



Council of the  
European Union

Brussels, 31 March 2016  
(OR. en)

7458/16  
ADD 1

ECOFIN 256  
UEM 96

**COVER NOTE**

---

From:	Mark Bowman, Director General - International Finance, HM Treasury
date of receipt:	30 March 2016
To:	Mr Carsten PILLATH, Director General, Council of the European Union
Subject:	2015-16 Convergence Programme for the United Kingdom

---

Delegations will find attached the second part of the Convergence Programme for the United Kingdom.

# A OBR analysis

---

A.1 This annex contains analysis prepared by the Office for Budget Responsibility (OBR). The first three pieces of analysis included are Chapters 3, 4 and 5 of the OBR's March 2016 'Economic and fiscal outlook'. They cover, in turn, the economic outlook, the fiscal outlook, and the performance against the government's fiscal targets. The final part of this annex is the executive summary of the OBR's 2015 'Fiscal sustainability report'.



# 3 Economic outlook

## Introduction

3.1 This chapter:

- sets out our estimates of the amount of **spare capacity** in the economy and the likely growth in its productive potential (from paragraph 3.2);
- describes the key **conditioning assumptions** for the forecast, including monetary policy, fiscal policy and the world economy (from paragraph 3.25);
- sets out our short- and medium-term real GDP **growth forecasts** (from paragraph 3.49) and the associated outlook for inflation (from paragraph 3.56) and nominal GDP (from paragraph 3.70);
- discusses recent developments and prospects for the household, corporate, government and external **sectors of the economy** (from paragraph 3.73); and
- outlines **risks and uncertainties** (from paragraph 3.118) and compares our central forecast to those of selected external organisations (from paragraph 3.120).

## Potential output and the output gap

3.2 Judgements about the amount of spare capacity in the economy (the ‘output gap’) and the growth rate of potential output provide the foundations of our forecast. Together they determine the scope for growth in GDP in the next five years as activity returns to a level consistent with maintaining stable inflation in the long term. GDP growth is an important driver of trends in the overall budget deficit and the path of public sector debt, the measures on which the Government’s new fiscal targets are based.

3.3 Estimating the size of the output gap also allows us to judge how much of the budget deficit at any given time is cyclical and how much is structural.<sup>1</sup> In other words, how much will disappear automatically, as the recovery boosts revenues and reduces spending, and how much will be left when economic activity has returned to its full potential. This was particularly pertinent to the previous Government’s fiscal target, which was based on a cyclically adjusted measure of borrowing.

3.4 In this section, we first assess how far from potential the economy is currently operating before considering the pace at which potential output will grow in the future. Our estimates

<sup>1</sup> The methodology we use to do so is described in Helgadóttir et al (2012): *Working Paper No.3: Cyclically adjusting the public finances*.

of potential output and the output gap are based on estimates of national output excluding the small and volatile oil and gas sector. We then add on a forecast for oil and gas production to complete our GDP forecast.

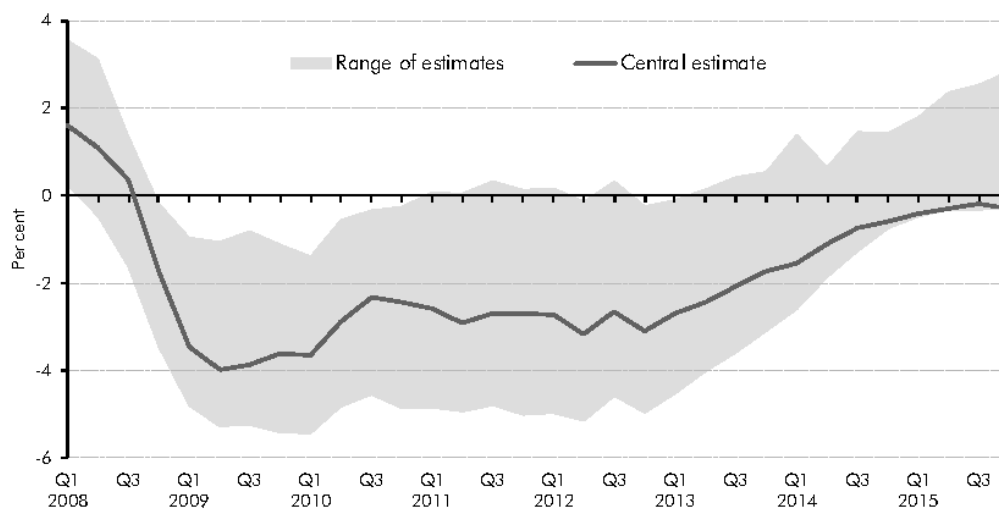
### The latest estimates of the output gap

- 3.5 The first step in our forecast process is to assess how the current level of activity in the economy compares with the potential level consistent with stable inflation in the long term. We cannot measure the supply potential of the economy directly, but various techniques can be used to estimate it indirectly, including cyclical indicators, statistical filters and production functions. In practice, every method has its limitations and no approach avoids the application of judgement. We therefore consider a broad range of evidence when reaching a judgement on spare capacity and the level of potential output that implies.
- 3.6 Since our December 2014 forecast, we have used estimates of the output gap implied by nine different techniques to inform our judgement. These produce a range, as shown in Chart 3.1 along with our own latest central estimate.<sup>2</sup> Our central estimate is currently close to the bottom of the range, as it has been for the past year. We explain the rationale for this judgement in paragraph 3.13. All these model estimates showed spare capacity increasing during the course of the late 2000s recession, and their dispersion increased. The swathe remained relatively stable, but widely dispersed, until early 2013 when actual growth picked up. Most estimates subsequently tightened and the range narrowed. But it has widened again recently, with estimates varying from -0.3 to +2.8 per cent in the fourth quarter of 2015. Even this may understate the true degree of uncertainty, as such estimates are likely to change as new data become available and past data are revised.

---

<sup>2</sup> The individual output gap estimates are included in the supplementary economy tables available on our website. The approaches – and the uncertainties associated with them – are discussed in Murray (2014): *Working Paper No.5: Output gap measurement: judgement and uncertainty*.

Chart 3.1: Range of output gap model estimates



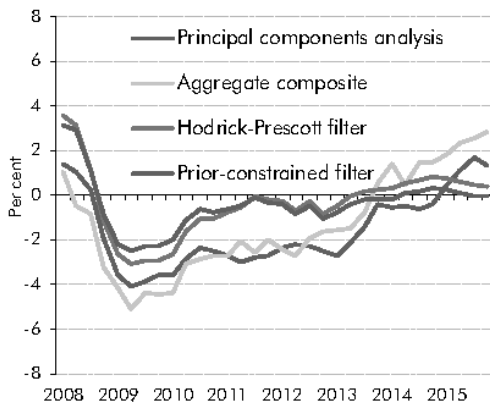
Source: OBR

- 3.7 The cyclical indicator approaches on which we initially placed greatest weight implied that the output gap began to narrow in 2012, even though growth remained relatively weak – although less weak according to recent data than was reported at the time:
- **'Aggregate composite' (AC)** estimates imply that spare capacity continued to be used up at pace, and that output moved above its sustainable level towards the end of 2013; and
  - **'Principal components analysis' (PCA)** estimates also suggest a significant narrowing of the gap through 2013, but it then remained stable through 2014 before turning positive and rising through 2015.<sup>3</sup>
- 3.8 The two statistical filters we use that consider output data alone imply that the economy is currently operating close to its potential level, where both had implied a small positive output gap a year ago, as shown in Chart 3.2.
- 3.9 Chart 3.3 augments the output data with other information. In the latest quarter, these four measures tell an unusually consistent story of the economy operating close to, but just below, its potential level. Taking each in turn:
- **capacity utilisation** indicators suggest firms are operating at levels slightly below their potential level, having been operating above that level for the previous two years;

<sup>3</sup> More details on these methodologies are set out in our *Briefing Paper No.2: Estimating the output gap* and in Pybus (2011): *Working Paper No.1: Estimating the UK's historical output gap*.

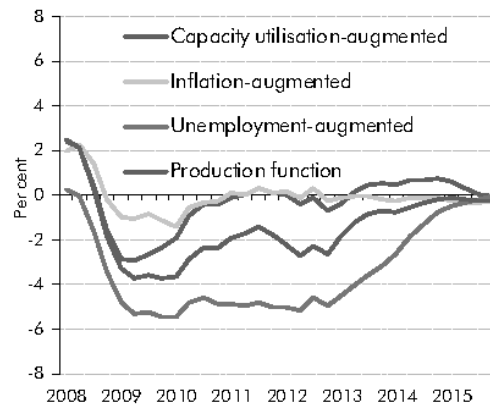
- **CPI inflation** remains low, which in principle could suggest more slack in the economy. We do not consider that likely, since the weakness in recent months largely reflects lower food and petrol prices, and the lagged effects of past sterling appreciation. The inflation measure that underpins our filters is adjusted for the direct influence of food and oil costs, but in reality only partially so, as changes in these costs also have indirect effects on other prices. This may explain why this measure gives a slightly more negative measure of the output gap;
- the **unemployment rate** has fallen further in the fourth quarter of 2015. Complementing output data with a filter-based structural unemployment estimate (informed by changes in real wages and productivity) would suggest that the output gap has been closing since the end of 2012 and has been very close to zero in the second half of 2015. In recent forecasts, we have placed more weight on measures that capture labour market slack; and
- a **production function** approach, which applies filters to the individual components of production, suggests that output was very close to potential at the end of 2014 but since then the economy has been operating slightly below its potential level. This model suggests the small amount of slack at the end of 2015 was concentrated within total factor productivity in particular.

Chart 3.2: Cyclical indicator and filter-based estimates of the output gap



Source: OBR

Chart 3.3: Multivariate filter-based estimates of the output gap



3.10 Output growth (on a non-oil basis) was slightly weaker than we expected in the fourth quarter, at 0.5 per cent compared to the previous quarter and 1.8 per cent compared to the same quarter a year earlier. By contrast, employment growth has remained strong (with the employment level up 0.7 per cent on the quarter and 1.5 per cent over the year). Unemployment and inactivity rates both fell further in the fourth quarter, and average hours worked increased. As a result, hourly productivity – output produced per hour worked in the economy – fell by 1.2 per cent in the fourth quarter, having risen by 0.7 and 0.5 per cent in the second and third quarters. Growth in hourly productivity was therefore close to zero in

the year to the fourth quarter, falling far short of the healthy 1.4 per cent rise assumed in our November forecast.

- 3.11 Whole-economy productivity growth is influenced by different productivity growth rates in individual sectors and the weight of those sectors in the economy. Table 3.1 shows: a breakdown of the hours worked in different industries; how productivity per hour in those industries related to the whole economy at the beginning of 2008; and how annual productivity growth since then compares with the pre-crisis period. Annual rates of productivity growth have been lower in most industries since 2008 than previously, with the most pronounced falls in financial services and the supply of gas and electricity – both industries with relatively high levels of productivity but a relatively low weight in total hours worked in the economy. Whole economy productivity growth has been affected more by the smaller falls seen in bigger sectors, including manufacturing. In total, productivity has risen at an average annual rate of just 0.1 per cent between 2008Q1 and 2015Q3. Of that 0.9 per cent cumulative rise, almost all is explained by ‘within industry’ effects, with very little explained by ‘between industry’ effects as the composition of the economy has changed.<sup>4</sup> The table updates analysis carried out by the Institute for Fiscal Studies (IFS) in its 2013 *Green budget*, with similar results.<sup>5</sup>

Table 3.1: Productivity growth by industry

	Hours		Per cent		
	Hours share in 2008Q1	Percentage change: 2008Q1 to 2015Q3	Productivity (Output per hour)		
			2008Q1 relative to whole economy	Annual change: 1994Q1 to 2008Q1	Annual change: 2008Q1 to 2015Q3
<b>Whole economy excl. real estate</b>	<b>100.0</b>	<b>4.1</b>	<b>100.0</b>	<b>1.9</b>	<b>0.1</b>
Government services	22.7	1.9	89.2	0.2	-0.2
Wholesale and retail trade; repair of motor vehicles and motor cycles	15.3	-0.2	81.6	1.6	1.6
Manufacturing	10.9	-1.0	112.2	3.1	0.4
Construction	8.6	-0.1	87.2	0.5	-0.4
Administrative and support service activities	7.6	0.9	61.3	1.3	2.5
Professional, scientific and technical activities	7.8	1.4	98.9	3.5	0.5
Transportation and storage	5.5	-0.3	99.1	2.8	0.3
Accommodation and food service activities	5.4	0.7	55.2	1.0	-0.8
Arts, entertainment, recreation and other services	4.8	0.3	97.5	0.5	0.3
Information and communication	4.5	0.5	138.3	4.3	1.3
Financial and insurance activities	4.2	-0.1	217.1	4.0	-1.0
Agriculture, forestry and fishing	1.6	0.0	51.2	3.6	0.7
Water supply, sewage etc.	0.5	0.1	253.5	1.7	-1.8
Electricity supply, gas supply etc.	0.4	0.1	412.1	5.0	-5.2
Mining and quarrying	0.3	0.0	1201.1	-2.4	-5.9

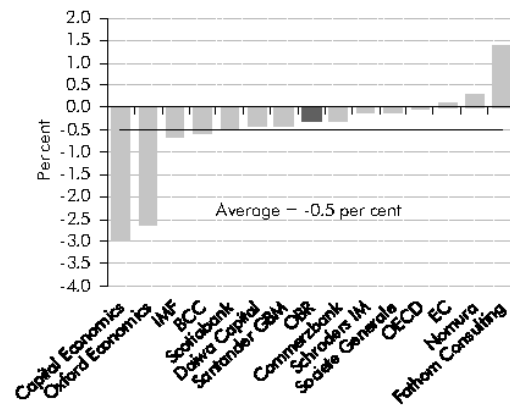
<sup>4</sup> The within-industry contribution (0.8 percentage points) is calculated using the 2008Q1 hours share and the change in productivity between the two periods, whereas the between-industry contribution (0.1 percentage points) is calculated using the change in hours share between the two periods and the 2008Q1 level of productivity.

<sup>5</sup> Institute for Fiscal Studies, *Green budget*, February 2013.



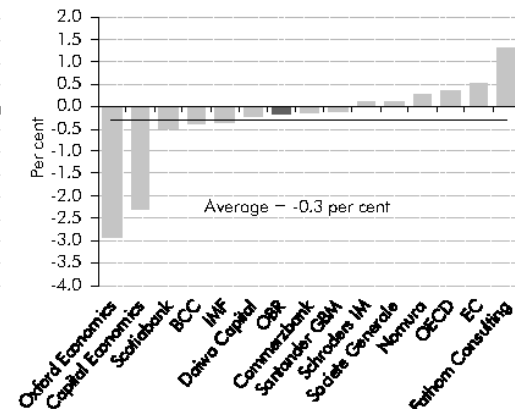
- 3.12 The latest evidence provides a mixed picture for the output gap. Strong employment growth and falling unemployment implies little remaining spare capacity in the labour market. By contrast, the sharp drop in hourly productivity in the final quarter of 2015 suggests some spare capacity opening up within firms, although it is hard to explain why firms would be hiring at such a rapid pace if that hiring was generating spare capacity.
- 3.13 Considering the balance of evidence, we have judged that the output gap was -0.3 per cent of potential output in the fourth quarter of last year, narrower than the -0.7 per cent we expected in November. This is towards the lower end of the broad range of estimates illustrated in Chart 3.1, but closer to those to which we attach more weight. We do not believe it would be central to assume the output gap is currently positive since – despite the working-age employment rate having risen to its highest level since at least 1971 – broader inflationary pressures remain subdued. We have attributed most of the -0.3 per cent gap to productivity lying below its potential and some to average hours lying below potential, with offsetting effects from the employment rate being above its assumed sustainable rate.
- 3.14 A smaller estimate of the output gap – coupled with weaker actual growth – implies that potential output has grown slightly more slowly over recent quarters than we thought in November. But actual output – and therefore also potential output – is subject to revision. If actual output growth is revised up, as has been the case on average over the recovery to date, then potential output would be correspondingly higher, and vice versa.
- 3.15 Charts 3.4 and 3.5 compare our central output gap estimates for 2015 and 2016 to those produced by other forecasters, as set out in the Treasury’s *March Comparison of independent forecasts*. The average estimate is -0.5 per cent in 2015 and -0.3 per cent in 2016, slightly wider than our estimates of -0.3 and -0.2 per cent for those years.

Chart 3.4: Estimates of the output gap in 2015



Source: HM Treasury, plus updates where known

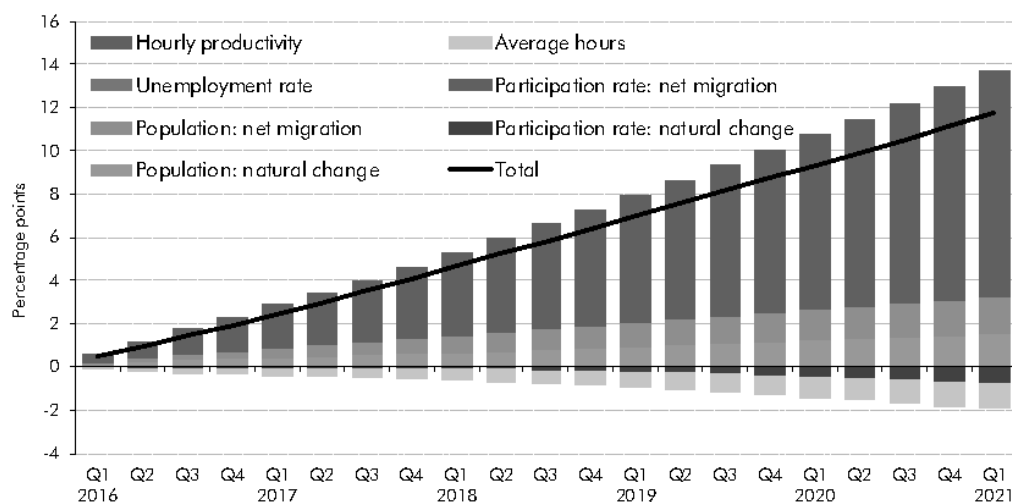
Chart 3.5: Estimates of the output gap in 2016



## The path of potential output

3.16 A small negative output gap implies that actual output can grow slightly faster than potential output over the coming quarters without generating inflationary pressure. But of far greater importance is the path of potential output itself. In November, we forecast a gradual strengthening of potential output growth over the forecast period and that remains our central judgement. But as Chart 3.6 shows, that outcome depends on the most important uncertainty in our (and most people's) economic forecast: the timing and strength of the long-awaited return to sustained productivity growth, where the latest evidence on actual productivity growth has again been disappointing, particularly in contrast to the buoyant productivity growth seen in the middle of last year. We also expect smaller positive contributions to potential output growth over the next five years from population growth, while average hours worked are expected to trend down over time.

Chart 3.6: Contributions to potential output growth from 2015Q4

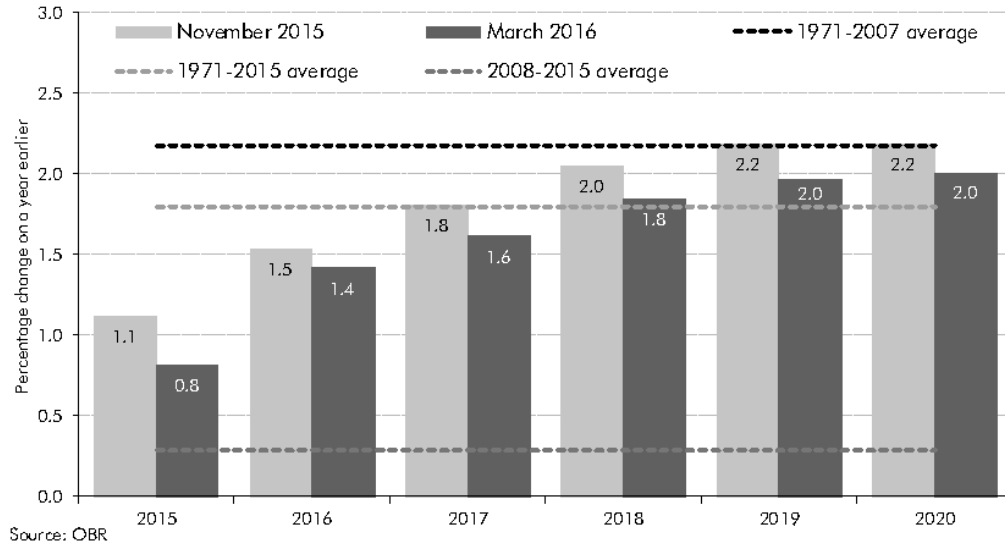


Note: We implicitly assume that, conditioned on age and gender, migrants are as likely to be employed as the broader population.  
Source: OBR

3.17 Following two quarters of productivity growth picking up, the previously familiar pattern of the labour market outperforming and productivity underperforming our forecast has strongly reasserted itself. With the mid-2015 pick-up in productivity growth having faltered, the most significant change to our forecast for potential output growth since November has been to revise down our assumption for trend hourly productivity growth – the rate at which output per hour worked could grow sustainably – over the coming five years by an average of 0.2 percentage points a year. Cumulated over five years, that represents a material downward revision to the level of potential output by 2020, but it is relatively small in the context of the downward revisions that we and most forecasters have felt it necessary to make during the post-crisis period. As Box 3.1 describes, the downward revisions we have made to our estimates of trend productivity growth in the UK over the last five years are very similar to those made by the Congressional Budget Office for the US over the same period.

- 3.18 Chart 3.7 presents our assumptions for trend hourly productivity growth from November and this forecast. In November, as in all our recent forecasts, we based our assumption on trend productivity growth rising from current rates back to the pre-crisis historical average of 2.2 per cent by the end of the forecast period. This judgement was consistent with assuming that whatever has been holding back productivity growth in the post-crisis period – particularly the slow healing of the financial system – will fade over the coming five years. As it has proved difficult to quantify the sources of recent weakness in trend productivity, it has been equally difficult to judge when and by how much productivity growth will pick up.
- 3.19 Given the latest disappointment in productivity growth, we now assume that trend productivity growth rises steadily to 2.0 per cent by 2020 rather than to 2.2 per cent. In doing so, we are no longer assuming that the pre-crisis historical norms will fully reassert themselves within the forecast horizon. That said, at 1.8 per cent a year on average from 2016 to 2020, this is still well above the 0.8 per cent a year average we estimate for trend productivity over the past three years in which the recovery has taken hold.
- 3.20 In reaching a view on the outlook for productivity growth over the medium and longer term, all forecasters – whatever methodology they use – in effect have to decide how much weight to place on the recent period of weak productivity performance and how much on the earlier period of stronger performance. As the period of weak performance lengthens, it seems sensible to put slightly more weight on that as a guide to the future, although this judgement is of course highly uncertain and has to be revisited in each forecast we make.

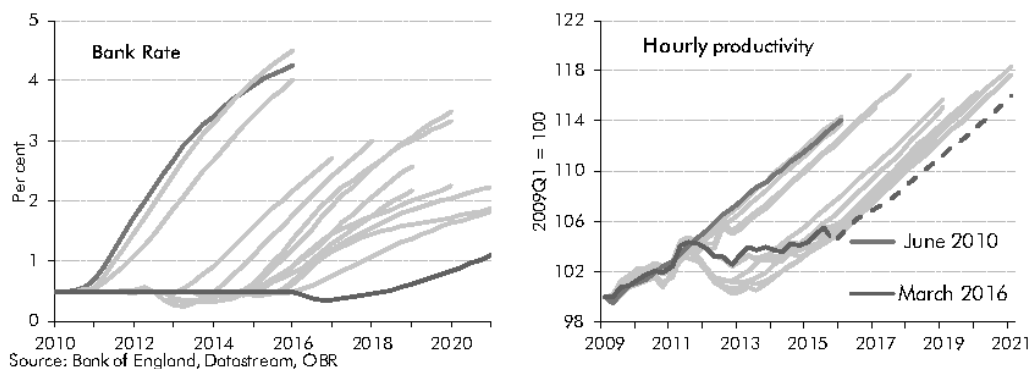
Chart 3.7: Trend productivity growth forecasts and historic averages for actual productivity growth



- 3.21 Chart 3.8 illustrates how the successive downward revisions to our productivity growth forecasts have been mirrored by successive outward shifts in market expectations for Bank

Rate rises. While there will have been many factors influencing each of these trends, to some extent both will have been driven by repeated disappointment in actual productivity growth and the consequent downward revisions to growth expectations.

