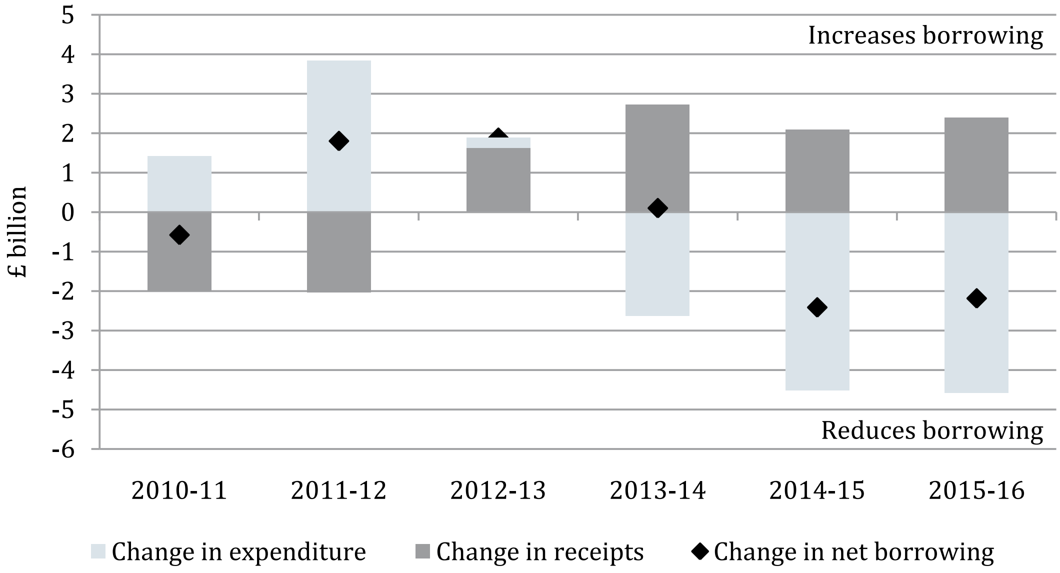
- the Spending Review decision to cut capital spending slightly less sharply than was planned in June raises borrowing in the medium term. The welfare spending cuts announced in the Spending Review were broadly used to reduce previous planned cuts to non-capital spending on public services. Including direct tax effects and updated Annually Managed Expenditure (AME) costings but excluding the Government's AME margin from our projections, the overall effect of the Spending Review is to reduce borrowing in 2014-15 by around £1.5 billion;

- we expect receipts to be higher than previously forecast in the short term, especially VAT. But this will be offset in the medium-term by lower onshore corporation tax receipts and factors such as lower expected property prices, interest rates and oil prices. This leaves the receipts forecast in 2015-16 around £2.4 billion lower than the June forecast; and

- current expenditure is expected to be lower in the medium term than looked likely in June, due to lower debt interest costs and a fall in expected net spending on public sector pensions. Changes to the forecast result in marginally higher capital expenditure than forecast in June.

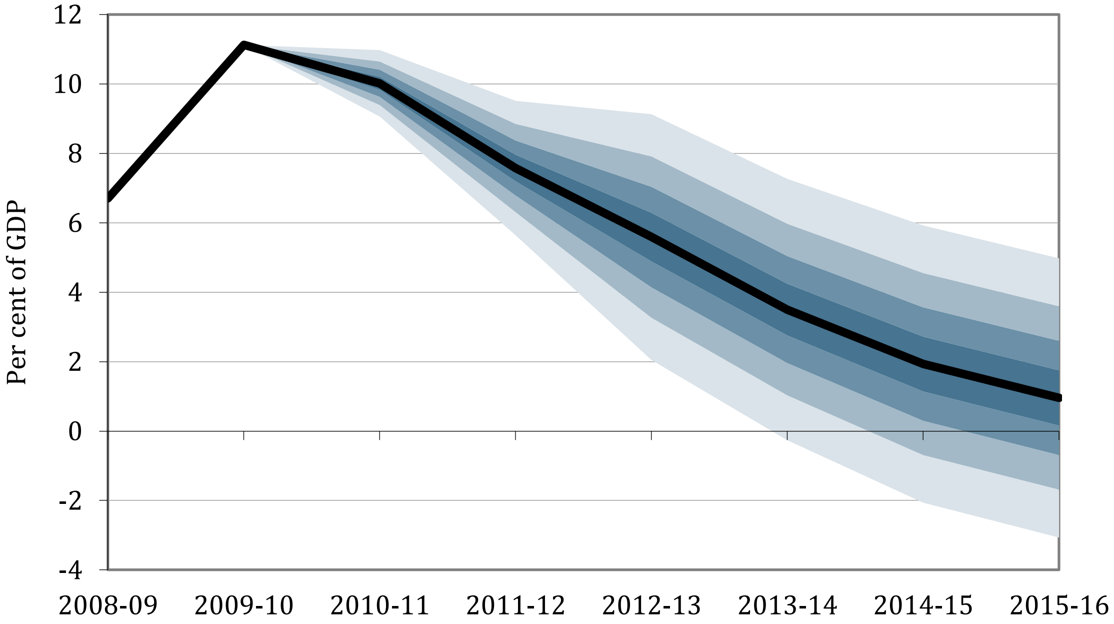
4.5 Overall, the combination of lower receipts, lower expenditure and the impact of the Spending Review decisions imply slightly lower levels of borrowing in the medium term compared to the June forecast. As we expect the level of real GDP to be slightly higher than we thought in June, the improvements in the cyclically-adjusted measures of government borrowing relative to June are slightly smaller than the improvements in the headline figures.

Chart 4.1: Changes to public sector net borrowing since the June Budget forecast



4.6 The changes in the fiscal aggregates compared to the June forecast are small relative to the uncertainties that surround any fiscal forecast, particularly in the medium term. PSNB represents the difference between total public sector receipts and expenditure, both of which are very large numbers influenced by numerous economic and non-economic determinants. Chart 4.2 shows our central forecast for PSNB with the probability of different outcomes, based purely on the Treasury's past forecasting performance, shown in a fan chart (see Annex B for technical details). The solid black line shows the median forecast, with the successive pairs of lighter shaded areas around it representing 10 per cent probability bands.

Chart 4.2: Public sector net borrowing fan chart



Introduction

4.7 In this chapter we set out our forecasts for the public finances to 2015-16. We begin by explaining our approach to preparing the fiscal forecast. We then describe the judgements and assumptions that help determine the forecast (from paragraph 4.16). We then set out the way we treat policy announcements that have been made since the interim OBR's June Budget forecast (from paragraph 4.31). We discuss the outlook for receipts, including tax by tax analysis (from paragraph 4.38). We then turn to expenditure, focusing in particular on the components of AME, and financial transactions (from paragraph 4.70). Finally, we draw together the implications of the preceding analysis for the key fiscal aggregates, including public sector net borrowing, the surplus on the current budget and public sector net debt (from paragraph 4.135). Further breakdowns of receipts and expenditure and other details of our fiscal forecasts are provided in the OBR's supplementary tables available on our website.

Approach to the fiscal forecast

4.8 As with the interim OBR's June Budget forecast, this fiscal forecast represents our central view of the path of the public finances. It is based on our central forecast for the size and composition of economic growth, and the fiscal assumptions and judgements represent our central view.

4.9 Public sector receipts are highly dependent on the path of the economy and so projections are subject to all of the risks and uncertainties set out in Chapter 3. Equally, while a portion of public expenditure is typically set in firm multi-year plans, a substantial portion, such as social security and debt interest payments, is also closely linked to the economy. In addition, each individual line of receipts and expenditure will be subject to a wide range of specific uncertainties, for example around the behaviour of taxpayers or benefit claimants in response to changes in the tax or benefit system.

Spending assumptions

4.10 Our forecast of expenditure for 2010-11 uses the latest Government plans for Departmental Expenditure Limits (DEL), less a small reduction for an expected shortfall against these limits, and our updated AME forecast. From 2011-12 to 2014-15 we assume that DEL will be fully spent in line with the Government's plans set out in the October Spending Review.

4.11 For 2015-16, the Government's stated policy in the June Budget was that Total Managed Expenditure (TME) would grow in line with general inflation in the economy. Consistent with the approach taken in June, we assume that this applies to both public sector current expenditure (PSCE) and public sector gross investment (PSGI), which together make up TME. Therefore in 2015-16 we project current and capital AME on the basis of our latest forecast and derive implied

DEL plans as a residual, by subtracting the AME forecasts from the PSCE and PSGI projections. These DELs do not represent the Government's firm plans for 2015-16, which have not yet been set. The Government could set a higher level of DEL if it announced further cuts in social security or other AME spending, as it did in the Spending Review.

Cyclical adjustment methodology

4.12 The forecast includes cyclically-adjusted versions of key fiscal aggregates, which attempt to adjust for the effect of the economic cycle on the public finances. Forecasts of cyclically-adjusted aggregates are subject to particular uncertainty, as they depend on projections of the current position of the economy relative to trend. They also rely on analysis of the effect of the economic cycle on borrowing from previous cycles, which may not hold in the future, partly because of changes in the composition of both receipts and expenditure. Although we recognise the potential shortcomings, we have used the Treasury's approach to cyclical adjustment as set out in *Public finances and the cycle*.[1] It should be noted that the cyclical adjustment coefficients we use are based on the relationship between past fiscal aggregates and the Treasury's estimates of past output gaps. We use a different methodology to estimate output gaps over the forecast period than the Treasury used in the past. We have not yet published our own estimates of past output gaps. We plan to do so in the future and we will also then be able to reassess the size of the cyclical adjustment coefficients.

Basis of the fiscal aggregates

4.13 The fiscal aggregates are based on the National Accounts. The forecast presents the fiscal aggregates on the basis that excludes the temporary effects of the financial interventions. The Office for National Statistics (ONS) publishes outturn data for borrowing and debt on this basis[2], and the Government has chosen to use it as the basis for the fiscal aggregates targeted in its fiscal mandate and supplementary target. These aggregates remove the temporary effects on the public finances of the interventions taken in 2008 and 2009 to stabilise the financial sector, but capture the permanent effects. This is achieved essentially by treating the public sector banks and schemes such as the Special Liquidity Scheme and the Asset Purchase Facility as part of the private sector. This means that transactions between the Government and the banks or schemes, such as fee payments or any loss payouts, will score in these measures when they occur. A breakdown of the derivation of the fiscal aggregates on this basis is provided in the OBR's supplementary tables available on our website.

[1] *Public finances and the cycle: Treasury Economic Working Paper No. 5*, HM Treasury, November 2008.

[2] *Public sector finances excluding financial interventions*, Office for National Statistics, March 2010.

Process for producing the fiscal forecast

4.14 The OBR is responsible for all the assumptions and judgements in the forecast, and for the final published forecast. However, we do not undertake all of the work of producing the forecast internally. Production of the fiscal forecast involves officials across the OBR, HM Revenue & Customs (HMRC), the Department for Work and Pensions (DWP), HM Treasury and other Government departments. The fiscal forecasting models for the major components of receipts and AME are maintained and run by forecasting teams in HMRC and DWP. This reflects their expertise on the individual tax and benefit regimes and the receipts and payments systems, and HMRC's access to confidential taxpayer data. Our foreword provides further detail on this process.

4.15 We base the forecast on outturn data on the public finances produced by the ONS. In this forecast we have used the data from the October 2010 ONS *Public sector finances* release.

Determinants of the fiscal forecast

4.16 This section sets out the main assumptions and judgements we have made in producing our central fiscal forecast. Table 4.2 shows the path of key determinants and Table 4.3 shows the changes compared to the OBR's June Budget forecast. Chapter 3 includes a discussion of determinants from the economy forecast, such as GDP, its components, inflation and claimant count unemployment. These judgements reflect our central view of the path of the economy and public finances. But in each case plausible alternative judgements exist, reflecting the inherent uncertainty of economic and fiscal forecasting.

4.17 For some determinants, ready-reckoners are presented. These are approximate estimates of the fiscal effect of varying the level of specific determinants within the appropriate receipts or expenditure model. These estimates should be treated with caution as they estimate only the direct effect of a change in the value of a determinant and not any wider indirect effects. The actual effect of a change in the value of a determinant will depend on the particular set of economic circumstances at the time of the change.

Table 4.2: Determinants of the fiscal forecast

	Percentage change on previous year unless otherwise specified						
	Outturn	Forecasts					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
GDP and its components							
Real GDP	-3.7	2.5	2.0	2.7	2.9	2.8	2.7
Nominal GDP (£ billion)[1]	1403	1483	1550	1628	1721	1817	1916
Nominal GDP[1]	-2.0	5.7	4.5	5.0	5.7	5.6	5.5
Nominal GDP (centred end-March)[1]	3.1	5.1	4.6	5.5	5.7	5.5	5.2
Wages and salaries[2]	0.2	2.5	2.1	3.4	5.1	5.2	5.2
Non-oil PNFC profits[2,3]	-6.5	2.4	8.9	10.3	8.9	8.4	8.2
Consumer spending[2,3]	-2.1	5.6	4.7	4.0	4.7	4.8	5.0
Prices and earnings							
GDP deflator	1.7	3.1	2.5	2.2	2.7	2.7	2.7
RPI (September)[4]	-1.4	4.2	3.5	3.0	3.0	3.3	3.6
CPI (September)[4]	1.1	3.1	3.1	1.8	2.0	2.0	2.0
Rossi (September)[5]	1.8	4.4	3.4	2.1	2.5	2.5	2.6
Whole economy earnings growth	2.4	2.1	2.1	2.6	4.1	4.4	4.4
Key fiscal determinants							
Claimant count unemployment (Q4, millions)[6]	1.62	1.47	1.49	1.41	1.30	1.21	1.10
Employment (millions)	28.9	29.1	29.1	29.4	29.7	29.9	30.1
VAT gap (per cent)	13.2	13.4	13.2	13.1	13.1	13.1	13.2
Financial and property sectors							
Equity prices (index)[7]	2619	2857	3105	3261	3447	3639	3838
HMRC financial sector profits[1,3,8]	2.4	5.2	5.2	5.2	5.2	5.2	5.2
Residential property prices[9]	-3.0	4.3	-2.7	1.9	4.0	4.3	4.3
Residential property transactions[10]	14.2	-4.4	9.2	25.4	12.8	9.0	3.1
Commercial property prices[11]	5.9	6.0	5.9	7.0	6.5	4.7	3.0
Commercial property transactions[11]	-17.5	13.0	8.0	3.5	4.2	4.5	4.4
Oil and gas							
Oil prices ($ per barrel)[3]	62	80	85	87	87	87	88
Oil prices (£ per barrel)[3]	39.5	51.5	54.0	55.0	55.5	55.9	56.5
Oil production (million tonnes)[3,12]	67.8	64.6	61.6	58.4	55.6	52.7	50.1
Gas production (billion cubic metres)[3,12]	21.6	20.3	19.3	18.4	17.5	16.8	16.0
Interest rates and exchange rates							
Market short-term interest rates (per cent)[13]	0.8	0.8	1.3	2.1	2.7	3.3	3.9
Market gilt rates (per cent)[14]	3.1	3.1	3.7	4.2	4.5	4.8	5.0
Euro/sterling exchange rate (per cent)	1.1	1.2	1.2	1.2	1.2	1.2	1.2

[1] *Not seasonally adjusted.*

[2] *Nominal.*

[3] *Calendar year.*

[4] *RPI used for revalorising excise duties in current year and uprating income tax allowances and bands. CPI used for certain social security benefits from 2011-12*

[5] *RPI excluding housing costs, used for uprating certain social security benefits.*

[6] *UK seasonally-adjusted claimant count.*

[7] *FTSE All-share index.*

[8] *HMRC Gross Case 1 trading profits.*

[9] *Outturn data from Communities and Local Government (CLG) property prices index.*

[10] *Outturn data from ONS property transactions*

[11] *Outturn data from HMRC information on stamp duty land tax.*

[12] *DECC forecasts available at www.og.decc.gov.uk*

[13] *3-month sterling interbank rate (LIBOR).*

[14] *Weighted average interest rate on conventional gilts.*

Table 4.3: Changes to the determinants of the fiscal forecast since the June forecast

	Percentage point change unless otherwise specified						
	Outturn	Forecasts					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
GDP and its components							
Real GDP	0.0	0.8	-0.4	-0.2	0.1	0.1	0.0
Nominal GDP (£ billion)[1]	-4.3	9.2	11.1	7.9	10.8	13.9	13.9
Nominal GDP[1]	-0.1	1.0	0.1	-0.2	0.2	0.1	0.0
Nominal GDP (centred end-March)[1]	0.4	0.6	-0.2	-0.1	0.3	0.1	-0.2
Wages and salaries[2]	0.8	0.8	-0.3	0.0	-0.2	-0.2	-0.1
Non-oil PNFC profits[2,3]	-1.4	0.9	0.0	0.1	-0.4	0.8	-0.5
Consumer spending[2,3]	-0.2	1.3	0.4	-0.2	-0.1	-0.1	0.0
Prices and earnings							
GDP deflator	-0.2	0.2	0.5	0.0	0.1	0.1	0.0
RPI (September)[4]	0.0	-0.1	0.1	0.0	-0.2	-0.1	0.1
CPI (September)[4]	0.0	0.2	0.5	-0.1	0.0	0.0	0.0
Rossi (September)[5]	-0.2	-0.1	0.5	-0.3	0.0	0.0	0.0
Whole economy earnings growth	0.9	0.1	0.2	0.0	0.0	0.0	0.0
Key fiscal determinants							
Claimant count unemployment (Q4, millions)[6]	0.00	-0.03	0.03	0.04	0.04	0.04	0.02
Employment (millions)	-0.5	0.2	0.3	0.4	0.4	0.3	0.3
VAT gap (per cent)	-0.1	0.7	0.6	0.4	0.5	0.5	0.4
Financial and property sectors							
Equity prices (index)[7]	0	180	310	318	341	365	383
HMRC financial sector profits[1,3,8]	-0.3	-3.7	-0.3	-0.3	-0.8	-0.8	-0.8
Residential property prices[9]	0.0	0.1	-5.0	-2.3	-0.5	-0.2	-0.2
Residential property transactions[10]	0.1	-9.6	-13.4	8.4	0.7	4.6	2.1
Commercial property prices[11]	0.0	-0.7	-1.9	-2.8	0.0	0.0	-0.6
Commercial property transactions[11]	0.0	4.0	1.5	-1.0	-1.2	-0.7	-0.4
Oil and gas							
Oil prices ($ per barrel)[3]	0.0	2.0	3.2	1.9	0.6	-0.6	-1.7
Oil prices (£ per barrel)[3]	0.0	-0.8	-2.7	-3.8	-4.8	-5.8	-6.6
Oil production (million tonnes)[3,12]	0.0	0.0	0.1	0.2	0.0	0.0	0.1
Gas production (billion cubic metres)[3,12]	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Interest rates and exchange rates							
Market short-term interest rates (per cent)[13]	0.0	-0.3	-0.5	-0.3	-0.5	-0.5	-0.3
Market gilt rates (per cent)[14]	0.0	-0.3	-0.3	-0.3	-0.3	-0.2	-0.1
Euro/sterling exchange rate (per cent)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

[1] *Not seasonally adjusted.*

[2] *Nominal.*

[3] *Calendar year.*

[4] *RP I used for revalorising excise duties in current year and uprating income tax allowances and bands. CPI used for certain social security benefits from 2011-12*

[5] *RPI excluding housing costs, used for uprating certain social security benefits.*

[6] *UK seasonally-adjusted claimant count.*

[7] *FTSE All-share index.*

[8] *HMRC Gross Case 1 trading profits.*

[9] *Outturn data from Communities and Local Government (CLG) property prices index.*

[10] *Outturn data from ONS property transactions*

[11] *Outturn data from HMRC information on stamp duty land tax.*

[12] *DECC forecasts available at www.og.decc.gov.uk*

[13] *3-month sterling interbank rate (LIBOR).*

[14] *Weighted average interest rate on conventional gilts.*

Equity prices

4.18 Equity prices are assumed to rise from their present level in line with nominal GDP growth. The present level is taken from the average of the closing price of the FTSE All-Share index over the 10-day period ending 22 November 2010. Our assumption reflects the rationale that, in the long run, equity prices represent an expectation of future profits. To the extent that the profits share of GDP remains constant in the long run, it is therefore reasonable to assume that equity prices increase in line with nominal GDP.

4.19 Equity prices are among the more volatile and unpredictable determinants of the forecast. On an approximate ready-reckoner basis, if equity prices were to be 1 per cent higher than assumed, receipts from capital taxes and corporation tax from life insurers would increase by around £100 million a year once the change had fully worked through.

HMRC financial sector profits

4.20 Financial sector profits are represented by the corporation tax Gross Case 1 trading profits series from HMRC. HMRC's estimate of financial sector profits in 2008-09 has been revised upwards significantly, reflecting new data from corporation tax returns. At the June Budget, the estimated fall in 2008-09 was 17.0 per cent; the latest estimate is a fall of only 3.8 per cent. This change is driven by new data showing that there was a higher level of corporation tax deductions such as group relief than previously assumed. For a given level of corporation tax receipts, a higher level of deductions implies a higher level of underlying trading profits.

4.21 The increase in the estimated outturn level of trading profits has caused us to project more moderate growth rates in the near term compared with the June Budget. We then assume that profits rise at around 5 per cent per year over the forecast period, broadly in line with nominal GDP. By the end of the forecast period, financial sector profits are at their 20-year average level of just under 4 per cent of GDP.

Residential property prices and transactions

4.22 We assume that residential property prices follow the median of independent forecasts for the next two calendar years, implying a 1.7 per cent increase in the year to the fourth quarter of 2010 and a 1.4 per cent decline in the year to the fourth quarter of 2011. The independent forecasts are weaker than in June. This probably reflects recent weakness in the housing market and the continued risk that credit constraints could place downward pressure on prices during 2011. From 2014 onwards, house price inflation is assumed to be broadly in line with the long-term average for earnings growth.

4.23 We expect residential property transactions to return to their trend level in the medium term. The trend level is informed by the long-run average duration of home ownership and the expansion of the housing stock. In this forecast we have re-estimated the equilibrium duration so that the medium-term anchor better reflects recent trends. Average duration is now nineteen years rather than the eighteen years estimated in the June Budget. This change has had the effect of reducing equilibrium transactions by around 130,000 per year by 2015 relative to the June Budget forecast.

4.24 Leading indicators such as mortgage approvals and new buyer enquiries point to muted transactions growth in the very near term. This is consistent with the independent forecasters' revisions to house prices. Over the next couple of years we expect the availability of credit and the house price outlook to continue to weigh on transactions before recovery takes hold and brings about a return to medium-term equilibrium.

Commercial property prices and transactions

4.25 The commercial property prices forecast is based on HMRC outturn data for property prices and transactions subject to stamp duty land tax. The forecast is for prices to grow by 6 per cent in 2010-11, following a similar rise in 2009-10. Commercial property transactions are forecast to rise by 13 per cent in 2010-11, reflecting strong growth recorded in the first two quarters of the year and continuing the recovery recorded at the end of 2009-10 after the sharp falls during the recession. From 2012-13, transactions are expected to grow by around 3.5 to 4.5 per cent a year.

Oil prices

4.26 Oil prices are assumed to move in line with the prices implied by futures markets as of 22 November 2010. On an approximate ready-reckoner basis, if oil prices were to be $1 higher than assumed, direct North Sea receipts would rise by around £150 million. There would however be offsetting effects on the public finances from the wider effects of an oil price rise on GDP and inflation.

4.27 The issue of the impact of changes in oil prices on the public finances was examined in some detail in the interim OBR's report, *Assessment of Effect of Oil Price Fluctuations on the Public Finances,* published on 14 September 2010. This found that a temporary increase in oil prices would be likely to boost overall receipts in the initial year but this benefit would be reduced to zero in subsequent years due to the offsetting effects. For a permanent increase in oil prices the offsetting effects would be likely to lead to an overall loss to the public finances in the medium-term. There is a wide margin of uncertainty around the size of these overall net effects.

Oil and gas production

4.28 The forecast uses the detailed central projections for oil and gas production published by the Department of Energy and Climate Change (DECC) and last updated in September. They are based on survey data provided by oil and gas producers.

Short-term interest rates

4.29 Short-term interest rates are assumed to move in line with market expectations. Rates used in this forecast are the average for the ten working days ending 22 November 2010. Short-term interest rates are defined as the 3-month sterling interbank rate (LIBOR). Increases in short-term rates are broadly neutral for the public finances as higher receipts from tax on savings income, corporation tax and interest receipts offset higher debt interest payments.

Gilt rates

4.30 Gilt rates are also assumed to move in line with market expectations. Rates used in this forecast are the average for the ten working days ending 22 November 2010. As set out in Table 4.20, the approximate ready-reckoner effect on net borrowing of a 1 percentage point rise in gilt rates throughout the forecast period would be around £5 billion in 2015-16 through higher debt interest spending. This is a compound ready-reckoner effect, taking into account the second-round effect of higher borrowing caused by increased debt interest payments.

Treatment of new policy announcements

4.31 Since the June Budget, policy announcements have been made which have a material effect on the public finances in the Spending Review and subsequently on higher education funding. Consistent with the approach set out in Chapter 2, the forecast incorporates the effect on the economy and public finances of all these policies.

4.32 The OBR scrutinised and certified the Government's estimates of the direct costs of Annually Managed Expenditure (AME) policies announced at the time of the Spending Review, such as the Government's welfare reform package.[3] At that time, these direct costings were based on the June Budget economic forecast. These costings did not include the following effects:

[3] *Office for Budget Responsibility: certification of policy costings* in *Spending Review 2010 policy costings*, HM Treasury, October 2010.

- the direct impact of AME measures on tax receipts. For example a portion of tax credit payments are defined by the ONS as negative tax, so policy changes to tax credits have a direct impact on tax receipts; and
- wider indirect effects of these measures on the economy and public finances. For example the loss of tax revenue from the AME measure on public sector pensions which by increasing employer pension contributions will indirectly reduce taxable income.

4.33 This forecast incorporates these wider effects. It also includes new estimates of the direct costs of the Spending Review measures, which have been updated for the latest economic forecast. Table 4.4 shows these effect of all Spending Review policy announcements on the public finances, split into the following categories of direct effects on PSNB:

- the direct impact of AME Spending Review measures on tax receipts;
- the increase in planned capital departmental expenditure limits (DEL);
- the increase in planned resource (i.e. non-capital) DEL; and
- the direct impact on AME of the Spending Review measures, recosted on the basis of our current economic forecast, which save £9.6 billion by 2014-15. The use of the current forecast means that the measures save around £1 billion less than estimated at the Spending Review. Annex A sets out the Treasury's updated costings, which we have certified. The main changes are due to the availability of new data on the Employment and Support Allowance (ESA) which has led to a reduction in the overall forecast spending on the benefit as well as reducing the savings from the Spending Review measure.

4.34 As Table 4.4 shows, the direct effect of the Spending Review measures are now estimated to reduce spending by £0.8 billion and increase revenues by £0.7 billion in 2014-15, thereby reducing PSNB overall by £1.5 billion.

4.35 At the Spending Review the Government created an AME margin against the risk of changes to the AME forecast. As the OBR produces a central forecast of all AME components, this is not included in our November AME forecast. For the purposes of comparison with the Treasury's Autumn policy costings document, the impact of including this AME margin is shown as a memo item.

4.36 Also shown as a memo item in the table are the indirect effects on income tax revenues of the Spending Review measures. This includes the effect on taxable income from public sector pensions mentioned above. It also includes the changes to taxable income from the behavioural effects of the Spending Review child benefit and tax credits measures.

Table 4.4: Impact of policy announcements on the November forecast compared to June forecast

	£ billion					
	Forecast					
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Changes to receipts in Spending Review	-	0.1	0.2	0.7	0.7	0.8
Direct tax impacts of AME measures [1]	**-**	**0.1**	**0.2**	**0.7**	**0.7**	**0.8**
Changes to spending in Spending Review						
Capital DEL [2]	-	2.0	2.3	2.2	1.6	1.9
of which:						
Change in PSGI	-	2.0	2.0	2.3	2.3	-
Other change	-	0.0	0.3	0.0	-0.7	-
Resource DEL [2]	-	-0.4	1.6	4.8	7.3	9.4
AME	-	-0.7	-3.8	-8.0	-9.6	-9.9
of which:						
Impact of AME measures announced in Spending Review	-	-0.7	-3.8	-8.8	-10.6	-
Changes to costings in the November forecast	-	0.0	0.1	0.8	0.9	-9.9
Total changes to spending in Spending Review	**-**	**1.0**	**0.1**	**-1.0**	**-0.8**	**1.4**
Total direct fiscal impact of Spending Review decisions on PSNB	**-**	**0.9**	**-0.1**	**-1.7**	**-1.5**	**0.7**
AME margin:						
At the Spending Review the Government created an AME margin against the risk of changes to the AME forecast. As the OBR produces a central forecast of all AME components this AME margin was removed from the November AME forecast. For the purposes of comparison with Table A1 in the Treasury's Autumn policy costings document, the impact of including this AME margin would be:						
Spending Review inclusion of AME margin	-	1.0	2.0	3.0	4.0	-
Total direct fiscal impact of Spending Review decisions on PSNB, including AME margin	-	1.9	1.9	1.3	2.5	0.7
Indirect effects of Spending Review measures:						
Indirect effects of AME measures on receipts [3]	-	0.0	-0.3	-0.6	-0.7	-0.7
Spending Review decisions classified as financial transactions:						
Higher education funding	-	0.0	0.7	2.5	4.3	5.6
Green Investment Bank [4]	-	-	-	1.0	-	-

[1] *Includes council tax benefit measure, which increases current receipts, and negative tax elements of tax credit measures.*

[2] *Figures shown for 2015-16 are implied DELs, calculated by assuming that PSCE and PSGI remain constant in real terms.*

[3] *Includes the loss of income tax revenue from public service pensions and child benefit measures.*

[4] *Green Investment Bank transactions are assumed to score as financial transactions, which do not score in PSNB.*

4.37 Finally, Table 4.4 also shows the impact of the higher education funding announcement on loans to students. The impact on the public finances results from the increased value of the loans that the Government will make to students to fund the higher fees. Because this is a loan it is classified in the public finances as a financial transaction. The cash needed to fund the loans will increase the Government's net cash requirement each year, and hence add to public sector net debt. However, there is no affect on PSNB which excludes financial transactions, as they do not result in a change to the Government's overall net liabilities. Further details are set out in Box 4.3.

Receipts

4.38 Table 4.6 sets out our central forecast for receipts, and Table 4.7 shows changes since the June Budget. These tables differ from the tables published at the June Budget, and in previous Treasury forecasts, in that receipts which score in the National Accounts on an accrued basis are now shown on this basis. A table on a cash basis, comparable with the receipts tables in previous forecasts, is available in the OBR's supplementary tables on our website. The supplementary tables also include the net taxes and NICs measure previously used as a measure of the overall tax burden.

Table 4.5: Receipts in 2010-11

	£ billion			Percentage change on 2009-10		
	Outturn	Forecasts		Outturn	Forecasts	
	Apr-Sep	Oct-Mar	Full year	Apr-Sep	Oct-Mar	Full year
Income tax, NICs and capital gains tax	112.7	134.0	246.7	2.8	2.0	2.4
Value added tax	41.4	43.6	84.9	19.7	11.7	15.5
Corporation tax	18.4	25.1	43.5	27.8	17.1	19.0
Petroleum revenue tax	0.7	0.7	1.5	69.7	45.9	57.1
Fuel duties	13.8	13.9	27.7	4.3	7.0	5.7
Inheritance tax	1.4	1.3	2.7	18.3	4.9	11.0
Stamp duties	4.7	4.4	9.1	30.4	3.1	15.5
Tobacco duties	4.7	4.7	9.4	5.8	8.3	7.1
Alcohol duties	4.5	5.0	9.5	0.8	4.1	2.5
Business rates	11.8	12.0	23.8	0.6	2.7	1.7
Council tax	12.7	13.0	25.7	0.8	2.6	1.7
Other	22.8	19.5	42.2	28.9	7.5	20.5
National Accounts taxes	**249.5**	**277.1**	**526.7**	**9.5**	**5.6**	**7.4**

4.39 Table 4.5 shows outturn growth in central government accrued receipts in the first six months of 2010-11 on the same period in 2009-10, and the implied receipts growth rate needed in the second half of the year to meet the November forecast for the full year. Overall, growth in receipts is expected to be less strong in the second half of the year than in the first half. In part this reflects the pattern of receipts growth in the 2009-10 base year. Receipts in the first half of 2009-10 were very weak with the economy still in recession, and then gradually increased through the second half of the year as the economy started to recover. An additional factor this year is that the one-off bank payroll tax boosted receipts in April, which accounts for the strong April to September growth in other taxes.

Table 4.6: Current receipts

	£ billion						
	Outturn	Forecasts					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Income tax (gross of tax credits)[1]	147.2	151.0	156.5	168.4	182.0	196.5	209.9
of which: *Pay as you earn*	*122.9*	*131.0*	*133.1*	*139.5*	*149.5*	*160.2*	*171.2*
Self assessment	*21.7*	*20.2*	*23.6*	*28.4*	*31.6*	*34.9*	*36.9*
Tax credits (negative income tax)	-5.6	-5.5	-4.7	-4.3	-4.3	-4.3	-4.4
National insurance contributions	96.9	98.5	102.8	108.4	114.1	120.7	127.4
Value added tax	73.5	84.9	100.1	103.6	107.8	112.5	117.6
Corporation tax[2]	36.5	43.5	45.5	47.8	50.2	52.5	54.4
of which: *Onshore*	*31.0*	*35.8*	*37.3*	*40.2*	*43.1*	*45.4*	*48.0*
Offshore	*5.6*	*7.7*	*8.1*	*7.6*	*7.1*	*7.1*	*6.4*
Corporation tax credits[3]	-0.7	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9
Petroleum revenue tax	0.9	1.5	1.6	1.7	1.6	1.5	1.3
Fuel duties	26.2	27.7	29.3	30.7	32.1	33.8	35.0
Business rates	23.4	23.8	25.6	26.8	27.9	28.9	29.3
Council tax	25.3	25.7	26.1	27.2	28.9	30.0	31.2
VAT refunds	11.2	13.6	15.1	14.9	14.7	14.7	15.0
Capital gains tax	2.5	2.8	3.2	2.7	3.4	4.0	4.5
Inheritance tax	2.4	2.7	2.7	2.8	3.0	3.2	3.5
Stamp duty land tax	4.9	6.0	6.3	7.9	9.2	10.5	11.5
Stamp taxes on shares	3.0	3.1	3.4	3.7	4.1	4.4	4.7
Tobacco duties	8.8	9.4	9.4	9.5	9.7	9.9	10.1
Spirits duties	2.7	2.6	2.5	2.6	2.7	2.8	2.9
Wine duties	3.0	3.2	3.3	3.5	3.8	4.0	4.4
Beer and cider duties	3.5	3.7	3.8	3.9	4.1	4.2	4.4
Air passenger duty	1.9	2.2	2.6	2.8	3.0	3.3	3.6
Insurance premium tax	2.3	2.5	2.8	2.8	2.9	2.9	3.0
Other HMRC taxes[4]	6.0	6.7	7.0	7.2	7.4	7.6	7.7
Vehicle excise duties	5.6	5.9	5.9	6.0	6.1	6.2	6.2
Temporary bank payroll tax	0.0	3.5	0.0	0.0	0.0	0.0	0.0
Bank levy	0.0	0.0	1.2	2.3	2.5	2.4	2.3
Licence fee receipts	3.0	3.1	3.1	3.1	3.1	3.2	3.2
Environmental levies	0.5	0.6	1.8	2.0	2.6	3.0	3.4
Other taxes	5.3	5.3	5.4	5.9	7.8	8.1	8.3
National Accounts taxes	**490.3**	**526.7**	**561.5**	**593.1**	**629.4**	**665.6**	**699.3**
Less own resources contribution to EU budget	-3.8	-4.9	-4.9	-5.0	-5.2	-5.4	-5.5
Interest and dividends	3.5	3.8	4.7	6.2	7.8	9.6	11.5
Gross operating surplus	23.6	23.8	24.9	26.0	27.1	28.3	29.5
Other receipts	0.1	0.2	0.1	0.0	0.0	-0.1	-0.1
Current receipts	**513.8**	**549.7**	**586.2**	**620.3**	**659.1**	**698.0**	**734.6**
Memo:							
Current receipts (% of GDP)	*36.6*	*37.1*	*37.8*	*38.1*	*38.3*	*38.4*	*38.3*
UK oil and gas revenues[5]	*6.5*	*9.1*	*9.8*	*9.4*	*8.6*	*8.6*	*7.7*

[1] *Income tax includes PAYE and Self Assessment receipts, and also includes tax on savings income and other minor income tax components.*

[2] *National Accounts measure, gross of enhanced and payable tax credits.*

[3] *Includes enhanced company tax credits.*

[4] *Consists of landfill tax, climate change levy, aggregates levy, betting and gaming duties and customs duties and levies.*

[5] *Consists of offshore corporation tax and petroleum revenue tax.*

Table 4.7: Changes to the current receipts since June forecast

	£ billion						
	Outturn	Forecasts					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Income tax (gross of tax credits)[1]	-0.7	0.6	0.8	0.1	-0.7	-0.1	0.0
of which: Pay as you earn	*0.0*	*0.5*	*2.1*	*1.9*	*1.3*	*0.7*	*0.6*
Self assessment	*0.0*	*-1.3*	*-0.6*	*-0.8*	*-0.9*	*-0.2*	*-0.3*
Tax credits (negative income tax)	0.0	0.3	1.4	1.7	1.6	1.5	1.5
National insurance contributions	0.0	-0.2	-0.4	-0.6	-0.6	-0.9	-1.0
Value added tax	0.4	1.5	3.2	3.7	4.3	4.9	5.7
Corporation tax[2]	0.1	0.2	-1.2	-3.0	-3.8	-4.3	-5.3
of which: Onshore	*0.1*	*0.1*	*-1.1*	*-1.9*	*-2.0*	*-2.8*	*-3.4*
Offshore	*0.0*	*0.1*	*-0.2*	*-1.1*	*-1.8*	*-1.5*	*-1.9*
Corporation tax credits[3]	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Petroleum revenue tax	0.0	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1
Fuel duties	0.0	0.4	0.4	0.4	0.3	0.4	0.3
Business rates	-0.6	-0.8	-0.1	0.3	0.2	0.0	-0.6
Council tax	-0.1	0.0	0.1	0.1	0.7	0.7	0.9
VAT refunds	0.0	0.1	1.4	-0.3	-0.5	-0.6	-0.7
Capital gains tax	0.0	0.1	-0.1	0.0	0.1	0.1	0.2
Inheritance tax	0.0	0.5	0.4	0.4	0.4	0.4	0.4
Stamp duty land tax	0.0	0.2	-0.8	-1.4	-1.9	-2.0	-2.0
Stamp taxes on shares	0.1	0.0	0.2	0.3	0.4	0.5	0.5
Tobacco duties	0.0	0.0	-0.2	0.0	0.0	0.0	0.0
Spirits duties	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Wine duties	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Beer and cider duties	0.0	0.0	0.1	0.1	0.1	0.2	0.2
Air passenger duty	0.0	-0.1	-0.3	-0.3	-0.3	-0.2	-0.2
Insurance premium tax	0.0	0.0	0.0	0.1	0.1	0.1	0.2
Other HMRC taxes[4]	0.0	0.1	0.2	0.2	0.1	0.1	0.1
Vehicle excise duties	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2
Temporary bank payroll tax	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Bank levy	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Licence fee receipts	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.3
Environmental levies	0.0	-0.1	0.0	0.0	-0.1	-0.2	-0.3
Other taxes	-0.1	-0.2	-0.4	-0.5	-0.5	-0.3	-0.5
National Accounts taxes	**-0.7**	**3.5**	**3.9**	**0.7**	**-0.6**	**-0.5**	**-1.6**
Less own resources contribution to	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
Interest and dividends	0.0	-0.6	-0.8	-1.4	-1.2	-0.8	-0.1
Gross operating surplus	-0.3	-0.9	-1.0	-1.0	-0.9	-0.8	-0.7
Other receipts	0.2	0.1	0.1	0.1	0.0	0.1	0.1
Current receipts	**-0.9**	**2.0**	**2.0**	**-1.6**	**-2.7**	**-2.1**	**-2.4**
Memo:							
Current receipts (% of GDP)	*0.1*	*-0.1*	*-0.1*	*-0.3*	*-0.4*	*-0.4*	*-0.4*
UK oil and gas revenues[5]	*0.0*	*-0.2*	*-0.4*	*-1.2*	*-1.9*	*-1.5*	*-2.0*

[1] *Income tax includes PAYE and Self Assessment receipts, and also includes tax on savings income and other minor income tax components.*

[2] *National Accounts measure, gross of enhanced and payable tax credits.*

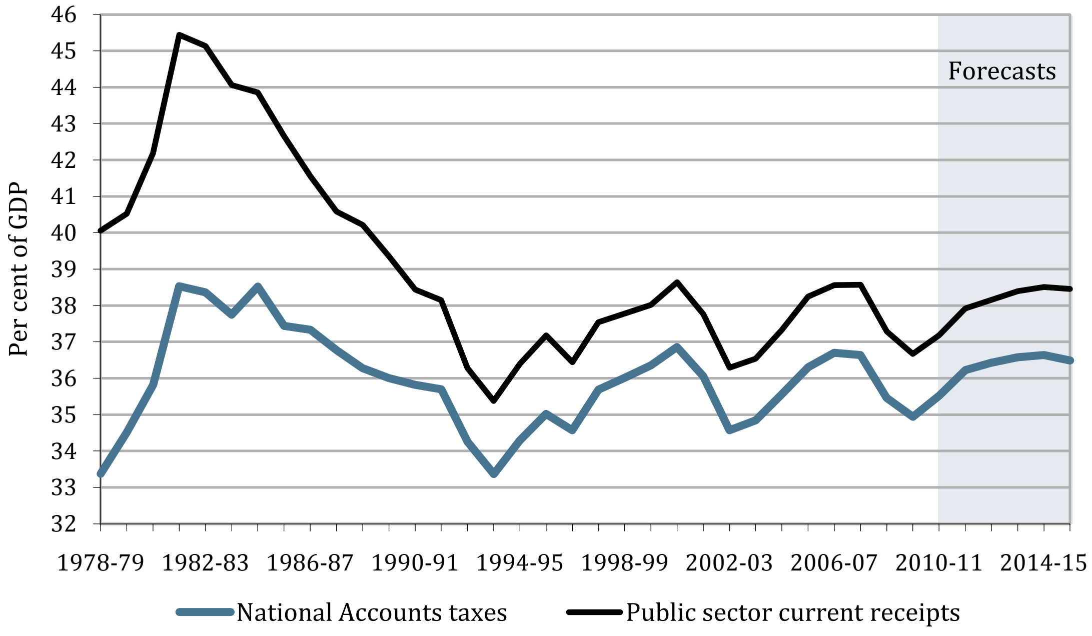
[3] *Includes enhanced company tax credits.*

[4] *Consists of landfill tax, climate change levy, aggregates levy, betting and gaming duties and customs duties and levies.*

[5] *Consists of offshore corporation tax and petroleum revenue tax.*

4.40 Chart 4.3 shows public sector receipts as a share of national income. Two measures are presented, both of which are on an accrued rather than cash basis. This is the main difference between these measures and the net taxes and NICs measure, which is on a cash basis. National Accounts taxes show total public sector tax receipts, as defined in the National Accounts, on an accrued basis. Public sector current receipts (PSCR) additionally includes non-tax receipts such as interest and dividend receipts and the gross operating surplus of public corporations. In the early part of the series, PSCR is much higher than National Accounts taxes due to the significant gross operating surpluses of nationalised industries. After the privatisation programme of the 1980s and early 1990s the contribution of gross operating surpluses has diminished and the two series have tracked each other very closely. The forecast shows tax receipts rising as a share of national income. This is driven primarily by the impact of the policy measures introduced since Budget 2008 aimed at consolidating the public finances.

Chart 4.3: Receipts as a percentage of GDP



Source: ONS Statistical Bulletins; OBR

Tax by tax analysis

4.41 This section explains our forecast of the main public sector receipts and sets out the reasons for changes from the OBR's June Budget forecast. For the first time, we provide tables for each of the major taxes containing a breakdown of the key drivers of changes from the previous forecast.

Income tax and national insurance contributions

4.42 Income tax and national insurance contributions (NICs) in 2010-11 are expected to be £0.4 billion above their June Budget projection, with higher PAYE and NIC receipts offsetting weaker receipts from self-assessment. The key judgments for the PAYE and NICs forecast for 2010-11 are the projection for financial sector bonuses and the extent to which the stronger growth in employment and the gradual pick up in private sector earnings growth recorded since June increases tax receipts. At this point in the year, there is substantial uncertainty around the level of 2010-11 bonus awards. Our assumption is that financial sector bonuses grow by 5 per cent in 2010-11, in line with the growth in financial sector profits. This is lower than the June assumption of 10 per cent growth, reflecting the reduction in the forecast for financial sector profits in 2010-11.

4.43 As Table 4.8 shows, the November forecast assumes that some of the tax impact from higher wage and salary growth is offset by a lower effective tax rate on those wages and salaries. This is broadly consistent with the rise in employment being primarily in part-time jobs, where earnings are likely to be subject to lower effective tax rates. Relative to the June Budget, the PAYE forecast has also been reduced by the effect from the Spending Review measure on increasing public service pension contributions, which lowers taxable income.