Chart 3.8: Successive market expectations for Bank Rate and OBR forecasts for hourly productivity growth



- 3.22 Turning to other components of potential output, we expect that the long-term decline in average hours will reassert itself as productivity recovers. We also assume that population growth will slow in line with the ONS's current principal population projections.
- 3.23 In November, we refined our methodology for modelling the trend participation rate to include the implications of an ageing population and state pension age increases from year to year using the cohort model that informs our long-term projections.<sup>6</sup> This change in methodology and updated outturn data implies that the participation is stable until 2019 before declining in the final year of the forecast as the proportion of older people with lower-than-average participation rates increases.

<sup>6</sup> Annex A of our July 2014 *Fiscal sustainability report* discusses our longer-term approach to labour market modelling in more detail.

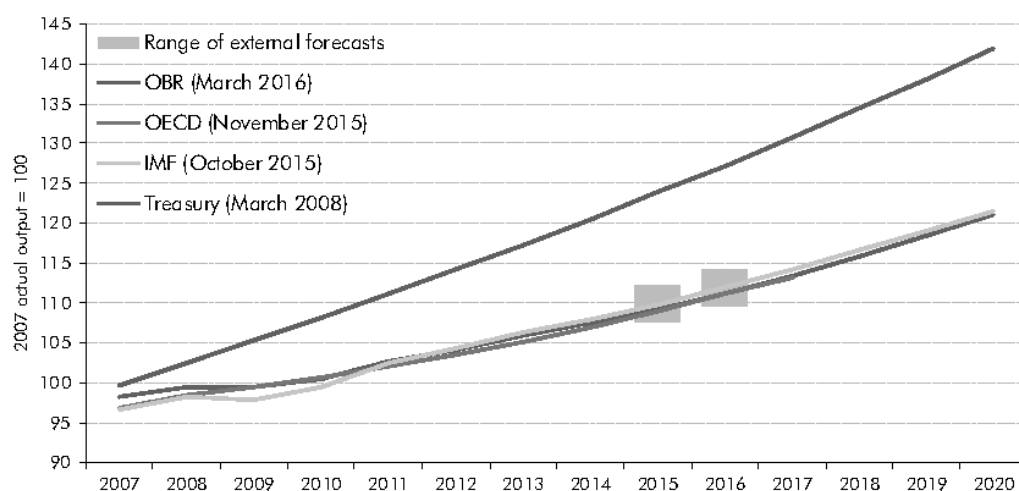
Table 3.2: Potential output growth forecast

	Percentage change on a year earlier, unless otherwise stated				
	Potential productivity <sup>1</sup>	Potential average hours	Potential employment rate <sup>2</sup>	Potential population <sup>2</sup>	Potential output <sup>3</sup>
2015	0.8	0.0	0.0	0.6	1.5
2016	1.4	-0.1	-0.1	0.7	1.9
2017	1.6	-0.2	0.0	0.6	2.0
2018	1.8	-0.2	0.0	0.6	2.2
2019	2.0	-0.2	-0.1	0.6	2.2
2020	2.0	-0.2	-0.2	0.6	2.2
<b>Cumulative growth (per cent) from 2014 to 2020</b>					
November forecast	11.4	-1.0	-0.1	3.7	14.2
March forecast	10.1	-1.0	-0.4	3.8	12.6
<b>Change</b>	<b>-1.3</b>	<b>0.0</b>	<b>-0.2</b>	<b>0.0</b>	<b>-1.6</b>
of which: 2015	-0.3	0.0	0.0	0.0	-0.3
of which: 2016 to 2020	-1.0	0.0	-0.2	0.0	-1.3

<sup>1</sup> Output per hour.  
<sup>2</sup> Corresponding to those aged 16 and over.  
<sup>3</sup> Components may not sum to total due to rounding.

3.24 Our latest forecast assumes that potential output in 2015 was around 11.9 per cent lower than an extrapolation of the Budget 2008 forecast and that it will be 14.6 per cent below that extrapolation by 2020. Even the most optimistic external assessments of potential output continue to lie well below the pre-crisis trend implied by Budget 2008.

Chart 3.9: Potential output forecasts



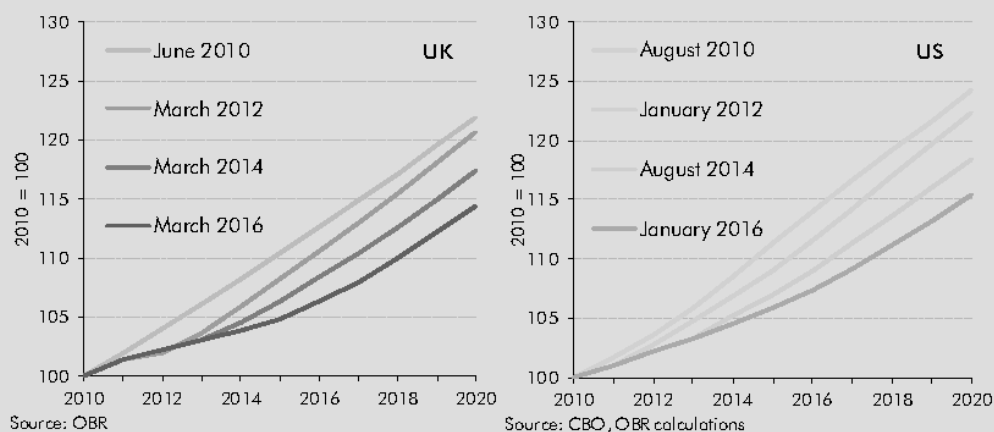
Note: IMF forecasts for potential output are inferred by combining GDP and output gap forecasts.  
Source: HM Treasury, IMF, OECD, OBR

### Box 3.1: Post-crisis revisions to potential output and productivity in the UK and US

Over the long run the vast majority of output growth is driven by productivity growth, and so the judgement we take on productivity is critical in assessing the likely path of output. That judgement is subject to considerable uncertainty. As discussed in paragraphs 3.17 to 3.19, we have revised down our forecast for trend or potential productivity – the amount of output that the economy could produce sustainably per hour worked – materially since November, just as we did in November 2011. But productivity has also disappointed in many other major advanced economies in recent years, leading other forecasters to revise down their expectations.

Chart A compares different vintages of our five-year forecasts for trend productivity in the UK (extrapolated for the earlier forecasts) to the Congressional Budget Office's (CBO) 10-year forecasts for the US. Since our first forecast in June 2010 – and taking into account the judgement we have made in this forecast – we have revised down our forecast for cumulative trend productivity growth between 2010 and 2020 by 7½ percentage points, from 22 to 14½ per cent. Much the same has happened in the US, where the CBO has reduced its forecast over the same period by 9 percentage points, from 24½ to 15½ per cent.

Chart A: Vintages of UK and US trend hourly productivity forecasts



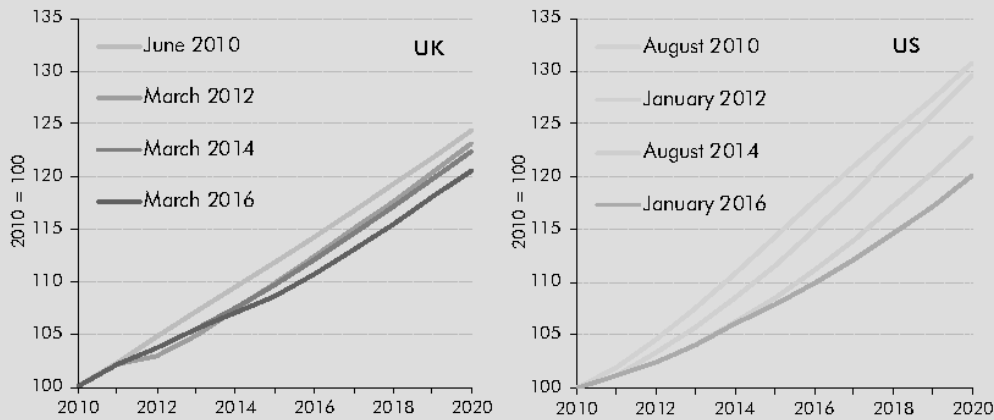
Source: OBR

Source: CBO, OBR calculations

Note: UK trend productivity is defined as potential non-oil GVA divided by potential hours worked, while US trend productivity is defined as potential non-farm business output divided by potential hours worked in the non-farm business sector.

As productivity is the key driver of output growth, these downward revisions feed through to lower forecasts for potential output growth. Recent vintages of these forecasts are shown in Chart B. Our potential output growth forecasts for the UK have been revised down by 4 percentage points, rather less than the revision to trend productivity. The CBO's potential output forecasts for the US have been revised down by 11 percentage points, slightly more than the revision to trend productivity. Looking at the output data in per capita terms (per adult, aged 16+) tells a similar story, with the UK and US having seen downward revisions over the period of 5 and 11 percentage points respectively.

Chart B: Vintages of UK and US potential output forecasts



Source: OBR

Source: CBO, OBR calculations

Note: UK trend output is defined as potential non-oil GVA, while US trend output is defined as potential non-farm business output.

Table A decomposes the changes in our and the CBO’s potential output assumptions over the decade to 2020. It shows that the reason for potential output growth being revised down less than trend productivity in the UK but more than trend productivity in the US is largely due to developments in the labour market. In particular, we estimate the trend participation rate will have been flat across the decade, despite an ageing population. In the US, the CBO expects it to have fallen significantly. Population growth has boosted potential output by more than expected in both countries, with net migration being the main factor in the UK.

Table A: Contributions to potential output growth between 2010 and 2020

	Percentage growth between 2010 and 2020, unless otherwise stated					Potential output growth <sup>4</sup>
	Potential productivity <sup>1</sup>	Potential average hours	Potential participation rate <sup>2</sup>	Structural unemployment rate <sup>2,3</sup>	Potential population <sup>2</sup>	
<b>OBR estimates for the UK</b>						
June 2010	21.9	-2.0	-1.8	0.0	5.8	24.1
March 2016	14.4	-1.0	0.0	-0.2	6.7	20.6
<b>Change</b>	<b>-7.5</b>	<b>0.9</b>	<b>1.8</b>	<b>-0.2</b>	<b>0.9</b>	<b>-3.5</b>
<b>OBR calculations based on CBO estimates for the US</b>						
August 2010	24.3	-0.8	-3.0	0.0	9.5	30.8
January 2016	15.4	-0.6	-5.6	0.3	10.6	20.0
<b>Change</b>	<b>-8.9</b>	<b>0.2</b>	<b>-2.6</b>	<b>0.3</b>	<b>1.1</b>	<b>-10.8</b>

<sup>1</sup> Output per hour.

<sup>2</sup> Corresponding to those aged 16 and over.

<sup>3</sup> Percentage point growth between 2010 and 2020.

<sup>4</sup> Changes may not sum due to rounding and interaction effects.

Note: UK and US trend output is defined as in Chart B. Non-farm business employment forecasts are not available for the US, and so we have assumed that non-farm business employment grows at the same rate as whole economy employment.

## Key economy forecast assumptions

3.25 Our economic forecasts are conditioned on a number of assumptions. Among them, we assume that domestic and international interest rates, the exchange rate, equity prices and oil prices move in line with market expectations, taking the 10-day average to 25 February 2016. We also base our forecasts on the Government's current stated policies for taxes, public spending and financial transactions, as Parliament requires of us. This is in contrast to some external forecasts, in which the forecasters may assume that these policies will change. The risks to our forecasts are discussed later in the chapter.

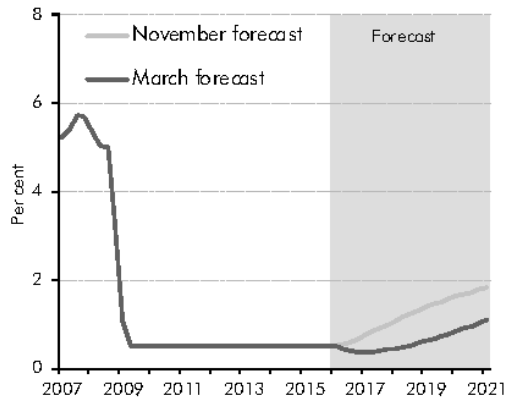
### Monetary policy and credit conditions

- 3.26 Our forecast assumes that the Bank of England will try to bring inflation back to target over its forecast horizon, consistent with the remit the Chancellor has set the Monetary Policy Committee (MPC). In its February 2016 *Inflation Report*, the MPC forecast – on the basis of market interest rate expectations at the time – that CPI inflation would reach 2.05 per cent by the beginning of 2018 and 2.25 per cent by early 2019. In its latest *Monetary Policy Summary* the Bank of England has said that “the MPC judges it more likely than not that Bank Rate will need to increase over the forecast period to ensure inflation remains likely to return to the target in a sustainable fashion”.
- 3.27 Market expectations of Bank Rate have fallen significantly since November. They are below the current rate of 0.5 per cent for the next two years, do not reach 0.75 per cent until 2019 (a full decade after Bank Rate was initially cut to 0.5 per cent) and only reach 1.1 per cent by the end of our 5-year forecast period. As we have used market expectations throughout the forecast period, our forecast is consistent with Bank Rate being reduced below 0.5 per cent for some of the next two years. We consider that to be consistent with the Bank of England's published guidance on the possibility of Bank Rate cuts if the Monetary Policy Committee considered that necessary in setting policy to meet its inflation target.<sup>7</sup> (Chart 3.8 above shows a number of previous occasions when Bank Rate expectations fell materially below 0.5 per cent for a period, but all preceded the guidance on which we have based our latest assumption.)
- 3.28 Gilt rate expectations have also fallen and global bond yields are lower (Chart 3.11). These developments are all consistent with market participants downgrading their expectations of future growth prospects.

<sup>7</sup> For example, the February 2015 *Inflation Report* stated that “...there are risks to the inflation outlook in both directions. Were downside risks to materialise, market expectations of the future path of interest rates could adjust to reflect an even more gradual and limited path for Bank Rate increases than is currently priced. The Committee could also decide to expand the Asset Purchase Facility or to cut Bank Rate further towards zero from its current level of 0.5%. The scope for prospective downward adjustments in Bank Rate reflects, in part, the fact that the United Kingdom's banking sector is operating with substantially more capital now than it did in the immediate aftermath of the crisis. Reductions in Bank Rate are therefore less likely to have undesirable effects on the supply of credit to the UK economy than previously judged by the MPC. Were upside risks to materialise, it would be appropriate for Bank Rate to increase more quickly than embodied in current market yields but the likelihood is that those increases would still be more gradual and limited than in previous tightening cycles. The MPC stands ready to take whatever action is needed, as events unfold, to ensure inflation remains likely to return to target in a timely fashion.”

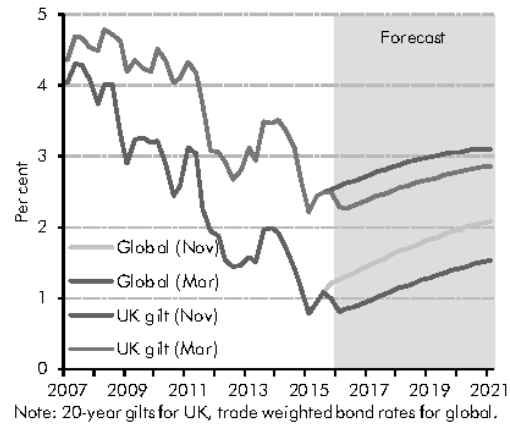


Chart 3.10: Bank Rate



Source: Bank of England, Datastream, OBR

Chart 3.11: Global bond yields



Note: 20-year gilts for UK, trade weighted bond rates for global.

### Macroprudential policy

- 3.29 Since 2013, the Bank of England’s Financial Policy Committee (FPC) has held responsibility for “the identification of, monitoring of, and taking of action to remove or reduce systemic risks with a view to protecting and enhancing the resilience of the UK financial system”. In its latest *Financial Stability Report*, the FPC judged that the risks to financial stability had increased since July, but did not believe the risk level to be ‘elevated’.
- 3.30 Buy-to-let lending has been driving the growth in the UK mortgage market, having risen more strongly than owner-occupier lending since 2008. The FPC has said it will remain vigilant to competition pressures leading to a fall in underwriting standards in the buy-to-let market and has recommended that it be granted powers of direction over loan-to-value and interest coverage ratio limits. The consultation period on these tools closed on 11 March 2016. The Government has recently announced some policies that are likely to affect the buy-to-let market. For example, in November’s *Autumn Statement*, it announced a 3 per cent stamp duty land tax surcharge on purchases of second properties worth over £40,000, which we assume will reduce the incentive to purchase second homes, including buy-to-let.
- 3.31 The FPC has previously implemented recommendations including that mortgage lenders should not extend more than 15 per cent of new owner-occupier mortgages at loan-to-income multiples at or greater than 4.5, and that lenders should apply an interest rate stress test of 3 percentage points above the rate at origination. The FPC has also introduced a framework that assigns a minimum leverage ratio of 3 per cent for UK financial institutions, supplemented by an additional component that is set in relation to the economic and financial climate at the time and a further buffer for firms that are considered to be of systemic importance. At its most recent meetings, the FPC made no new recommendations with regard to macroprudential policy.

## Credit conditions

- 3.32 Having narrowed steadily up to the end of 2014, bank funding spreads widened over the course of 2015, although they remain much narrower than between 2010 and 2013. Despite this, average mortgage rates fell steadily through the course of 2015, largely reflecting falls in average fixed rates as maturing contracts moved on to lower rates. We expect the effective mortgage rate to continue falling in the near term as maturing contracts are re-set. Mortgage rates are expected to begin rising from the end of 2017, as the gradual increase in Bank Rate offsets a narrowing in margins. Our assumptions about the evolution of margins and funding spreads are little changed from November, so a lower expected path for Bank Rate means that effective mortgage rates are also expected to be lower than we assumed in November.
- 3.33 Net mortgage lending to households picked up steadily through 2015 and we expect mortgage debt to continue to rise over the forecast period as house prices grow more quickly than incomes and the share of cash transactions falls back towards its historical level. Unsecured lending grew strongly in 2013 and 2014 – supported by lending for car purchases – and recent Bank of England data suggest that consumer credit continued to grow strongly through 2015 and at the start of 2016, with unsecured net lending to individuals increasing by 9.1 per cent in the year to January. We expect the ratio of unsecured debt to income to continue to rise steadily over the forecast period as consumption growth outpaces the growth of household disposable income. Further discussion of our household debt forecast can be found in paragraphs 3.88 to 3.90.
- 3.34 Bank lending to both large businesses and small and medium-sized enterprises (SMEs) has generally contracted, on an annual basis, over the past few years. The effect of restricted credit availability has been more severe for SMEs, as they are unable to raise funding through non-bank sources, such as the issuance of bonds or equity. While net lending to large businesses continued to contract on an annual basis in 2015, there was some evidence of an easing in credit conditions for SMEs towards the end of the year, with annual net lending growth turning positive from September.

## Fiscal policy and Budget measures

- 3.35 The uneven path of Budget giveaways and takeaways over the next five years has meant that the overall pace of fiscal tightening – which in November was relatively smooth and diminishing over time – is set to pick up slightly over the next three years, then dramatically in 2019-20 before slowing abruptly in 2020-21. The fiscal multiplier framework that we use to estimate the overall effect of changes in fiscal policy on the economy was explained in Box 3.2 of our July *EFO*. In Box 3.2 below, we describe how our current forecast has been affected by the fiscal and other policy changes announced in this Budget that we consider sufficiently material to warrant an explicit adjustment to our economy forecast.
- 3.36 The Government has announced that a referendum will be held on 23 June to determine whether the UK should remain a member of the European Union (EU) – and the Government is arguing that it should. Parliament has told us to prepare our forecasts on the

basis of the current policy of the current Government and not to consider alternatives, so our central forecast is conditioned on that assumption. Box 3.4 discusses external views of some of the risks and uncertainties associated with the referendum and possible outcomes.

### Box 3.2: The economic effects of policy measures

This box considers the possible effects on the economy of the policy measures announced in this Budget. More details of each measure are set out in the Treasury's documents. Our assessment of their fiscal implications can be found in Chapter 4 and Annex A.

The Government has loosened **fiscal policy** in the short term, reflecting net tax reductions and increases in Departmental Expenditure Limits (DELs), both current and capital. The Government has then increased the pace of fiscal tightening significantly in 2019-20, accounted for by net tax increases and lower spending on welfare, public services and capital investment. To reflect these changes in our economy forecast we have applied the same 'multipliers' we have used in previous forecasts. These are larger the shorter the period between a policy being announced and implemented. They imply a 0.1 percentage point boost to real GDP growth in 2017-18 and 0.1 percentage point reductions in both 2018-19 and 2019-20. These effects are sufficient to push the economy slightly above its potential level in 2017 and 2018 and slightly below in 2019, with the output gap closing by the end of 2020. The Government adjusted its plans for capital investment in 2020-21 after we closed our economic forecast. At this horizon we would assume that the multiplier has tapered to zero, so incorporating this adjustment would have no effect on our forecast for real GDP, although it would have had a small effect on the composition of expenditure.

The Budget includes two measures that are expected to affect the cost of capital faced by firms and therefore **business investment** – a reduction in the corporation tax rate to 17 per cent in 2020-21 and restrictions on corporate interest deductibility. We also adjusted our forecast to reflect one additional measure, but the Government informed us that it would not be going ahead after our final economy forecast had been closed. As a result, our business investment forecast is around 0.5 per cent higher in 2020-21 than would be consistent with the final policy package announced in the Budget. The net effect of the other two measures was small.

The Government has announced that **termination payments** over £30,000 will be subject to employer National Insurance Contributions. In the near term we expect the additional cost to employers to be reflected in lower wages and profit margins, with the majority of the cost passed through to wages by the end of the forecast period. This implies a reduction in total wages and salaries of 0.1 per cent by 2020-21.

The Budget includes a number of policies that are likely to affect **housing associations'** finances. They include changes to 'pay to stay' (which is to be made voluntary rather than mandatory for housing associations, while rents above income thresholds are to be subject to a taper rather than a cliff edge); a one-year deferral of the capping of social sector rents in line with local housing allowance eligible rents; and a one-year deferral of the 1 per cent reduction in social rents for supported housing. We expect these measures to affect housing associations' future housebuilding decisions, reducing total residential investment by 0.7 per cent by 2020-21.

The Government has announced the introduction of a **'lifetime ISA'** for the under-40s. Contributions into the lifetime ISA will be made out of taxed income, then matched and not subject to tax when accessed, with an annual contribution limit of £4,000. Holders of lifetime ISAs will be allowed to make 100 per cent withdrawals for first-time house purchases up to £450,000. We think this is more likely than not to lead to higher demand for the relatively fixed supply of housing in the UK, and so to higher prices. We have therefore added 0.3 per cent to the level of house prices by the end of the forecast, although the effect of this policy is highly uncertain.

The Government has announced a number of policies that we expect to have an impact on **inflation**. The implementation of a soft drinks industry levy has the largest effect, and is expected to add around a quarter of a percentage point to CPI growth in 2018-19. We have also made small adjustments for several other policies announced in this Budget. The effects of these measures are small and broadly offsetting, and taken together imply almost no change to our CPI forecast. Measures which are expected to slightly increase CPI inflation across the forecast period include increases in tobacco duty and insurance premium tax, and measures to combat VAT fraud. Other policies are expected to reduce CPI inflation slightly, including the freezes to fuel and most alcohol duties. The replacement of the carbon reduction commitment with a higher climate change levy is also expected to lower inflation: while the net effect of these energy policies is to increase costs for medium sized companies, they reduce costs for large companies that make up a higher proportion of turnover. We expect this fall in costs to be passed through to consumers.