Table 4.8: Key changes to IT and NICs since June forecast

	£ billion					
	Forecasts					
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
June forecast	249.0	259.0	277.2	297.4	318.2	338.2
November forecast	249.5	259.4	276.8	296.2	317.2	337.2
Change	**0.4**	**0.3**	**-0.5**	**-1.3**	**-1.0**	**-1.0**
of which:						
Wages and salaries	2.7	2.6	2.6	2.5	2.3	2.1
Lower PAYE/NIC receipts for given level of wages and salaries	-2.0	-2.0	-2.0	-2.1	-2.2	-2.2
Impact of Spending Review measures	0.0	0.0	-0.3	-0.6	-0.7	-0.7
Lower interest rates[1]	-0.2	-0.6	-1.0	-1.2	-1.1	-0.8
Composition of self assessment	-0.8	-0.4	-0.4	-0.1	0.2	0.4

[1] *Impact on tax deducted at source from savings income and self assessment receipts from saving.*

4.44 Growth in PAYE and NIC receipts is held back throughout the forecast period by growth in wages and salaries that is below overall growth in nominal GDP. Employment levels are assumed to be flat in 2011-12 with growth thereafter, while earnings growth is assumed to remain subdued in the near-term, before gradually rising towards its trend rate by 2014-15.

4.45 Self assessment receipts are expected to fall further in 2010-11. They relate to 2009-10 liabilities and incomes which are expected to be lower than in the previous year. The 2010-11 estimate has been revised down in light of a lower ONS outturn for self-employment income for 2009-10 and updated data that indicates that savings and dividend income are a greater proportion of self assessment liabilities than previously thought. Both these income components fell sharply during 2009-10. Self assessment receipts are then expected to grow sharply over the rest of the forecast period. This reflects a recovery in both savings and dividend income, as well as the effect of policy changes such as the 50 per cent rate of income tax and the pension tax relief reforms.

4.46 Tax deducted at source from savings income in 2010-11 is expected to be less than half its 2008-09 level. With interest rates expected to be lower for longer than previously assumed, the forecast for tax on savings income is over £0.5 billion lower in each year from 2012-13 onwards, compared with the June Budget forecast.

VAT

4.47 VAT receipts are expected to grow by 15 per cent in 2010-11 and by a further 16 per cent in 2011-12, primarily reflecting the reversal of the temporary reduction in VAT in January 2010 and the rise in the standard rate of VAT to 20 per cent from January 2011. Growth in 2010-11 is also driven by the recovery in nominal consumer spending and a rise in the proportion of consumer spending subject to the standard rate of VAT. Consumer durables, which are likely to be standard-rated, are likely to show strong growth this year in part from the bringing forward of spending ahead of the January 2011 rate rise.

Table 4.9: Key changes to VAT since June forecast

	£ billion					
	Forecasts					
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
June forecast	83.4	96.9	99.9	103.5	107.6	111.9
November forecast	84.9	100.1	103.6	107.8	112.5	117.6
Change	**1.5**	**3.2**	**3.7**	**4.3**	**4.9**	**5.7**
of which:						
Nominal consumer spending	0.7	1.4	1.1	1.0	1.0	1.0
Standard rated share of consumer spending	0.2	0.5	0.6	0.8	1.1	1.6
Government element of the VAT base	0.0	0.8	1.1	1.3	1.4	1.7
Exempt sector assumptions	0.4	1.2	1.3	1.7	1.8	1.9
Housing investment	0.2	0.3	0.2	0.1	0.2	0.1
Litigation cases	0.6	-0.3	0.0	0.0	0.0	0.0
VAT gap	-0.6	-0.5	-0.5	-0.5	-0.5	-0.6

4.48 Table 4.9 shows that VAT receipts on an accrued basis are expected to be £1.5 billion higher in 2010-11 than projected in the June Budget forecast. This reflects stronger nominal consumer spending, the result of both a pick up in real growth and higher inflation. There are also revisions to the estimate and the profile for repayments relating to claims for over-declared or under-claimed VAT for tax periods before May 1997 following the judicial ruling in the Fleming and Condé Nast case. While decisions are still expected to be made in 2010-11, allowance has been made for the lag between decision and payment and for any cases where negotiations with taxpayers are ongoing, both of which are assumed to push some repayments into early 2011-12.

4.49 In 2010-11, the VAT gap (the difference between the theoretical level of VAT liability and actual receipts) is expected to be broadly unchanged from 2009-10, although there is considerable uncertainty around contemporaneous estimates of the gap. Movements in the VAT gap have recently been strongly related to movements in VAT debt. This rose sharply during 2008-09, but then fell in 2009-10 as less new VAT debt was created and firms repaid debts built up during the recession. We expect a small decline in the contribution of debt to the VAT gap in 2011-12, with the gap flat in percentage terms thereafter.

4.50 Growth in VAT receipts from 2012-13 onwards is expected to average around 4 per cent a year, slower than the growth in overall output. This reflects slow growth in the consumer and government elements of the VAT tax base. However, relative to the June Budget projection, growth from 2012-13 is stronger than previously expected and explains why the increase in VAT receipts compared with the June Budget rises over time. The government element of the VAT tax base is stronger following the Spending Review welfare reform announcements, which meant that DEL totals are higher than the implied DEL levels in the June Budget.

4.51 We have also reassessed the exempt sector spending projections in light of revised historical data indicating that it is a higher proportion of the VAT tax base than previously thought. The exempt sector, of which around half is financial and insurance companies, do not charge VAT on final products, but cannot claim back the VAT incurred from buying business inputs to produce these exempt products. These businesses thus incur 'stuck VAT'. In the June forecast exempt sector spending was assumed to fall relative to GDP. Based on the latest data we are now assuming that exempt sector spending will grow in line with money GDP, which together with the revised data pushes up overall VAT receipts from this sector.

Corporation tax

Table 4.10: Key changes to corporation tax since June forecast

	£ billion					
	Forecasts					
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
June forecast	35.7	38.4	42.1	45.2	48.3	51.4
November forecast	35.8	37.3	40.2	43.1	45.4	48.0
Change	**0.1**	**-1.1**	**-1.9**	**-2.0**	**-2.8**	**-3.4**
of which:						
Industrial and commercial profits	0.0	0.0	0.0	0.0	0.1	0.1
Financial company profits	0.3	0.2	0.0	-0.3	-0.6	-0.9
Equity prices	0.2	0.6	0.5	0.4	0.3	0.3
Impact of receipts data	-0.6	-2.6	-2.7	-2.8	-3.0	-3.3

4.52 Onshore corporation tax receipts are expected to grow by 16 per cent in 2010-11, following a 25 per cent fall in the previous two years. The strong growth in receipts in 2010-11 reflects the ending of the enhanced capital allowances measure for 2009-10 and the fact that last year was depressed by high repayments as loss-making firms carried back losses against recently paid tax relating to previous years' liabilities. Receipts in 2010-11 have also been boosted by the resumption of profit growth. Our intention ahead of the March Budget is to look more closely at the methodology used to forecast profits and deductions and in particular at the forecast implications of how losses that arose in the recession are set against profits.

4.53 Table 4.10 shows that, compared with the OBR's June Budget forecast, onshore corporation tax receipts are expected to be £0.1 billion higher in 2010-11. However, receipts relating to current year liabilities are lower than expected, with the shortfall offset by higher than anticipated receipts relating to liabilities from previous years. The weaker receipts relating to current year liabilities have a knock-on effect on future years, with receipts around £2 billion a year lower than in the OBR's June Budget forecast for this reason.

4.54 Growth in onshore corporation tax is likely to be modest in 2011-12 since 2010-11 has been boosted by payments relating to previous years liabilities which are assumed to be one-offs. Thereafter, onshore corporation tax is expected to grow more strongly than the overall economy, reflecting the rise in the non-oil, non-financial profit share as the economy rebalances towards investment and exports. This helps offset the effect from the June Budget measures and the 2009 Pre-Budget Report Patent Box measure.

4.55 As set out in paragraph 4.21, financial sector profits are expected to grow broadly in line with nominal GDP. This leaves financial sector corporation tax receipts below their 2006-07 peak even by the end of the forecast horizon.

UK oil and gas revenues

4.56 UK oil and gas revenues from offshore corporation tax and petroleum revenue tax are expected to rise by around 40 per cent in 2010-11 to £9.1 billion. This primarily reflects an $18 per barrel rise in the oil price compared with last year and an upturn in gas prices. This more than offsets the effect of a decline in production and higher capital expenditure by the industry.

Table 4.11: Key changes to UK oil and gas revenues since June forecast

	£ billion					
	Forecast					
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
June forecast	9.4	10.2	10.6	10.5	10.1	9.7
November forecast	9.1	9.8	9.4	8.6	8.6	7.7
Change	**-0.2**	**-0.4**	**-1.2**	**-1.9**	**-1.5**	**-2.0**
of which:						
Dollar oil prices	0.3	0.5	0.3	0.1	-0.1	-0.1
$/£ exchange rate	-0.6	-1.2	-1.2	-1.1	-1.1	-1.1
Production and expenditure	0.1	0.1	-0.4	-0.8	-0.4	-0.6

4.57 The path for dollar oil prices over the forecast period is derived from futures prices. These are higher by around $3 per barrel in 2011 than in the June Budget forecast, although by 2015 prices are down by $2 a barrel. However, the appreciation in sterling against the dollar in recent months means that oil prices in sterling are lower than the June Budget from 2011 onwards. Largely as a result of this, we have revised down the projection for UK oil and gas revenues, with updated survey data from DECC also suggesting lower profits due to higher operating expenditure. With oil and gas production falling at an annual rate of around 5 per cent, UK oil and gas revenues decline gradually from their 2011-12 peak over the forecast period.

Box 4.1: Tax compliance in the receipts forecast

Forecasts for tax receipts do not generally include any explicit assumptions about changes in the level of tax compliance. For most taxes, an implicit level of compliance will be reflected in the current level of receipts. In most of the tax models, the current level of receipts will be projected forward using the most appropriate set of economic determinants. Effectively we are assuming that the level of compliance remains constant as a proportion of overall tax revenues. The one exception is the VAT forecast, where the forecast explicitly projects a VAT gap, the difference between the theoretical tax liability and actual receipts.

HMRC published a document in September on *Measuring Tax Gaps 2010* which indicates that the tax gap for HMRC taxes (the difference between tax collected and tax that should be collected) has been close to £40 billion in recent years.[a] Specific factors such as Missing Trader Intra-Community (MTIC) fraud and a rise in VAT debts during the economic downturn have affected compliance in particular years, but in general the tax gap has been broadly stable. This was achieved against a 2007 HMRC Spending Review settlement of a 4.9 per cent real reduction per year.

The Spending Review 2010 settlement for HMRC included overall resource savings of 15 per cent. This assumed 25 per cent efficiency savings and a £900 million investment to address the tax gap and tackle tax avoidance and evasion. This included measures to increase criminal prosecutions, tackle offshore evasion, extend HMRC's coverage of high risk areas and the greater use of debt collection agencies.

Inevitably there are always large uncertainties about the effects of both the efficiency savings and additional investment. As a result, we have not included the impact from either factor in the November forecast. If improvements in tax compliance do occur, receipts outturns would come in above what was implied by the economic determinants. At this point they would then be incorporated into the tax forecast. The same would apply in reverse if HMRC savings led to a loss of compliance yield for any tax.

[a] *Measuring Tax Gaps 2010,* HM Revenue & Customs, September 2010. Available at www.hmrc.gov.uk/stats/measuring-tax-gaps-2010.htm.pdf. Table 1.2 (p9) provides a breakdown of gaps for the main HMRC-administered taxes.

Taxes on capital

4.58 Capital gains tax (CGT) in 2010-11 will relate to gains made in 2009-10. CGT is particularly sensitive to changes in equity prices since financial assets account for around three-quarters of chargeable gains and it is the gain rather than the wholesale price that is taxed. With equity prices recovering through 2009-10, CGT is expected to raise £2.8 billion in 2010-11, up on the previous year but well below pre-crisis levels. Relative to the June Budget profile, the effect of a higher path for equity prices is offset by weaker residential property prices and transactions.

4.59 Inheritance tax receipts are expected to grow by around 11 per cent in 2010-11, partly as the pick-up in equity and housing markets recorded in the latter half of 2009 and 2010 feeds through with a lag. Housing accounts for around 50 per cent of assets in estates notified for probate, so the renewed weakness in house prices will weaken receipts in 2011-12, with receipts expected to be the same as in 2010-11.

4.60 The change in the judgments on both residential property prices and transactions in the November forecast have had a marked effect on the stamp duty land tax (SDLT) forecast. The SDLT forecast is around £2 billion below the OBR's June projection by 2015-16. With the median of independent forecasts suggesting a modest decline in house prices in the year to the final quarter of 2011, the house price level is around 8 per cent lower than previously assumed by the end of the forecast. This takes around £1 billion off the SDLT projection by 2015-16. The lower medium-term projection for residential property transactions explains a further £0.5 billion of the drop in SDLT receipts at the end of the forecast horizon. We still expect some growth in SDLT receipts in 2010-11 reflecting a small rise in residential property transactions and a continued upturn in the commercial property market. The path for equity prices is around 10 per cent higher from 2011-12 onwards, reflecting the higher starting point for the assumption. This is the main reason for a higher forecast for stamp duty on shares, up between £0.4 billion to £0.5 billion in the medium term.

Excise duties

4.61 Fuel duties are charged on a pence per litre basis, so will reflect the demand for fuel and the pre-announced duty rises. As such, the forecast includes the 0.76 pence per litre rise in fuel duty at the start of 2011 and the 1 pence per litre above-inflation increases planned in each April from 2011 to 2014. Fuel duty in 2010-11 is expected to be £0.4 billion above the OBR's June Budget forecast, with a similar surplus relative to June in future years. Expected improvements in the fuel efficiency of cars are likely to constrain receipts growth in the medium term.

4.62 The estimates for both alcohol and tobacco duties for 2010-11 are in line with the OBR's June Budget forecast. The main driver of growth in alcohol duty is the pre-announced 2 per cent above inflation rises in duty each year to 2014-15. A key assumption for the tobacco duty forecast is the trend in duty paid clearances. In contrast to the historical downward trend in tobacco consumption, duty paid clearances rose in 2009-10 reflecting the effect of the recession and sterling's weakening against the euro on travel abroad and so cross-border shopping. The November forecast uses a new equation linking duty paid clearances to real cigarette prices, the sterling/euro exchange rate and a declining trend. This suggests a larger than usual fall in duty-paid consumption in 2011-12 primarily as a result of the rise in real cigarette prices (in part because of the VAT rise to 20 per cent). This leads to a fall in tobacco duty that year. Over the rest of the forecast period, tobacco duties are expected to rise modestly as pre-announced duty rises of 2 per cent above inflation each year to 2014-15 compensate for the drop in duty paid clearances.

Other receipts

4.63 The council tax forecast includes the one-year freeze in 2011-12 announced in the Budget. For subsequent years, the forecast assumes that council tax rises by the three-year average of council tax rises prior to the freeze (i.e. 2008-09 to 2010-11).

The forecast also includes the Spending Review measure to reduce spending on council tax benefit by 10 per cent from 2013-14. This increases receipts by around £0.5 billion in the final three years of the forecast. Since changes to council tax are broadly balanced by changes to locally financed expenditure, they have little material impact on the current balance or net borrowing

4.64 VAT refunds to central and local government are fiscally neutral as receipts are offset by a positive AME accounting adjustment. The key determinants of the forecast are local government procurement and investment, and central government procurement. VAT refunds are expected to rise from the start of 2011 onwards, reflecting the increase in the standard rate of VAT, and then remain broadly flat.

4.65 Bank payroll tax was a one-off levy on 2009-10 bank bonuses. It accrues in 2010-11, reflecting the date the tax passed into law. The tax raised £3.5 billion, £1 billion more than expected at the June Budget.

4.66 TV licence fee receipts have been classified as a tax in National Accounts since 2006. The forecast reflects the longer freeze in the price of TV licences announced in October.

4.67 Environmental levies include receipts from renewable obligation certificates (ROCs) and new levies introduced by DECC such as the carbon reduction commitment, feed-in tariffs and social price support. The strong rise over the forecast period reflects increasing take up of the feed-in tariffs scheme and an expected rise in electricity generation from renewables, which will raise the level of receipts and spending through the renewables obligation. Some elements of the environmental levies forecast are fiscally neutral, and are balanced by spending within AME.

4.68 Interest and dividends receipts from the private sector and overseas are forecast to reach £11.5 billion by 2015-16. The main economic determinants of interest and dividend receipts are short-term interest rates, which are assumed to move in line with market expectations. The interest and dividend receipts forecast from 2010-11 onwards has fallen since the June Budget. This is largely due to a lower forecast for the path of interest rates, partly offset by increased accrued interest on student loans.

4.69 Other taxes and levies collected by HMRC are shown in Table 4.6. These include customs duties, landfill tax, betting and gaming levies, aggregates levy and the climate change levy. Forecasts for the individual HMRC taxes are set out in the OBR's supplementary tables available on our website. Other non-HMRC taxes are also shown in Table 4.6. These include rail franchise premia and receipts from the National Lottery Distribution Fund.

Expenditure

4.70 Table 4.14 sets out our central projections for total public sector expenditure. This is presented on the basis of Total Managed Expenditure (TME), which is split into Departmental Expenditure Limits (DEL) and Annually Managed Expenditure (AME) components. Table 4.15 sets out the changes in these projections since the June Budget. Further breakdowns of spending including allocations across subsectors and economic categories are included in the OBR's supplementary tables available on our website.

4.71 DEL consists of expenditure by Government departments that is subject to fixed multi-year plans set at the Spending Review. AME is spending that is not subject to multi-year plans because it is considered to be demand led and therefore more volatile than DEL. It primarily consists of transfer payments, such as social security, and items such as the Government's debt interest payments.

4.72 The OBR's forecast includes a detailed and updated AME forecast to 2015-16. Our forecast of expenditure for 2010-11 uses the latest Goverment plans for DEL, less a small reduction for an expected shortfall against these limits. The figures given for DEL plans from 2011-12 up to 2014-15 are exactly as set out in the Spending Review. Together the DEL plans and updated AME forecasts produce full forecasts of public sector capital expenditure (PSCE) and public sector gross investment (PSGI) to 2014-15. Beyond 2014-15 the figures for PSCE and PSGI are based on the Government's stated policy[4] that TME will grow in line with general inflation in the economy.

Changes to TME since the June Budget

4.73 Table 4.12 shows the changes in TME since the OBR's June Budget forecast. At the Spending Review, the Government announced policy measures that reduced AME spending in many areas and effectively used these savings to allow for higher DEL allocations. The costings for these AME policy measures were based on the economic assumptions and AME forecasts from the June Budget. These costings were certified by the OBR, and details of the methods for producing the costings were set out in the document *Spending Review 2010 policy costings*.[5] The latest costings have now been updated for the November forecast.

4.74 Overall, these changes left PSCE unchanged, and increased PSGI by about £2 billion a year, from 2011-12 to 2014-15. However within PSCE, the cuts in AME from the AME policy measures produced a switch to Resource DEL (RDEL) of up to £7 billion by 2014-15, in terms of the spending within RDEL that scores in PSCE.

[4] As stated in paragraph 1.37 of the June Budget document.

[5] *Spending Review 2010 policy costings*, HM Treasury, October 2010.

4.75 Some of the savings from the AME policy measures were also used by the Government at the Spending Review to create an AME margin. The Treasury stated in the Spending Review that the AME margin was a contingency against changes to the AME forecast. As the OBR produces a central forecast of all AME components we do not include the AME margin in our forecast.

4.76 Table 4.12 shows the effect of removing the AME margin and other changes to TME as a result of the OBR November forecast. The November forecast includes revised costings for the Spending Review AME measures, based on the revised economic determinants and AME projections in this latest OBR forecast. The Treasury's full table of revised policy costings, which we have certified, is shown in Annex A.

Table 4.12: Changes to Total Managed Expenditure since the June forecast

	£ billion					
	Forecast					
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
TME in June forecast	**696.8**	**699.8**	**711.0**	**722.0**	**737.5**	**757.5**
TME in November forecast	**698.2**	**703.7**	**711.3**	**719.3**	**733.0**	**752.9**
of which:						
Total DEL	379.2	371.8	371.9	373.8	373.9	381.2
Total AME	319.0	331.9	339.4	345.6	359.1	371.7
Total change in TME since June forecast	**1.4**	**3.8**	**0.3**	**-2.6**	**-4.5**	**-4.6**
of which:						
Change in TME in Spending Review 2010	-	**2.0**	**2.0**	**2.3**	**2.3**	-
of which:						
Increase in resource DEL [1]	-	-0.4	1.6	5.8	7.3	-
Increase in capital DEL	-	2.0	2.3	2.2	1.6	-
AME measures	-	-0.7	-3.8	-8.8	-10.6	-
Inclusion of AME margin [2]	-	1.0	2.0	3.0	4.0	-
Changes in OBR forecast compared to Spending Review	**1.4**	**1.8**	**-1.7**	**-4.9**	**-6.8**	**-4.6**
of which:						
Change in resource DEL [1,3]	-0.8	-	-	-	-	9.4
Change in capital DEL [3]	-	-	-	-	-	1.9
Recosting of Spending Review AME measures	-	0.0	0.1	0.8	0.9	-9.9
Removal of AME margin	-	-1.0	-2.0	-3.0	-4.0	-
Adjustment to remove Green Investment Bank transactions[4]	-	-	-	-1.0	-	-
Forecasting changes to AME	2.2	2.9	0.2	-1.6	-3.7	-6.0

[1] *Resource DEL excluding depreciation and the costs of subsidised interest on student loans.*

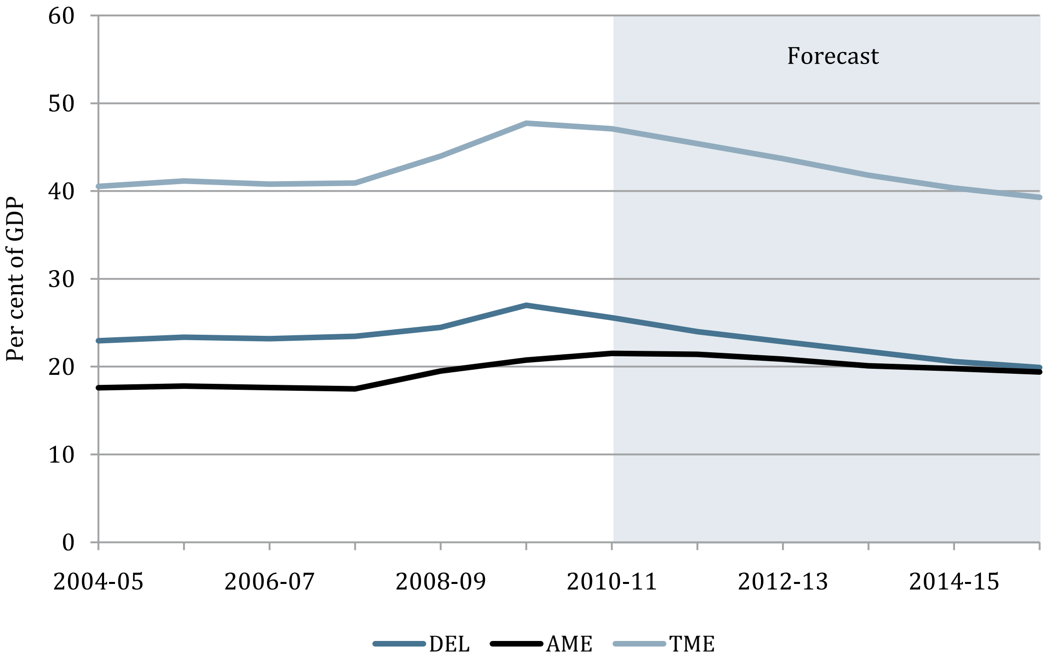
[2] *At the Spending Review the Government created an AME margin against the risk of changes to the AME forecast. As the OBR produces a central forecast of all AME components this AME margin was removed from the November AME forecast.*

[3] *Figures shown for 2015-16 are implied DELs, calculated by assuming that PSCE and PSGI remain constant in real terms.*

[4] *Green Investment Bank transactions are assumed to score as financial transactions, which do not score in TME*

4.77 The latest totals for DEL and AME and TME as a percentage of GDP are shown in Chart 4.4. TME rose through the recession to reach 47.7 per cent of GDP, primarily due to the sharp fall in GDP over this period. The projections show that TME is expected to decline over the projection period to 39.3 per cent of GDP by 2015-16 due to the Government's consolidation plans. Within TME, DEL is projected to fall to 19.9 per cent of GDP by 2015-16, compared with AME which reaches 19.4 per cent of GDP.

Chart 4.4: Expenditure as a percentage of GDP



4.78 Table 4.13 shows outturn growth in central government expenditure in the first six months of 2010-11 compared with the same period in 2009-10, and the implied growth rate needed in the second half of the year to meet the November forecast for the full year.

4.79 Debt interest payments in 2009-10 were heavily affected by the unusual patterns in RPI growth, including a period of negative RPI growth. This drove down the levels recorded in the first half of the year compared to the second half. 2010-11 is subject to a much smoother RPI path and so this effect is not seen in spending levels. As a result of the 2009-10 pattern, growth is expected to be much lower in the second half of 2010-11 than in the first half.

4.80 The growth rates for net social benefits and other current expenditure are expected to be different in the second half of this year, compared to last year, because of differences in payment profiles on winter fuel payments, affecting social security spending, and payments to the EU, where more payments have been made earlier this year than last.

Table 4.13: Central government expenditure in 2010-11

	Spending in 2010-11, £ billion			Percentage change on 2009-10		
	Outturn	Forecast		Outturn	Forecast	
	Apr-Sep	Oct-Mar	Full Year	Apr-Sep	Oct-Mar	Full Year
Total current expenditure	**300.3**	**304.9**	**605.2**	**6.8**	**4.2**	**5.4**
of which:						
Net social benefits	85.2	88.3	173.5	3.4	4.2	3.8
Debt interest	21.6	21.1	42.7	80.0	11.3	38.0
Other	193.5	195.5	389.0	3.6	3.4	3.5
Total net investment	**16.3**	**23.2**	**39.5**	**-22.4**	**-23.4**	**-23.0**
Depreciation	**3.6**	**3.6**	**7.2**	**5.9**	**7.0**	**6.5**

Departmental expenditure limits

4.81 As stated above, the figures shown for total resource DEL and capital DEL for 2011-12 to 2014-15 in this forecast are exactly the same as published in the Spending Review. The Government has said that TME will be held flat in real terms between 2014-15 and 2015-16. Given our AME projections, this implies a fall in real DEL of 1.3 per cent, bringing the total real cut from its peak in 2009-10 to 9.9 per cent. Consistent with the approach taken by the interim OBR in June, our figures for implied RDEL and CDEL in 2015-16 are based on the assumption that PSCE and PSGI both remain flat in real terms in 2015-16.

4.82 As the economic forecast requires government spending to be allocated to different economic categories, we have to make assumptions about the split of overall RDEL and CDEL between these categories. As departments have not yet set out their detailed plans to show how their DELs will be allocated to particular types of spending, we have assumed that spending from 2011-12 onwards will follow the same economic distribution as in their plans for 2010-11. We have then applied that distribution to DEL allocations in the Spending Review. Within these economic allocations, our assumptions on departments' paybill growths are consistent with the forecast for general government employment (see Box 3.7), which is also based on DEL settlements.

Table 4.14: Total Managed Expenditure

	£ billion						
	Outturn	**Forecast**					
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
CURRENT EXPENDITURE							
Resource Departmental Expenditure Limits [1]	**334.9**	**342.2**	**342.7**	**344.4**	**348.9**	**348.0**	**352.8**
Resource Annually Managed Expenditure	**266.0**	**293.2**	**308.3**	**317.0**	**323.3**	**336.5**	**350.2**
of which:							
Social security benefits [2]	163.5	169.3	174.5	177.0	176.5	181.2	188.1
Tax credits [2]	22.9	24.1	25.6	26.5	26.3	26.4	26.9
Net public service pensions [3]	3.2	4.3	5.1	5.3	5.2	5.9	7.0
National Lottery	1.0	0.9	1.1	0.9	0.8	0.8	0.8
BBC domestic services	3.5	3.4	3.6	3.5	3.7	3.5	3.6
Other departmental expenditure	0.0	-0.6	1.5	2.3	2.6	2.6	2.7
Net expenditure transfers to EU institutions	6.4	8.4	8.8	8.4	9.2	10.1	8.3
Locally-financed expenditure	25.7	26.7	27.2	28.7	30.2	31.5	32.4
Central government gross debt interest	30.9	42.7	44.0	48.6	53.5	58.9	63.1
Accounting adjustments	8.9	13.9	16.9	15.6	15.2	15.6	17.3
Public sector current expenditure	**600.9**	**635.4**	**651.0**	**661.3**	**672.2**	**684.5**	**703.0**
CAPITAL EXPENDITURE							
Capital Departmental Expenditure Limits [1]	**57.0**	**51.4**	**43.5**	**41.8**	**39.2**	**40.2**	**42.7**
Capital Annually Managed Expenditure	**12.0**	**11.4**	**9.2**	**8.1**	**7.9**	**8.3**	**7.1**
of which:							
National Lottery	0.8	1.0	0.6	0.6	0.6	0.6	0.6
Locally financed expenditure	6.8	6.5	5.4	5.0	4.6	4.1	3.3
Public corporations' own-financed capital expenditure	7.9	7.7	7.5	7.4	7.4	7.7	7.3
Central government grants to public sector banks	7.3	0.0	0.0	0.0	0.0	0.0	0.0
Other capital expenditure	-1.4	2.0	1.4	1.2	1.5	1.5	1.5
Accounting adjustments	-9.3	-5.8	-5.8	-6.1	-6.2	-5.6	-5.7
Public sector gross investment	**69.0**	**62.8**	**52.7**	**49.9**	**47.1**	**48.5**	**49.8**
Less public sector depreciation	-19.5	-20.5	-21.8	-22.8	-23.8	-24.7	-25.7
Public sector net investment	**49.4**	**42.3**	**30.9**	**27.1**	**23.4**	**23.8**	**24.1**
TOTAL MANAGED EXPENDITURE [4]	**669.8**	**698.2**	**703.7**	**711.3**	**719.3**	**733.0**	**752.9**
of which:							
Annually Managed Expenditure [5]	*291.1*	*319.0*	*331.9*	*339.4*	*345.6*	*359.1*	*371.7*
Departmental Expenditure Limits [6]	*378.8*	*379.2*	*371.8*	*371.9*	*373.8*	*373.9*	*381.2*
of which: removal of depreciation in RDEL	*-13.1*	*-14.3*	*-14.3*	*-14.3*	*-14.3*	*-14.3*	*-14.3*
Memo:							
Total Managed Expenditure (% GDP)	*47.7*	*47.1*	*45.4*	*43.7*	*41.8*	*40.4*	*39.3*

[1] *Implied DEL numbers for 2015-16. Calculated as the difference between Resource AME and PSCE in the case of Resource DEL, and between Capital AME and PSNI in the case of Capital DEL.*

[2] *For 2009-10 to 2011-12, child allowances in Income Support and Jobseeker's Allowance have been included in tax credits and excluded from social security benefits.*

[3] *Net public service pensions expenditure is reported on a National Accounts basis.*

[4] *TME is equal to the sum of PSCE, PSNI and public sector depreciation, on a basis which excludes temporary effects of financial interventions.*

[5] *Total AME is given by resource AME plus capital AME plus depreciation in DEL.*

[6] *Total DEL is given by resource DEL plus capital DEL minus depreciation in DEL.*

Table 4.15: Changes to Total Managed Expenditure since June forecast

	Changes since June forecast (£ billion)						
	Outturn	Forecast					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
CURRENT EXPENDITURE							
Resource Departmental Expenditure Limits [1]	**0.1**	**-0.5**	**-0.5**	**3.0**	**7.7**	**10.4**	**12.9**
Resource Annually Managed Expenditure	**0.2**	**-1.4**	**0.4**	**-6.1**	**-14.1**	**-18.6**	**-21.2**
of which:							
Social security benefits [2]	-0.2	0.0	0.3	-1.2	-4.3	-5.4	-6.3
Tax credits [2]	0.0	0.2	0.8	1.2	0.4	-0.7	-1.6
Net public service pensions [3]	0.1	0.3	0.0	-0.4	-2.1	-3.0	-3.4
National Lottery	0.1	0.0	0.3	-0.1	0.1	0.1	0.1
BBC domestic services	0.0	-0.3	-0.2	-0.5	-0.4	-0.7	-0.8
Other departmental expenditure	0.0	-0.1	-0.6	0.3	0.6	0.6	0.6
Net expenditure transfers to EU institutions	0.0	0.1	0.5	0.1	-0.1	-0.2	-0.4
Locally-financed expenditure	-0.8	-0.8	0.2	0.6	0.8	0.9	0.7
Central government gross debt interest	0.0	-0.6	-2.5	-3.7	-4.3	-4.1	-3.4
Accounting adjustments	0.9	-0.2	1.5	-2.5	-5.0	-6.2	-6.7
Public sector current expenditure	**0.3**	**-1.9**	**-0.1**	**-3.2**	**-6.4**	**-8.2**	**-8.4**
CAPITAL EXPENDITURE							
Capital Departmental Expenditure Limits[1]	**0.4**	**-0.3**	**2.0**	**2.3**	**2.2**	**1.6**	**1.9**
Capital Annually Managed Expenditure	**-0.1**	**3.6**	**1.9**	**1.2**	**1.6**	**2.1**	**1.9**
of which:							
National Lottery	-0.2	0.1	0.0	0.0	0.0	0.0	0.0
Locally financed expenditure	0.4	1.1	0.6	0.4	0.2	-0.3	-0.3
Public corporations' own-financed capital expenditure	0.3	0.3	0.2	0.1	0.1	0.4	0.1
Central government grants to public sector banks	2.6	0.0	0.0	0.0	0.0	0.0	0.0
Other capital expenditure	-2.7	-0.1	-0.2	-0.3	-0.1	-0.1	-0.1
Accounting adjustments	-0.5	2.2	1.4	1.1	1.3	2.1	2.2
Public sector gross investment	**0.3**	**3.4**	**3.9**	**3.4**	**3.8**	**3.7**	**3.8**
Less public sector depreciation	0.1	0.0	-0.2	-0.3	-0.4	-0.4	-0.5
Public sector net investment	**0.4**	**3.4**	**3.7**	**3.1**	**3.4**	**3.2**	**3.3**
TOTAL MANAGED EXPENDITURE [4]	**0.6**	**1.4**	**3.8**	**0.3**	**-2.6**	**-4.5**	**-4.6**
of which:							
Annually Managed Expenditure [5]	-0.2	2.2	2.3	-5.0	-12.6	-16.5	-19.3
Departmental Expenditure Limits [6]	0.7	-0.8	1.6	5.2	9.9	12.0	14.7
of which: removal of depreciation in RDEL	*0.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Memo:							
Total Managed Expenditure (% GDP)	*0.2*	*-0.2*	*-0.1*	*-0.2*	*-0.4*	*-0.6*	*-0.5*

[1] Implied DEL numbers for 2015-16. Calculated as the difference between Resource AME and PSCE in the case of Resource DEL, and between Capital AME and PSNI in the case of Capital DEL.

[2] For 2009-10 to 2011-12, child allowances in Income Support and Jobseeker's Allowance have been included in tax credits and excluded from social security benefits.

[3] Net public service pensions expenditure is reported on a National Accounts basis.

[4] TME is equal to the sum of PSCE, PSNI and public sector depreciation, on a basis which excludes temporary effects of financial interventions.

[5] Total AME is given by resource AME plus capital AME plus depreciation in DEL.

[6] Total DEL is given by resource DEL plus capital DEL minus depreciation in DEL.

Annually managed expenditure

4.83 Table 4.14 sets out the latest projections of AME spending to 2015-16, based on the latest economic determinants in this forecast, and also reflecting latest estimates of agreed policy commitments not yet in force, including the recosted Spending Review policy measures. The revised costings of the Spending Review measures are shown in Annex A.

4.84 The AME projections are subject to considerable uncertainty in relation to their key economic determinants. For example, the path of claimant count unemployment is critical for the social security forecast, and debt interest payments depend heavily on interest rates. The AME forecasts in Table 4.14 are in each case the central projection and there are significant uncertainties and risks attached to the main AME components. In this section we provide more detailed analysis of the evolution of the AME forecast and explain the changes since the OBR's June Budget forecast. For the first time, for the main elements of AME we include tables breaking down the changes since June.

Social Security

4.85 The main components of the social security forecast have been produced on our behalf by the Department of Work and Pensions (DWP), using their detailed models for each individual benefit. The social security AME row also includes forecasts of child benefit produced by HMRC, and forecasts for the relatively small amount of social security spending by other departments. All these forecasts are based on the economic determinants in our central economic forecast, and on central judgements that we have agreed with DWP and HMRC on the various other factors affecting the level of benefit receipt. Our approach to forecasting the impact of changes in DWP spending on levels of benefit fraud and take-up is consistent with the approach to HMRC tax compliance, set out in Box 4.1. A detailed breakdown showing forecasts for the main components of social security is included in the OBR's supplementary tables available on our website.

4.86 The key determinants of the social security forecast are claimant count unemployment, CPI and average earnings. From 2011-12 onwards CPI is the index of inflation used to uprate most working-age benefits and the state second pension. The basic state pension will be uprated in line with the 'triple guarantee', which is the maximum of three measures: the 2.5 per cent flat minimum increase, average earnings, or the CPI.

Table 4.16: Key changes to social security since June forecast

	£ billion					
	Forecast					
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
June forecast	169.3	174.2	178.2	180.8	186.5	194.4
November forecast	169.3	174.5	177.0	176.5	181.2	188.1
Change	**0.0**	**0.3**	**-1.2**	**-4.3**	**-5.4**	**-6.3**
of which:						
Change in DWP benefit payments[1]	**-0.1**	**0.2**	**-0.7**	**-1.9**	**-2.8**	**-3.6**
of which:						
Changes in economic determinants	-0.2	0.4	1.1	1.1	1.1	1.0
of which:						
Unemployment	-0.2	0.1	0.1	0.2	0.2	0.1
Inflation	0.0	0.3	0.9	0.9	0.9	0.9
Other forecasting changes	0.1	-0.1	-0.5	-0.4	-0.9	-1.5
of which:						
ESA assumptions	-0.5	-0.8	-0.9	-0.6	-1.2	-1.6
JSA	0.1	-0.5	-0.8	-1.0	-1.0	-0.9
Pension Credit	0.3	0.5	0.5	0.6	0.7	1.0
Other	0.2	0.8	0.7	0.6	0.6	0.0
Spending Review Measures	0.0	-0.1	-1.3	-2.6	-3.0	-3.1
Change in HMRC child benefit	**0.0**	**0.1**	**-0.5**	**-2.4**	**-2.5**	**-2.6**
of which:						
Changes in economic determinants	0.0	0.1	0.1	0.1	0.1	0.1
Spending Review Measures	0.0	0.0	-0.6	-2.5	-2.6	-2.7
Changes in other social security spending	**0.0**	**0.0**	**0.1**	**0.0**	**-0.1**	**-0.1**

[1] For 2010-11 and 2011-12, child allowances in Income Support and Jobseeker's Allowance have been included in tax credits and excluded from social security benefits.

4.87 Social security spending rose rapidly in 2008-09 and 2009-10, growing by 8 per cent in real terms in 2009-10, driven by the significant increase in claimant count unemployment, and above-inflation uprating of benefits. This upward trend in social security spending has now stopped. As a result of the forecast fall in claimant count unemployment, the revisions to the forecast described below, and the June Budget and Spending Review policy measures, DWP spending on benefits is forecast to fall by an annual average of 0.4 per cent in real terms over the five years to 2015-16.

4.88 The changes to DWP's forecast are accounted for by changes to economic determinants and also changes in key modelling assumptions and other modelling methodology. The effects of the changes are summarised in Table 4.16.

4.89 Table 4.16 shows that the effect of the slightly higher forecast for claimant count unemployment adds a small amount to spending from 2011-12 onwards. Higher CPI inflation in September 2010 and September 2011 adds £0.3 billion to spending in 2011-12 and almost £1 billion a year in every subsequent year. Other forecasting changes together reduce spending but, until 2015-16, are outweighed by the effects of changes in the economic determinants. The main forecasting changes affect employment and support allowance (ESA), jobseeker's allowance (JSA), pension credit and state retirement pensions (SRP).

4.90 The changes to the forecast for ESA reflect significant changes in the assumptions relating to the impact of the Work Capability Assessment. We are now assuming more claimants are found fit for work than previously. This reflects latest ESA data, whereas in June there was insufficient data available on the new allowance and the assumptions were based on incapacity benefit data. Movements in these assumptions produce large changes in forecast spending, and these assumptions may well change again in future forecasts as further new data become available, for instance on future claimants who will migrate over to ESA from incapacity benefit.

4.91 The changes to JSA spending mainly correct a double-counting error introduced in June. In the process of compiling this forecast we realised that the effects of some policy measures which are expected to lead to an increase claimant count unemployment as more claimants move off other benefits were in effect being double-counted in the June forecast of JSA spending.

4.92 The changes to the modelling of pension credit and the state pension reflect improvements in the assumptions on current and future inflows onto pension credit, and deferrals of state pension, particularly by women. The pension credit changes arise partly from better taking account of the exact ages when people aged under 65 claim, and how this interacts with the rising qualifying age. They are also influenced by higher claim volumes from people aged 65 or over, which had previously been assumed to be more sensitive to changes in the relative uprating of pension credit and other benefits and income sources. The state pension changes result in greater spending on lump sum payments, as a higher proportion of those deferring their claim are receiving lump sums. Both of these changes in modelling assumptions reflect trends observed in latest data.

Tax credits

4.93 The child and working tax credits forecast has been produced on our behalf by HMRC on the basis of our central economic forecast and agreed judgements and methodology. The key economic determinants of the forecast are CPI inflation, average earnings, and claimant count unemployment.

4.94 Total child and working tax credits expenditure rises through the forecast period. This increase is less strong than forecast in June, partly because of savings from policy measures introduced in the Spending Review, and partly because of changes to HMRC's methodology that are described further below. Table 4.17 summarises the changes to the tax credits forecast since June.

4.95 Where recipients do not pay tax, all their tax credits are classified as AME spending, but where the recipient pays some tax, the amount of tax credit that serves to offset all or some of the tax paid is classified as negative tax and any remaining amount scores as AME. Overall, negative tax credits account for some 15 to 20 per cent of total tax credit payments. This percentage has fallen as a result of changes in this November forecast, largely because the June Budget policy measures on tax credits mainly affected higher-earning taxpayers, and this has only fed through to the forecast now.

Table 4.17: Key changes to tax credits since June forecast

	£ billion					
	Forecast					
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
June forecast	29.7	30.9	31.2	31.8	33.0	34.4
November forecast	29.6	30.3	30.8	30.6	30.8	31.4
Change[1, 2]	**-0.1**	**-0.6**	**-0.5**	**-1.1**	**-2.2**	**-3.0**
of which:						
SR policy measures	0.0	-0.3	-0.8	-0.9	-1.3	-1.3
Changes in economic determinants	0.0	0.0	0.2	0.1	0.1	0.1
Changes in methodology and modelling assumptions	-0.1	-0.2	0.1	-0.4	-1.1	-1.8
of which:						
Modelling assumptions on earnings growth	0.0	0.0	0.0	0.0	-0.7	-1.5
Childcare costs	-0.2	-0.3	-0.5	-0.6	-0.7	-0.7
Composition of tax credits: working tax credits	0.0	0.2	0.3	0.4	0.4	0.5
Other	0.0	-0.1	0.3	-0.2	-0.1	-0.1

[1] *This table shows changes to total tax credits. Tax credits are split between current receipts and AME current spending, and the changes are split as follows:*

Changes to tax credits treated as AME spending	*0.2*	*0.8*	*1.2*	*0.4*	*-0.7*	*-1.6*
Changes to tax credits treated as negative tax	*-0.3*	*-1.4*	*-1.7*	*-1.6*	*-1.5*	*-1.5*

[2] *For 2010-11 and 2011-12, child allowances in Income Support and Jobseekers' Allowance have been included in tax credits and excluded from social security benefits.*

4.96 Apart from the effects from policy measures, the main changes to the forecast of total tax credits reflect improvements in methodology and modelling assumptions. Improvements have been made in three areas: earnings growth, childcare costs, and the composition of tax credits. Of these, the change in the earnings growth assumption corrects for an error in the June Budget, where the earnings growth assumption used in the forecast in 2014-15 and 2015-16 was not fully in line with the OBR economic assumptions. Correcting this meant that more tax credit recipients would have higher earnings growth, reducing their entitlement to tax credits. This reduces the forecast by £0.7 billion in 2014-15, and by £1.5 billion in 2015-16.

4.97 The forecast has been reduced to reflect recent HMRC analysis which has demonstrated that recent growth in childcare costs shows a strong correlation with average earnings, and that the increase in childcare caseloads has moderated from previous levels.

4.98 The numbers of households receiving working tax credit but not child tax credits has been increasing more quickly than the numbers receiving other tax credits in the last few years. We have agreed that the assumptions for this caseload growth should be increased to reflect the recent growth rates.

Public service pensions

4.99 The net public service pensions expenditure forecast is measured on a National Accounts basis, and measures benefits paid less contributions received by central government pay-as-you go public service pension schemes. This excludes the locally administered Police and Firefighters' pension schemes, which are included in the 'other departmental expenditure' category, and the funded Local Government Pension Scheme. A breakdown for the major schemes covered is included in the OBR's supplementary tables available on our website.

4.100 The gross expenditure forecast is based on the demographics of each individual pension scheme, both for existing pensioners and the current workforce. Gross expenditure rises steadily across the forecast period as the age profile of each scheme's membership changes, resulting in net increases in the pensioner population. The main economic determinant of gross expenditure on pensions is CPI inflation (RPI before 2011-12), which is used to uprate the level of benefits paid.

4.101 The income forecast for each pension scheme is essentially made up of the expected employer and employee pension contributions. The key assumption here is around the rate of growth in the wage bill of employees, which directly determines changes in the level of pension contributions. Our assumptions for each scheme are consistent with our overall assumptions on paybill growth, which underlie the forecast for general government employment (see Box 3.7), which take into account the departmental DEL settlements announced in the Spending Review. These were larger than the implied DEL figures used in the June Budget, and lead to the significant increase in receipts to pension schemes.