## World economy

- 3.37 Global financial markets have been volatile over the past few months, with stock markets and commodity prices falling sharply and market expectations of future monetary tightening pushed back considerably. Market indicators of volatility also increased at the start of 2016. Real economy indicators have not been as weak as financial markets, but there have been downward revisions since our November forecast.
- 3.38 World GDP is estimated to have increased by 3.1 per cent in 2015, in line with our November forecast. We now expect world GDP to grow by 3.3 per cent in 2016, down from 3.5 per cent expected in November. We have also revised down our forecast for world GDP growth in 2017 and 2018. Thereafter, it is unchanged from November.
- 3.39 In the fourth quarter of 2015, euro area GDP was up 1.6 per cent on a year earlier, the same rate as the previous two quarters. It was up 1.3 per cent in Germany, 1.4 per cent in France and 1.0 per cent in Italy, while Spain saw much stronger growth of 3.5 per cent. Euro area GDP is estimated to have increased by 1.6 per cent in 2015 as a whole, slightly higher than our November forecast. The latest data were released after we had closed our forecast for the global economy. From 2016 onwards, our forecast for GDP growth in the euro area is little changed since November.

- 3.40 Deflation in the euro area remains a risk to the global and UK outlook. Euro area inflation fell to -0.2 per cent in February, having been just above zero since September. Core inflation was also lower in February, falling to 0.7 per cent. Unemployment fell to 10.3 per cent in January, continuing a path of steady decline from a high level. The European Central Bank announced a loosening of monetary policy after we closed the forecast, in order to support the euro area economy in a manner that it deems consistent with its inflation target. This included interest rate cuts, taking the interest rate on the deposit facility to -0.4 per cent, as well as an expansion to its quantitative easing programme, increasing the quantity and types of bonds that can be bought.
- 3.41 US GDP is estimated to have increased by 2.4 per cent in 2015 as a whole, the same rate as estimated for 2014. US GDP grew by 1.0 per cent in the second quarter of 2015, then by 0.5 per cent in the third quarter and 0.3 per cent in the final quarter. The slowing GDP growth in the final quarter was a result of lower contributions from private consumption and government spending. Private investment, private inventories and net trade also acted as a drag on GDP growth in the final quarter. Unusually adverse weather conditions at the start of 2016 may also reduce GDP growth in the first quarter of 2016, as in 2015.
- 3.42 China's GDP is estimated to have grown by 6.9 per cent in 2015 as a whole, down from 7.3 per cent in 2014. Real economy indicators and external forecasts suggest that real GDP growth will slow further in 2016 and 2017. In its January 2016 *WEO Update*, the IMF identified a "sharper-than-expected slowdown along China's needed transition to more balanced growth" as a potential downside risk to global growth.

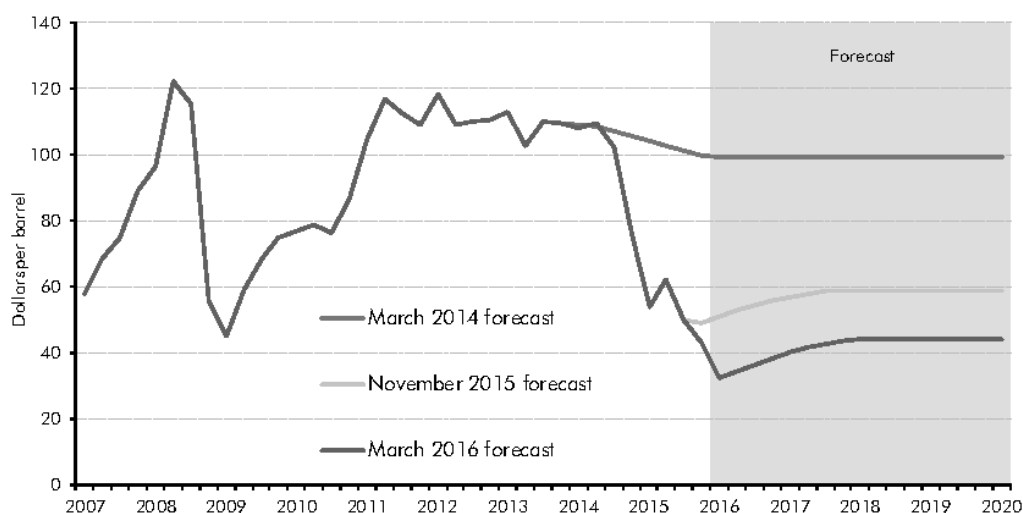
### World trade and UK export market growth

- 3.43 The latest global trade data have been weaker than we expected in November. We now estimate that world trade in goods and services grew by 2.4 per cent in 2015, lower than we forecast in November. In our November *EFO*, we forecast that trade growth would be lower over the forecast period than the latest IMF forecast available at the time. That was based on a judgement that the trade intensity of world GDP growth (i.e. the ratio of world trade growth to world GDP growth) would increase at a slower rate than was implied by the IMF forecast. We have not altered that judgement, which means that lower expected world GDP growth between 2016 and 2018 has led to a downward revision to world trade growth in those years. Since November, the IMF has revised down its forecast for world trade growth in 2016 and 2017. These changes were driven by downward revisions to trade in emerging markets, with a smaller downward revision to trade in advanced economies.
- 3.44 UK export markets are estimated to have grown by 4.1 per cent in 2015, in line with our November forecast. We have revised down UK export markets growth between 2016 and 2018, reflecting the downward revision to world trade. The downward revision to world trade growth in our forecast – informed by the IMF's revisions – is concentrated in emerging markets, which have a lower weight in UK export markets. That means that while UK export markets growth has been revised down since November, the cumulative change is smaller than the downward revision to world trade. We expect UK export markets to grow by 4.5 per cent a year in 2019 and 2020, unchanged from November.

## Oil prices

3.45 One of the biggest changes to the market-derived assumptions we use in our forecasts since November relates to oil prices. In the 10 days to 25 February, oil prices averaged \$33.7 per barrel, 29 per cent lower than in our November forecast (Chart 3.12). The fall since we closed our March 2014 forecast has been 69 per cent. By the beginning of 2020, the differences are slightly smaller at 25 per cent lower than the November assumption and 56 per cent lower than the March 2014 assumption. This reflects the change from a downward sloping futures curve in March 2014 to moderately upward sloping curves in November and now. We use the first two years of the curve in our forecast, holding prices flat thereafter.

Chart 3.12: Oil price assumption

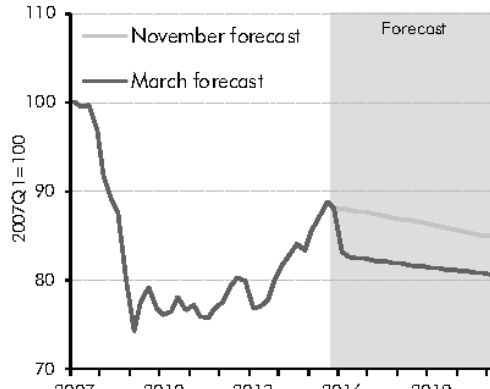


Source: Datastream, IMF, OBR

## Other conditioning assumptions

3.46 We also use market-derived conditioning assumptions for our exchange rate and equity price forecasts. We assume that the exchange rate follows the path implied by the uncovered interest parity condition: so that the exchange rate will move to reflect the differential between UK and overseas interest rates so as to equalise the expected return to investing at home and abroad. In the first quarter of 2016 we expect the sterling effective exchange rate to be 5.5 per cent lower than our November assumption. That reflects the recent depreciation of sterling against both the US dollar and the euro. The exchange rate is expected to depreciate over the forecast period as the forward UK interest rate curve is above the average of the UK's major trading partners (Chart 3.13). We assume equity prices rise in line with nominal GDP from their current level. The FTSE all-share index has fallen almost 8 per cent since November (Chart 3.14).

Chart 3.13: Sterling effective exchange rate assumption



Source: Bank of England, Bloomberg, Datastream, OBR

Chart 3.14: Equity prices assumption



## Summary

3.47 To summarise, the key assumptions underpinning our central forecast are that:

- **monetary policy** remains very loose – even more so than assumed in November. It does not begin to tighten until the final quarter of 2019;
- **fiscal consolidation** continues to depress the level of GDP. The effects of the Government’s decisions in this Budget are uneven across the forecast period. The pace of fiscal tightening has eased next year, but it is now set to intensify in 2019-20 as the Government tightens policy significantly to meet its surplus target;
- the **UK remains a member of the European Union**, in line with current Government policy;
- **credit conditions and the financial system** continue to normalise gradually; and
- **global activity and demand for UK exports** pick up steadily over the forecast period, albeit slightly more slowly than expected in November.

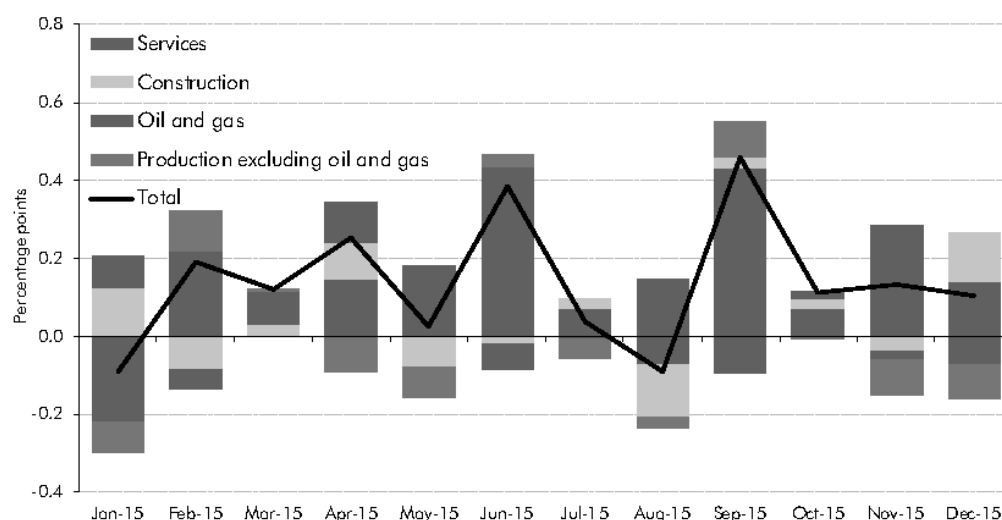
3.48 Risks and uncertainties associated with these assumptions and other facets of the forecast are discussed later in the chapter.

## Prospects for real GDP growth

### The short-term outlook for GDP

3.49 On a monthly basis, Chart 3.15 shows that the services sector made positive contributions to GDP growth in nine months during 2015, although these contributions were lower on average than in 2014 and also slightly more volatile. Manufacturing growth declined in each of the last three months of 2015 and fell over 2015 as a whole. Contributions from the North Sea and construction sectors have continued to be volatile.

Chart 3.15: Contributions to monthly output growth



Source: ONS

3.50 The economy grew by 0.5 per cent in the final quarter of 2015, in line with our November forecast. But quarterly GDP growth rates earlier in the year have been revised down since November, and they have been lower on average than in 2014. That has happened despite the fall in the oil price since the second half of 2014, which was expected to support real incomes and consumption. But that boost will have been partly offset by the in-year public spending cuts announced in June.

Table 3.3: The quarterly GDP profile

	Percentage change on previous quarter											
	2014				2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
March forecast <sup>1</sup>	0.6	0.8	0.7	0.7	0.4	0.6	0.4	0.5	0.5	0.5	0.5	0.5
November forecast <sup>2</sup>	0.6	0.9	0.6	0.8	0.4	0.7	0.5	0.5	0.5	0.7	0.7	0.6
Change <sup>3</sup>	0.0	-0.1	0.0	-0.1	0.1	-0.1	-0.1	0.0	-0.1	-0.2	-0.2	-0.1

<sup>1</sup> Forecast from first quarter of 2016.

<sup>2</sup> Forecast from fourth quarter of 2015.

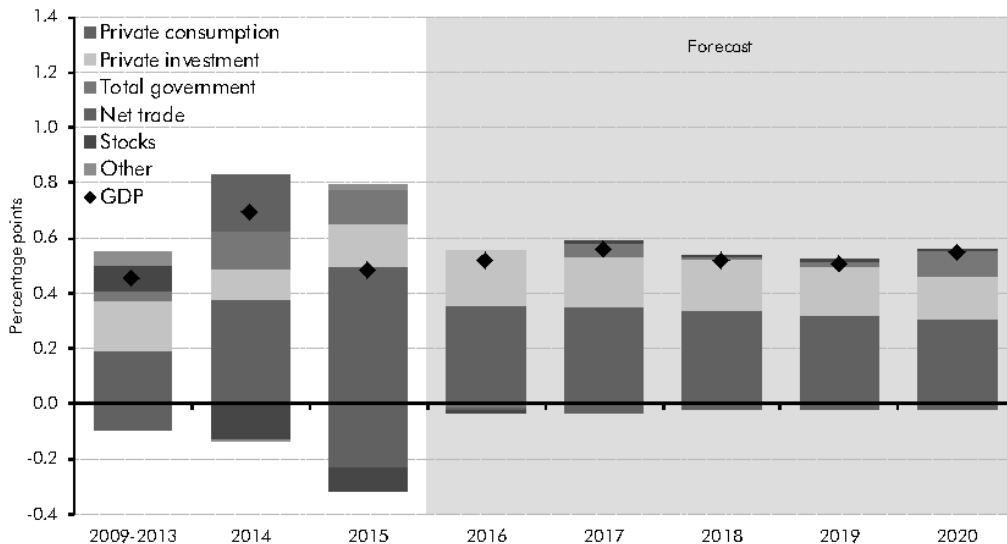
<sup>3</sup> Changes may not sum due to rounding.



### The medium-term outlook

- 3.51 Our forecasts for growth in the medium term are determined by the amount of spare capacity in the economy, and the speed with which we expect it to return to productive use. The conditioning assumptions discussed in the previous section all inform that judgement.
- 3.52 Our latest estimates of the output gap indicate relatively little spare capacity at the end of 2015. The downward revision to our forecast of potential output growth means that we expect weaker GDP growth in the medium term, with quarterly GDP growth expected to average around 0.5 per cent. While this is slightly below the rates of growth in 2013 and 2014, it is similar to the average rate seen in 2015. Relative to the recent past, we expect the balance of growth to shift away from employment growth, with GDP growth supported by a gradual increase in productivity and average earnings growth. On the expenditure side, we expect private consumption and investment to account for nearly all GDP growth as the fiscal consolidation continues, with little contribution from net trade.

Chart 3.16: Contributions to average quarterly GDP growth

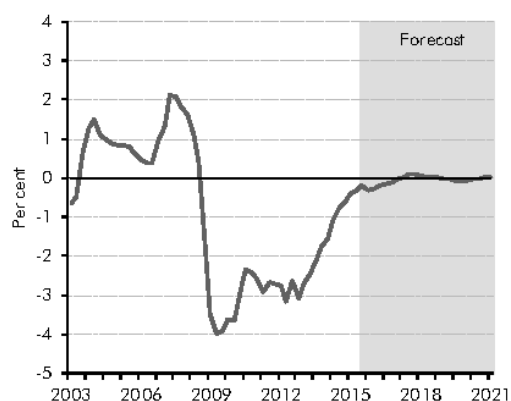


Note: 'Other' category includes the statistical discrepancy and the residual between GDP and the expenditure components prior to the base year (2012).  
Source: ONS, OBR

- 3.53 Our forecast implies a cumulative increase in real GDP of 12.2 per cent between the third quarter of 2015 and the start of 2021 – a downward revision of 1.5 percentage points from the 13.7 per cent we expected in November. Of this downward revision, around 0.4 percentage points is accounted for by a narrower output gap at the start of the forecast, with the remainder accounted for by a downward revision to cumulative potential output growth. Charts 3.17 and 3.18 show our latest medium-term forecasts in terms of the output gap and the levels of actual and potential output. The slightly uneven path of the output gap

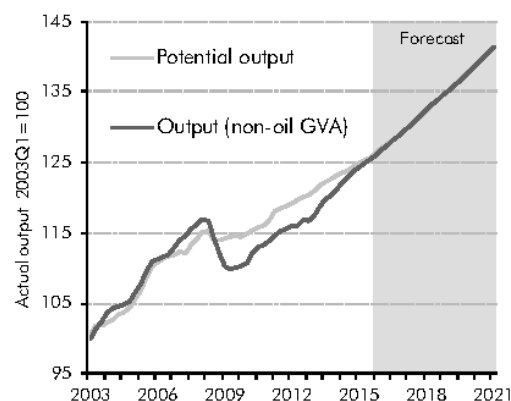
over the forecast period reflects the uneven year-on-year profile in the overall effect of policy decisions announced in the Budget (as explained in Box 3.2).

Chart 3.17: The output gap



Note: 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

Chart 3.18: Projections of actual and potential output



Source: ONS, OBR

3.54 Table 3.4 summarises the expenditure composition of our real GDP forecast. Growth in 2015 is estimated to have been lower than we forecast in November, with net trade acting as a drag rather than providing the small positive contribution we expected. This is partly offset by changes in inventories, which acted as less of a drag than we expected in November. Thereafter we have also revised down our forecast for GDP growth, with lower contributions from consumption and business investment. Later sections of this chapter discuss our forecasts for the expenditure components of GDP in more detail.

Table 3.4: Expenditure contributions to real GDP growth

	Percentage points, unless otherwise stated						
	Outturn 2014	2015	2016	2017	2018	2019	2020
<b>GDP growth (per cent)</b>	<b>2.9</b>	<b>2.2</b>	<b>2.0</b>	<b>2.2</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>
<b>Main contributions</b>							
Private consumption	1.6	1.9	1.6	1.4	1.4	1.3	1.3
Business investment	0.4	0.5	0.2	0.6	0.6	0.6	0.5
Dwellings investment <sup>1</sup>	0.6	0.2	0.3	0.1	0.1	0.2	0.1
Government <sup>2</sup>	0.7	0.4	0.0	0.2	0.1	0.0	0.3
Change in inventories	0.2	-0.4	0.2	0.0	0.0	0.0	0.0
Net trade	-0.4	-0.5	-0.4	-0.1	-0.1	-0.1	-0.1

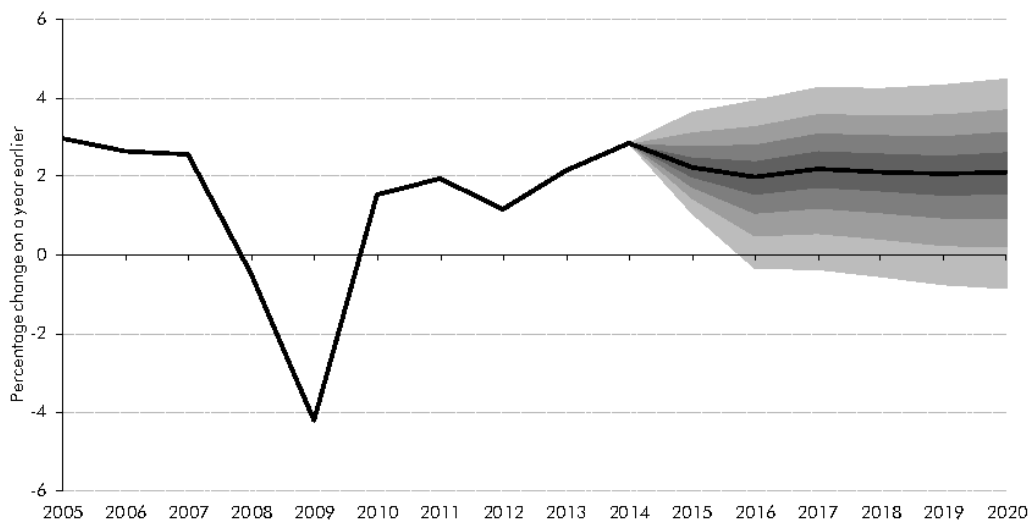
<sup>1</sup> The sum of public corporations and private sector investment in new dwellings, improvements to dwellings and transfer costs.

<sup>2</sup> The sum of government consumption and general government investment.

Note: Components may not sum to total due to rounding and the statistical discrepancy.

3.55 Our central GDP growth forecast is shown in Chart 3.19. History suggests that the outturn is unlikely to be anywhere near as smooth as this, but we judge that deviations are as likely to be above as below it. The distribution surrounding the central forecast shows the probability of different outcomes based on past forecast accuracy. The solid black line shows our median forecast, with successive pairs of lighter shaded areas around it representing 20 per cent probability bands. These are based on the historical distribution of official forecast errors. They do not represent a subjective measure of the distribution of risks around the central forecast. Such risks are discussed at the end of the chapter. The Government's fiscal mandate requires us to say whether GDP growth has, or is expected to, fall below 1 per cent on a 4-quarter-on-4-quarter basis. This is discussed further in Chapter 5.

Chart 3.19: Real GDP growth fan chart



Source: ONS, OBR

## Prospects for inflation

3.56 In assessing the outlook for the economy and the public finances, we are interested in a number of measures of inflation, including the Consumer Prices Index (CPI) and the Retail Prices Index (RPI). The basic measurement approach is the same in both indices, although there are a number of differences in coverage and the methods used to construct them (see Box 3.3 of our March 2015 EFO for details). We also forecast the GDP deflator and its components, which are used in generating our nominal GDP forecast.

3.57 The CPI and RPI measures of inflation are important because they both affect our fiscal forecast. The Government uses the CPI for the indexation of many tax rates, allowances and thresholds, and for the uprating of benefits and public sector pensions. The RPI is used to calculate interest payments on index-linked gilts, student loan payments and the revaluation of excise duties. The ONS publishes other inflation measures, but these do not currently affect the public finances, so we do not forecast them.