4.102 The forecast also includes an assumed increase in current contribution rates from 2012-13 onwards. This was announced as part of the Spending Review and is forecast to raise approximately £2.9 billion by 2015-16. This supersedes the £1 billion per year from the cap and share pension reforms announced at the 2009 Pre-Budget Report. This was already included in our June base forecast so the Spending Review measures line in the table below only shows the net impact of the new policy.

Table 4.18: Key changes to net public service pensions since June forecast

	£ billion					
	Forecast					
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Net public service pensions						
June forecast	4.0	5.1	5.8	7.3	8.9	10.3
November forecast	4.3	5.1	5.3	5.2	5.9	7.0
Change	**0.3**	**0.0**	**-0.4**	**-2.1**	**-3.0**	**-3.4**
Expenditure						
June forecast	25.4	26.8	28.3	29.9	31.3	32.9
November forecast	25.7	27.1	28.8	30.1	31.6	33.2
Change	**0.3**	**0.4**	**0.4**	**0.2**	**0.3**	**0.3**
of which:						
Economic determinants	0.0	0.0	0.2	0.1	0.2	0.2
Other	0.3	0.3	0.3	0.1	0.2	0.1
Receipts						
June forecast	-21.3	-21.6	-22.5	-22.5	-22.4	-22.6
November forecast	-21.3	-22.0	-23.4	-24.8	-25.7	-26.2
Change	**0.0**	**-0.3**	**-0.9**	**-2.3**	**-3.3**	**-3.6**
of which:						
SR contributions measure	0.0	0.0	-0.2	-1.3	-1.8	-1.9
Paybill growth	0.2	0.0	-0.4	-0.8	-1.3	-1.5
Other	-0.2	-0.3	-0.3	-0.2	-0.2	-0.2

EU contributions

4.103 This AME component includes the UK's GNI-based contribution, which is based on the relative income of each Member State, minus the UK's abatement. The abatement is however affected by the size of the VAT-based contribution, which scores as negative receipts in National Accounts, 'traditional own resources' (customs duties and some other levies) which have no direct impact on the public finances as they score as taxes paid directly to the EU and receipts from the EU which are mainly netted off DEL. A table showing full details of the UK's contribution is provided in the OBR's supplementary tables available on our website.

4.104 The 2011 EU budget has not yet been agreed. Until it is, the latest agreed amendment to the 2010 budget will be rolled over into 2011. The forecast assumes that agreement will eventually be reached to increase the budget by 2.9 per cent as proposed by the European Council, but initial contributions will be based on the zero-increase budget. This affects the timing of contributions between 2010-11 and 2011-12. Over the forecast period, the size of net expenditure transfers is forecast to increase from £8.4 billion in 2010-11 to £10.1 billion in 2014-15. This reflects planned increases in the EU budget and the 2005 agreement on the abatement, both of which were agreed at the 2007-2013 EU Budget negotiations. The decrease in the forecast seen in 2015-16 to £8.3 billion is as a result of the assumptions on the payment profile for longer-term EU projects. It is important to note that the forecasts for 2014-15 onwards are particularly uncertain as the budget envelope for 2014-20 has not been agreed.

4.105 The forecast for net expenditure transfers to EU institutions is based on a comprehensive and detailed analysis of the factors affecting the different types of contribution the UK makes to the EU. The model allows for different expenditure take-up assumptions for the first 15 members of the EU and the newer member states. New data published by the European Commission earlier in November shows that the new member states managed to take up much more of their allocation in 2008 than previously assumed and are now expected to reach the EU15 level of take up earlier than before. This will increase the UK contribution. A variety of other modelling and judgement changes have also been introduced since June. The largest is a change to the modelling of underspends. The combined effect of these modelling changes is to increase the UK contribution in AME in 2011-12 and 2012-13 but reduce it in later years. Apart from 2010-11, when a lower euro/sterling exchange rate increases the forecast, changes to economic determinants reduce the forecast in every year. In particular a higher than previously forecast level of EU trade leads to a large increase in the forecast for EU total own resource contributions, which in turn reduces the level of UK's GNI contribution.

4.106 The EU contributions forecast is subject to a number of upside and downside risks. These include the size of the EU budget for 2011 onwards, the impact of higher than expected GDP growth for the UK in 2010, the exchange rate, and the level of outstanding commitments yet to be paid.

Locally financed expenditure

4.107 Locally financed expenditure consists mainly of local authority self-financed expenditure (LASFE) and Scottish Government spending financed by local taxation. The main determinant of LASFE is council tax receipts. The forecast reflects the June Budget announcement to freeze council tax in 2011-12, and then reverts to the usual stylised method of projection for 2012-13 onwards, by applying the average of the thee most recent council tax increases (2008-09 to 2010-11) to future years. This approach is also applied to council tax receipts, so these assumptions are broadly neutral for the fiscal aggregates.

4.108 Other factors affecting current LASFE include local authorities' use of reserves and their interest receipts. Other factors affecting capital LASFE include private sector contributions to capital projects, use of capital receipts from asset sales and prudential borrowing for capital investment. All these factors are subject to significant uncertainties as they depend on decisions taken in individual local authorities.

4.109 Table 4.19 shows that the increase in current LASFE since June is mostly caused by the addition of Spending Review policy measures. The exception to this is 2010-11, where there is a larger than previously forecast amount of revenue used to finance capital spending. The current to capital switch is partly offset by a higher forecast drawdown of revenue reserves in future years.

4.110 The forecast of capital LASFE has increased significantly as a result of forecasting changes, partly as result of the switch from current LASFE mentioned in the previous paragraph. There is also an increase in the forecast for prudential borrowing by English local authorities and a decrease in the forecast of in-year asset sales. These changes are most significant in 2011-12 and 2012-13, reflecting revised data on asset prices and transactions.

Table 4.19: Key changes to locally financed expenditure since June forecast

	£ billion					
	Forecast					
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Current expenditure						
June forecast	27.6	27.0	28.1	29.4	30.5	31.7
November forecast	26.7	27.2	28.7	30.2	31.5	32.4
Change	**-0.8**	**0.2**	**0.6**	**0.8**	**0.9**	**0.7**
of which:						
SR policy measures	0.0	0.2	0.4	0.9	0.9	0.9
Forecasting change	-0.8	0.0	0.2	-0.1	0.0	-0.2
Capital expenditure						
June forecast	5.4	4.8	4.6	4.4	4.4	3.6
November forecast	6.5	5.4	5.0	4.6	4.1	3.3
Change	**1.1**	**0.6**	**0.4**	**0.2**	**-0.3**	**-0.3**
of which:						
SR policy measures	0.0	-0.5	-0.7	-0.6	-0.7	-0.5
Forecasting change	1.1	1.1	1.0	0.8	0.3	0.2

Debt interest

4.111 The key factors affecting the debt interest forecast are:

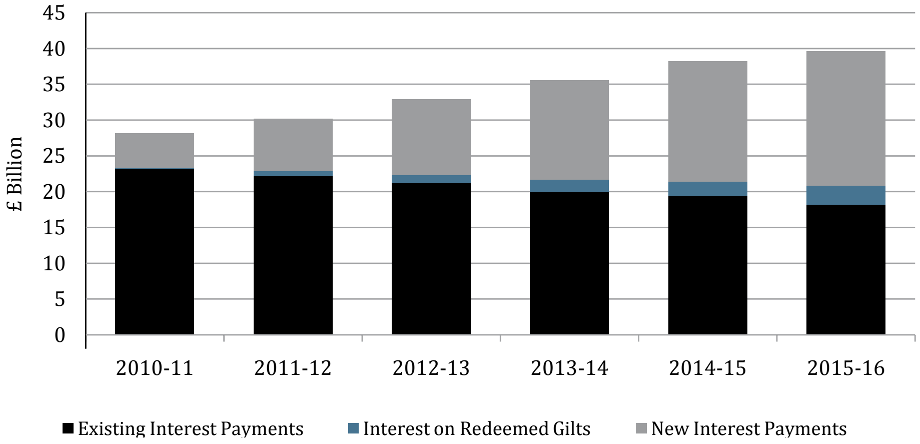
- the stock of outstanding debt;
- the size of the CGNCR over the forecast period;
- the size and nature of gilts redeeming over the forecast period;
- the forecast of the various debt interest rates;
- the RPI inflation forecast; and
- the mix of financing instruments expected to be used.

4.112 The forecast for the CGNCR is shown in Table 4.22 below. This reflects our forecast for CG net borrowing, consistent with our sectoral breakdown of public sector net borrowing, and also the forecast for the financial transactions which is described in the section below. The debt interest forecast is based on the Treasury's advice on the UK Debt Management Office (DMO) debt financing remit for 2010-11, revisions to which will be published on the same day as this forecast, and the projected mix of debt instruments for the remainder of the forecast period.

4.113 Debt interest payments on conventional gilts account for around two thirds of total central government debt interest costs. Debt interest costs on existing conventional gilts are fixed for the lifetime of the gilts. Payments on new issuance depend on the effective coupon rate at which they are issued and the level of issuance. This level of new gilt issuance in turn depends on the CGNCR, the profile of redemptions of existing gilts and the mix of financing instruments. Chart 4.5 shows the extent to which the debt interest forecast for conventional gilts is made up from the debt interest costs of existing gilts and from the forecast of payments on new issuance. The volatility of the debt interest forecast, and the scope for forecast error, are therefore limited by the level of conventional gilts already issued that have long maturities. Over the forecast period, 40 per cent of the whole debt interest forecast consists of static debt interest costs on existing gilts. The average maturity of UK gilts in issuance is 14 years.

4.114 Approximately 10 per cent of the debt interest forecast consists of payments and accrued uplift on index-linked gilts. The majority of these costs arise from the accruing value of the gilt which tracks RPI inflation. So movements in RPI inflation can have a significant impact on the debt interest forecast.

Chart 4.5: Existing and new debt interest payments on conventional gilts



4.115 The debt interest forecast uses a weighted average of short-, medium- and long-dated gilt rates, with the weights derived from the expected proportion of issuance in each maturity band. Interest rates are assumed to move in line with market expectations. As explained in paragraph 4.30, this forecast uses an average of interest rates taken over the 10 working days up to and including 22 November 2010. The debt interest forecast is subject to particular uncertainty around movements in gilt rates, and gilt rates have been particularly volatile in recent months. The interest rate assumptions in this forecast are on average 24 basis points[6] below the interest rate assumptions used in the June Budget, which has reduced the debt interest forecast by £1.3 billion by 2015-16.

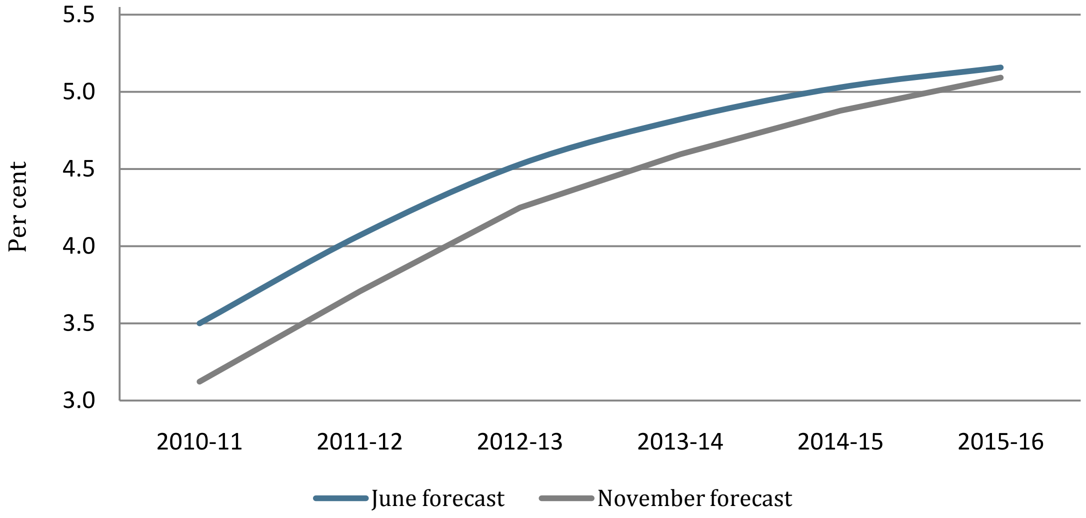
4.116 Table 4.20 shows the approximate effect of movements in interest rates, RPI inflation and the CGNCR, based on the latest debt interest forecast. These ready-reckoners are approximate and are particular to this forecast.

Table 4.20: Debt interest effect of movements in interest rates, RPI inflation and the CGNCR

	£ billion				
	2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**
1% increase in gilt rates	0.5	1.9	3.1	4.3	5.3
1% increase in short rates	0.9	1.0	1.0	1.0	1.1
1% increase in inflation	1.9	2.7	3.1	3.6	4.3
£5bn increase in CGNCR	0.1	0.3	0.5	0.8	1.0

Note all increases are assumed to continue throughout the forecast period.

Chart 4.6: Weighted average interest rate on conventional gilts



4.117 The following table shows the breakdown of changes in the debt interest forecast, compared to the June Budget. The largest change comes from the 24 basis point reduction in the average gilt rate. The change in the profile of RPI inflation over the forecast period increases debt interest on index-linked gilts over the next

[6] 100 basis points equal 1 per cent.

two years, but then reduces spending above the previous profile by the end of the forecast period. Debt interest on National Savings and Investments has been revised down by £1 billion by 2015-16, mainly due to the lower forecast of interest rates. Corrections to the profile for redemptions has reduced issuance in later years, thereby lowering debt interest costs by £0.7 billion by 2015-16. Profile adjustments include updates to the estimates of the size of future redemptions. A higher level of redemptions means that interest levels will fall as new gilts generally pay interest at lower rates than existing ones. An adjustment has been made to calibrate the growth profile with projections by the DMO.

Table 4.21: Key changes to debt interest since June forecast

	£ billion					
	Forecast					
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
June forecast	43.3	46.5	52.4	57.8	63.0	66.5
November forecast	42.7	44.0	48.6	53.5	58.9	63.1
Change	**-0.6**	**-2.5**	**-3.7**	**-4.3**	**-4.1**	**-3.4**
of which:						
Changes in determinants:						
Gilt rates	-0.1	-0.3	-0.8	-1.1	-1.2	-1.3
CGNCR	-0.2	-0.3	-0.3	-0.2	0.2	0.2
National Savings & Investments	-0.1	-0.7	-0.8	-0.6	-0.8	-1.0
RPI inflation	0.0	0.5	0.0	-0.4	0.0	0.4
Update in gilt auction price effects	-0.2	-0.7	-0.7	-0.7	-0.7	-0.7
Profile adjustments	0.0	-0.8	-0.7	-0.8	-1.1	-0.7
Other	0.0	-0.1	-0.4	-0.4	-0.4	-0.3

BBC

4.118 BBC expenditure is fiscally neutral as it is offset by licence fee receipts. The forecast for BBC expenditure has fallen since June primarily because of the licence fee freeze announced at the Spending Review.

Other departmental expenditure

4.119 Some of the spending traditionally included under this heading does not have any impact on National Accounts spending and is removed in accounting adjustments. The OBR intends to simplify the presentation of these items in future forecasts. The main items that do affect TME over the forecast period are:

- fees and losses associated with the financial interventions (see paragraph 4.125);
- the Housing Revenue Account (HRA) subsidy; and
- AME grants to local authorities, which are mainly payments to Police and Firefighters' pension schemes.

4.120 The HRA subsidy scheme was abolished from 2011-12 onwards as a Spending Review measure. It will be replaced by a devolved system of self-financing for council housing. The measure increases other departmental AME by £½ billion in 2011-12 and by increasing amounts in later years, rising to £1 billion in 2014-15, but these changes are broadly offset within locally financed spending and accounting adjustments.

4.121 The payments to Police and Firefighters' pension schemes are expected to be around £0.1 billion per year higher than in June.

Accounting adjustments

4.122 These accounting adjustments are necessary to reconcile the DEL and AME budgeting aggregates with the National Accounts definition of TME. They remove items that score in DEL and AME but not in TME and add in some items that should be included in TME.

4.123 The main change since June is for single-use military equipment (SUME) spending in 2010-11 which is included in CDEL but scores as current expenditure in National Accounts. SUME expenditure in 2010-11 is now expected to be £1.4 billion lower than in June, reducing overall PSCE but increasing gross investment by the same amount. There are similar reductions in SUME consistent with the Spending Review settlement in later years.

Financial interventions

4.124 Estimates of transactions related to the previous Government's interventions to stabilise the financial sector are included in the fiscal projections where they can be quantified with reasonable certainty. Therefore the projections include estimates of fee income from the Asset Protection Scheme (APS) and Credit Guarantee Scheme (CGS); interest and loan repayments from Northern Rock and Bradford & Bingley which can be forecast on the basis of published business plans, and interest payments to the Government on loans to the Financial Sector Compensation Scheme (FSCS). The projections do not include estimates of components which cannot be quantified at the current time, such as: the sale of shares in Royal Bank of Scotland (RBS) and Lloyds Banking Group (LBG); any potential loss payouts on the schemes; or the final net profit or loss position of the Special Liquidity Scheme.

4.125 The main change from the June forecast is that on the basis of latest estimates we are now able to include fee income from the APS for 2011-12 of £0.7 billion and 2012-13 of £0.3 billion, which score in AME as negative departmental expenditure. Changes to the loan repayment schedules for Bradford & Bingley score as financial transactions and so are discussed in the subsequent section. Box 4.2 sets out an estimate of the overall net direct impact on the public finances of these interventions.

Financial transactions

Table 4.22: Reconciliation of PSNB and CGNCR

	£ billion						
	Outturn	Forecast					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Public sector net borrowing	**156.0**	**148.5**	**117**	**91**	**60**	**35**	**18**
Financial transactions	33.2*	5.4	6	7	9	11	12
Accruals adjustments	14.3*	-4.5	3	-1	4	-4	-6
Public sector net cash requirement	**203.5***	**149.4**	**127**	**97**	**73**	**42**	**25**
minus Local authorities net cash requirement	5.0	6.1	5	3	1	1	0
minus Public corporations net cash requirement	0.8	2.9	5	6	5	6	2
Central government net cash requirement (o)	**197.7**	**140.4**	**117**	**88**	**67**	**35**	**23**
Net lending within the public sector	1.1	3.9	3	3	3	3	3
Central government net cash requirement	**198.8**	**144.2**	**120**	**91**	**70**	**39**	**27**

Note: Totals may not sum due to rounding. Own account measures are represented by (o).

* *OBR estimate in absence of published outturn*

4.126 The public sector net cash requirement (PSNCR) is the cash equivalent of public sector net borrowing. It is important for the fiscal projections as it drives the forecast of public sector net debt (PSND), which is a cash measure of the public sector's stock of net debt. The other important cash measure is the central government net cash requirement (CGNCR). This measures the cash required by central government to fund its operations, and forms the basis for the Government's net financing requirement.[7]

4.127 Table 4.22 shows the steps required to move from the PSNB to the PSNCR and CGNCR. The first step is to move from PSNB to PSNCR by including financial transactions, which represent the difference between the net borrowing aggregates and the cash measures. These transactions arise either from timing differences known as 'accruals adjustments' or from exchanges of financial assets involving cash:

- accruals adjustments arise because net borrowing is an accruals measure and so generally records a transaction when the economic impact takes place, rather than at the point of the cash transaction; and
- exchanges of financial assets involving cash (for example Government loans) score in the cash measures but do not score in PSNB, because they do not change the net liabilities position of the public sector.

[7] The Government is publishing a revised financing remit for 2010-11 alongside the November forecast. The OBR provides the Government with the forecast of the CGNCR for this purpose, but plays no further role in the derivation of the net financing requirement.

Box 4.2: Estimate of the direct impact of the interventions to stabilise the financial sector

The previous Government made a number of interventions to support the financial sector in 2008-09 and 2009-10. These included: establishing the Credit Guarantee Scheme and indemnifying the Bank of England's Special Liquidity Scheme; the recapitalisation of the Royal Bank of Scotland (RBS) and Lloyds Banking Group (LBG); taking Northern Rock and Bradford & Bingley into public ownership; providing support for depositors in London Scottish Bank plc, Dunfermline Building Society and Icelandic banks; and establishing the Asset Protection Scheme.

The eventual overall direct net cost or benefit to the taxpayer of these interventions is highly uncertain. It will depend on the extent of the recovery in the financial sector and on factors that are not possible to predict with any confidence, such as the final sale price of shares in RBS and LBG. We have certified Treasury methodologies to estimate a total net cost on the basis of current market prices and, where these are not available, on an assessment of the fees and losses associated with the interventions. Using latest market prices, this suggests an estimated eventual benefit to the taxpayer of £2 billion, including fees and other income. This is based on:

- the current market value of the Government's shareholdings in RBS and LBG implies a cost of £3 billion on these investments, net of the value of the Dividend Access Share in RBS and fees received during the capitalisation and for the provision of contingent capital;
- the Asset Protection Agency's (APA) central expectation, set out in its annual report in July 2010, that losses on the assets in the scheme will not exceed the first loss borne by RBS and consequently that there will be a net benefit to the taxpayer of at least £5 billion from the Asset Protection Scheme; and
- the expectation that the aggregate costs of all other interventions will not be material after fees, income and recoveries are taken into account.

This estimate is highly sensitive to movements in the share prices of RBS and LBG. For example, a 10 per cent fall or rise from current levels would reduce or increase the estimate by around £10 billion. It will also be sensitive to any future changes in the APA's expectation of losses on assets in the scheme and hence of the net benefit to the taxpayer from the APS.

The exposure of UK banks to Irish liabilities may affect this estimate. The Treasury updated its estimate of the market value of RBS and LBG using market prices on 24 November, so capturing the market's assessment at that point of this exposure. The estimate of potential losses from the Asset Protection Scheme was published in July before the recent developments. However, the APA's view is that these developments will not change its central expectation that there will be a net benefit to the taxpayer of at least £5 billion from the Asset Protection Scheme.

This estimate only reflects the potential direct costs and benefits of the interventions. It does not include the debt interest costs due to the additional Government borrowing necessary to fund the interventions. Nor does not it attempt to estimate the much wider impact of the financial crisis on the economy.

Paragraph 4.124 sets out how the transactions related to the financial sector interventions are treated in the November forecast.

4.128 The PSNCR measures the cash required by the public sector as a whole. As shown in Table 4.22, the cash requirements for local authorities (LANCR) and public corporations are removed from the PSNCR to produce an estimate of the cash required by the Government to fund its own operations – the CGNCR 'own account'. In addition, central government lends money to local authorities and public corporations. The adjustment for the net effect of this produces the CGNCR.

4.129 We use the following approach to forecast financial transactions:

- accruals adjustments are produced alongside the main forecasts of receipts and expenditure in particular as part of the forecast of debt interest payments;
- for regular exchanges of financial assets such as repayment of loans to the financial sector and student loans payments where enough is known about the size and timing of the transactions for the effects to be quantified, estimates based on the latest available information are included in the forecast; and
- where firm plans are not in place, potential exchanges of financial assets are not included in the forecast. For example, if the Government has indicated it wishes to sell a financial asset but the terms of sale have not been agreed the sale would not be included.

4.130 As Table 4.22 shows, in most years there is a reasonably stable relationship between PSNB and the CGNCR. They differed by much more than usual in 2008-09 and 2009-10, reflecting the cash implications of the interventions made by the previous Government to stabilise the financial system. Box 4.2 sets out an updated estimate of the overall costs of these interventions. There is also a more significant difference than usual in the two measures in 2011-12 and 2013-14, which is attributable to the redemption of index-linked gilts.

4.131 The major change to the forecast of financial transactions since the June Budget is the impact of the Government's announcement on higher education funding to the projections of the loans to students. Box 4.3 sets this out in more detail. There have also been some changes to the accruals adjustments relating to coupon payments on index-linked gilts, which are driven by the changes to the debt interest forecast set out in the expenditure section. We have also included a new profile for the repayments of loans to Bradford & Bingley based on the company's new business plan.

4.132 This forecast contains no estimate of the effect of any potential financial assistance package for Ireland, discussed by the Chancellor in his statement on 22 November. This is because, at the time the forecast was finalised, no final announcements had been made by the Government, so it was not possible to quantify the effects of any assistance package on the public finances. The OBR would include the effects of any announced financial assistance package in our next forecast, assuming the details are finalised.

4.133 Any financial assistance to Ireland could involve a number of mechanisms that could affect the UK public finances or expose them to financial risks. These include IMF lending, the European Financial Stability Mechanism (EFSM) and a direct bilateral loan. The UK is not involved in another potential part of a financial assistance package – the European Financial Stability Facility (EFSF) – and so would not be directly exposed to financial risk on that element of any assistance. The impact of any assistance package would be decided by the ONS but it is likely that a UK bilateral loan would raise the net cash requirement and net debt as it is disbursed. But, as it would be a financial transaction, it would normally have no direct impact on net borrowing. There would be indirect impacts through debt interest payments and receipts. Lending by the IMF and the EFSM are likely to have no impact on net debt. Any UK loans to the IMF to assist in financing IMF loans to Ireland would generally give rise to an asset likely to be counted as liquid, therefore netting off in net debt and leaving it unchanged. The EFSM, a mechanism involving lending by the European Commission, would have no direct affect on the fiscal aggregates. The UK would be implicitly exposed to a contingent liability if an EFSM loan defaulted, via the EU budget.

4.134 The EFSM is initially likely to be treated as a contingent liability in the National Accounts, which has no affect on the fiscal aggregates. Any bilateral loan, however, would raise the net cash requirement and net debt as it is disbursed.

Box 4.3: Higher education funding

In November 2009 Lord Browne was asked to lead an Independent Panel to review the funding of higher education.[a] In response to his review, the Government set out proposals in England for a basic threshold of tuition fees of £6,000 per annum as well as an absolute limit of £9,000 in exceptional circumstances for undergraduate courses with effect from the 2012-13 academic year. A White Paper covering these issues will be published by the Government this winter and it is proposed that legislation will be brought forward in due course. However, sufficient detail has been provided of the policy to enable an estimate of the effects to be quantified for this forecast in England. The Devolved Administrations will need to consider their own response to the Browne review.

The Spending Review announced a £2.9 billion real terms cut in overall funding for higher education by 2014-15, with direct grants substituted for higher fees funded by increased loans to students. This proposal will therefore increase the value of the loans that the Government makes to students to fund tuition fees. Such loans are classified in the public finances as a financial transaction. The additional cash needed to fund the loans, net of repayments, increases the Government's cash requirement (CGNCR) in any year and adds to the stock of public sector net debt (PSND), which is measured on a cash basis. However, financial transactions do not score directly in accrued measures of the deficit such as net borrowing, because the Government's overall net liability position has not changed.

For the November forecast the OBR has scrutinised and certified estimates of the additional loans that have been produced by the Department for Business, Innovation and Skills (BIS) for England. As the table shows, the impact on the CGNCR is estimated to reach £5.6 billion by 2015-16, cumulatively adding £13 billion to PSND over the forecast period.

Table a: Effects of student loans on CGNCR

	£ billion					
	Forecast					
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Student loans[1] (England)	**4.1**	**4.3**	**5.4**	**7.3**	**9.3**	**10.7**
of which:						
Effect of new policy	0.0	0.0	0.7	2.5	4.3	5.6

[1] Student Loans are net of repayment

The key assumptions that drive these estimates are: the level of average fees charged; the loan take-up rate; and the growth in overall student numbers.

For the purposes of these projections, BIS's central estimate of the average fees charged by English universities as a result of the proposals is £7,500. The upper bound to this is a full increase in fees across the board to £9,000 per annum. However, it is possible that many universities will charge fees between the current levels and the proposed upper bound. BIS estimate that 90 per cent of students will take up loans to fund these fees, which is a slight rise on the current level reflecting the higher fee rates.

For these projections student numbers are assumed to be broadly flat. BIS analysed the effects of the introduction of variable tuition fees in 2006-07[b] and found little evidence of a sustained fall in HE participation. However, there are uncertainties as the counterfactual of participation rates in the absence of the reforms is unknown. Institute for Fiscal Studies research[c] on the impact of variable tuition fees in 2006 found that increasing fees without increasing loans and/or grants by the same value or more will result in a negative impact on participation.

The proposed reforms to higher education tuition fees are also likely to have some effect on the rate of CPI inflation. This is discussed further in Chapter 3.

[a] *Securing a sustainable future for higher education funding and student finance*, 12 October 2010.

[b] BIS research paper Number 13: *The impact of 2006-7 HE finance reforms on HE participation*, September 2010.

[c] Press release: *Reforms to tuition fees and student support had no overall impact on the number of 18 or 19 year olds attending university in England*, Institute for Fiscal Studies, January 2010 (http://www.ifs.org.uk/publications/4726)

The key fiscal aggregates

4.135 Table 4.23 sets out our central forecast for the key fiscal aggregates, reflecting the preceding analysis of revenue and spending components.

Table 4.23: Fiscal aggregates

	Per cent of GDP						
	Outturn	Forecast					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Receipts and expenditure							
Public sector current receipts	36.6	37.1	37.8	38.1	38.3	38.4	38.3
Total managed expenditure	47.7	47.1	45.4	43.7	41.8	40.4	39.3
Deficit							
Surplus on current budget	-7.6	-7.2	-5.6	-3.9	-2.1	-0.6	0.3
Public sector net borrowing	11.1	10.0	7.6	5.6	3.5	1.9	1.0
Cyclically-adjusted surplus on current budget	-5.3	-4.7	-3.3	-1.8	-0.5	0.5	0.9
Cyclically-adjusted net borrowing	8.8	7.6	5.3	3.5	1.9	0.8	0.3
Financing							
Central government net cash requirement	14.2	9.7	7.7	5.6	4.1	2.1	1.4
Public sector net cash requirement	9.6	9.2	7.8	5.7	4.5	2.6	1.6
Sustainability							
Public sector net debt[1]	53.5	60.8	66.3	69.1	69.7	68.8	67.2
Net worth[2]	13.8	7.9	3.2	-0.3	-2.0	-1.7	-0.4
Stability and Growth Pact							
Treaty deficit[3]	11.4	9.9	7.5	5.6	3.5	2.0	1.0
Cyclically-adjusted Treaty deficit[3]	9.1	7.5	5.2	3.5	1.9	0.8	0.4
Treaty debt ratio[4]	71.3	77.9	82.6	84.7	84.2	82.3	79.8
	£ billion						
Surplus on current budget	-106.6	-106.2	-87	-64	-37	-11	6
Net investment	49.4	42.3	31	27	23	24	24
Public sector net borrowing	156.0	148.5	117	91	60	35	18
Central government net cash requirement	198.8	144.2	120	91	70	39	27
Public sector net debt	772.0	922.9	1052	1157	1232	1284	1320

Note: All measures are shown on the basis which excludes the temporary effect of the financial interventions except the aggregates shown in the Financing and Stability and Growth Pact sections.

[1] *Debt at end March; GDP centred on end March.*

[2] *Estimate at end December; GDP centred on end December.*

[3] *General government net borrowing on a Maastricht basis.*

[4] *General government gross debt on a Maastricht basis.*

Net borrowing

Table 4.24: Components of net borrowing

	£ billion						
	Outturn		Forecast				
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Current budget							
Current receipts	513.8	549.7	586	620	659	698	735
Current expenditure	600.9	635.4	651	661	672	684	703
Depreciation	19.5	20.5	22	23	24	25	26
Surplus on current budget	**-106.6**	**-106.2**	**-87**	**-64**	**-37**	**-11**	**6**
Capital budget							
Gross investment[1]	69.0	62.8	53	50	47	49	50
Less Depreciation	-19.5	-20.5	-22	-23	-24	-25	-26
Net investment	49.4	42.3	31	27	23	24	24
Net borrowing	**156.0**	**148.5**	**117**	**91**	**60**	**35**	**18**

[1] *Net of asset sales.*

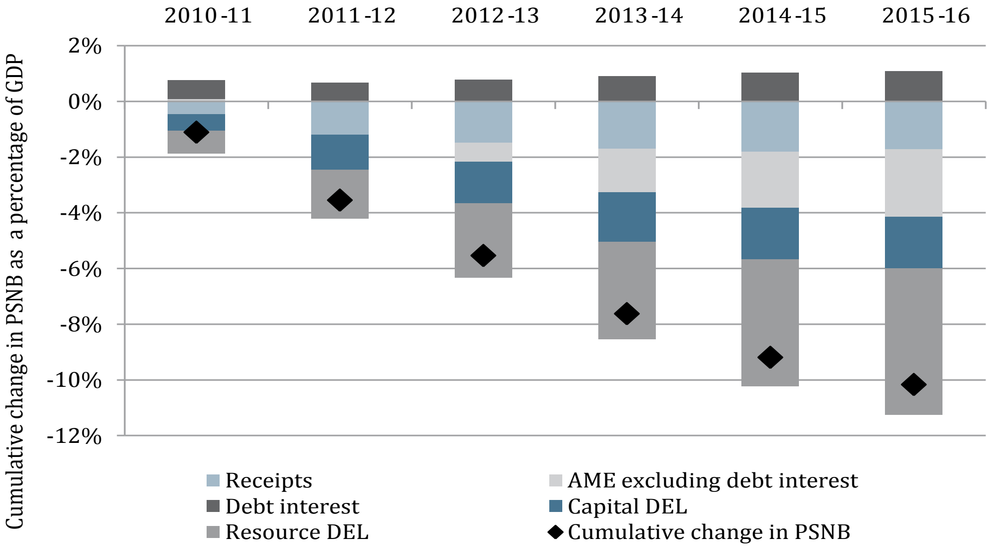
4.136 Public sector net borrowing (PSNB) represents the difference between total public sector expenditure and receipts on an accrued basis. Our central forecast is for PSNB to come in at £148.5 billion this year, £1 billion lower than the interim OBR forecast at the time of the June Budget. This is driven by our expectation that receipts from VAT in particular will be higher than expected in June, due to stronger-than-expected data private consumption so far this year. We also expect slightly lower current expenditure this year than forecast in June, primarily due to lower debt interest and local authority current spending. Evidence to date suggests a central forecast that there will be a slight underspend against DEL plans. Offsetting this we expect capital expenditure to be £3.4 billion higher than expected in June. This is primarily due to an increase in local authority capital expenditure and single-use military expenditure.

4.137 Public sector net borrowing is expected to decline from its peak of 11.1 per cent of GDP in 2009-10 to 10.0 per cent of GDP this year and to 1.0 per cent of GDP in 2015-16 as spending falls and receipts increase as shares of GDP. Total public sector spending is forecast to fall from 47.1 per cent of GDP this year to 39.3 per cent of GDP in 2015-16. Meanwhile total receipts are forecast to climb from 37.1 per cent this year to 38.4 per cent in 2014-15, before edging down fractionally in 2015-16.

4.138 Chart 4.7 shows the contributions of expenditure components and receipts as shares of GDP to the cumulative change in PSNB from 2009-10 onwards. The high borrowing levels during the early part of the period mean that debt interest rises rapidly as a share of GDP and although lower borrowing at the end of the period means that the share then flattens off, debt interest is still adding just over 1 per cent of GDP more to PSNB in 2015-16 than in 2009-10. The improvements to

PSNB come from receipts (just under 2 per cent of GDP), resource DEL excluding depreciation (around 5 per cent of GDP), capital DEL (around 2 per cent of GDP) and AME other than debt interest (around 2½ of GDP). Most of the AME improvement stems from lower social security spending.

Chart 4.7: Contributions to changes in PSNB



4.139 The overall expected path of PSNB in our central forecast is very similar to the June forecast, especially compared to the uncertainty that lies around all public finance forecasts. While at the aggregate level PSNB is very similar to June, this reflects the fact that the changes to receipts and spending described in the previous sections are broadly offsetting. The main changes are:

- the Spending Review decision to cut capital spending slightly less sharply than was planned in June raises borrowing in the medium term. The welfare spending cuts announced in the Spending Review were broadly used to reduce previous planned cuts to non-capital spending on public services. With updated AME costings and with the Government's AME margin removed from our projections, the overall effect of the Spending Review are to reduce borrowing in 2014-15 by around £1.5 billion.

- we expect receipts to be higher than previously forecast in the short term, especially VAT. But this will be offset in the medium-term by lower onshore corporation tax receipts and factors such as lower expected property prices, interest rates and oil prices. This leaves the receipts forecast in 2015-16 around £2.4 billion lower than the June forecast including the effect of measures; and

- current expenditure is expected to be lower in the medium term than looked likely in June, due to lower debt interest costs and a fall in expected net spending on public sector pensions. Changes to the forecast result in marginally higher capital expenditure than forecast in June.

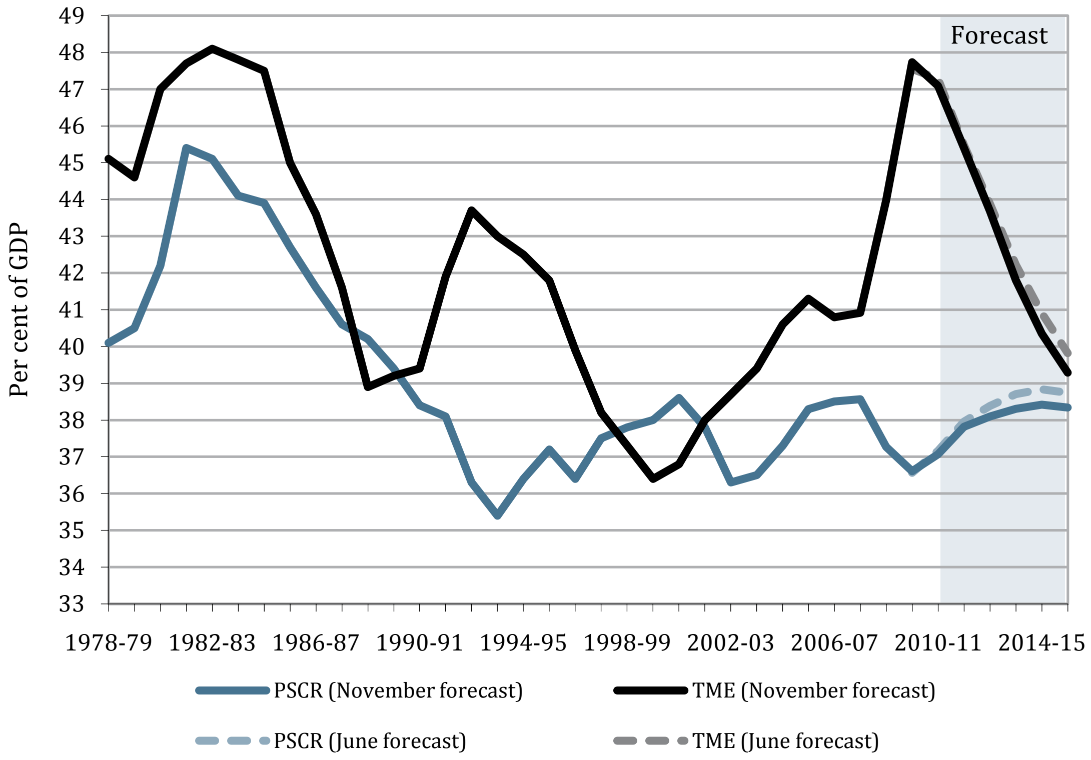
4.140 Overall, the combination of lower receipts, lower expenditure and the impact of the Spending Review decisions implies slightly lower levels of borrowing in the medium term compared to the June forecast. The impact of marginally lower borrowing in reducing future net debt levels is, however, largely offset by the likely impact of higher education reforms in increasing the stock of student loans.

4.141 Table 4.25 sets out an alternative presentation of the change in PSNB compared to the June Budget, split by the cyclical component, the impact of policy measures and other changes. The cyclical component captures changes driven by the change in our view of the output gap over the forecast period. As set out in Chapter 3, compared to June the output gap is narrower in 2010 before returning to close to the June level in 2012, and then narrowing marginally again compared to June in 2014 and 2015. A narrower output gap implies less of a given level of borrowing is cyclical. Therefore, the pattern of changes in the output gap in June is reflected in the pattern of lower cyclical borrowing compared to June. The changes in policy line reflects the impact of measures announced since June as set out in Table 4.4. In this forecast, other forecasting changes reflect non-cyclically driven increases in borrowing such as lower receipts driven by factors such as lower oil prices and house prices. This is gradually offset in the medium term by factors such as the fall in debt interest costs compared to June.

Table 4.25: Changes to public sector net borrowing since June forecast

	£ billion						
	Outturn	**Forecast**					
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
June forecast	154.7	149.1	116	89	60	37	20
November forecast	156.0	148.5	117	91	60	35	18
Change	**1.4**	**-0.6**	**1.8**	**1.9**	**0.1**	**-2.4**	**-2.2**
of which:							
Cyclical element of borrowing	0.5	-3.5	-2.7	-0.5	-0.9	-2.3	-2.7
Effect of measures	0.0	0.0	0.9	-0.1	-1.7	-1.5	0.7
Other forecasting changes	0.8	2.9	3.7	2.5	2.7	1.4	-0.1

Chart 4.8: Receipts and expenditure



Source: ONS Statistical Bulletins

Current budget

4.142 The surplus on the current budget is the difference between public sector current expenditure (PSCE) and receipts; in other words it is equal to PSNB excluding borrowing to finance investment. The current budget forecast moves from a deficit of 7.2 per cent GDP in 2010-11 to a surplus of 0.3 per cent GDP in 2015-16. The projected path of the current budget broadly mirrors that of net borrowing. The improvement is less sharp because the Government plans to cut capital spending more sharply than current spending over the forecast period. The current budget in 2015-16 is 0.3 per cent of GDP higher than in the June Budget forecast.

Cyclically-adjusted current budget

4.143 The Government's fiscal mandate is to achieve balance in the cyclically-adjusted current budget, currently by 2015-16. In the November forecast the cyclically-adjusted current budget rises from a deficit of - 4.7 per cent of GDP in 2010-11 to a surplus of 0.5 per cent of GDP in 2014-15 and 0.9 per cent of GDP in 2015-16. The improvement in the cyclically-adjusted current budget is less sharp than the improvement in the headline current balance. This is because part of the improvement in headline current budget is driven by the projected cyclical recovery in the economy, which does not affect the cyclically-adjusted aggregates.

4.144 The surplus on the cyclically-adjusted current budget is forecast to be 0.1 per cent GDP higher than in the June Budget. The improvement is less than in the headline measure of the current budget. This is because the output gap in 2015-16 is slightly narrower than in the June forecast, so a portion of the improvement in the headline current balance is cyclical rather than structural.

Net debt

4.145 The Government has a supplementary fiscal target for public sector net debt (PSND) as a percentage of GDP to be falling at a fixed date of 2015-16. In our latest forecast, PSND is projected to rise to a peak of 69.7 per cent of GDP in 2013-14 and then to fall to 68.8 per cent of GDP in 2014-15 and 67.2 per cent of GDP in 2015-16, lower by 0.1 per cent of GDP than projected in June. PSND as a share of GDP is measured by the total nominal stock of net debt over nominal GDP. This has fallen compared to June driven by two offsetting effects:

- there is a higher projected path for the public sector net cash requirement, (PSNCR) which drives the size of the nominal stock of debt. The PSNCR is higher due to the cost of increased loans to students as set out in Box 4.3. This acts to increase the level of nominal PSND; and

- this is offset by an increase in the level of nominal GDP, the denominator in the calculation of PSND as a share of GDP, which is higher by around £14 billion in 2015-16 than projected in June.

4.146 The peak in the Maastricht Treaty debt measure comes a year earlier than that for PSND and is significantly higher at almost 85 per cent of GDP. The higher level largely reflects the fact that this is a gross measure of indebtedness and therefore does not net off the value of the UK foreign exchange reserves and other financial assets.

4.147 Table 4.26 summarises the changes to our forecasts for the key fiscal aggregates since the interim OBR's June Budget forecast.

Table 4.26: Changes to the fiscal forecast

	Outturn			Forecast			
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Surplus on current budget (£ billion)							
June forecast	-105.6	-110.2	-88	-65	-40	-17	0
November forecast	-106.6	-106.2	-87	-64	-37	-11	6
Change	*-1.0*	*4.0*	*2*	*1*	*3*	*6*	*5*
Net investment (£ billion)							
June forecast	49.0	38.9	27	24	20	21	21
November forecast	49.4	42.3	31	27	23	24	24
Change	*0.4*	*3.4*	*4*	*3*	*3*	*3*	*3*
Net borrowing (£ billion)							
June forecast	154.7	149.1	116	89	60	37	20
November forecast	156.0	148.5	117	91	60	35	18
Change	*1.4*	*-0.6*	*2*	*2*	*0*	*-2*	*-2*
Net borrowing (per cent of GDP)							
June forecast	11.0	10.1	7.5	5.5	3.5	2.1	1.1
November forecast	11.1	10.0	7.6	5.6	3.5	1.9	1.0
Change	*0.1*	*-0.1*	*0.1*	*0.1*	*0.0*	*-0.1*	*-0.1*
Cyclically-adjusted surplus on current budget (per cent of GDP)							
June forecast	-5.3	-4.8	-3.2	-1.9	-0.7	0.3	0.8
November forecast	-5.3	-4.7	-3.3	-1.8	-0.5	0.5	0.9
Change	*0.0*	*0.1*	*0.0*	*0.1*	*0.1*	*0.2*	*0.1*
Cyclically-adjusted net borrowing (per cent of GDP)							
June forecast	8.7	7.4	5.0	3.4	1.8	0.8	0.3
November forecast	8.8	7.6	5.3	3.5	1.9	0.8	0.3
Change	*0.1*	*0.2*	*0.3*	*0.1*	*0.0*	*0.0*	*0.0*
Net debt (per cent of GDP)[1]							
June forecast	53.5	61.9	67.2	69.8	70.3	69.4	67.4
November forecast	53.5	60.8	66.3	69.1	69.7	68.8	67.2
Change	*0.0*	*-1.1*	*-0.9*	*-0.7*	*-0.7*	*-0.6*	*-0.1*

Note: Totals may not sum due to rounding.

[1] *Debt at end March; GDP centred on end March.*

5 Performance against the Government's fiscal objectives

5.1 The OBR is required by its terms of reference to judge whether the Government's announced policies give it a better than 50 per cent chance of achieving the medium-term fiscal mandate and supplementary target that it has set itself, and to assess the long-term sustainability of the public finances.