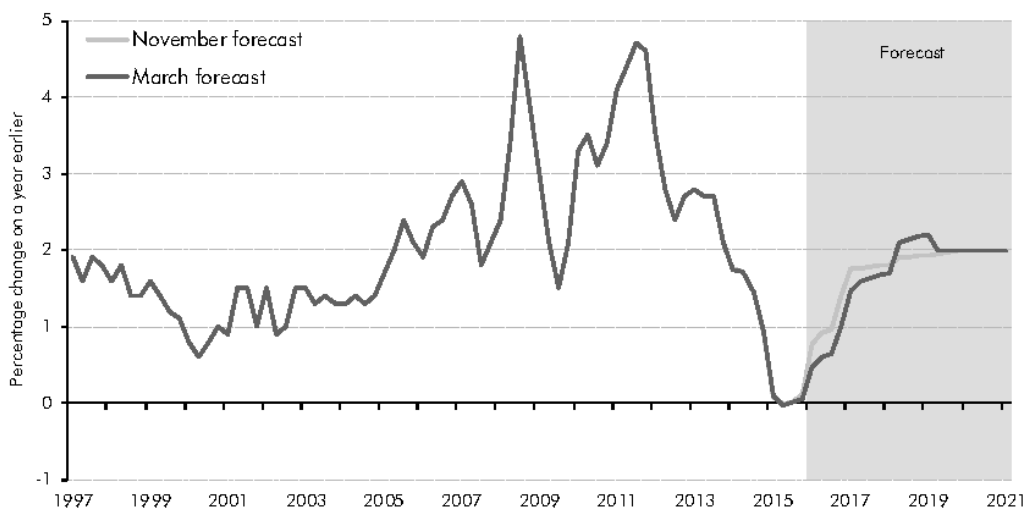
## CPI inflation

- 3.58 Annual CPI inflation was 0.1 per cent in the final quarter of 2015, in line with our November forecast. The latest monthly data show inflation at 0.3 per cent in January, the highest rate for a year. As discussed below, much of the present weakness is due to falling prices in volatile components including energy, food and alcohol. 'Core' CPI, which excludes these components as well as tobacco, has been stronger (although still relatively low), standing at 1.2 per cent in January. Inflation in import intensive goods and services has also remained relatively subdued following the appreciation of sterling that began in 2013 and which has only very recently begun to reverse. The final quarter of 2015 gave mixed signs for domestic inflationary pressures, with margins slightly falling over the year, but the sharp drop in productivity leading to a 1.1 per cent increase in unit labour costs.
- 3.59 Since our November forecast the price of oil has continued to fall, contrary to market expectations at the time (see Chart 3.12). This has fed through to fuel prices, which fell 12.8 per cent in the year to the final quarter of 2015, pulling down headline CPI inflation by 0.4 percentage points. Food prices fell 2.7 per cent over the same period, subtracting a further 0.3 percentage points from headline CPI.
- 3.60 These components continue to weigh on our CPI forecast in the near term, with a slow pick-up in inflation expected for the first three quarters of 2016. But they then contribute to the rise in inflation we expect in the medium term:
- markets expect substantial **oil price rises** from 2017, though the absolute price level is expected to remain low by recent historical standards. We expect this to feed through to higher petrol price growth over the same period, although with the level remaining below that implied in our November forecast;
  - the recent sharp depreciation of the **sterling effective exchange rate**, as well as our conditioning assumption of further depreciation, is expected to slowly pass through to higher prices in import intensive goods and services across the forecast period; and
  - **food price inflation** is expected to return to around its historical average over the next 18 months, reflecting both an expected stabilisation in global food commodity prices and the sterling depreciation.
- 3.61 Working against these trends, recent falls in wholesale gas prices are forecast to act as a drag on inflation in the medium term as they pass through to retail prices. We expect this to happen slowly since utility companies buy wholesale energy up to two years in advance.
- 3.62 Inflation is forecast to move above the Bank of England's 2 per cent target in the second quarter of 2018, when the effect of the soft drinks industry levy announced in this Budget affects prices. We expect it to add around a quarter of a percentage point to CPI growth in 2018-19. Since the levy is unchanged in future years it affects the level, not the growth, of the CPI. We expect the Bank of England to look through this temporary effect, and so allow the rate of inflation to exceed 2 per cent until the impact of the levy dissipates. With the

output gap then close to zero and the expected transitory shocks to inflation complete, we assume that the Bank of England will keep inflation on target for the rest of the forecast. To the extent that the levy leads to reduced consumption of soft drinks, their weight in the CPI would fall in subsequent years, with the effect lagged because the ONS updates the weights in the index once a year to reflect the consumption patterns of two years previously.

- 3.63 As well as the soft drinks industry levy, we have also made small adjustments for several other policies announced in this Budget. These include changes to tobacco, fuel and most alcohol duties, the measures to reduce VAT fraud, and energy policies. The effects are small and broadly offsetting, and taken together imply almost no change to our CPI forecast.

Chart 3.20: CPI inflation



Source: ONS, OBR

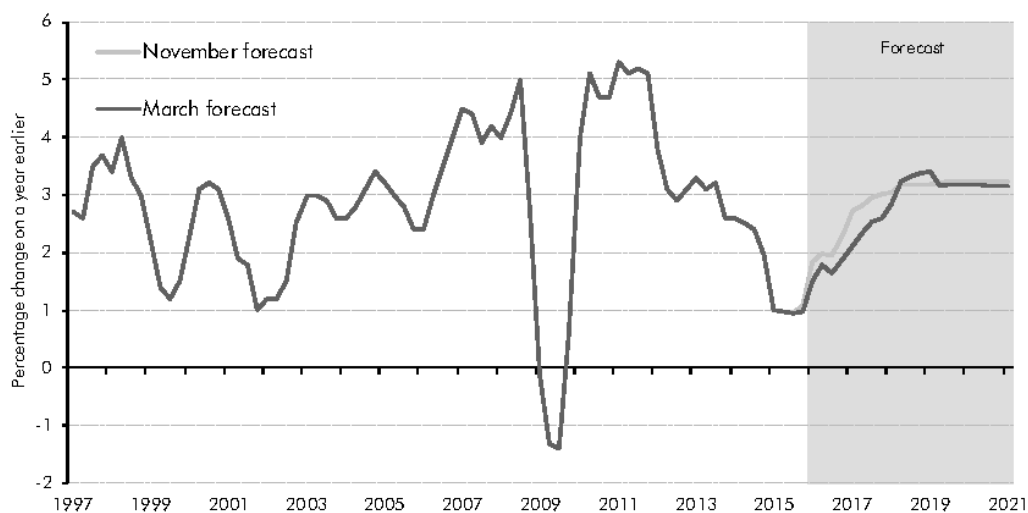
### RPI inflation

- 3.64 The calculation of RPI inflation in the UK does not meet international statistical standards,<sup>8</sup> but we continue to forecast it as an input in our fiscal forecasts – notably as a determinant of the interest paid on the large stock of index-linked gilts.
- 3.65 RPI inflation was 1.0 per cent in the fourth quarter of 2015, 0.1 percentage points lower than our November forecast. We expect RPI inflation to follow a similar path to CPI inflation over 2016, rising to 1.9 per cent by the end of the year. Across 2017 and 2018 we expect a rise in mortgage interest payments (MIPs), driven by small rises in the effective mortgage interest rate and the accumulation of mortgage debt. This feeds through to an increase in the wedge between RPI and CPI, which reaches 1.1 per cent in the first quarter of 2018 and is little changed for the rest of the forecast. Our RPI forecast is weaker than in November, in line with the weaker CPI profile.

<sup>8</sup> ONS, *Response to the National Statistician's consultation on options for improving the Retail Prices Index*, February 2013.

- 3.66 The RPI profile has also been adjusted to account for the policies announced in this Budget and discussed above. They affect RPI in a very similar way to CPI, so make almost no difference to the wedge between the two.

Chart 3.21: RPI inflation



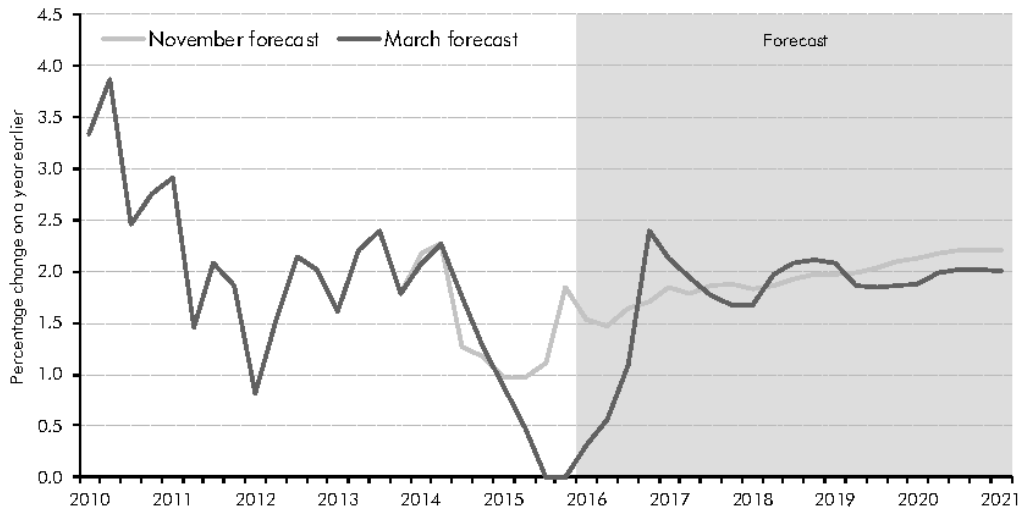
Source: ONS, OBR

## The GDP deflator

- 3.67 GDP deflator growth is the broadest measure of inflation in the domestic economy. It measures changes in the prices of the goods and services that make up GDP, including price movements in private and government consumption, investment and the relative price of exports and imports – the terms of trade.
- 3.68 As discussed in Chapter 2, the latest National Accounts data show that GDP deflator growth in the second half of 2015 was substantially below our November forecast. In the latest quarter its annual growth stood at zero – the (joint) lowest rate in 55 years – providing a very low starting point for the deflator forecast. This weakness was partly due to a very weak contribution from the change in inventories, a volatile component. We assume that the implied deflator for the change in inventories returns to a historical average over the next year. This unwinding, as well as a pick-up in the private and government consumption deflators, causes the GDP deflator level to increase steadily over the course of 2016. The low outturns in 2015 result in significant base effects in the annual growth rate, which spikes at 2.4 per cent at the end of 2016.
- 3.69 Annual growth in the GDP deflator falls away over 2017 as the base effects from the change in the inventories component wane. It then picks up from the middle of 2018, driven by the growth of the consumption deflator, which is linked to our CPI forecast. The path of GDP deflator growth in 2019 and 2020 is slightly uneven reflecting both CPI falling

back to target in the middle of 2019, and the uneven path of government consumption growth implied by the Government's latest fiscal plans.

Chart 3.22: GDP deflator



Source: ONS, OBR

## Prospects for nominal GDP growth

- 3.70 Most public discussion of economic forecasts focuses on real GDP – the volume of goods and services produced in the economy. But the nominal or cash value – and its composition by income and expenditure – is more important in understanding the behaviour of the public finances. Taxes are driven more by nominal than real GDP. So too is the share of GDP devoted to public spending, as a large proportion of that spending is set out in multi-year cash plans (public services, grants and administration, and capital spending) or linked to measures of inflation (benefits, tax credits and interest on index-linked gilts).
- 3.71 The latest data indicate that nominal GDP growth slowed to 2.6 per cent in 2015, following growth of 4.2 per cent in 2013 and 4.7 per cent in 2014. On the expenditure side, part of this slowdown is attributable to a slowdown in consumption growth: while a fall in household saving helped to support consumer spending in 2013 and 2014, consumption growth was more closely in line with the growth of household disposable income in 2015, although consumption picked up sharply in the final quarter of the year (see paragraphs 3.79 to 3.80). Nominal government consumption growth also fell from 3.0 per cent in 2014 to 1.1 per cent in 2015, while nominal investment growth slowed from 9.0 per cent to 5.4 per cent as the growth of dwellings investment fell back sharply. On the income side the reduction in nominal growth in 2015 was largely attributable to a slowdown in profits growth, with the growth of labour income picking up slightly between 2014 and 2015.

- 3.72 We expect the weakness of nominal GDP growth to ease slightly in 2016, as some of the factors pushing down on nominal GDP growth at the end of 2015 are expected to unwind. It is then expected to increase to just over 4 per cent a year from 2017 onwards. Over the forecast period we expect nominal GDP to grow by a cumulative 23.7 per cent between the third quarter of 2015 and start of 2021, revised down from the cumulative growth of 26.5 per cent we expected in our November forecast. Of this 2.9 percentage point downward revision, around 1.5 percentage points is attributable to weaker real GDP growth, with the remainder is accounted for by slower growth of the GDP deflator.

## Prospects for individual sectors of the economy

### The household sector

- 3.73 The household sector is the largest source of income and spending in the economy, with consumer spending making up 65 per cent of nominal GDP by expenditure and household disposable income making up 65 per cent of nominal GDP by income in 2014.

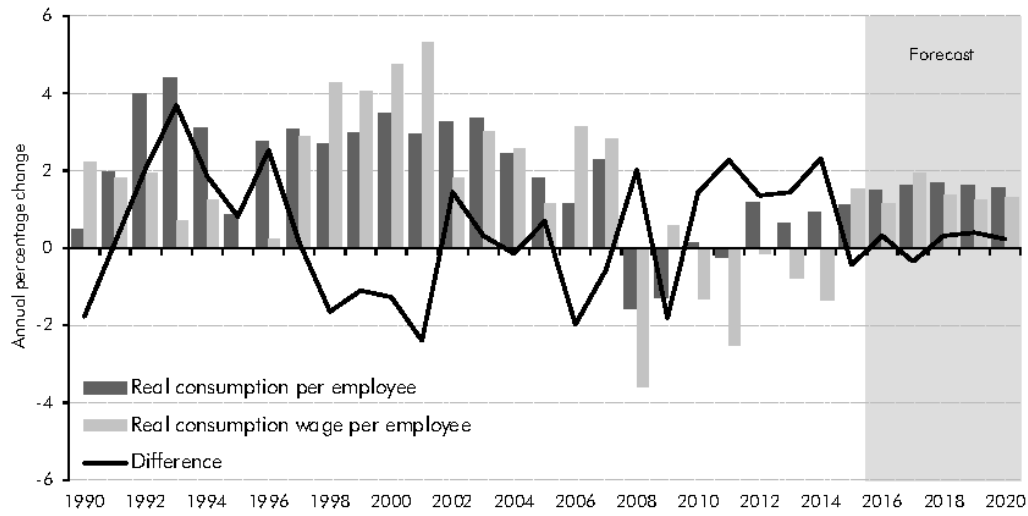
#### Real consumer spending

- 3.74 The latest data show that consumption increased 2.9 per cent in real terms in 2015, in line with our November forecast. Lower inflation caused the real consumption wage to increase in 2015, having fallen in 2014, but private consumption growth increased only slightly (Chart 3.23). We have revised down our forecast for consumption growth over the forecast, reflecting a downward revision to real wage growth from lower productivity growth. We assume that real consumption will grow broadly in line with real wages over the forecast period, having risen faster than real wages in each year from 2010 to 2014.<sup>9</sup>

<sup>9</sup> While consumption growth is expected to be broadly in line with labour income growth, it is expected to be stronger than household disposable income growth, as shown in Chart 3.26. This is because labour income includes employer pension contributions, which are expected to grow relatively strongly over the forecast period but which have a neutral effect on household disposable income.



Chart 3.23: Real consumption wage and real consumption



Source: ONS, OBR

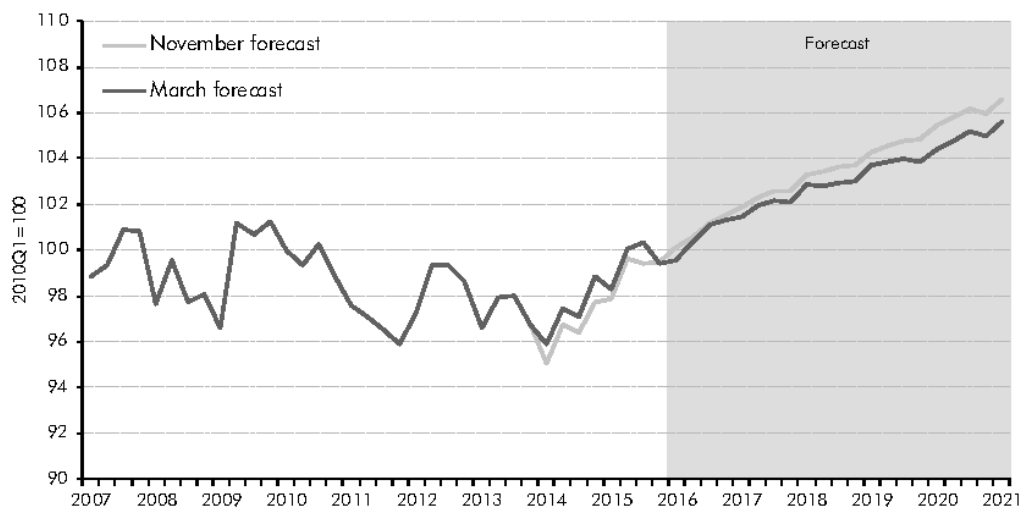
### The labour market and household income

- 3.75 The unemployment rate fell in the third and fourth quarters of 2015, reaching 5.1 per cent, 0.2 percentage points below our November forecast. We forecast the rate to decline more slowly over the coming year to a low of 4.9 per cent, as productivity growth picks up and firms expand output more through their existing workforce than through recruitment. The headline rate is then forecast to rise back to 5.4 per cent by the end of 2020, in part due to an increasing 'National Living Wage' which puts upward pressure on structural unemployment.<sup>10</sup> In the near term we expect the claimant count to fall slightly relative to the broader measure of unemployment. Thereafter we expect it to rise a little faster, as the lone parent obligation, which moves parents off income support and typically onto jobseeker's allowance in the first instance, is extended to lone parents of 3-year olds.
- 3.76 The participation rate has a relatively flat profile over the forecast, with the ageing population pushing it down and rising age-specific participation rates pushing it up. The participation rate is expected to stay broadly flat over the next four years, in part due to net inward migration (which is dominated by people of working age), and then to fall back to slightly below its current level as the population ages. The 0.9 million rise in employment over the forecast period can therefore be explained by additional population growth. The ONS population projections that underpin our forecast imply that around half the expected population growth over the forecast period will come from net migration, but that due to the concentration of migration among those of working age, around three-quarters of the increase in employment that we forecast would be accounted for by net migration.

<sup>10</sup> The level of the National Living Wage consistent with our forecast has been revised down since November – from £9.30 to £9.00 an hour in 2020. That reflects information from the 2015 Annual Survey of Hours and Earnings, which reported slower growth in median than mean hourly earnings, and the downward revision to our earnings growth forecast. The assumed annual path of the National Minimum Wage and National Living Wage consistent with our forecast are available in a supplementary table on our website.

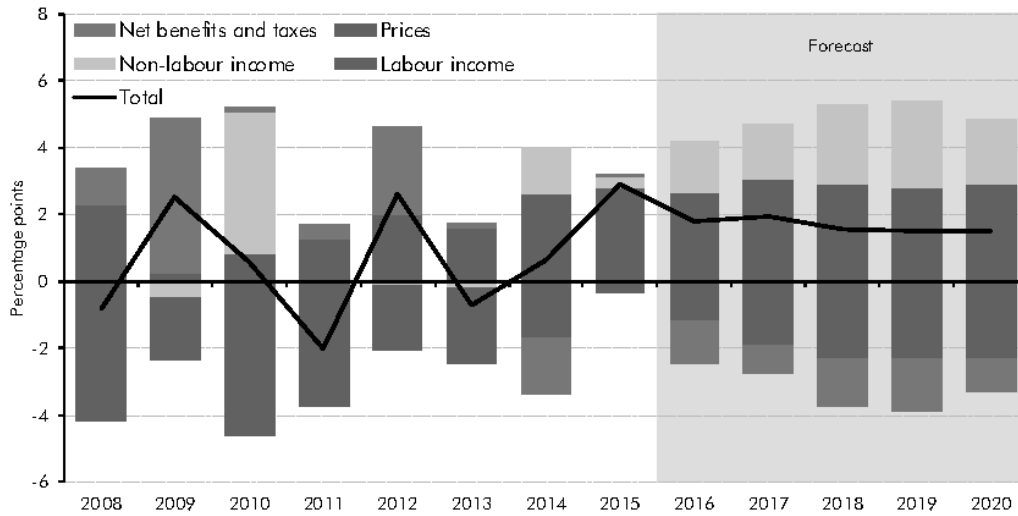
- 3.77 Average earnings growth in the second half of 2015 has been lower than we expected in November. We have revised down average earnings growth in each subsequent year consistent with slower (but still rising) productivity growth over the next few years, although we continue to expect real average earnings to rise by slightly more than productivity per worker over this period. As in November, over the medium term, the weakness of earnings growth in part reflects our judgement that the additional costs created for firms and workers by the Government's introduction of the apprenticeship levy and ongoing auto-enrolment into workplace pensions – both of which are economically equivalent to payroll taxes – will largely be borne through lower wages. The announcement in this Budget that National Insurance contributions will be levied on termination payments over £30,000 has been judged to feed through into wages in a similar way. Lower whole economy inflation also translates into slower nominal earnings growth in the final two years of our forecast.
- 3.78 The significant fall in consumer price inflation over the past year has helped to support the growth of real household disposable income. We expect real household disposable income growth to have peaked at 2.9 per cent in 2015. We expect it to average 1.7 per cent a year from 2016 onwards. Over the forecast period we expect real household disposable income to grow more slowly than we assumed in November, with annual growth revised down by an average of 0.3 percentage points between 2016 and 2020, due mainly to the downward revision to productivity growth described above.

Chart 3.24: Real household disposable income per capita



Source: OBR

Chart 3.25: Contributions to real household income growth

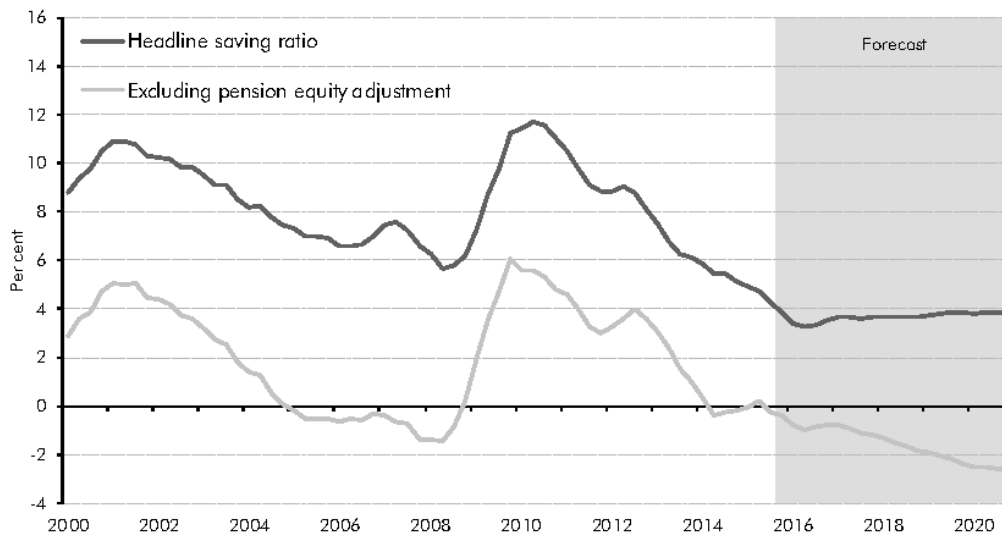


Source: ONS, OBR

### The saving ratio

- 3.79 The headline saving ratio has fallen steadily since 2012, reaching 4.4 per cent in the third quarter of 2015 – the joint lowest ratio since 1963. While the fall in household saving over this period has largely reflected the strength of consumption relative to household disposable income, more recent falls have also reflected a reduction in measured pension saving. When pension saving is excluded, household saving stabilised between 2014 and the middle of 2015. (Chart 3.26).
- 3.80 Data on the household saving ratio in the final quarter of 2015 are not yet available, but consumption growth appears to have significantly outpaced the growth of labour income. Nominal consumer spending increased by 1.7 per cent on the previous quarter, while labour income was up 0.7 per cent, so household saving is likely to have fallen further. Over the forecast period we expect consumption to grow slightly faster than household disposable income, putting downward pressure on the saving ratio. This is offset by rising pension saving, as auto-enrolment coverage and contribution rates increase. It also reflects increases in gilt yields, which are used in the calculation of imputed employee pension contributions in the National Accounts.

Chart 3.26: The household saving ratio



Note: Both series show four-quarter moving averages. The estimate of the saving ratio excluding the pension equity adjustment is calculated as household disposable income less consumption, as a proportion of household disposable income.