5.2 This chapter begins by examining whether our central forecast for the public finances is consistent with the Government's fiscal mandate and target (starting from paragraph 5.3). We then assess the sensitivity of this judgement to different possible developments in the economy (from paragraph 5.20). We then make a preliminary assessment of the long-term sustainability of the public finances (from paragraph 5.25), although we will return to this issue in more detail in our *Fiscal sustainability report* next summer. We then conclude (from paragraph 5.49).

The fiscal mandate and supplementary target

5.3 The June Budget set a fiscal mandate and a supplementary target to guide the Government's fiscal decisions over the medium term. The Government's fiscal mandate requires "cyclically-adjusted current balance by the end of the rolling, five year forecast period", which for the purposes of this forecast is in 2015–16. In other words, total public sector receipts need to exceed total public sector spending (minus spending on net investment) after adjusting for the temporary effect of any spare capacity in the economy. The Government supplemented this mandate with "a target for public sector net debt as a percentage of GDP to be falling at a fixed date of 2015-16."

The central forecast

5.4 Table 5.1 shows our central forecasts for the cyclically-adjusted budget balance and public sector net debt in each year to 2015–16, as set out in Chapter 4. These central forecasts are median forecasts, which means we think it equally likely that the eventual outturns will come in above them as below them.

Table 5.1: Performance against the mandate and supplementary target

Per cent of GDP		2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Cyclically-adjusted current budget balance	**November forecast**	-5.3	-4.7	-3.3	-1.8	-0.5	0.5	0.9
	June forecast	-5.3	-4.8	-3.2	-1.9	-0.7	0.3	0.8
Public sector net debt	**November forecast**	53.5	60.8	66.3	69.1	69.7	68.8	67.2
	June forecast	53.5	61.9	67.2	69.8	70.3	69.4	67.4

5.5 Table 5.1 shows that our central forecast is for the cyclically-adjusted current budget to be in surplus by 0.9 per cent of GDP in 2015–16. On this basis, we judge that on current policies the Government has a better than 50 per cent chance of achieving the mandate in 2015–16. Indeed, our central forecast also shows the cyclically-adjusted current budget in surplus by 0.5 per cent of GDP in 2014–15. This suggests a better than 50 per cent chance of achieving the mandate in that year too. Table 5.1 also shows that the surpluses forecast in these years are higher than those published by the interim OBR in June. This means that the Government has a slightly wider margin for error in meeting the mandate than appeared likely in June.

5.6 Turning to the Government's supplementary medium-term target, Table 5.1 shows that in our central forecast, public sector net debt (PSND) falls by 1.6 per cent of GDP between 2014–15 and 2015–16, from 68.8 per cent of GDP to 67.2 per cent of GDP. As these are median forecasts, we can once again say that on current policies we judge that the Government has a greater than 50 per cent chance of hitting the target. Indeed, our central forecast also shows public sector net debt falling in the previous year.

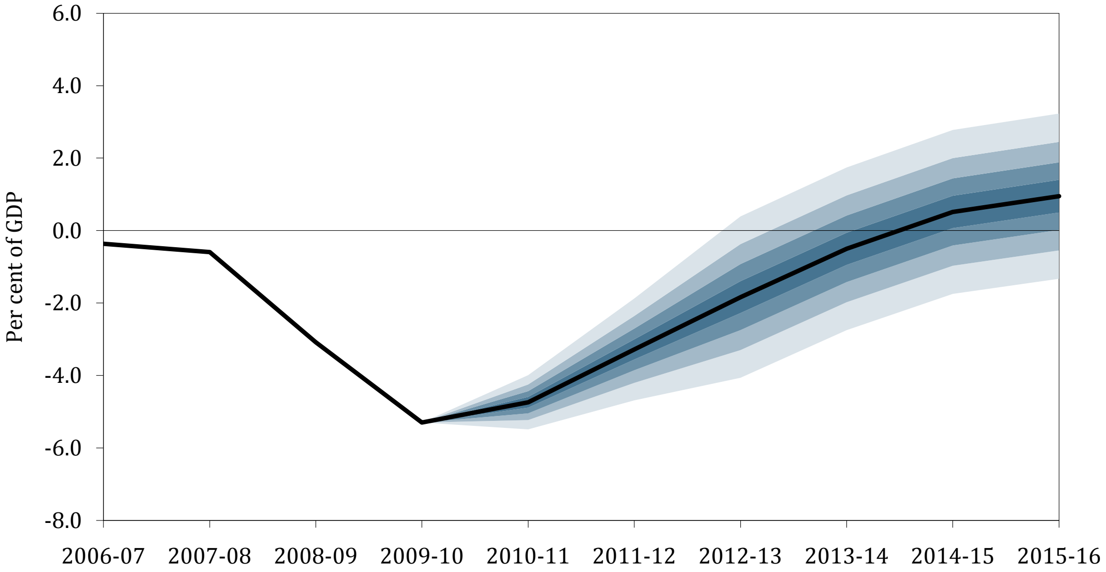
Uncertainty around the central forecast

5.7 As we discussed in Chapters 3 and 4, past experience and common sense suggest that our central forecasts for both the economy and the public finances are almost certain to be wrong and that there are upside and downside risks to both. So, to provide a useful guide to the Government's prospects of achieving its fiscal objectives, we supplement the conclusions we derive from our central forecasts with a discussion of the risks and uncertainties that lie around them and the implications these might have.

5.8 One relatively simple way to illustrate the uncertainty of our central forecast is to draw lessons from the accuracy of past official public finance forecasts. This can be illustrated through the use of fan charts like those we presented for GDP growth in Chapter 3 and public sector net borrowing (PSNB) in Chapter 4**.** These fan charts do not represent our view of the particular distribution of risks that we see to these central forecasts, but rather the outcomes that someone might anticipate if they had no prior expectations other than a belief (right or wrong) that our central forecast was likely to prove as accurate in future as Budget and Pre-Budget Report forecasts have in the past.

5.9 In this spirit, Chart 5.1 shows the probability distribution around our central forecast for the cyclically-adjusted current budget balance, based on past Treasury forecasting errors. The solid black line shows the median forecast, with the successive pairs of lighter shaded areas around it representing 10 per cent probability bands. This implies that there would be an 80 per cent probability of the outturn lying within the shaded bands on current policy.

Chart 5.1: Cyclically-adjusted current budget fan chart



5.10 We can see from the chart that, given past forecasting performance, our central forecast of a cyclically-adjusted current budget surplus of 0.9 per cent of GDP in 2015–16 implies that there is a roughly 70 per cent probability that there will be a surplus of any size in that year and that the Government's fiscal mandate would therefore be satisfied.

5.11 Illustrating the probability of achieving the supplementary target is more complicated, even using past forecasting errors. A probability distribution for levels of public sector net debt over the next few years does not translate straightforwardly into probabilities that the debt ratio will fall in a particular year. However, given our central forecast for economic growth and the path of net debt to 2014-15, PSND will fall as a percentage of GDP in 2015-16 if PSNB is less than 3 per cent in that year. Our central forecast implies that in 2015-16 there is a greater than 50 per cent probability that PSNB will be below 3 per cent.

Sensitivity analysis

5.12 It is very difficult in practice to produce a full subjective probability distribution for the Government's target fiscal variables, which are affected by a huge variety of economic and non-economic determinants. However, we can go further than using the lessons of past forecasting errors by quantifying roughly how sensitive our central forecast is to certain key economic parameters and by assessing the impact of specific economic scenarios like those outlined in Chapter 3.

5.13 In thinking about the evolution of the public finances over the medium term, there are several parameters that have a particularly important bearing on the forecast. In this section we focus on three:

- the current size of the output gap;
- the speed with which the output gap closes; and
- the interest rates that the Government has to pay on its debt.

5.14 Our central forecast is based on a judgement that the economy was running around 3¼ per cent below potential in the second quarter of 2010 and that there will be above-trend GDP growth over subsequent years, which would imply the negative output gap would close in 2016-17. But neither the current size of the output gap nor the pace of recovery are possible to estimate with any great confidence, not least because the former is not a variable that we can observe directly in the economic data. So what if the current output gap was larger or smaller than our central estimate, and what if the output gap closed earlier or later than our central estimates?

5.15 Tables 5.2 and 5.3 present illustrative estimates of the impact of these variants on: i) the level of the cyclically-adjusted current budget balance in 2015–16 and ii) the change in public sector net debt between 2014–15 and 2015–16. For practical reasons, we have not undertaken complete forecast runs for each variant, but have instead used ready-reckoners and simplifying assumptions to generate illustrative estimates. The cyclical adjustment ready-reckoner assumes that a 1 per cent change in GDP will result in a 0.7 per cent of GDP change in PSNB and the current surplus after two years. The actual change in the public finances would depend on the composition of any change to GDP. For this reason we also assume that the composition of growth remains as in our central forecast. While we note the limitations of these ready-reckoners, applying them yields the results shown in the table below.

Table 5.2: Cyclically-adjusted current budget balance in 2015–16

Per cent of GDP		Output gap closes				
		2012-13	2014-15	2016-17	2018-19	2020-21
Output gap in Q2 2010	-1.25	-0.5	-0.5	-0.5	-0.5	-0.5
	-2.25	0.2	0.2	0.2	0.2	0.2
	-3.25	0.9	0.9	0.9	0.9	0.9
	-4.25	1.7	1.7	1.7	1.7	1.6
	-5.25	2.4	2.4	2.4	2.4	2.4

Table 5.3: Change in public sector net debt between 2014–15 and 2015–16

Per cent of GDP		Output Gap Closes				
		2012-13	2014-15	2016-17	2018-19	2020-21
Output gap in Q2 2010	-1.25	-0.3	-0.4	-0.3	-0.2	-0.1
	-2.25	-0.9	-1.0	-0.9	-0.7	-0.5
	-3.25	-1.5	-1.8	-1.6	-0.9	-0.5
	-4.25	-2.2	-2.4	-2.2	-1.8	-1.2
	-5.25	-2.8	-3.1	-2.9	-2.5	-2.2

5.16 As we can see, the starting point for the output gap has a strong effect on the size of the cyclically-adjusted current budget balance in 2015-16. The smaller the output gap, the larger the amount of the deficit that is structural and the less margin the Government has against its fiscal mandate. Conversely if the output gap is wider, less of the deficit is structural and the Government has more margin against its mandate. Closing the output gap at a different pace will result in a change in cyclical borrowing, but has little effect on the structural balance. For example, closing the output gap more slowly will result in a lower growth path, leading to more cyclical borrowing but a broadly similar level of structural borrowing. Roughly speaking, the output gap would have to be about 1.5 per cent of GDP smaller than our central estimate to make it more likely than not that the mandate would be missed.

5.17 We can also see that public sector debt as a percentage of GDP falls between 2014-15 and 2015-16 in all the scenarios displayed. This is because our central projection for PSNB in 2015-16 is only 1 per cent of GDP. As we have outlined, on the basis of the current forecast in order for debt to be increasing as a percentage of GDP, PSNB would have to be around 3 per cent of GDP. None of the changes that we have looked at cause PSNB to deteriorate this much. That said, taking longer to close the output gap would mean that debt would not fall by as much in 2015-16 for a given output gap in 2010.

5.18 A third potential source of departure from our central forecast is variation in the interest rates that the Government has to pay on future borrowing and some existing debt. As set out in Chapter 4 our central forecast assumes gilt rates for future borrowing move in line with market expectations. But what if the central forecast of gilt rates were to suffer a shock? We examine the implications of a negative shock of 50 basis points, making debt cheaper, and increases of 50, 100 and 150 basis points. We assume the shock occurs in 2011-12. Table 5.4 shows the level of the cyclically-adjusted current budget balance in 2015–16 and the change in public sector net debt between 2014–15 and 2015–16 under these variants, constructed using a ready-reckoner.

Table 5.4: Fiscal target variables under different gilt rate assumptions

Per cent of GDP	r-50	r	r+50	r+100	r+150
Cyclically-adjusted current budget balance in 2015–16	1.1	0.9	0.8	0.6	0.5
Change in public sector net debt between 2014–15 and 2015–16	-1.7	-1.6	-1.4	-1.3	-1.1

5.19 These illustrative shocks to gilt rates do not have much impact on the chances of meeting the mandate and supplementary target. This lack of vulnerability is because, as illustrated in Chapter 4, an increase in rates only applies to new debt issuance, and the UK has a relatively long average maturity of debt of 14 years, and new issuance is projected to fall as borrowing declines. Therefore over a short horizon, such as our five year forecasting period, the impact of a shock to the average nominal rate on gilts is actually quite slight. However, over a longer horizon shocks such as these will have a more significant impact, as we discuss later in the chapter.

Scenario analysis

5.20 The variants discussed in the previous section all assume that the composition of actual GDP growth and the rate at which the potential output of the economy increases are the same as in our central forecast. To further test the sensitivity of our central forecast, in Chapter 3 we set out two illustrative economic scenarios in which this is not the case: a "delayed rebalancing" scenario in which there is a less pronounced shift from consumption to investment and net exports than in our central forecast, and a "persistent weak demand" scenario in which we assume that weaker GDP growth pulls down the expected level of potential output in future years.

5.21 In this section we set out the fiscal consequences of these scenarios (summarised in Table 5.5) and the implications they would have for the Government's ability to hit its medium term targets.

Table 5.5: Key fiscal aggregates under alternative economic scenarios

Per cent of GDP	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Central forecast							
Public sector net borrowing	11.1	10.0	7.6	5.6	3.5	1.9	1.0
Cyclically-adjusted current budget	-5.3	-4.7	-3.3	-1.8	-0.5	0.5	0.9
Public sector net debt	53.5	60.8	66.3	69.1	69.7	68.8	67.2
"Delayed rebalancing"							
Public sector net borrowing	11.1	10.0	7.5	5.4	3.3	1.7	0.7
Cyclically-adjusted current budget	-5.3	-4.7	-3.2	-1.7	-0.3	0.8	1.2
Public sector net debt	53.5	60.8	66.2	68.8	69.2	68.1	66.3
"Persistent weak demand"							
Public sector net borrowing	11.1	10.1	7.9	6.1	4.1	2.5	1.7
Cyclically-adjusted current budget	-5.3	-4.8	-3.5	-2.2	-1.0	0.1	0.5
Public sector net debt	53.5	61.0	67.2	70.5	71.8	71.7	70.7

5.22 Under the "delayed rebalancing" scenario, the outlook for the public finances is better than in our central forecast over a five-year time horizon, and so too therefore are the Government's chances of hitting its targets. This is because consumption is higher over the forecast period and consumption is a relatively revenue-rich form of expenditure. In the particular scenario we illustrate here, the cyclically-adjusted current budget surplus in 2015–16 is 0.3 per cent of GDP higher than in our central forecast, while the fall in public sector net debt between 2014–15 and 2015–16 is 0.2 per cent of GDP larger. But, in this fiscal scenario, economic rebalancing is postponed rather than prevented. To the extent that higher borrowing allows households to exchange consumption tomorrow for consumption today, a reversal of these positive fiscal influences could be expected further down the line.

5.23 Under the "persistent weak demand" scenario, the outlook for the public finances is worse than in our central forecast not only because weaker activity reduces tax revenues and increases public spending temporarily, but also (and more importantly) because the loss of future potential output increases the structural budget deficits that will remain once activity in the economy has returned to trend. The eventual impact is much the same as in the sensitivity analysis for different output gap estimates described in the previous section – although in this case we are more pessimistic than in our central forecast about the level of potential output in the future rather than at present. In the particular scenario we illustrate here, the cyclically-adjusted current budget surplus in 2015–16 is 0.4 per cent of GDP lower than in our central forecast, while the fall in public sector net debt between 2014–15 and 2015–16 is 0.6 per cent of GDP smaller. But the Government would still have a better than 50 per cent chance of meeting its objectives.

5.24 The sensitivity and scenario analysis we have presented suggest that the Government's hopes of meetings its fiscal objectives are fairly robust to modest differences in the economic outlook from those that we present in our central forecast. But it should be noted that much of the uncertainty reflected in past fiscal forecast errors reflects uncertainty about levels of spending and revenue for a given state of the economy. The margin for error against the fiscal objectives that we identify in our central forecast will be affected by these uncertainties too.

Long-term fiscal sustainability

5.25 The OBR's terms of reference also require us to analyse long-term fiscal sustainability. We will examine this issue in detail in our *Fiscal sustainability report* next summer. For the purposes of this report, we confine ourselves to some relatively simple extrapolations of public sector net debt over the next 40 years, building on our medium-term forecasts in Chapter 4. As these projections follow on from the medium-term forecast period they do not change the probability of meeting the Government's fiscal mandate or supplementary target. However, they do illustrate some of potential future fiscal pressures and extend some of the sensitivity analysis that we have conducted. Given the uncertainty inherent even in short- and medium-term forecasts, it is clear that projections over longer time horizons should be treated with even greater caution.

Central case debt extrapolation

5.26 Our starting point in illustrating the long-term outlook for public sector net debt is to take the medium-term forecasts that we presented in Chapter 4 and assume that the structural primary budget balance is unchanged thereafter. In other words, for these illustrative projections we assume that public sector receipts and public sector spending remain constant as shares of national income, with the exception of spending on public sector debt interest. We adjust for the fact that we expect that there will still be a modest amount of spare capacity in the economy in 2015–16, which will depress revenues and increase spending in that year and 2016–17. We then assume that public sector receipts settle from 2017–18 onwards. These imply a long-term primary budget surplus of 2.1 per cent of national income.

5.27 The outlook for public sector debt and public sector debt interest payments depends not just on the size of the primary balance, but also on the average interest rate on the public sector's debt and the growth in nominal GDP. To be precise, public sector net debt will be on a sustainable path beyond 2016–17 as long as the average nominal interest rate on the public sector's net debt does not exceed the growth rate of money GDP by an amount greater than the primary budget surplus as a share of national income.

5.28 The next step is to make projections for real GDP growth and the GDP deflator, and thus for nominal GDP. To project GDP growth, we need to make assumptions about growth in productivity (output per head), the population and employment:

- productivity: we assume that productivity grows by 2% a year, the average rate seen during the past 50 years;

- population: we use the latest population projections from the Office for National Statistics, based on 2008 data. In its central case scenario the ONS assumes annual net inward migration of 180,000 people per year over the long term, but as discussed in Chapter 3 this figure reflects high net inward migration flows in recent years. We instead use the ONS's low migration scenario and assume net inward migration of 140,000 moving to 120,000 people per year for the majority of the projection period. By 2050 this means that the population has risen to slightly over 73 million people, as opposed to nearly 76 million people under the principal scenario; and

- employment: we project long-run changes in the proportion of the working population in employment by using historical labour market participation profiles for different cohorts (groups with different years of birth) to model the participation rate of current cohorts through the projection period. This captures the impact of changes in the demographic structure of the workforce, as older cohorts are replaced by younger ones. The increasing size of the population means that when these participation rates are applied, there is projected employment growth between 2015 and 2050 of around 0.13 per cent per year. Under the principal migration scenario the employment growth rate over the same period averages 0.26 per cent. This is largely due to the extra migrant population being of working age when they arrive in the UK.

5.29 Combining these three determinants leads us to project that real growth in the economy will average around 2.2 per cent between 2016 and 2050. To convert these changes in real GDP into nominal GDP we need to apply a GDP deflator, reflecting the change in overall price levels in the economy each year. For this purpose we have taken the 2.7 per cent GDP deflator from the end of the forecast period and held it constant. Combining the projections for real GDP growth and the GDP deflator leads us to project that nominal GDP will average annual growth of nearly 4.9 per cent. Because the GDP deflator is constant, all underlying movement is driven by changes in the projection of real GDP.

5.30 Having looked at the growth rate, we also need to make projections for the interest rate on government debt. Chapter 4 explains how debt interest is calculated for the fiscal forecast. We follow a similar technique in these projections. The DMO's remit and medium-term strategy are assumed to hold throughout the projections. This means that when calculating the average interest rate on debt the weightings used for different maturities remain the same as those in the forecast. These are applied to projected yield curves from the DMO, to calculate the interest rate out to 2035.

As the longest-dated bond matures in around 50 years, half of the points on the 25 year forward curve will be calculated from the actual yield curve and half of them extrapolated beyond the end of the curve. After this point it is assumed the yield curve is constant, and debt interest therefore stabilises at about 4.4 per cent.

5.31 On the basis of these assumptions for the primary budget balance, nominal GDP and the average interest rate on public sector net debt, we have projected central paths for public sector net debt and public sector net interest payments as shares of GDP through to 2049-50. These projections are shown in the subsequent section. Debt interest is declining from 2015-16, and public sector net debt continues to fall after it meets the supplementary target in 2014-15. On this very simple illustrative extrapolation, the long-term outlook for the public finances looks sustainable, as the assumed primary budget surplus is sufficiently large to keep public sector net debt on a downward path.

Sensitivity analysis

5.32 Needless to say, there is considerable uncertainty around the various determinants that we have used to generate our central illustrative projections – particularly over a time horizon as long as 40 years. So we now examine the sensitivity of these projections to different assumptions regarding interest rates and the long-term growth rate of the economy.

5.33 In the previous section of this chapter, we showed how the structural current budget balance and public sector net debt would be affected in 2015–16 by variants for future gilts rates, which would feed through to the average interest rate on the stock of public sector net debt. We also looked at the impact of different growth rates on the level of debt, by varying the time it takes to close the output gap. In Chart 5.2 and Chart 5.3 we show how these same variants would affect the level of public sector net debt.