Source: ONS, OBR

### The housing market and dwellings investment

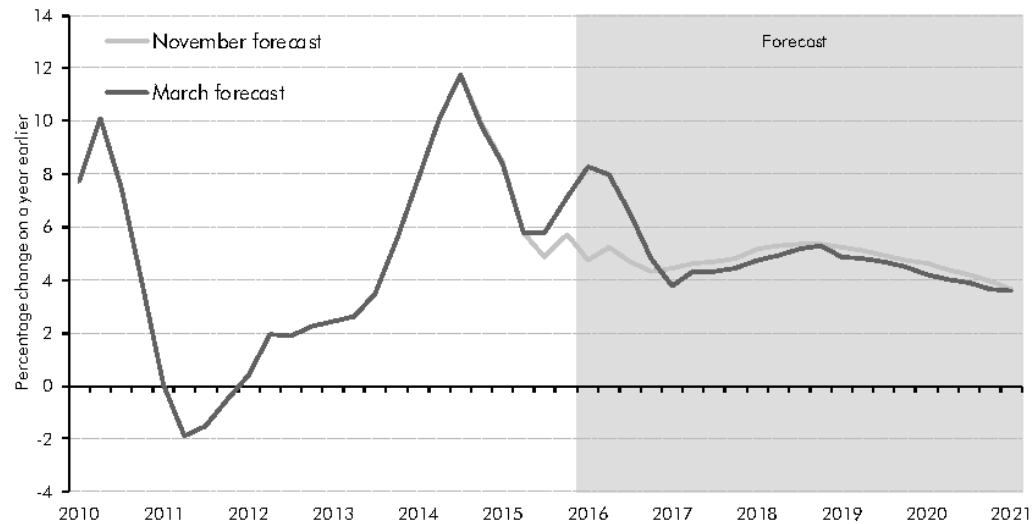
- 3.81 House price inflation picked up again in the fourth quarter of 2015, with year-on-year growth of 7.1 per cent (Chart 3.27). This is the first quarter where the growth rate has increased since the recent peak of 11.7 per cent in the third quarter of 2014. We expect house price inflation to rise further in the first quarter of 2016, to 8.3 per cent, before slowing thereafter. There remains considerable uncertainty about near-term prospects and the major lenders' house price indices have continued their recent divergence. The Halifax index is reporting year-on-year growth of 9.7 per cent in the year to February while the Nationwide index is up by just 4.8 per cent over the same period. Survey indicators from the Royal Institution of Chartered Surveyors have been broadly flat.
- 3.82 Beyond the near term, we use a house price model to inform our forecast.<sup>11</sup> Currently, this suggests that there is a significant amount of credit rationing in the mortgage market. Financial institutions are extending less secured debt than the model suggests households would like based on fundamental drivers of mortgage demand. This is consistent with changes to the regulatory environment, ongoing repair to bank balance sheets and changes to lenders' behaviour brought about by the Mortgage Market Review. We continue to assume this implied mortgage rationing will ease but we have slowed the rate at which it does so. This implies a higher level of rationing at the end of the forecast period than we assumed in November. This brings credit rationing in line with the downward adjustments we made to the levels of secured debt and property transactions in our November forecast.

<sup>11</sup> For more information on our house price model see Auterson (2014): *Working paper No. 6: Forecasting house prices*.

3.83 Over the forecast period, we expect house price inflation to persist at rates somewhat above earnings growth, consistent with historical trends in the UK. Revisions to the medium-term profile have been relatively small since our last forecast, with the level of house prices by the end of the forecast period 1.5 per cent higher than in November. House prices are expected to rise by 26.4 per cent by the first quarter of 2021.

3.84 We have made a small adjustment to our house price forecast to reflect the first-time buyer element of the lifetime ISA policy announced in this Budget. There is considerable uncertainty over how that might manifest itself, but we think it is more likely than not to lead to higher demand for the relatively fixed supply of housing in the UK and thus lead to higher prices. We have added 0.3 per cent to the level of house prices by the end of the forecast, but the effect could easily be larger (if more house deposit saving is channelled through lifetime ISAs than we have assumed) or smaller (perhaps if parents supporting their first-time buyer children's deposit saving reduce that support in light of the amount that will be provided by the Government).

Chart 3.27: House price inflation forecast



Source: ONS, OBR

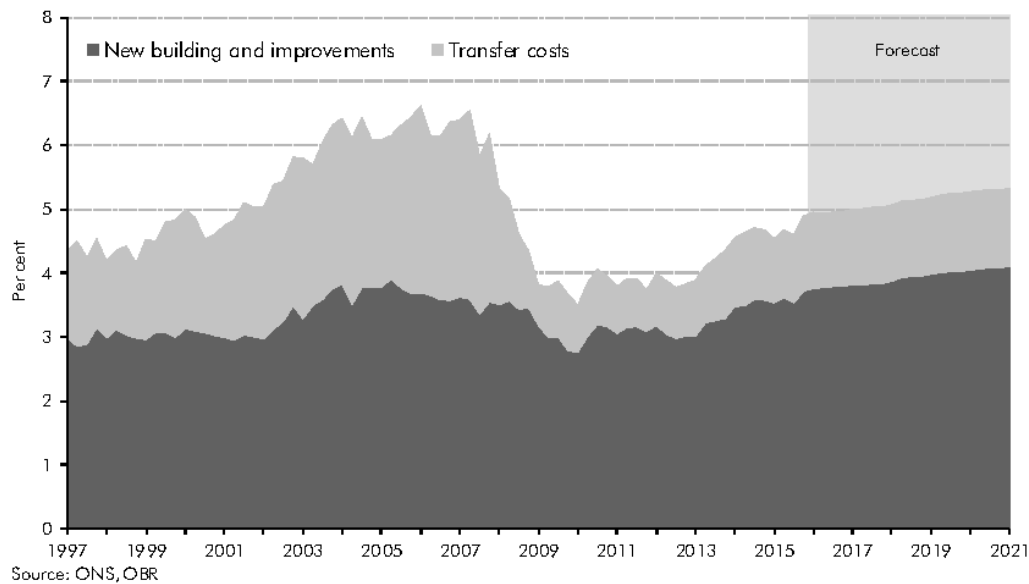
3.85 Our forecast for residential property transactions is little changed from November. Transactions grew by 8.6 per cent in the year to the fourth quarter of 2015, up from 2.9 per cent in the previous quarter. In the short term, we expect a slightly higher rate of growth in the first quarter of 2016, but a slowdown in growth in the second half of the year.

3.86 We lowered our medium-term forecast for residential transactions in November to reflect the near-doubling of privately renting households since 2000 and recent evidence that suggests rental properties are re-sold at about half the frequency of owner-occupied housing. We assume that the growth in private renting will continue and therefore reduced the number of residential property transactions. We also made downward adjustments in

November to capture the effects of policy measures targeting buy-to-let landlords. Due to the pre-announcement of the SDLT surcharge on second homes, we expect property transactions to be boosted temporarily in the run-up to its April 2016 introduction as investors bring forward transactions to avoid the new surcharge.

3.87 The latest National Accounts data show that residential investment grew by 3.4 per cent in 2015, higher than we forecast in November. The pattern of revisions to outturn data affect our forecast of residential investment growth in 2016, implying higher growth in that year. There was little change to our pre-measures forecast for residential investment from 2017 onwards, but we have adjusted our post-measures forecast to reflect several policies introduced in this Budget that affect housing associations' finances and which are therefore assumed to affect their housebuilding. These policy measures reduce total residential investment by 0.7 per cent by 2020-21.

Chart 3.28: Residential investment as a share of GDP



### Net lending and the household balance sheet

3.88 Our forecast for the household balance sheet is built up from a number of components:

- the accumulation of household **assets**, such as deposits, pension and insurance assets, equity, and other assets;
- the accumulation of **liabilities**, which are decomposed into mortgage debt and unsecured debt; and
- these are constrained to be consistent with our forecast for households' **net lending** position, which determines the rate at which households acquire assets relative to

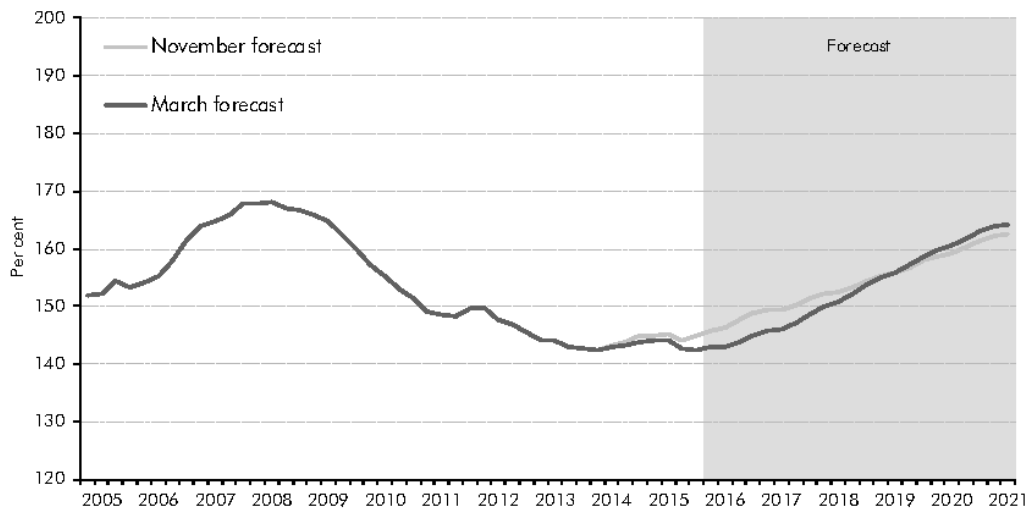
liabilities (their 'net' asset accumulation). All else equal, positive net lending implies that households will accumulate more assets than liabilities and vice versa.

3.89 In November, we improved how we forecast the household balance sheet. We moved to a bottom-up approach to forecasting unsecured debt, based on its relationship with consumption and unemployment; and the use of 'other' assets as the residual to ensure consistency between the stock and flow positions of households' financial accounts. Further detail on these changes can be found in our November EFO.

3.90 We now expect gross household debt to reach 164 per cent of household disposable income by the end of the forecast, up slightly from an expected 163 per cent in November. We consider this upward trend at the whole economy level to be consistent with the macroprudential policy setting described in paragraphs 3.29 to 3.31, which is mainly focused on particular sectors or risks. The changes in our forecast since November reflect:

- in cash terms, **gross debt** is expected to be £5 billion lower by the start of 2021 than we expected in November. This is more than explained by a lower starting point, with the level of household debt £17 billion lower in the third quarter of 2015 than expected in November. This is partly offset by a £7 billion upward revision to the accumulation of secured debt over the forecast period and a £6 billion upward revision to the accumulation of unsecured debt; and
- the fall in gross debt is offset by a downward revision to our forecast of the level of **household disposable income**, which is expected to be around 1¼ per cent lower than our November forecast by the start of 2021.

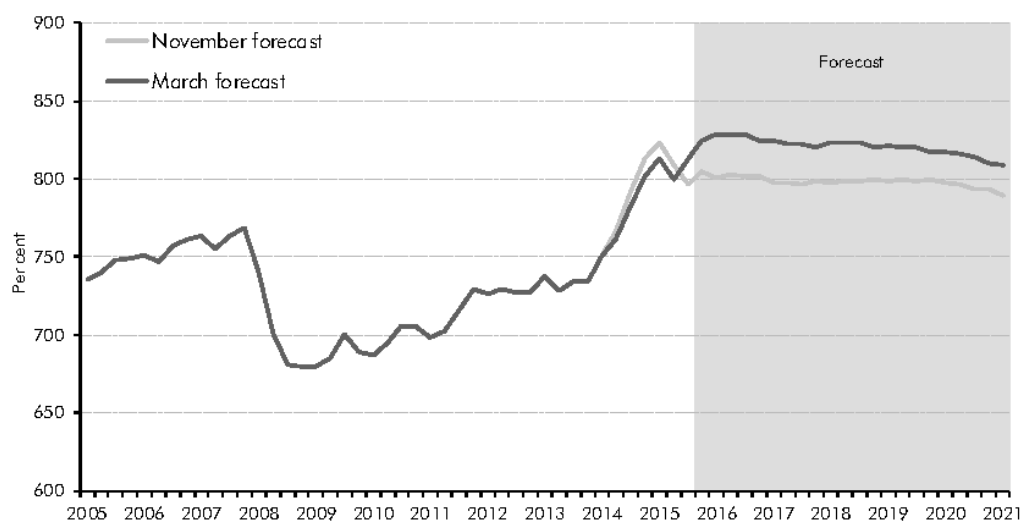
Chart 3.29: Household gross debt to income



Source: ONS, OBR

3.91 Chart 3.30 shows our forecast of household net worth, which includes housing equity as well as financial assets and liabilities. The ratio of net worth to income is expected to remain broadly stable over the next five years. The ongoing household deficit implies that the accumulation of financial assets is slower than the accumulation of liabilities over the forecast period, but the effect on household net worth is offset by the rising value of housing assets. Relative to November we expect a higher level of household net worth through the forecast, largely reflecting a higher level at the start. The higher starting point reflects a stronger than expected outturn for household net financial assets in the third quarter of 2015, as well as an updated estimate of the value of the housing stock.

Chart 3.30: Household net worth relative to household income

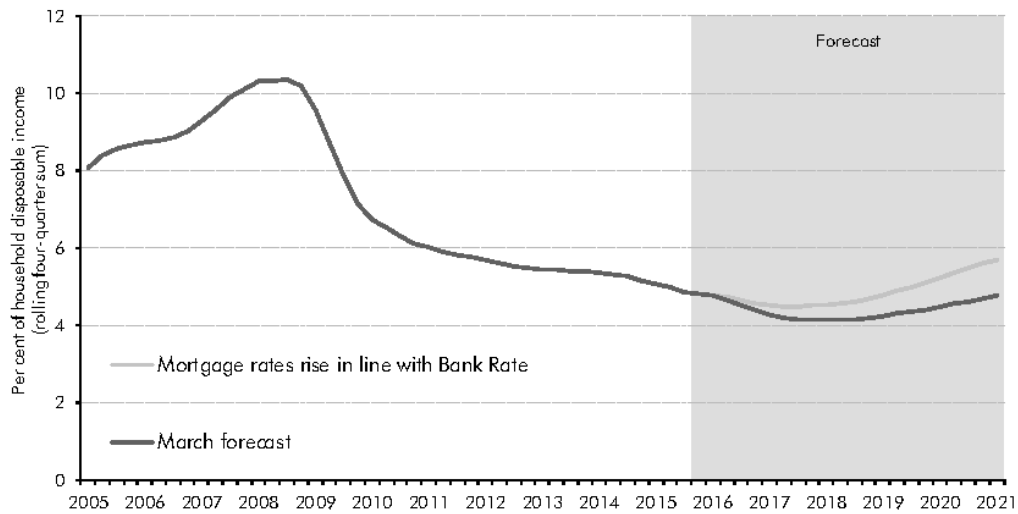


Source: ONS, OBR

3.92 Household debt servicing costs are expected to remain low relative to household income, despite the expected increase in the stock of household debt (Chart 3.31). This reflects the fact that mortgage rates are expected to remain at historically low levels – consistent with the lagged effect of past falls in funding spreads, the exceptionally low level of Bank Rate and our assumption that lenders' margins on mortgage rates will narrow over the forecast. If mortgage rates increase at the same pace as Bank Rate, debt servicing costs would remain well below pre-crisis levels as a share of income, although they would be somewhat higher than our central forecast.



Chart 3.31: Household debt servicing costs



Source: ONS, OBR

## The corporate sector

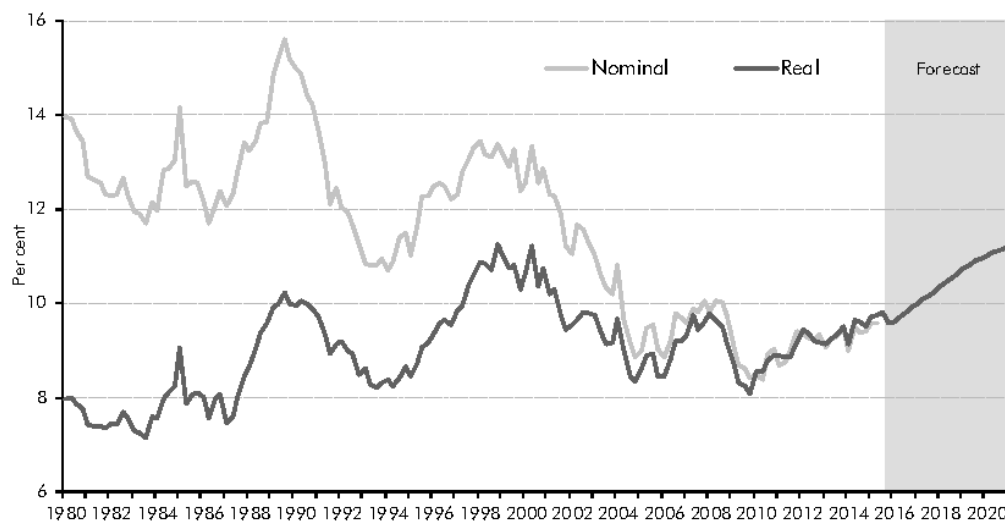
### Business investment and stockbuilding

- 3.93 The latest data show that business investment fell in the final quarter of 2015. It is now estimated to have grown by 4.7 per cent in 2015, the same rate as in 2014, but lower than we forecast in November. The Bank of England's *Agents' Summary* reports investment intentions consistent with "unchanged capital spending in manufacturing, but continued growth among services firms", a weaker outlook than at the time of our November forecast. We now expect business investment growth of 2.6 per cent in 2016, a 4.9 percentage point downward revision since November, largely reflecting the 2.1 per cent fall in business investment in the final quarter of 2015. It is then expected to pick up from 2017, but to lower rates than we forecast in November. There were only tentative signs of uncertainty regarding the EU referendum result affecting investment intentions by the time we closed this forecast and we have made no adjustment to reflect a change in behaviour.<sup>12</sup>
- 3.94 We adjusted our business investment forecast to reflect three business tax measures, but the Government informed us after our final economy forecast had been closed that one of those measures would not be going ahead. As a result, our business investment forecast is around 0.5 per cent higher than would be consistent with the final policy package announced in the Budget. The net effect of the other two measures was small.
- 3.95 As Chart 3.32 shows, our forecast implies that real business investment will rise as a share of GDP, as typically occurs during the later stages of a recovery. It also shows how the

<sup>12</sup> The clearest sign of an effect was seen in the latest EEF *Manufacturing outlook* where investment intentions fell to a six-year low, with the EU referendum cited as a possible cause.

nominal share has tended to fall relative to the real share because investment goods price inflation tends to be lower than whole economy inflation.

Chart 3.32: Business investment as a share of GDP



Source: ONS, OBR

- 3.96 The latest ONS data indicate that stocks acted as less of a drag on GDP growth in 2015 than we forecast in November. As discussed in paragraph 3.68, the implied price of the change in inventories is estimated to have fallen significantly in the final quarter of 2015, which contributed to a fall in the overall GDP deflator. We expect inventories to make a positive contribution to real GDP growth in 2016 and to be neutral thereafter.

#### Corporate profits

- 3.97 Data revisions have left the recent path of corporate profits significantly weaker than suggested by the data available to us at the time of our November forecast. The latest data indicate that non-oil corporate profits grew by 0.9 per cent in the year to the second quarter of 2015, revised down from a previous estimate of 4.4 per cent. The latest data on the high-level breakdown of income indicate a fall in corporations' gross operating surplus in the fourth quarter, pointing to a further slowdown in profit growth. As a result we have revised our forecast for non-oil profits growth in 2015 down from 6.3 to 1.9 per cent.
- 3.98 We expect non-oil profits to rise slightly more quickly than nominal GDP in the near term as the output gap continues to close. From 2017 we expect profits to grow slightly more slowly than nominal GDP, as the apprenticeship levy and auto-enrolment depress profit margins. These judgements are unchanged from November.

## The government sector

3.99 Total public spending amounted to 40.8 per cent of GDP in 2014-15.<sup>13</sup> But not all government spending contributes directly to GDP. Spending on welfare payments and debt interest, for example, merely transfers income from some individuals to others. The government sector contributes directly to GDP via consumption of goods and services, and investment. These together accounted for 22.2 per cent of GDP in 2014-15.

### Real government consumption

3.100 Real government consumption is estimated to have grown by 1.7 per cent in 2015, in line with our November forecast. We have revised our forecast down in 2016 and it is also slightly lower on average between 2017 and 2020, reflecting the Government's decisions on the pace and composition of fiscal consolidation.

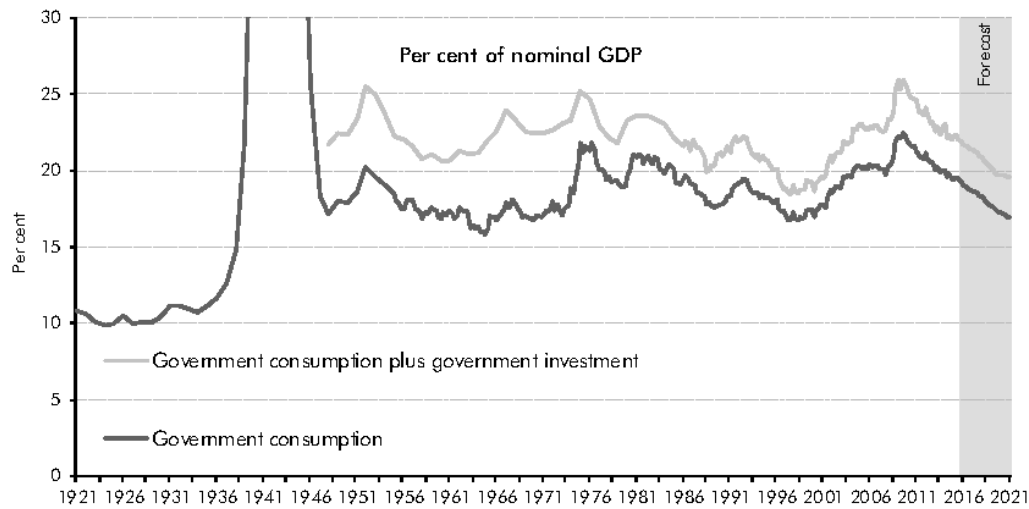
### Nominal government consumption

3.101 Nominal government consumption grew by 1.1 per cent in 2015, higher than our November forecast. But we have revised it down over the forecast. The Government's updated fiscal plans imply that nominal government consumption will grow by 1.3 per cent a year on average between 2016 and 2020, compared with 2.0 per cent in November. This implies that nominal government consumption will fall from 19.4 per cent of GDP in 2015 to 17.2 per cent of GDP in 2020, slightly higher than in November (Chart 3.33).

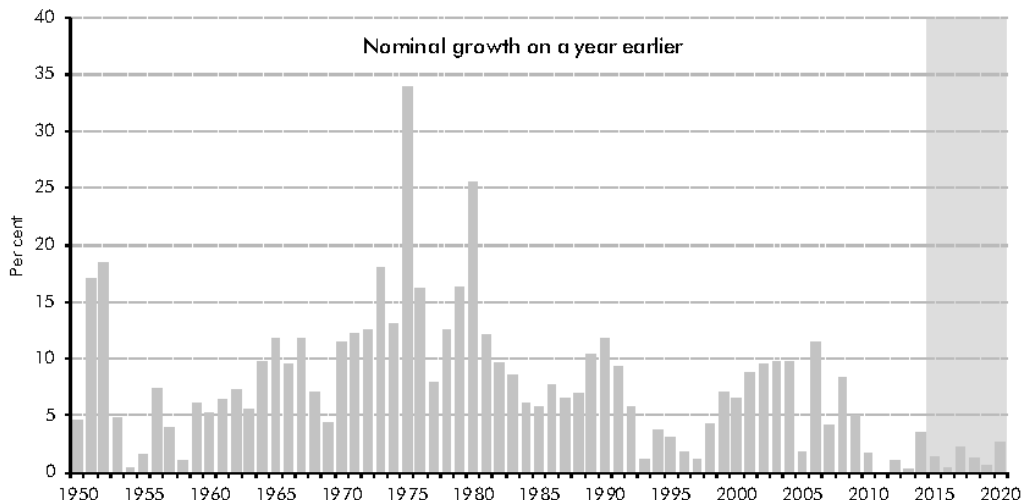
---

<sup>13</sup> Total managed expenditure (TME).

Chart 3.33: Government consumption and government investment



Note: Government consumption as a share of GDP is estimated to have peaked at 54.0 per cent of GDP in 1944.