Chart 5.2: Sensitivity of PSND to growth rate shock

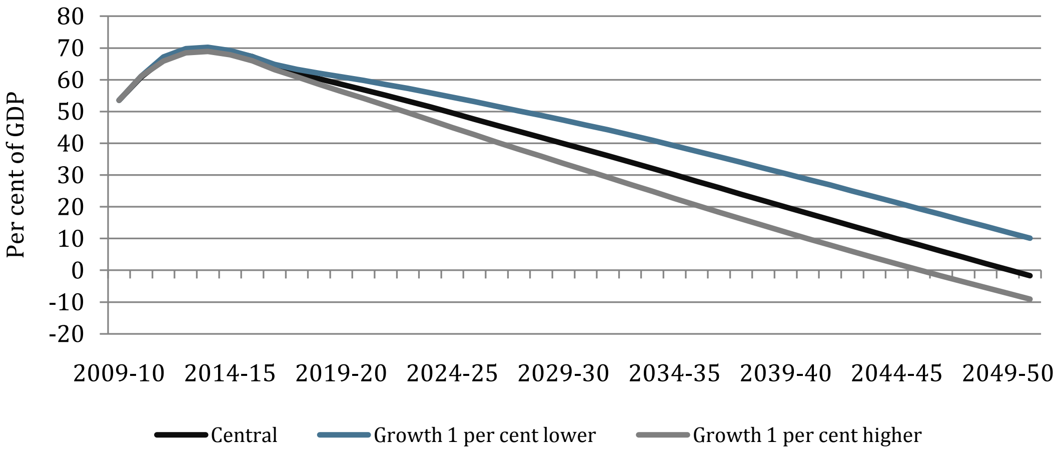
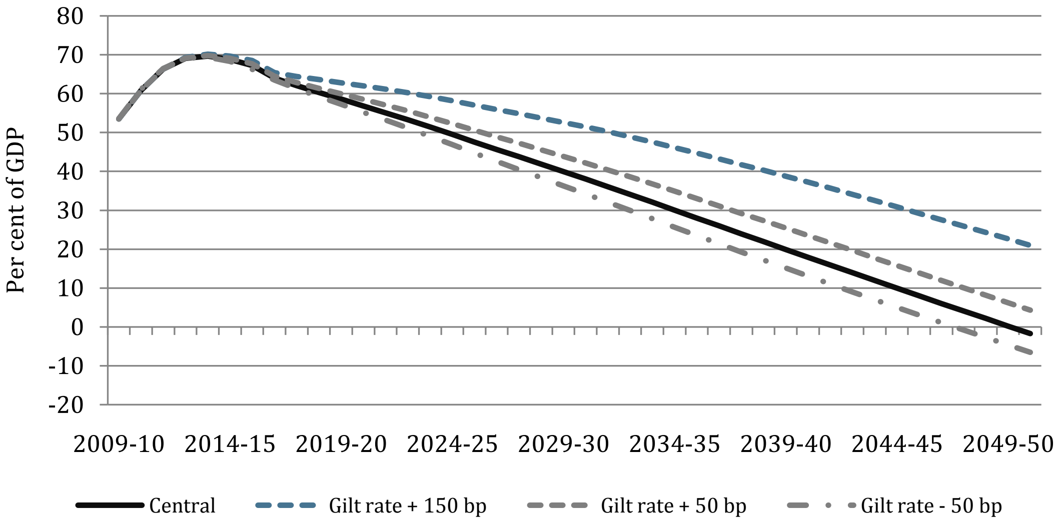


Chart 5.3: Sensitivity of PSND to gilt rate shock



5.34 We have smoothed the pass-through of the gilt rate shock to reflect the average maturity of UK debt, as described earlier. We are also assuming that there is no influence of inflation and therefore on index-linked gilts. In Chart 5.4 and Chart 5.5 we are then able to show how these shocks affect spending on net interest as a proportion of GDP, keeping in mind that non-interest spending as a proportion of GDP is constant.

Chart 5.4: Sensitivity of net interest to growth rate shock

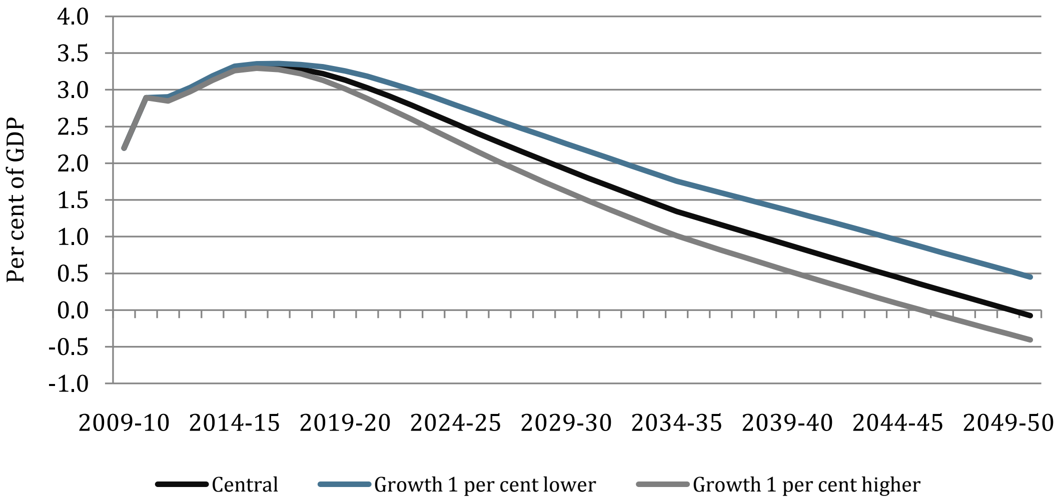
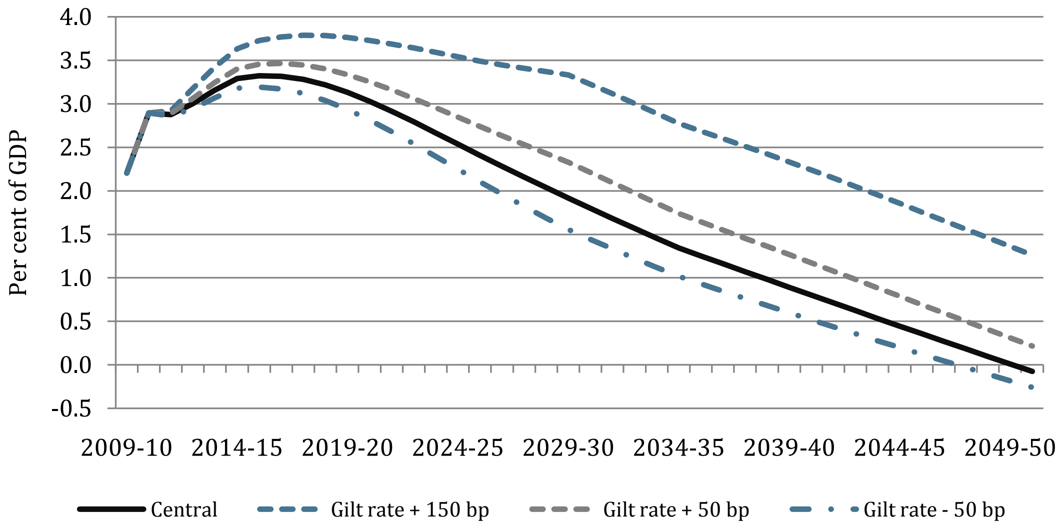


Chart 5.5: Sensitivity of net interest to gilt rate shock



5.35 The charts show the extent to which different GDP growth rates and shocks to gilt rates of different sizes affect future debt paths. While they have a significant impact on the levels of debt reached, they do not reverse the eventual downward trajectory.

Taking account of demographic pressures

5.36 The outlook for public sector net debt will deviate from our central projection not just because of different trends in the economy and interest rates, but also because of upward or downward pressure on spending and revenues – should governments decide not to offset these pressures with policy changes. This will affect the future size of the primary budget balance and thereby feed into future debt dynamics.

5.37 These potential pressures on spending and revenues will be a key focus of our annual *Fiscal sustainability report*s. For the purposes of this *Economic and fiscal outlook*, we only look briefly at the potential impact of the demographic pressures on spending identified and quantified by the Treasury in its 2009 *Long-term public finance report*, the last comprehensive official report on these long-term pressures. These estimates are derived by quantifying the amount of public spending devoted to people of different ages and then assuming that these amounts remain constant as the proportion of the population falling into different age groups changes. The upward pressure on spending arises primarily because a higher proportion of the population is expected to be in older age groups in coming decades, pushing up spending on pensions, healthcare and long-term care. The Treasury's analysis suggested that the total impact of these demographic factors would be to increase spending by 2 per cent of GDP by 2029-30 and almost 4 per cent of GDP by 2049-50.

5.38 These calculations were based on the ONS's central population projections, using 2008 data. As we noted in Chapter 3, we think it is more appropriate to use the population projections in the ONS's low net migration scenario. Choosing a lower population growth scenario than the Treasury used in the 2009 *Long-term public finance report* affects estimates of spending pressures in two ways:

- first, lower projected population growth reduces the expected future level of GDP which means that a given amount of cash spending translates into a higher ratio of spending to GDP; and

- second, different population projections alter the expected proportions of the population in different age and gender groups, and thus the scale of the pressures on spending.

5.39 Updating the Treasury's projections for age-related expenditure (which the interim OBR also reported in Table 5.1 of its June 2010 *pre-Budget forecast*) to reflect the lower population growth implied by the ONS's low net migration scenario, gives us the projections for age-related expenditure reported in Table 5.6.

Table 5.6: Projections for age-related expenditure

Per cent of GDP	2009-10	2019-20	2029-30	2039-40	2049-50
Health	8.0	8.5	9.4	10.2	10.6
Long-term care	1.2	1.4	1.7	2.0	2.2
Education	6.0	5.9	5.9	5.8	5.7
Pensions	5.5	5.3	6.1	6.8	6.8
Public service pensions	1.8	1.9	2.0	1.9	1.8
Total	**22.5**	**23.1**	**25.1**	**26.6**	**27.1**

5.40 The result is that rather than seeing spending pushed up by 2 per cent of GDP by 2029-30 and almost 4 per cent of GDP by 2049-50 as the Treasury's analysis suggested, we see increases of 2.6 per cent of GDP and 4.6 per cent of GDP respectively. This is largely driven by the slightly lower growth rate for GDP, rather than by additional upward pressures to expected cash levels of spending.

5.41 However, recent policy changes mean some of the underlying spending projections are likely to have changed from when these projections were initially constructed. For example, state pension projections previously based on RPI up-rating will not reflect new policy to up-rate pensions by the highest of CPI inflation, earnings or 2.5 per cent. Bringing forward the state pension age to 66 is also likely to have a slightly offsetting effect in the period just after the end of our forecast. Changes to public sector employment and the introduction of CPI up-rating would also have an impact on the projected spending on public service pensions. The Independent Public Service Pension Commission recently published their interim report, which incorporated some of these changes in their analysis of long-term spending. Beyond pensions we would also expect further adjustments to age-related expenditure to stem from the recommendations of the Independent Review of

Higher Education Funding and Student Finance published in October 2010 (see Box 4.3 for more on the impact of Higher Education funding over the forecast), and the Commission on the Funding of Care and Support, due to report in 2011.

5.42 At this point we are not able to robustly quantify the impact of these changes on the long-term projections but consideration of these changes will play an important part in the OBR's long-term analysis in future reports. However, for this preliminary analysis, we can show how the projected changes in age-related expenditure set out in Table 5.6 would affect our central projections of debt and debt interest (Charts 5.6 and 5.7). We can also compare the projections for all elements of age-related expenditure, and for only the non-pension related elements.

5.43 Under the assumption that governments decide not to offset these pressures with policy changes, the effect of including this additional spending pressure is gradually to reduce primary budget surplus and then push it into deficit. Eventually the primary budget balance would deteriorate sufficiently to push public sector net debt back onto an upward path as a share of GDP, given our assumptions for money GDP growth and interest rates. So, as shown in Chart 5.6, in this highly simplified long-term projection the public finances would not remain on a sustainable path indefinitely if these spending pressures were not offset. Chart 5.7 shows the effect of this increasing debt on net interest payments.

Chart 5.6: Impact of demographic change on PSND

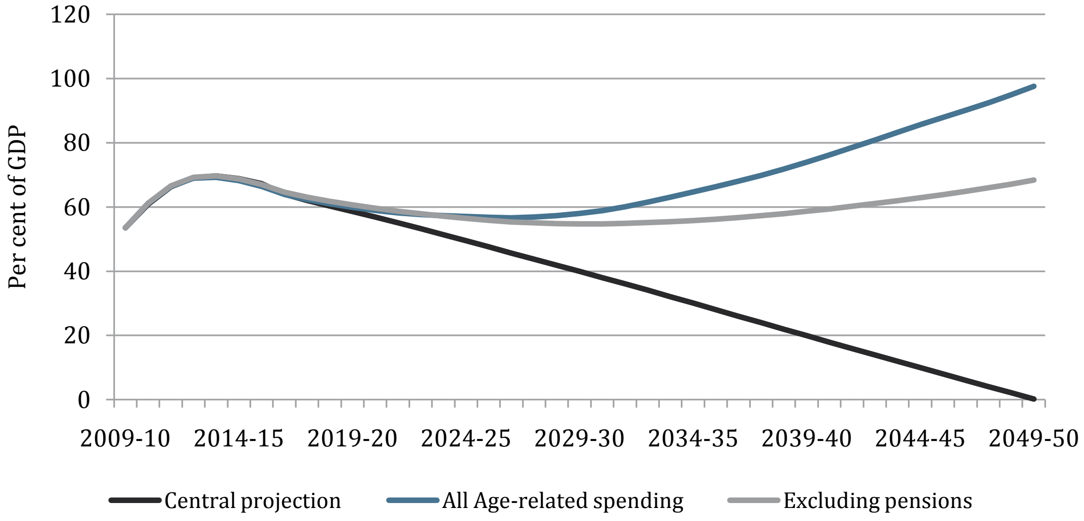
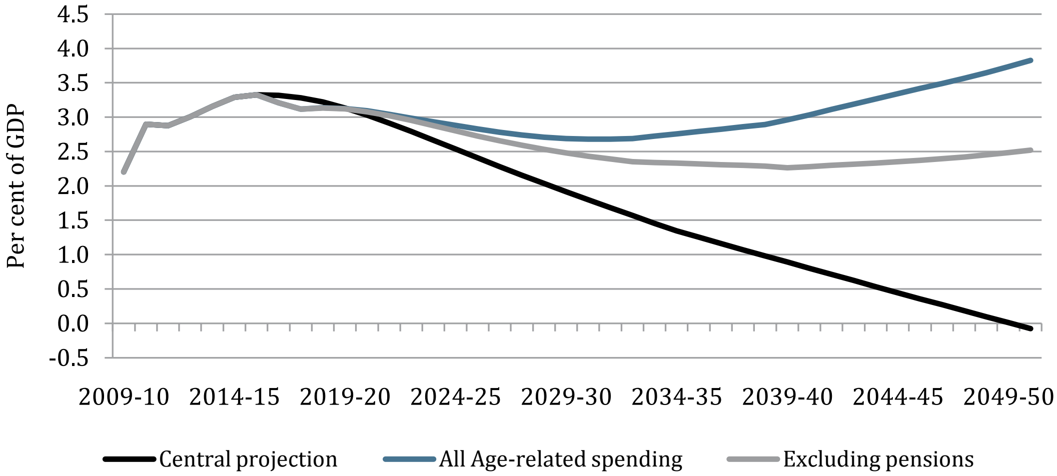


Chart 5.7: Impact of demographic change on net interest



5.44 Given that most of our caveats concern pensions, separating the elements as above is useful. Even if we only include healthcare, long-term care and education spending, we can see that debt eventually begins to increase as a percentage of GDP once the increase in age-related spending exceeds the natural offset from maintaining a constant primary balance under the central projection.

5.45 The upward trajectory of public sector net debt that results from accommodating age-related expenditure is common to many analyses of this subject in many countries. Indeed, the simple projections that we have shown follow similar results published by the IMF, European Commission and the Bank for International Settlements.[1] It is clear that the UK is not unique in confronting these pressures and that most industrial countries have difficult decisions to make about them once the immediate challenge of the current fiscal consolidation is passed.

Extending this analysis

5.46 The projections that we have constructed here are simplistic and highly-stylised, and are not intended to show the likely evolution of debt or interest payments with any accuracy. Instead we have tried to illustrate some of the pressures that may come to bear in future. Our *Fiscal sustainability reports* will deal with this subject in more depth.

5.47 In next summer's report we will aim to assess the full long-term impact of many of the recent policy changes that we have mentioned. These include changes to the up-rating of pension benefits, changes to the public sector workforce, and bringing forward the increase in the state pension age. We have also already noted

[1] For similar long-term projection techniques and ageing costs, see; *Fiscal Implications of the Global Economic and Financial Crisis*, IMF staff note, 2009: *2009 Ageing Report*, European Commission, 2009: *The future of public debt: prospects and implications*, BIS working paper no. 300, 2010.

many of the reviews that may be relevant, including the Independent Review of Higher Education Funding and Student Finance, the Commission on the Funding of Care and Support, and the Independent Public Service Pension Commission. Our analysis has also focused on spending pressures, but the sustainability of different tax bases is also important.

5.48 The OBR will also use the *Fiscal sustainability report* to comment on the evolution of the public sector balance sheet. We expect that the Whole of Government Accounts, due to be published next spring, will be very helpful in quantifying further liabilities that may be material to the Government. The OBR is currently talking to representatives across the public and private sector to identify relevant work in this area.

Conclusions

5.49 Our best judgement is that the Government has a better than 50 per cent chance of meeting its mandate for a cyclically-adjusted current budget balance in 2015–16 and of achieving its supplementary target of seeing public sector net debt fall between 2014–15 and 2015–16. We also believe that it has slightly more margin for error in meeting the mandate than the interim OBR thought likely in June. That said, there is clearly significant uncertainty around our central forecast, with risks both to the upside and to the downside.

5.50 The pace of the economic recovery, and the interest rates that the government pays on its debt, both have an impact on the evolution of the public finances. But plausible divergences in either from our central forecast do not at present seem to pose much threat to the specific targets that the Government has set itself. The biggest economic risk to achievement of the mandate is the possibility that we may have significantly overestimated the level of economic potential, either now or in the future. The levels of spending and revenue for any given state of the economy are also important sources of uncertainty, with both upside and downside risks.

5.51 We expect current policies to deliver a sufficiently large primary budget surplus by 2015-16 to put public sector net debt on a clear downward trajectory beyond the forecast horizon. Illustrative projections suggest that this downward trend would be robust to somewhat higher interest rates or somewhat lower GDP growth rates than we assume in our central projections.

5.52 If left unaddressed, upward pressure on spending from the ageing of the population might well eliminate the primary budget surplus and eventually put public sector net debt on an unsustainable upward trajectory. The UK is far from unique in facing such pressures and will be one of many countries needing to decide how to address them when the immediate challenge of delivering the current fiscal consolidation is passed.

A Spending Review policy measures

A.1 The *Economic and fiscal outlook* incorporates the Government's revised costings for the Spending Review AME measures, which we have certified in line with our terms of reference. These are based on the revised economic determinants and AME projections in this latest OBR forecast. A full table of revised policy costings is shown on the next page.

Table A1: HM Treasury's updated costings for Spending Review 2010 AME measures yet to take effect, based on the OBR's November *Economic and fiscal outlook*.

	Head	(Positive is an Exchequer yield)				£ million	
		2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Measures announced at the 2010 Spending Review							
Contributory Employment and Support Allowance: time limit for those in the Work Related Activity Group to one year [1]	Spend/tax	0	0	+820	+1,085	+1,370	+1,440
Working Tax Credit: freeze in the basic and 30 hour elements for three years from 2011-12 [1]	Spend/tax	0	+270	+610	+800	+835	+835
Working Tax Credit: reduce payable costs through childcare element from 80% to 70% restoring 2006 rate [1]	Spend/tax	0	+335	+365	+375	+385	+405
Child Tax Credit: increase the child element by £30 in 2011 and £50 in 2012 [1]	Spend/tax	0	-265	-690	-740	-765	-730
Working Tax Credit: increase working hours requirement for couples with children to 24 hours [1]	Spend/tax	0	0	+540	+530	+535	+545
Child and Working Tax Credits: use real time information [1]	Spend/tax	0	0	0	0	+385	+365
Council Tax Benefit: 10% reduction in expenditure and localisation	Spend/tax	0	0	0	+510	+520	+525
Housing Benefit: increase age limit for shared room rate from 25 to 35	Spend	0	0	+130	+225	+215	+205
Total household benefit payments capped on the basis of average take-home pay for working households	Spend	0	0	0	+225	+270	+270
Disability Living Allowance: remove mobility components for claimants in residential care	Spend	0	0	+75	+155	+160	+160
Savings Credit: freeze maximum award for four years from 2011-12	Spend	0	+225	+270	+320	+395	+405
Support for Mortgage Interest: extend temporary changes to waiting period and capital limit until January 2012	Spend	0	-90	-10	0	0	0
Cold Weather Payments: increase rate permanently to £25 from November 2010	Spend	0	-50	-50	-50	-50	-50
Child Benefit: remove from families with a higher rate taxpayer from January 2013	Spend	0	0	+605	+2,510	+2,590	+2,670
Public sector pensions: increase in employment contribution rates	Spend	0	0	+160	+1,270	+1,760	+1,850
Renewable Heat Incentives: efficiency savings	Spend	0	+5	+15	+45	+110	+180
Carbon Reduction Commitment: no recycling of revenues	Spend	0	+715	+730	+995	+1,020	+1,040
HM Treasury: reduction in metal cost for coinage	Spend	0	+10	+10	+10	+10	+10
Equitable life payments	Spend	0	-520	-315	-210	-100	-70
Capitalisation: support for local authority restructuring	Spend	0	-240	0	0	0	0
Public Works Loan Board: interest rate increase	Spend	0	+165	+330	+400	+465	+525
TfL Metronet: replace borrowing with central government grant	Spend	0	+325	+300	+200	+185	0
Right to Buy: surrender full receipts to Exchequer receipts	Spend	0	+30	+35	+40	+40	+45
Housing Revenue Account System: reform	Spend	0	+25	+25	+25	+25	+5
Northern Ireland Reinvestment and Reform Initiative	Spend	0	-175	0	0	0	0
TOTAL IMPACT ON PSCE		**0**	**+675**	**+3,775**	**+8,005**	**+9,620**	**+9,880**
TOTAL IMPACT ON PSCR		**0**	**+90**	**+180**	**+715**	**+740**	**+750**

[1] *Costings include both spending and tax elements.*

B Fan chart methodology

B.1 The interim OBR set out its methodology for producing fan charts in Annex A of its pre-Budget forecast. The fan charts presented in this document are an important tool for quantifying the uncertainty surrounding our projections but we stress that they are not a representation of the specific upside and downside risks that we see to this forecast. Rather they are an illustration of the range of outcomes that someone might reasonably expect if they believed only that our central forecasts were likely to be as accurate in the future as the Treasury's have been in the past.

B.2 At the time of the pre-Budget forecast and the June Budget the interim OBR quantified the accuracy of previous forecasts by measuring the standard deviation of forecast errors from Budget forecasts from 1987 onwards. For the economy forecast this also involved taking a mean error parameter from the same distribution to identify how much larger downside errors are likely to be relative to upside errors – the skew.

B.3 In this forecast, we have adopted a very similar approach but we have extended the sample from which we take these parameters. For the first year of the forecast period, 2010-11, it is appropriate to base the estimates of fan chart parameters on historic Pre-Budget Report (PBR) forecast errors. This reflects the fact that, like our forecast, PBRs were published in the autumn and therefore incorporated several months of outturn data on the economy and public finances. Beyond the first year, we have used both Budget and PBR forecast errors as the sample to estimate our fan chart parameters. This approach results in the following parameters for our fan charts.

Table B.1: November forecast error distribution parameters

Years ahead		Current	1	2	3	4	5
GDP growth	Mean error	0.5	0.3	-0.8	-0.7	-0.6	-0.6
	Standard deviation	0.5	1.7	1.7	1.7	1.9	2.0
Public sector net borrowing	Standard deviation	0.7	1.5	2.8	2.9	3.1	3.1
Cyclically-adjusted current budget	Standard deviation	0.6	1.1	1.7	1.8	1.8	1.8

B.4 Compared to the June Budget fan charts forecast, the changes to the shape of our fan charts in the current year can be explained by the use of PBR forecast errors. As with our forecast, historical Pre-Budget Report forecasts for the first year of the forecast period incorporated several months' outturn data. They, therefore, generally have lower forecast errors than Budget first-year forecasts. This is reflected in the parameters of our fan chart, and so the fan is narrower in the first year. In later years, the fan chart shape is altered by the addition of historical PBR errors to the sample of forecast errors.

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