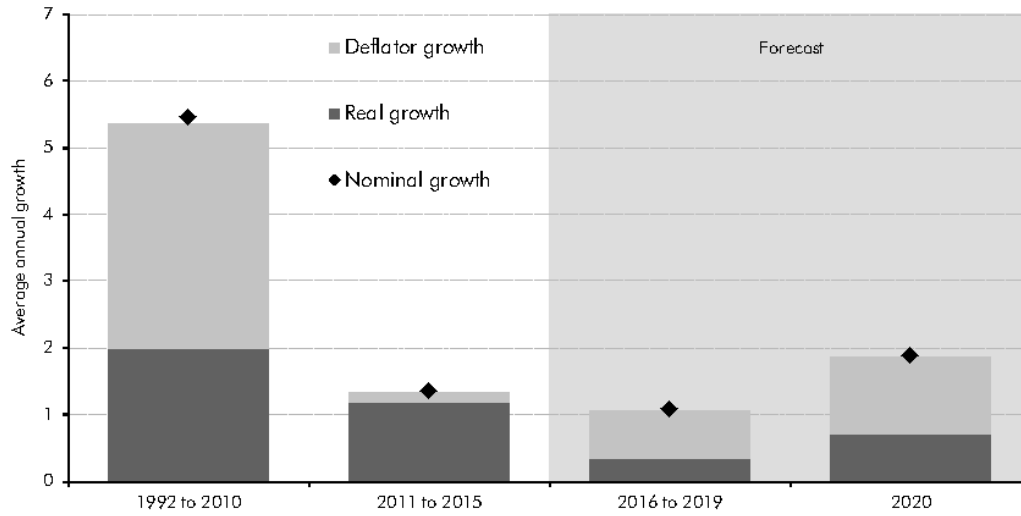


Note: Government consumption plus government investment on a National Accounts basis.

Source: ONS, OBR

- 3.102 Growth in the implied price of government consumption – the ratio of nominal spending to real government consumption – has been subdued as cash spending growth has slowed (Chart 3.34). This largely reflects the way real government consumption is measured, as described in Box 3.3.
- 3.103 The government consumption deflator is estimated to have fallen by 0.6 per cent in 2015. This is less than we forecast in November, reflecting stronger growth in nominal government consumption. Revisions to our forecast since November are also driven by the Government's decisions on the pace and composition of fiscal consolidation.

Chart 3.34: General government consumption



Source: ONS, OBR

**Box 3.3: International comparisons of the government consumption deflator**

The government consumption deflator measures the implied price of government services. In the UK, around one-third reflects actual deflators – where the prices are measured directly – and the other two-thirds reflect implied deflators – where it is the volume that is measured directly and the price inferred. Our earlier forecasts did not take sufficient account of the effect on implied deflators of the Government’s spending cuts, which reduce the value of spending more than the directly measured volumes. We therefore overestimated deflator growth and so underestimated the growth of real government consumption.

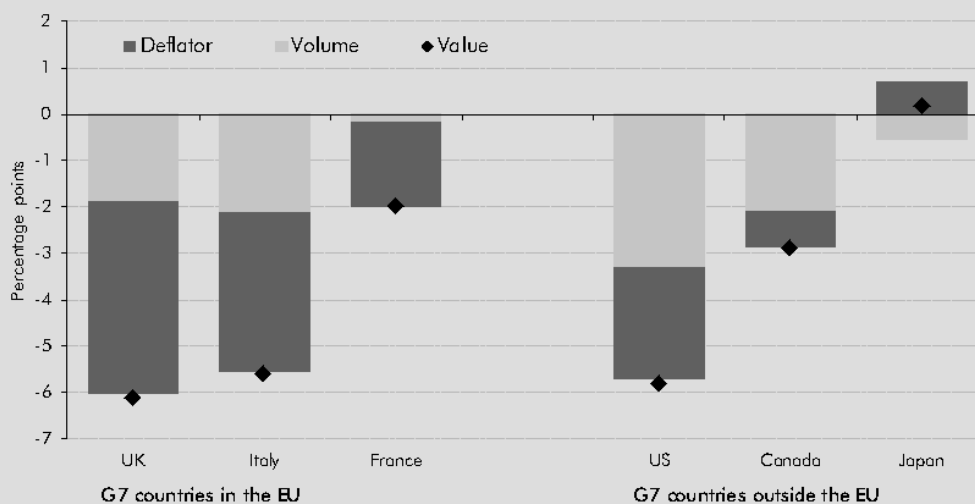
Methodologies for deriving the government consumption deflator vary across countries. Studies by the ONS<sup>a</sup> and OECD<sup>b</sup> suggest that non-EU countries tend to depend more on actual deflators and EU countries on implied deflators. That suggests that the effect of cuts in government consumption would be seen in the deflator to a greater extent in the UK and other EU countries than in non-EU countries.

Chart C shows how average annual growth in the value of six leading industrial countries<sup>c</sup> government consumption since the third quarter of 2010 has changed relative to pre-recession averages (2000-2008). Growth in the value of government consumption is weaker in every country (bar Japan) than prior to the crisis. As we would expect, given the difference in deflator methodologies, lower deflator growth accounts for a greater proportion of cuts in the UK and other EU countries, while slower volume growth plays a bigger role in the non-EU countries. At the extremes, 90 per cent of the reduction in value growth has come via the deflator in France while 71 per cent came through volumes in Canada.

These differences in National Accounts methodologies may be important when considering international comparisons of the direct effect of government spending cuts on real GDP growth.

But comparisons in value terms should be less affected by such differences. In Box 3.3 of our November *EFO*, we showed that the planned cut in government consumption as a share of GDP in the UK would be the biggest ten-year fall seen in any G7 country in the past half century, according to OECD data dating back to 1960.

Chart C: Government consumption compared to pre-recession averages



Source: OECD

<sup>a</sup> Office for National Statistics, *Government implied deflators explained*, November 2014.

<sup>b</sup> OECD Working Paper, *Towards measuring the volume output of education and health services: A handbook*, April 2010.

<sup>c</sup> These are six of the seven members of the G7. Germany has not been included as growth in the value and volume of government consumption in Germany since mid-2010 has been greater than the pre-recession averages.

## General government employment

- 3.104 In the absence of specific workforce plans, we project general government employment based on some simple and transparent assumptions. We begin by assuming that the total payroll will grow in line with a measure of current government spending. We also separately forecast government sector wage growth, taking into account recent data, stated government policy (such as limits on pay growth), historic rates of pay drift and whole economy earnings growth over the medium term. We then combine total and average pay growth to derive a projection of general government employment.
- 3.105 Slow growth in cash spending and low annual wage growth imply that general government employment will fall by 0.2 million between the first quarter of 2015 and the first quarter of 2021, leading to a total fall from early 2011 of 0.5 million.<sup>14</sup> We expect the fall to be more than offset by a rise in market sector employment.

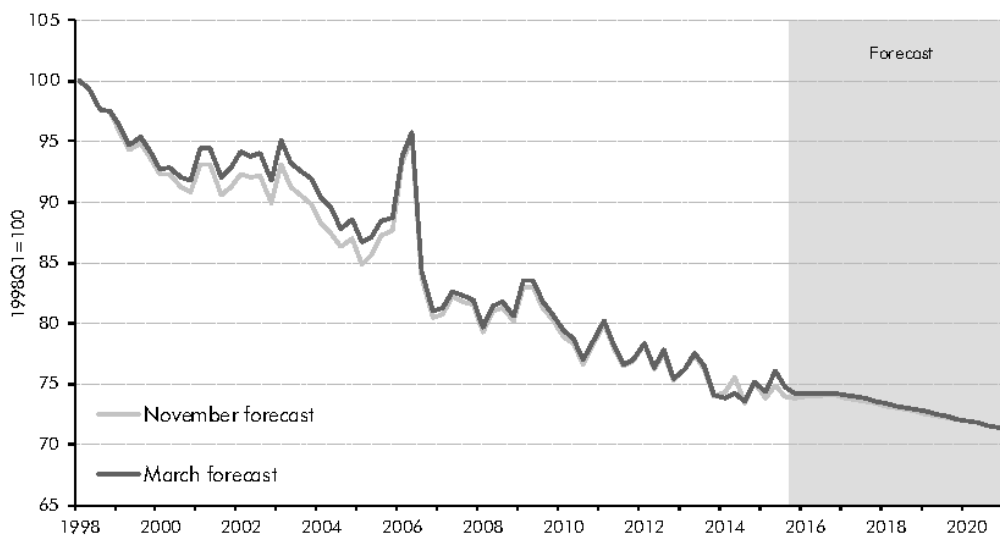
<sup>14</sup> These estimates exclude a classification change introduced in the second quarter of 2012, which moved around 196,000 employees from the public to the private sector. Further details about the assumptions for the public sector wages and employment can be found in the supplementary economy tables available on our website.

The external sector

Exports and imports

3.106 The latest National Accounts data revised up exports growth in late 2014 and early 2015 relative to the outturn data available at the time of our November forecast. Exports are then estimated to have fallen the final two quarters of 2015, having been expected to rise in November. Exports are estimated to have grown by 5.0 per cent in 2015, higher than we forecast in November, despite the weaker outturn data in the second half of the year. From 2016 onwards, we have revised down our forecast for exports to reflect a downward revision to UK export markets. Our key judgement – that the downward trend in UK export market share continues over the forecast period – is unchanged from November.

Chart 3.35: UK export market share



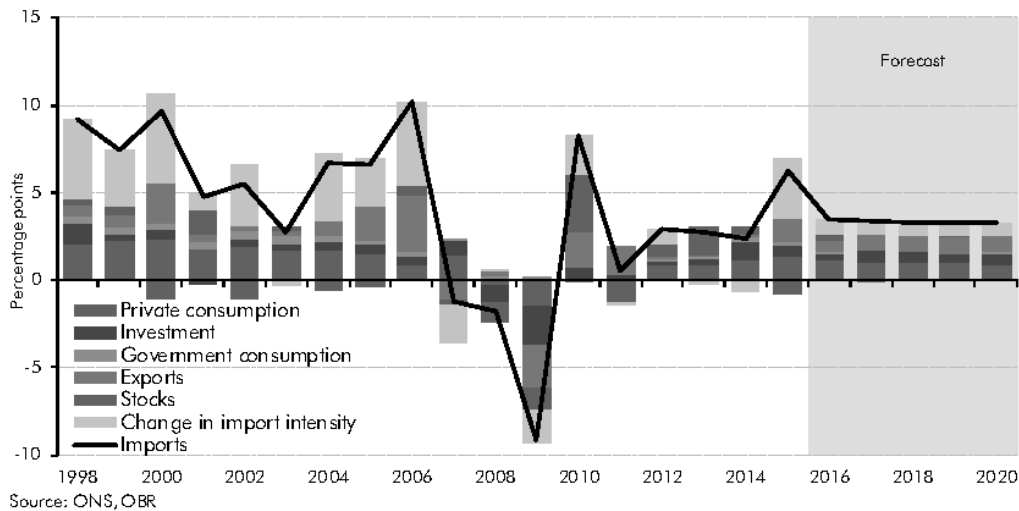
Note: UK export share defined as exports divided by UK export markets, where exports series have been adjusted to account for the effect of VAT Missing Trader Intra Community (MTIC) fraud, although there is uncertainty around MTIC data prior to 2007.  
Source: OECD, ONS, OBR

3.107 At Budget 2012, the Government stated an aspiration to increase the cash value of exports to £1 trillion in 2020. That required export growth of £506 billion over nine years, whereas extending our March 2012 EFO forecast would have implied growth of £352 billion (see Box 3.4 of our November EFO). We now forecast that the value of total exports of goods and services will reach £643 billion in 2020, lower than we forecast in November and 36 per cent lower than the Government’s aspiration.

3.108 Real imports are estimated to have grown by 6.2 per cent in 2015, significantly higher than we forecast in November. As with exports, this was driven by upward revisions to imports growth in late 2014 and early 2015.

3.109 Our forecast for UK imports is determined by the outlook for import-weighted domestic demand and a trend rise in the import intensity of that demand. We have not changed our judgement of the extent to which import intensity will rise over the forecast period. As Chart 3.36 shows, the contribution of rising import intensity to imports growth averaged 3.1 percentage points between 1998 and 2006, but it added just 0.2 percentage points to imports growth on average between 2007 and 2015. Our forecast assumes an average contribution of 0.8 percentage points between 2016 and 2020.

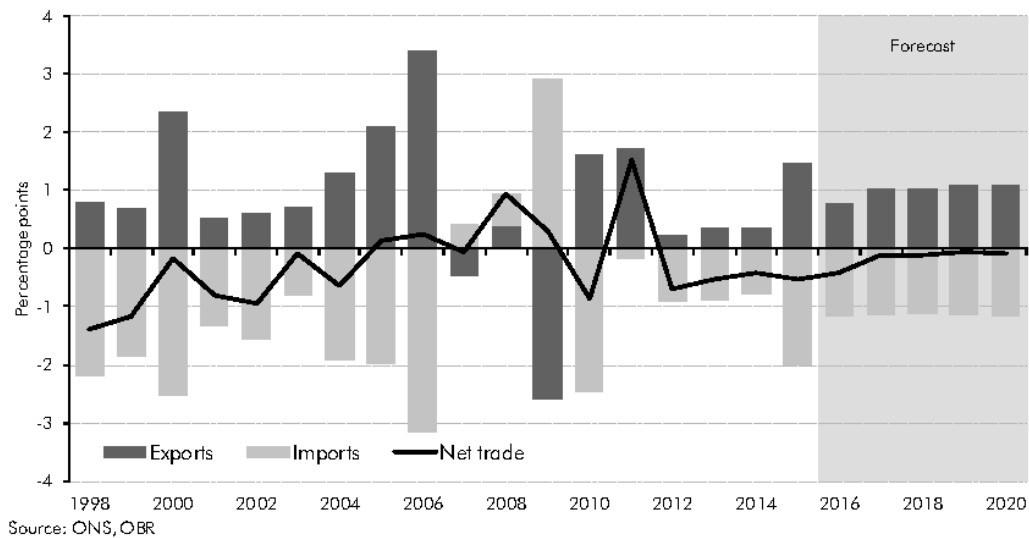
Chart 3.36: Contributions to import-weighted domestic demand and imports growth



3.110 Net trade is estimated to have made a negative contribution to GDP growth in 2015, having been expected to make a positive contribution at the time of our November forecast. This change reflects an upward revision to imports growth, which is larger than the upward revision to exports. We expect net trade to subtract 0.4 percentage points from GDP growth in 2016, and 0.1 percentage points a year from 2017 onwards. Our net trade forecast reflects the weakness of export market growth, a gradual decline in export market share and a gradual increase in the ratio of imports to import-weighted domestic demand.



Chart 3.37: Net trade contribution to real GDP



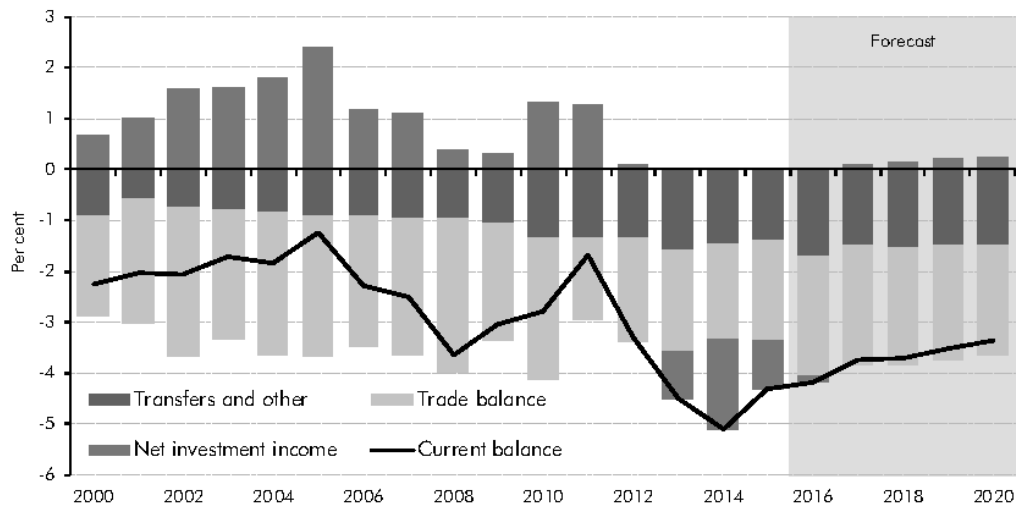
### The current account balance

- 3.111 The latest data continue to indicate that the current account deficit widened significantly in recent years, reaching 5.1 per cent of GDP in 2014. However, recent data on foreign direct investment (FDI) may reduce this deficit when they are incorporated into the balance of payments.<sup>15</sup> Nevertheless the deficit in recent years remains large by historical standards, mainly as a result of a significant deterioration in the UK's net investment income balance: the income balance fell into deficit in 2013 and 2014 as the UK's net rate of return deteriorated, having averaged a surplus of just over 1 per cent of GDP in the decade prior to 2012.
- 3.112 Recent quarterly data signal an improvement in the investment income balance, with the deficit narrowing from 2.4 per cent of GDP in the final quarter of 2014 to 0.7 per cent in the third quarter of 2015. We expect the investment income balance to continue to improve as rates of return normalise, a judgement conditioned on the assumption that the recent deterioration is partly temporary – reflecting, for example, the weaker growth outlook in the euro area or the possible effect of cross-border fines and compensation paid by UK firms abroad (although this is not verifiable from published data).
- 3.113 Despite the improvement in investment income, we expect the current account deficit to remain relatively large through the forecast as the trade deficit is expected to remain broadly stable. The current account deficit is expected to reach just over 3¼ per cent of GDP by 2020, a somewhat larger deficit than we expected in November, as a wider-than-expected trade deficit in the second half of 2015 has led to an upward revision to the size of the trade deficit through the forecast period.

<sup>15</sup> ONS, *Coherence between balance of payments Q3 2015 and the FDI 2014 bulletin*, December 2015.

3.114 The latest outturn trade data have a significant impact on the implied terms of trade, particularly in 2016. The terms of trade are now expected to fall in 2016, having been expected to rise relatively strongly in our November forecast. This affects the level of nominal GDP throughout the forecast period.

Chart 3.38: Current account balance as a share of GDP



Source: ONS, OBR

3.115 Table 3.5 shows how our forecast of the current account balance has changed since November:

- the increase in the current account deficit is almost entirely accounted for by an increase in our forecast of the trade deficit. This largely reflects a wider than expected trade deficit at the end of 2015. With little change to our forecast of net trade, this implies a wider trade deficit throughout the forecast period; and
- revisions to the investment income and transfers balance have been relatively small.

Table 3.5: Changes to the current account since November

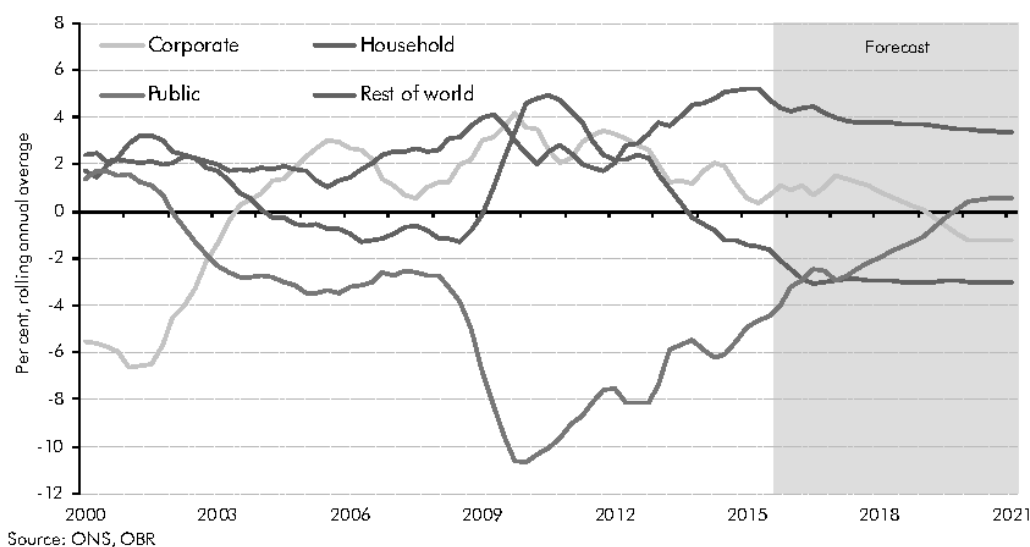
	Current account (£ billion)						
	Outturn	Forecast					
	2014	2015	2016	2017	2018	2019	2020
November forecast	-92.9	-78.6	-58.9	-49.6	-50.7	-49.5	-48.6
March forecast	-92.5	-80.5	-80.3	-75.1	-77.0	-76.0	-76.1
<b>Change</b>	<b>0.4</b>	<b>-1.9</b>	<b>-21.4</b>	<b>-25.5</b>	<b>-26.4</b>	<b>-26.5</b>	<b>-27.5</b>
<i>of which:</i>							
Trade balance	0.1	-9.3	-21.8	-23.1	-24.4	-25.6	-26.5
Volumes	-1.1	-11.1	-13.8	-15.2	-15.8	-16.2	-16.8
Prices	1.2	1.8	-8.0	-7.9	-8.6	-9.3	-9.8
Investment income balance	0.2	5.3	2.5	-0.5	0.0	0.6	0.9
Transfers and other	0.1	2.1	-2.2	-1.9	-1.9	-1.6	-1.8

### Sectoral net lending

- 3.116 In the National Accounts framework that we use for our economic forecast, the income and expenditure of the different sectors imply a path for each sector's net lending or borrowing from others. By identity, these must sum to zero – for each borrower, there must be a lender. In 2015, for which three quarters of data are now available, we estimate that the public and household sectors are in deficit, while the corporate and rest of world sectors are in surplus (Chart 3.39).
- 3.117 On current government policy we expect the public sector deficit to narrow, offset by a narrowing of the rest of the world surplus (a narrowing current account deficit) and a widening of the corporate deficit. We forecast little change in the household deficit, which is expected to remain around 3 per cent of GDP through the forecast period. The persistence of a household deficit of this size would be unprecedented in the latest available historical data, which extend back to 1987. Other datasets extending back to 1963 also suggest little evidence of a large, persistent household deficit, with the household surplus moving into negative territory in only one year between 1963 and 1987.<sup>16</sup> A household deficit of the size and persistence we expect over the forecast period might be considered consistent with the unprecedented scale of the fiscal consolidation and the extremely accommodative monetary policy upon which our forecast is conditioned. It nevertheless demonstrates that the adjustment to the fiscal consolidation is subject to very significant uncertainty, and alternative adjustment paths are quite possible (see paragraph 3.119).

<sup>16</sup> Based on historical estimates of the personal sector surplus on an ESA95 basis, as set out in Thomas, R. and Nolan, L., *National Accounts articles: Historical estimates of financial accounts and balance sheets*, January 2016.

Chart 3.39: Sectoral net lending



## Risks and uncertainties

3.118 As always, we emphasise the uncertainties that lie around our central forecast for the economy, and the implications that these can have for the public finances (see Chapter 5). There are some risks and uncertainties common to all forecasts: conditioning assumptions may prove inaccurate; shocks may prove asymmetric; and previously stable relationships that have described the functioning of the economy may change.

3.119 In addition, prevailing economic circumstances suggest some specific risks to the forecast. In this *EFO*, we would highlight:

- since November, **volatility in financial and commodity markets** has increased. If this persists it could have a negative effect on the UK economy via financial markets linkages and world trade;
- the IMF recently identified a sharper-than-expected **slowdown in China** as a risk to its global forecast. Although direct trade with China accounts for only 3.6 per cent of UK exports, China's contribution to world GDP and trade growth is significant and its increasing integration in global financial markets means that lower growth in China could have wider implications;
- we have revised down our forecast for potential output growth since November, but considerable uncertainty remains around this part of the forecast. If **productivity** fails to recover as predicted, but wage growth continues to accelerate, the MPC could be forced to raise interest rates more quickly, which could in turn have a negative impact on consumer spending and housing investment. Alternatively, lower productivity

growth could mean that wage growth falls short of expectations, in a similar manner to the revisions we have made in this forecast;

- even in our central forecast, the ratio of **households' gross debt** to income rises significantly over the forecast. That seems consistent with supportive monetary policy and other interventions to support demand in the housing market (to which the Government has added again in this Budget via the first-time buyer element of the lifetime ISA), but it could pose risks to the recovery over the longer term;
- our forecast assumes that the decline in public sector net borrowing is offset in a widening corporate deficit and a modest improvement in the current account. Some external commentators argue that the prospective path of the sectoral balances points to the risk of a **significant depreciation of sterling**; and
- whatever the long-term pros or cons of the UK's membership of the European Union, a vote to leave in the **forthcoming referendum** could usher in an extended period of uncertainty regarding the precise terms of the UK's future relationship with the EU. This could have negative implications for activity via business and consumer confidence and might result in greater volatility in financial and other asset markets (see Box 3.4).

#### Box 3.4: External analysis of 'Brexit' risks and uncertainties

The Government has announced that a referendum will be held on 23 June to determine whether the UK should remain a member of the European Union (EU) – and the Government is arguing that it should. Parliament has told us to prepare our forecasts on the basis of the current policy of the current Government and not to consider alternatives. So it is not for us to judge at this stage what the impact of 'Brexit' might be on the economy and the public finances.

Outside analysts have of course addressed this question. For example, a study published by the Centre for Economic Performance estimates that leaving the EU would result in lower trade and therefore lower GDP. It presents a 'pessimistic' scenario where incomes could fall by close to 10 per cent.<sup>a</sup> Conversely, a study published by the Institute of Economic Affairs argues that leaving the EU could increase UK GDP by 13 per cent.<sup>b</sup> The range of estimates in part reflects sensitivity to assumptions about what exactly would replace the current rules that are attached to EU membership. That was also apparent in the views presented at the National Institute of Economic and Social Research conference on the 'Economics of the UK's EU Membership' last month.<sup>c</sup>

These estimates are as large as they are in part because they incorporate 'dynamic' effects, reflecting for example long-term changes in UK productivity. As well as being highly uncertain, these take many years to materialise, with IMF research suggesting that it takes around 10 years for half the effect of changes in the trade share of GDP to be seen in income levels.<sup>d</sup> So even if we were to base our central forecast on an assumption of 'Brexit', the full impact would not show up within our five-year forecast horizon. A study by Open Europe modelled a scenario in which the UK leaves the EU in 2018 and found that GDP could be 2.2 per cent lower or 1.6 per cent higher by 2030, depending on the arrangements for trade and regulation that follow 'Brexit'.<sup>e</sup> It argued that much of the transition to either of these levels would take place beyond 2020.

Leaving aside the debate over the long-term impact of 'Brexit', there appears to be a greater consensus that a vote to leave would result in a period of potentially disruptive uncertainty while the precise details of the UK's new relationship with the EU were negotiated. For example:

- **Goldman Sachs** expects that delayed business investment spending would have a "significantly negative" impact on UK growth;<sup>f</sup>
- a **JPMorgan** study uses a VAR model to estimate that the uncertainty following a 'leave' vote could cause a 1 percentage point reduction in GDP growth in 2016.<sup>g</sup> **Deutsche Bank** predict a similar effect on GDP growth in the two-to-three years after a vote to leave;<sup>h</sup>
- **Scotiabank** predicts that GDP growth could slow by 2 to 5 per cent over a one-to-two-year horizon, due to a "sharp drop" in consumer confidence and lower consumption;<sup>i</sup>
- **Bloomberg Intelligence** modelled a fall in demand of 1.5 per cent of GDP, accompanied by an increase in credit spreads and a sterling depreciation. It argued that Bank Rate would be lower over our forecast period, with inflation higher initially but lower by the end of our forecast due to a persistent negative output gap;<sup>j</sup> and
- a number of forecasters suggest that uncertainty could lead to a significant sterling depreciation (especially given the UK's large current account deficit). **Nomura** estimate that sterling could depreciate by between 10 and 15 per cent following a vote to leave.<sup>k</sup>

There were only tentative signs that uncertainty regarding the referendum result was affecting business and consumer confidence and spending intentions by the time we closed this forecast.<sup>l</sup> But it may have contributed to recent financial market movements (and thus to some of the conditioning assumptions that underpin it). For example, sterling fell to a 7-year low against the dollar shortly after the date of the referendum was announced. That period fell within the 10-day window over which we have averaged market assumptions for this forecast.

<sup>a</sup> Centre for Economic Performance, *The costs and benefits of leaving the EU*, May 2014.

<sup>b</sup> Institute of Economic Affairs, *Should Britain leave the EU? An economic analysis of a troubled relationship*, February 2016.

<sup>c</sup> NIESR conference summary: *Economics of the UK's EU Membership*, held in February 2016.

<sup>d</sup> IMF working paper, *The long-run effects of trade on income and income growth*, February 2003.

<sup>e</sup> Open Europe, *What if...? The consequences, challenges and opportunities facing Britain outside the EU*, March 2015.

<sup>f</sup> Goldman Sachs Economics Research, *Brexit: The uncertainty shock of leaving the EU*, March 2016.

<sup>g</sup> JPMorgan Economic Research, *Brexit: What impact might uncertainty have on UK GDP?*, February 2016.

<sup>h</sup> Deutsche Bank Research, *The UK & EU: Exit emergency*, February 2016.

<sup>i</sup> Scotiabank, *Brexit – market and economic impact*, February 2016.

<sup>j</sup> Bloomberg Intelligence, *Brexit special: Modeling a surprise exit*, February 2016.

<sup>k</sup> Nomura Economic Insights, *Brexit carries a recessionary risk*, February 2016.

<sup>l</sup> Investment intentions in the latest EEF *Manufacturing outlook* were at a six-year low, with the EU referendum cited as a possible cause.

## Comparison with external forecasters

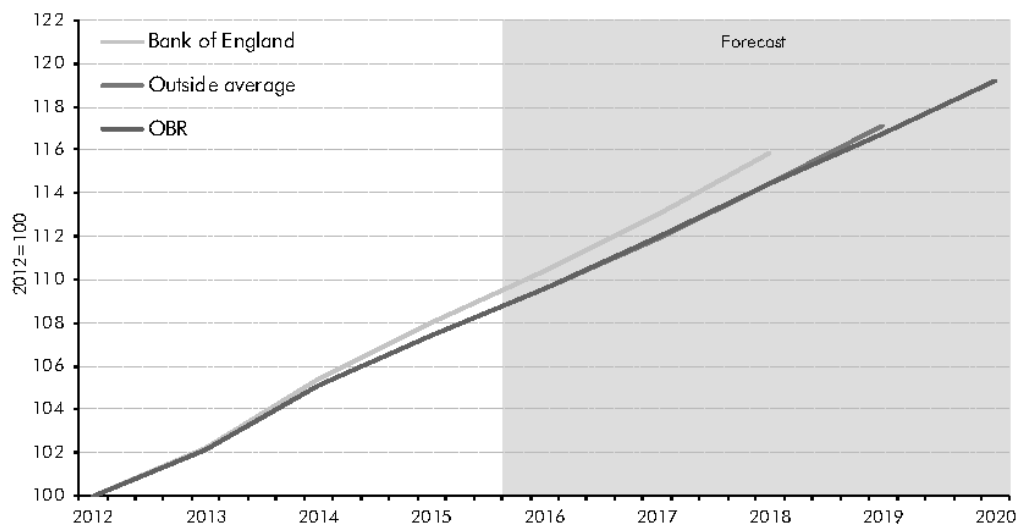
3.120 In this section, we compare our latest projections with those of selected outside forecasters. The differences between our forecast and those of external forecasters are generally small compared with the uncertainty that surrounds any one of them.

### Comparison with the Bank of England's *Inflation Report* forecast

3.121 Alongside its February 2016 *Inflation Report*, the Bank of England published additional information about its forecast against which we can compare our own (see Table 3.6). This included the Bank staff's forecasts for the expenditure composition of GDP, consistent with the MPC's central forecasts of GDP, CPI inflation and the unemployment rate.

3.122 The MPC's modal forecast for GDP growth is 2.2 per cent in 2016, higher than our forecast due to stronger growth in private consumption and business investment, as well as a less negative contribution from net trade. The Bank's modal forecast is also higher than ours in 2017 and 2018, primarily due to stronger consumption growth in both years. The Bank's forecast for the level of GDP is 0.9 per cent higher than ours in 2017, the same as at the time of our last forecast in November.

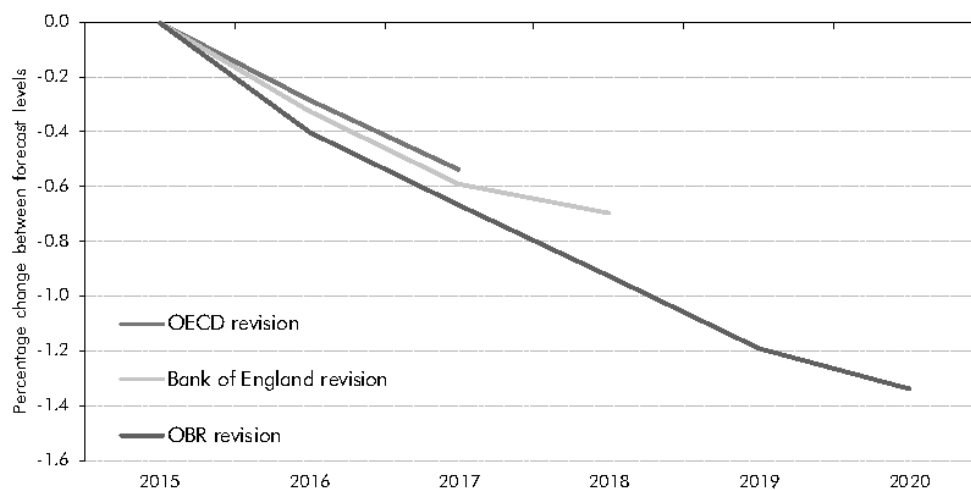
Chart 3.40: Comparison of forecasts for the level of GDP projections



Source: Bank of England, HM Treasury, ONS, OBR

3.123 While remaining more optimistic than us and the average of external forecasts, the MPC's best collective judgement on the implications of news since November has led them to revise down cumulative real GDP growth over their 3-year forecast horizon. These revisions are similar to the changes in our forecast since November. The OECD has also revised down its forecast for GDP growth in 2016 and 2017 (Chart 3.41).

Chart 3.41: Comparison with Bank of England and OECD revisions to real GDP since November



Note: All revisions are calculated on an annual basis.  
Source: Bank of England, OECD, OBR calculations

Table 3.6: Comparison with the Bank of England's illustrative projections

	Per cent			
	2015 <sup>1</sup>	2016	2017	2018
<b>Bank of England February <i>Inflation Report</i> forecast</b>				
Household consumption	2¾	2¾	2½	2¾
Business investment	6½	5½	6	6¼
Housing investment <sup>2,3</sup>	2¼	4	5½	5¾
Exports	5½	2¼	1¼	2
Imports	6¼	2½	2¼	2½
Employment <sup>4</sup>	2	¾	¾	¾
Productivity <sup>5</sup>	1	1¼	1¾	1¾
Average weekly earnings <sup>3,4</sup>	1¾	3	3¾	4¼
<b>Difference from OBR forecast</b>				
Household consumption	-0.1	0.3	0.3	0.6
Business investment	1.8	2.9	-0.1	0.4
Exports	0.5	-0.3	-2.1	-1.3
Imports	0.0	-1.0	-1.1	-0.8
Employment <sup>4</sup>	0.3	0.1	0.3	0.4
Productivity <sup>5</sup>	0.2	0.2	0.0	-0.3

<sup>1</sup> 2015 estimates contain a combination of data and projections.

<sup>2</sup> Whole economy measure. Includes transfer costs of non-produced assets.

<sup>3</sup> We have not shown a comparison for housing investment and average weekly earnings as the definitions of these variables differ and are therefore not directly comparable.

<sup>4</sup> Four-quarter growth rate in Q4.

<sup>5</sup> Output per hour.



### Comparison with other external forecasters

3.124 In its most recent *World economic outlook*, the **IMF**'s forecast for GDP growth was slightly above our central forecast in 2016 and in line with ours in 2017. Since publishing its most recent *Economic outlook*, the **OECD** has updated its short-term forecast for GDP growth. The OECD's updated forecast is slightly above ours in 2016 and slightly below it in 2017. In its February *Economic review*, the **National Institute for Economic and Social Research** (NIESR) forecast GDP growth of 2.3 per cent in 2016, higher than our forecast. NIESR forecast stronger consumption and investment growth in 2016, partly offset by a weaker forecast for net trade. NIESR's forecast for GDP growth is also higher than ours from 2017 onwards, with a positive contribution from net trade only partially offset by lower consumption growth. The **European Commission**'s forecast for GDP growth is slightly higher than ours in 2016, due to higher growth in private consumption, government consumption and investment, partly offset by negative contributions from inventories and net trade. The Commission forecast for 2017 is slightly lower than ours, with higher private consumption growth offset by lower government consumption growth.

Table 3.7: Comparison with external forecasters

	Per cent					
	2014	2015	2016	2017	2018	2019
<b>OBR (March 2016)</b>						
GDP growth	2.9	2.2	2.0	2.2	2.1	2.1
CPI inflation	1.5	0.0	0.7	1.6	2.0	2.1
Output gap	-1.0	-0.3	-0.2	0.0	0.0	0.0
<b>Oxford Economics (February 2016)</b>						
GDP growth	2.9	2.2	2.2	2.5	2.2	2.2
CPI inflation	1.5	0.0	0.5	1.7	1.8	1.9
Output gap	-2.9	-2.8	-2.7	-2.5	-2.4	-2.2
<b>Bank of England (February 2016)<sup>1,2</sup></b>						
GDP growth (mode)		2.5	2.2	2.4	2.5	
CPI inflation (mode) <sup>3</sup>		0.1	0.9	1.9	2.2	
<b>European Commission (February 2016)</b>						
GDP growth	2.9	2.3	2.1	2.1		
CPI inflation	1.5	0.0	0.8	1.6		
Output gap	-0.6	0.0	0.3	0.7		
<b>NIESR (February 2016)<sup>1</sup></b>						
GDP growth	2.9	2.2	2.3	2.7	2.7	2.5
CPI inflation	1.4	0.1	0.3	1.3	2.1	2.2
<b>OECD (November 2015)<sup>4</sup></b>						
GDP growth	2.9	2.4	2.4	2.3		
CPI inflation	1.5	0.1	1.5	2.0		
Output gap	-0.5	0.0	0.4	0.8		
<b>IMF (October 2015)<sup>5</sup></b>						
GDP growth	3.0	2.5	2.2	2.2	2.2	2.2
CPI inflation	1.5	0.1	1.5	2.0	2.0	2.0
Output gap	-1.4	-0.7	-0.4	-0.2	-0.1	0.0

<sup>1</sup> Output gap not published.

<sup>2</sup> Forecast based on market interest rates and the Bank of England's 'backcast' for GDP growth.

<sup>3</sup> Fourth quarter year-on-year growth rate.

<sup>4</sup> The OECD has since published its February 2016 *Interim economic outlook*. For the UK, GDP growth was revised down to 2.1 per cent in 2016 and 2.0 per cent in 2017.

<sup>5</sup> The IMF updated its short-term forecast in the January 2016 *World economic outlook update*. For the UK, GDP growth was revised down to 2.2 per cent in 2015. Growth in 2016 and 2017 were unrevised, also at 2.2 per cent.

Table 3.8: Detailed summary of forecast

	Percentage change on a year earlier, unless otherwise stated						
	Outturn	Forecast					
	2014	2015	2016	2017	2018	2019	2020
<b>UK economy</b>							
Gross domestic product (GDP)	2.9	2.2	2.0	2.2	2.1	2.1	2.1
GDP level (2014=100)	100.0	102.2	104.3	106.6	108.9	111.1	113.5
Nominal GDP	4.7	2.6	3.1	4.1	4.1	4.0	4.1
Output gap (per cent of potential output)	-1.0	-0.3	-0.2	0.0	0.0	0.0	0.0
<b>Expenditure components of GDP</b>							
Domestic demand	3.2	2.7	2.2	2.3	2.2	2.0	2.0
Household consumption <sup>1</sup>	2.5	2.9	2.4	2.2	2.1	2.0	1.9
General government consumption	2.5	1.7	0.2	0.6	0.5	0.2	0.7
Fixed investment	7.3	4.2	2.9	4.5	4.1	4.0	4.3
Business	4.7	4.7	2.6	6.1	5.8	5.5	4.4
General government <sup>2</sup>	5.8	2.2	0.2	1.9	-0.3	-0.2	6.5
Private dwellings <sup>2</sup>	14.0	3.4	5.1	2.8	3.0	3.0	2.9
Change in inventories <sup>3</sup>	0.2	-0.4	0.2	0.0	0.0	0.0	0.0
Exports of goods and services	1.2	5.0	2.5	3.3	3.3	3.4	3.4
Imports of goods and services	2.4	6.2	3.5	3.3	3.3	3.3	3.3
<b>Balance of payments current account</b>							
Per cent of GDP	-5.1	-4.3	-4.2	-3.8	-3.7	-3.5	-3.4
<b>Inflation</b>							
CPI	1.5	0.0	0.7	1.6	2.0	2.1	2.0
RPI	2.4	1.0	1.7	2.4	3.2	3.2	3.2
GDP deflator at market prices	1.8	0.3	1.1	1.9	2.0	1.9	2.0
<b>Labour market</b>							
Employment (millions)	30.7	31.2	31.6	31.7	31.9	32.0	32.1
Productivity per hour	0.1	0.8	1.0	1.7	2.0	2.0	2.0
Wages and salaries	2.9	4.1	3.6	4.2	3.9	3.8	3.9
Average earnings <sup>4</sup>	1.4	2.3	2.6	3.6	3.5	3.4	3.6
LFS unemployment (% rate)	6.2	5.4	5.0	5.0	5.2	5.3	5.3
Claimant count (millions)	1.04	0.80	0.75	0.78	0.84	0.86	0.87
<b>Household sector</b>							
Real household disposable income	0.6	2.9	1.8	1.9	1.6	1.5	1.5
Saving ratio (level, per cent)	5.4	4.2	3.3	3.6	3.7	3.9	3.9
House prices	9.9	6.8	6.9	4.2	5.0	4.7	3.9
<b>World economy</b>							
World GDP at purchasing power parity	3.4	3.1	3.3	3.5	3.8	3.9	3.9
Euro area GDP	0.9	1.5	1.6	1.6	1.6	1.6	1.6
World trade in goods and services	3.5	2.4	3.0	3.6	4.2	4.3	4.3
UK export markets <sup>5</sup>	3.9	4.1	3.4	3.9	4.4	4.5	4.5

<sup>1</sup> Includes households and non-profit institutions serving households.  
<sup>2</sup> Includes transfer costs of non-produced assets.  
<sup>3</sup> Contribution to GDP growth, percentage points.  
<sup>4</sup> Wages and salaries divided by employees.  
<sup>5</sup> Other countries' imports of goods and services weighted according to the importance of those countries in the UK's total exports.

Table 3.9: Detailed summary of changes to the forecast

	Percentage change on a year earlier, unless otherwise stated						
	Outturn	Forecast					
	2014	2015	2016	2017	2018	2019	2020
<b>UK economy</b>							
Gross domestic product (GDP)	-0.1	-0.1	-0.4	-0.3	-0.3	-0.3	-0.2
GDP level (2014=100) <sup>1</sup>	0.0	-0.1	-0.5	-0.8	-1.0	-1.3	-1.5
Nominal GDP	0.0	-1.1	-0.9	-0.2	-0.2	-0.4	-0.4
Output gap (per cent of potential output)	0.0	0.4	0.2	0.2	0.0	0.0	0.0
<b>Expenditure components of GDP</b>							
Domestic demand	0.0	0.4	-0.4	-0.2	-0.2	-0.3	-0.3
Household consumption <sup>2</sup>	-0.2	0.0	-0.2	-0.1	-0.2	0.0	0.1
General government consumption	0.6	0.0	-0.3	0.0	0.1	-0.3	-0.4
Fixed investment	-0.3	0.0	-2.5	-0.6	-0.6	-1.0	-0.5
Business	0.1	-1.3	-4.9	-1.0	-1.2	-1.1	-0.1
General government <sup>3</sup>	-1.8	-0.8	-0.6	1.3	1.3	-1.9	-2.7
Private dwellings <sup>3</sup>	-0.2	3.2	1.3	-0.6	-0.1	0.0	-0.1
Change in inventories <sup>4</sup>	-0.1	0.5	0.2	0.0	0.0	0.0	0.0
Exports of goods and services	-0.6	1.7	-0.9	-0.2	-0.2	-0.2	-0.2
Imports of goods and services	-0.4	3.4	-0.4	0.0	-0.2	-0.2	-0.2
<b>Balance of payments current account</b>							
Per cent of GDP	0.0	-0.1	-1.2	-1.3	-1.3	-1.3	-1.3
<b>Inflation</b>							
CPI	0.0	0.0	-0.3	-0.2	0.1	0.1	0.0
RPI	0.0	0.0	-0.3	-0.5	0.0	0.0	-0.1
GDP deflator at market prices	0.1	-0.9	-0.5	0.0	0.1	-0.1	-0.2
<b>Labour market</b>							
Employment (millions)	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Productivity per hour	-0.1	-0.2	-0.5	-0.2	-0.1	-0.2	-0.2
Wages and salaries	-0.1	-0.3	-0.9	-0.3	-0.3	-0.3	-0.4
Average earnings <sup>5</sup>	-0.1	-0.3	-0.7	-0.1	-0.1	-0.3	-0.3
LFS unemployment (% rate)	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1
Claimant count (millions)	0.00	0.00	-0.03	-0.03	-0.02	-0.01	-0.01
<b>Household sector</b>							
Real household disposable income	0.9	-0.5	-0.7	-0.2	-0.2	-0.1	-0.3
Saving ratio (level, per cent)	0.5	0.1	-0.8	-0.8	-0.7	-0.6	-0.8
House prices	0.0	0.6	2.1	-0.4	-0.3	-0.3	-0.4
<b>World economy</b>							
World GDP at purchasing power parity	0.0	0.0	-0.3	-0.3	-0.1	0.0	0.0
Euro area GDP	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
World trade in goods and services	0.2	-0.6	-0.5	-0.3	-0.1	-0.1	-0.1
UK export markets <sup>6</sup>	0.1	0.0	-0.2	-0.2	-0.2	0.0	0.0

<sup>1</sup> Per cent change since November.

<sup>2</sup> Includes households and non-profit institutions serving households.

<sup>3</sup> Includes transfer costs of non-produced assets.

<sup>4</sup> Contribution to GDP growth, percentage points.

<sup>5</sup> Wages and salaries divided by employees.

<sup>6</sup> Other countries' imports of goods and services weighted according to the importance of those countries in the UK's total exports.

Economic outlook

Economic and fiscal outlook

92

# 4 Fiscal outlook

## Introduction

4.1 This chapter:

- sets out the key **economic and market determinants** that drive the fiscal forecast (from paragraph 4.3);
- explains the **effects of new policies** announced in this Budget – and since the November Spending Review and Autumn Statement – on the fiscal forecast (from paragraph 4.5);
- describes the **outlook for public sector receipts**, including a tax-by-tax analysis explaining how the forecasts have changed since November (from paragraph 4.21);
- describes the **outlook for public sector expenditure**, focusing on spending covered by departmental expenditure limits and the components of annually managed expenditure, including those subject to the Government’s welfare cap (from paragraph 4.87);
- describes **the outlook for government lending to the private sector and other financial transactions**, including asset sales (from paragraph 4.150);
- describes the **outlook for the key fiscal aggregates**: headline and structural measures of public sector net borrowing and the current budget, and public sector net debt (from paragraph 4.172);
- summarises **risks and uncertainties** (paragraph 4.187); and
- provides a **comparison with forecasts from international organisations** (from paragraph 4.188).

4.2 Further breakdowns of receipts and expenditure and other details of our fiscal forecast are provided in the supplementary tables on our website. The medium-term forecasts for the public finances in this chapter start from **outturn 2014-15 data**.<sup>1</sup> We then present an in-year estimate for 2015-16 that makes use of published Office for National Statistics (ONS) **outturn data** for April to January and some administrative receipts data for February,

<sup>1</sup> Outturn data for 2014-15 are consistent with the *Public Sector Finances January 2016 Statistical Bulletin* (released in February) published by the ONS and HM Treasury.

followed by forecasts for 2016-17 to 2020-21. As in previous *Economic and fiscal outlooks* (EFOs), this fiscal forecast:

- **represents our central view** of the path of the public finances, conditioned on the current policies and policy assumptions of the Government. On that basis, we believe that the outcomes – which will be affected by any errors in our forecast assumptions or future Government policy changes – are as likely to be above the forecast as below it;
- is **based on announced Government policy** on the indexation of rates, thresholds and allowances for taxes and benefits, and incorporates certified costings for all new policy measures announced by the Chancellor in the Budget; and
- **focuses on official ‘headline’ fiscal aggregates** that exclude public sector banks.

## Economic determinants of the fiscal forecast

- 4.3 Our fiscal forecasts are based on the economic forecasts presented in Chapter 3. Most economic forecasts focus on the outlook for real GDP, but it is nominal GDP that matters most when forecasting the public finances. Forecasts of tax receipts are particularly dependent on the profile and composition of economic activity. On the income side, labour income is generally taxed more heavily than company profits. On the expenditure side, consumer spending is subject to VAT and other indirect taxes while business investment attracts capital allowances that reduce corporation tax receipts in the short term. And while around half of public sector expenditure is set out in multi-year plans, large elements (such as social security and debt interest payments) are linked to developments in the economy – notably inflation, market interest rates and the labour market.
- 4.4 Table 4.1 sets out some of the key economic determinants of the fiscal forecast. Table 4.2 shows how these have changed since our November forecast. Detailed descriptions of these forecasts and changes are provided in Chapter 3. In summary:
- **nominal GDP** is forecast to grow by 3.7 per cent a year on average between 2015-16 and 2020-21. This is down from 4.3 per cent a year in November, reflecting weaker output growth in 2015 and a weaker outlook for underlying productivity growth. Box 4.1 describes the large data-driven revision to near-term growth in the non-seasonally adjusted measure of nominal GDP that is used as the denominator when expressing fiscal aggregates as a percentage of GDP;
  - on the income side of GDP, **wages and salaries** are forecast to grow by 3.9 per cent a year on average between 2015-16 and 2020-21, down 0.4 percentage points from our November forecast. Within that, employment growth is broadly unchanged, while average earnings growth has been revised down due to lower expected productivity growth. Non-oil, non-financial **profits** grow by 3.5 per cent a year on average, down from 4.6 per cent in November;

- on the expenditure side of GDP, **nominal consumer spending** is forecast to grow by 4.0 per cent a year on average between 2015 and 2020, down by 0.1 percentage points from our November forecast reflecting the productivity-driven reduction in expected earnings growth;
- the CPI measure of **inflation** has been revised down in the near term, reflecting the pass-through of lower oil and gas prices to petrol prices and utility bills. It is expected to move slightly above the 2 per cent target during 2018-19 reflecting the introduction of the soft drinks industry levy in that year. Thereafter, it is assumed to return to target. We continue to expect RPI inflation to be higher than CPI inflation throughout the forecast period because of differences in the ONS approach to constructing the two measures;
- **house price inflation** has been revised up in the short term due to stronger outturns, but down towards the end of the forecast period due to weaker income growth. **Residential property transactions** are broadly unchanged since November;
- our pre-measures forecasts for **commercial property prices and transactions** are little changed since November. The Budget announced reforms to stamp duty on non-residential transactions and leases. We expect these reforms to reduce both the frequency of transactions and to increase the number of transactions that avoid SDLT, meaning that our forecast for SDLT-paying transactions falls next year. We also expect the increase in tax rates to reduce growth in commercial property prices next year;
- market-derived assumptions for **equity prices, interest rates** and the **oil price** reflect average prices in the 10 days to 25 February. Equity and oil prices have been revised down significantly since November in line with recent outturns, while market expectations of interest rates have fallen substantially further (from the already low levels that were assumed in November);
- our **oil and gas production** forecasts are informed by the central projections published by the Oil and Gas Authority (OGA). We have revised our oil production forecast up, reflecting stronger-than-expected growth in 2015. We expect higher production to persist over the forecast, reflecting a return from the high levels of investment in recent years. The sharp falls in oil and gas prices since November mean this forecast – always subject to uncertainty – may be even more uncertain than usual; and
- the **output gap** – which we use to estimate the structural health of the public finances – is narrower than in our November forecast. It is expected to average -0.3 per cent in 2015-16 and to close a year earlier in 2017-18.



#### Box 4.1: Non-seasonally adjusted nominal GDP

The economy and public finances are affected by many factors, including some predictable ups and downs during the course of the year: Christmas boosts high street spending; people are more likely to move house in the summer than the winter; and so on.

The headline GDP data that form the basis of our *economy forecast* are 'seasonally adjusted' by the Office for National Statistics (ONS) to strip out those regular patterns. But the headline ONS public finances data on which our *fiscal forecast* – and the Government's fiscal targets – are based are not. For consistency, when the ONS presents official estimates of the deficit or debt as a percentage of GDP, rather than in billions of pounds, it uses the non-seasonally adjusted (NSA) measure of nominal GDP as the denominator. Moreover, it uses different time periods to calculate the denominators:

- the ratio for the **deficit** in any given fiscal year is straightforward. It is the cash deficit divided by the sum of NSA nominal GDP over the four quarters that comprise the fiscal year. In other words, the second quarter of 2015 to the first quarter of 2016, for fiscal year 2015-16; and
- the ratio for **net debt** in a particular fiscal year is slightly less intuitive. Because debt is a stock rather than a flow, the conventional way to define the debt ratio for 2015-16 is to focus on the level of debt at the end of the year. This is calculated as the cash value of the debt at the end of the year divided by the sum of NSA nominal GDP for the previous and subsequent six months. In other words, from the fourth quarter of 2015 to the third quarter of 2016, for the 2015-16 fiscal year.

As a result, we need to forecast NSA nominal GDP for our fiscal forecast. We do that by applying a 3-year average of the quarterly seasonal factors implied by the ONS nominal GDP data to add a seasonal pattern to our forecast. This normally is not noteworthy, but in our November forecast it made a material difference to the path of the debt ratio and the revision between November and this forecast has been large. Chapter 5 sets out the implications this has had for the Government's target to reduce debt as a share of GDP each year.

Headline nominal GDP growth during 2015 has slowed significantly – to 1.9 per cent in the year to the final quarter of 2015, far below the 3.9 per cent we forecast in November. As discussed below, this reflects ONS revisions through the year as well as the first estimate for the fourth quarter, which was published last month. Slower growth in seasonally adjusted nominal GDP would have reduced our forecast of the NSA measure anyway. But a change in the ONS estimates of the seasonal pattern through 2015 has pushed it down even further.

Chart A shows how the GDP estimates available at the time of our November forecast reported an unusually big gap between NSA and headline nominal GDP in the first half of 2015, with NSA low relative to the headline figure. These seasonal effects must by definition cancel out over the calendar year, so that meant that our forecast in November had to assume NSA GDP would be higher in the second half of the year, which boosted growth in NSA nominal GDP in the period used as the denominator for 2015-16 debt-to-GDP. The latest ONS data show a seasonal pattern through 2015 that looks more like previous years, which means the shortfall in NSA nominal GDP growth relative to our November forecast is even greater: 1.7 per cent year-

on-year in the final quarter of 2015 relative to our forecast of 4.7 per cent.

Chart B shows how the combination of weaker headline nominal GDP growth and revisions to the estimated seasonal pattern of activity through 2015 have affected annual average growth in NSA nominal GDP in the denominator period for the 2015-16 debt-to-GDP calculation:

- in the **first two quarters of 2015**, the latest data have been revised up, as the revision to the implied seasonal factors more than offset weaker headline nominal GDP;
- in the **second half of 2015**, the latest data are much weaker than we forecast in November, with weakness in headline nominal GDP explaining around two-thirds of the shortfall and the change in the assumed seasonal pattern the rest;
- a **lower expected level of nominal GDP in 2016**, mainly due to the unexpected weakness at the end of 2015; and
- the combination of a slightly higher average level of NSA nominal GDP in the base year and a much lower level in the denominator year means that **annual growth has been revised down** from 4.3 per cent in November to 2.3 per cent in this forecast. For a given year-on-year change in the level of debt, it is that growth rate that affects the pace at which debt is estimated to rise or fall as a share of GDP.

Chart A: The seasonal profile of nominal GDP

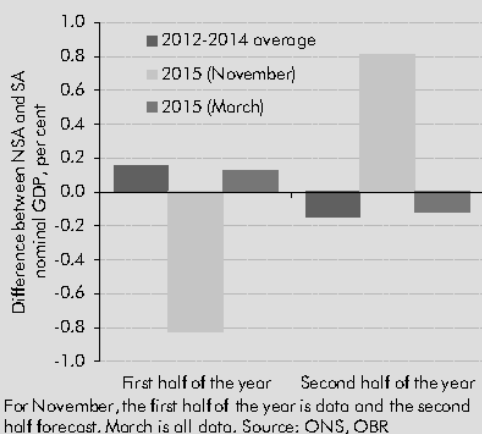


Chart B: Non-seasonally adjusted nominal GDP growth data and forecasts

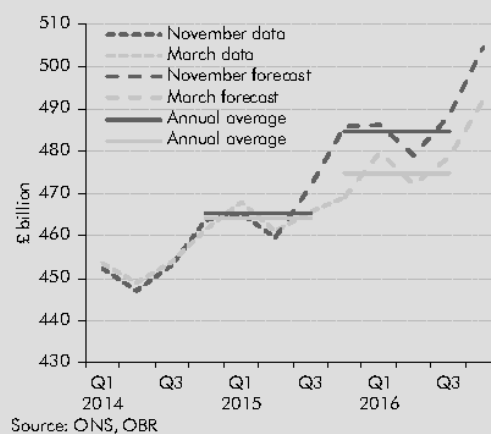


Table 4.1: Determinants of the fiscal forecast

	Percentage change on previous year unless otherwise specified						
	Outturn	Forecast					
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
<b>GDP and its components</b>							
Real GDP	2.8	2.1	2.0	2.2	2.1	2.1	2.2
Nominal GDP <sup>1</sup>	4.3	2.4	3.6	4.0	4.2	3.9	4.2
Nominal GDP (£ billion) <sup>1,2</sup>	1832	1876	1943	2021	2106	2189	2281
Nominal GDP (centred end-March £bn) <sup>1,3</sup>	1856	1899	1983	2063	2147	2234	2328
Wages and salaries <sup>4</sup>	3.2	3.8	3.9	4.1	3.9	3.8	4.1
Non-oil PNFC profits <sup>4,5</sup>	10.0	1.9	3.8	3.5	3.8	3.9	4.2
Consumer spending <sup>4,5</sup>	4.2	3.2	3.6	4.1	4.4	4.4	4.2
<b>Prices and earnings</b>							
GDP deflator	1.5	0.2	1.5	1.8	2.1	1.9	2.0
RPI (September) <sup>6</sup>	2.3	0.8	1.7	2.6	3.3	3.2	3.2
CPI (September) <sup>6</sup>	1.2	-0.1	0.6	1.6	2.1	2.0	2.0
Average earnings <sup>7</sup>	1.3	2.4	3.0	3.5	3.5	3.3	3.8
'Triple-lock' guarantee (September)	2.5	2.9	2.5	3.6	3.5	3.5	3.4
<b>Key fiscal determinants</b>							
Claimant count (millions)	0.95	0.78	0.74	0.80	0.85	0.86	0.87
Employment (millions)	30.9	31.3	31.6	31.8	31.9	32.0	32.1
VAT gap (per cent)	10.8	11.4	11.5	11.2	10.9	10.5	10.3
Output gap (per cent of potential output)	-0.7	-0.3	-0.1	0.1	0.0	0.0	0.0
<b>Financial and property sectors</b>							
Equity prices (FTSE All-Share index)	3580	3400	3337	3471	3617	3760	3918
HMRC financial sector profits <sup>1,5,8</sup>	4.3	2.4	3.5	4.0	4.1	4.0	4.4
Residential property prices <sup>9</sup>	10.0	6.8	5.7	4.5	5.1	4.5	3.8
Residential property transactions (000s) <sup>10</sup>	1201	1258	1257	1282	1294	1301	1310
Commercial property prices <sup>10</sup>	17.6	7.4	2.1	1.8	1.9	1.9	2.2
Commercial property transactions <sup>10</sup>	8.6	3.5	-0.9	2.3	2.3	2.1	2.1
Volume of stampable share transactions	-8.6	10.3	0.0	0.0	0.0	0.0	0.0
<b>Oil and gas</b>							
Oil prices (\$ per barrel) <sup>5</sup>	98.9	52.4	35.5	41.9	44.0	44.0	44.0
Oil prices (£ per barrel) <sup>5</sup>	60.0	34.3	24.9	29.3	30.7	30.6	30.4
Gas prices (p/therm) <sup>5</sup>	50.2	43.0	29.9	32.3	32.3	32.3	32.3
Oil production (million tonnes) <sup>5</sup>	40.0	45.0	43.2	43.3	43.4	41.3	39.2
Gas production (billion therms) <sup>5</sup>	13.0	14.0	13.0	12.4	11.8	11.3	10.7
<b>Interest rates and exchange rates</b>							
Market short-term interest rates (%) <sup>11</sup>	0.6	0.6	0.5	0.6	0.8	1.0	1.2
Market gilt rates (%) <sup>12</sup>	2.3	1.9	1.7	1.9	2.1	2.2	2.4
Euro/Sterling exchange rate (€/£)	1.28	1.37	1.28	1.27	1.26	1.25	1.24
<sup>1</sup> Not seasonally adjusted.				<sup>7</sup> Wages and salaries divided by employees.			
<sup>2</sup> Denominator for receipts, spending and deficit forecasts as a per cent of GDP.				<sup>8</sup> HMRC Gross Case 1 trading profits.			
<sup>3</sup> Denominator for net debt as a per cent of GDP.				<sup>9</sup> Outturn data from ONS House Price Index.			
<sup>4</sup> Nominal. <sup>5</sup> Calendar year.				<sup>10</sup> Outturn data from HMRC information on stamp duty land tax.			
<sup>6</sup> Q3 forecast used as a proxy for September.				<sup>11</sup> 3-month sterling interbank rate (LIBOR).			
				<sup>12</sup> Weighted average interest rate on conventional gilts.			

Table 4.2: Changes in the determinants of the fiscal forecast

	Percentage change on previous year unless otherwise specified						
	Outturn	Forecast					
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
<b>GDP and its components</b>							
Real GDP	-0.1	-0.1	-0.5	-0.2	-0.3	-0.2	-0.1
Nominal GDP <sup>1</sup>	0.1	-1.6	-0.4	-0.3	-0.3	-0.5	-0.3
Nominal GDP (£ billion) <sup>1,2</sup>	3	-27	-37	-44	-51	-62	-72
Nominal GDP (centred end-March £bn) <sup>1,3</sup>	-4	-40	-39	-46	-56	-67	-77
Wages and salaries <sup>4</sup>	-0.2	-0.4	-0.8	-0.3	-0.3	-0.3	-0.3
Non-oil PNFC profits <sup>4,5</sup>	-0.3	-4.4	-0.8	-0.3	-0.3	-0.4	-0.4
Consumer spending <sup>4,5</sup>	0.0	-0.2	-0.3	-0.3	-0.1	0.1	0.0
<b>Prices and earnings</b>							
GDP deflator	0.1	-1.2	-0.2	0.0	0.2	-0.2	-0.2
RPI (September) <sup>6</sup>	0.0	0.0	-0.3	-0.4	0.1	0.0	0.0
CPI (September) <sup>6</sup>	0.0	0.0	-0.4	-0.2	0.2	0.0	0.0
Average earnings <sup>7</sup>	-0.2	-0.5	-0.5	-0.2	-0.2	-0.4	-0.2
'Triple-lock' guarantee (September)	0.0	0.0	-0.7	-0.1	-0.1	-0.2	-0.5
<b>Key fiscal determinants</b>							
Claimant count (millions)	0.00	-0.01	-0.03	-0.04	-0.02	-0.02	-0.01
Employment (millions)	0.0	0.1	0.0	0.0	0.0	-0.1	-0.1
VAT gap (per cent)	0.4	0.3	0.6	0.3	0.2	0.0	0.0
Output gap (per cent of potential output)	0.1	0.4	0.2	0.2	0.0	0.0	0.0
<b>Financial and property sectors</b>							
Equity prices (FTSE All-Share index)	0	-80	-285	-306	-326	-357	-385
HMRC financial sector profits <sup>1,5,8</sup>	-0.1	-1.2	-0.6	-0.4	-0.4	-0.4	0.0
Residential property prices <sup>9</sup>	0.0	1.5	1.0	-0.3	-0.2	-0.4	-0.3
Residential property transactions (000s) <sup>10</sup>	-1	0	8	5	3	1	0
Commercial property prices <sup>10</sup>	0.0	0.0	-1.0	0.0	0.0	-0.2	0.1
Commercial property transactions <sup>10</sup>	0.0	-0.2	-3.3	-0.2	-0.2	-0.2	-0.2
Volume of stampable share transactions	0.0	10.3	0.0	0.0	0.0	0.0	0.0
<b>Oil and gas</b>							
Oil prices (\$ per barrel) <sup>5</sup>	0.0	-1.4	-18.1	-16.2	-14.8	-14.8	-14.8
Oil prices (£ per barrel) <sup>5</sup>	0.0	-0.8	-9.9	-8.4	-7.4	-7.4	-7.5
Gas prices (p/therm) <sup>5</sup>	-0.1	0.0	-9.2	-7.8	-7.8	-7.8	-7.8
Oil production (million tonnes) <sup>5</sup>	0.0	3.8	5.3	7.3	9.2	8.8	8.3
Gas production (billion therms) <sup>5</sup>	0.0	0.6	0.6	0.6	0.6	0.7	0.6
<b>Interest rates and exchange rates</b>							
Market short-term interest rates <sup>11</sup>	0.0	0.0	-0.3	-0.6	-0.7	-0.8	-0.8
Market gilt rates <sup>12</sup>	0.0	-0.1	-0.4	-0.4	-0.4	-0.4	-0.4
Euro/Sterling exchange rate (€/£)	0.00	-0.01	-0.09	-0.09	-0.08	-0.07	-0.07
<sup>1</sup> Not seasonally adjusted.				<sup>7</sup> Wages and salaries divided by employees.			
<sup>2</sup> Denominator for receipts, spending and deficit forecasts as a per cent of GDP.				<sup>8</sup> HMRC Gross Case 1 trading profits.			
<sup>3</sup> Denominator for net debt as a per cent of GDP.				<sup>9</sup> Outturn data from ONS House Price Index.			
<sup>4</sup> Nominal. <sup>5</sup> Calendar year.				<sup>10</sup> Outturn data from HMRC information on stamp duty land tax.			
<sup>6</sup> Q3 forecast used as a proxy for September.				<sup>11</sup> 3-month sterling interbank rate (LIBOR).			
				<sup>12</sup> Weighted average interest rate on conventional gilts.			

## Policy announcements, risks and classification changes

4.5 The Government publishes estimates of the direct impact on the public finances of tax and selected spending policy decisions in its 'scorecard', after detailed discussions with the OBR. It also makes changes to departmental spending – only some of which are shown on the scorecard – on top of the changes already announced in the Spending Review. If we were to disagree with any of the final scorecard numbers they chose, we would use our own estimates in our forecast. We are also responsible for assessing any indirect effects of policy measures on our economy forecast.<sup>2</sup> These are discussed in Box 3.2 in Chapter 3. We note as risks to the fiscal forecast any significant policy commitments that are not quantifiable, as well as any potential statistical classification changes.

### Direct effect of new policy announcements on the public finances

- 4.6 In Annex A, we reproduce the Treasury's scorecard of the direct effect on PSNB of policy decisions in the Budget or announced since the November Spending Review and Autumn Statement. Annex A also includes our formal assessment of the degree of uncertainty associated with each costing that we have certified.
- 4.7 Table 4.3 summarises the Treasury's policy scorecard and the changes since our last forecast to the Government's plans for spending subject to departmental expenditure limits (DEs). These encompass spending on public services, grants, administration and capital investment. A positive figure means an improvement in PSNB, i.e. higher receipts or lower expenditure. (We produce a detailed breakdown in a supplementary fiscal table on our website, showing how each policy measure is allocated to different categories of tax and spending.)

---

<sup>2</sup> In March 2014, we published a briefing paper on our approach to scrutinising and certifying policy costings, and how they are fed into our forecasts, which is available on our website: *Briefing paper No 6: Policy costings and our forecast*.

Table 4.3: Summary of the effect of Government decisions on the budget balance

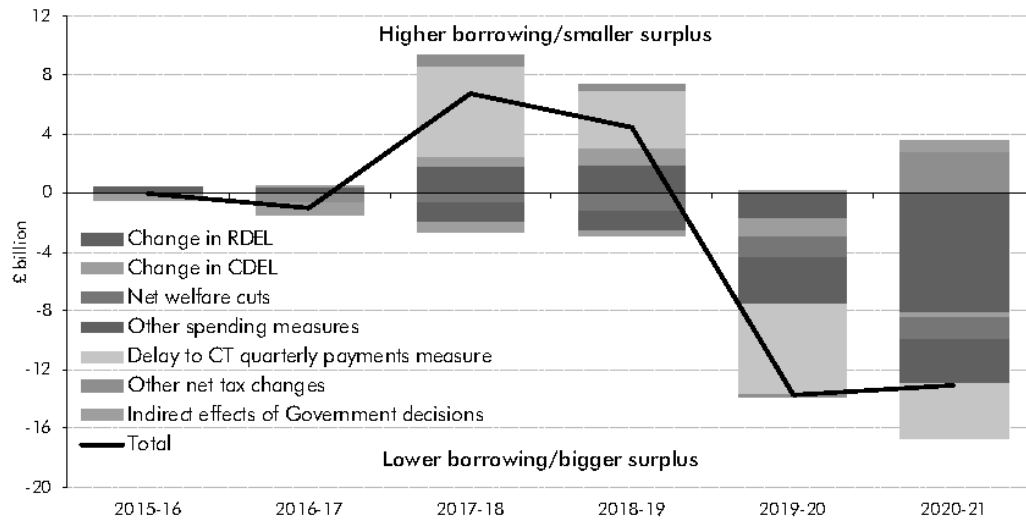
	£ billion					
			Forecast			
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
<b>Total effect of scorecard measures</b>	<b>0.0</b>	<b>0.3</b>	<b>-7.6</b>	<b>-4.8</b>	<b>13.9</b>	<b>4.2</b>
<b>Effects of scorecard receipts measures</b>	<b>0.0</b>	<b>0.6</b>	<b>-7.0</b>	<b>-4.3</b>	<b>6.3</b>	<b>0.8</b>
<i>of which:</i>						
Onshore corporation tax	0.0	0.5	-3.1	-0.5	8.3	4.8
Business rates	0.0	0.0	-1.4	-1.5	-1.5	-1.9
Income tax and NICs	0.0	0.2	-1.8	-2.3	-1.7	-2.8
Fuel duty	0.0	-0.4	-0.4	-0.4	-0.4	-0.4
Soft drinks levy	0.0	0.0	0.0	0.5	0.5	0.5
Stamp duty land tax	0.0	0.5	0.6	0.6	0.7	0.7
Capital gains tax	0.0	-0.1	-0.2	-0.4	-0.4	-0.3
Oil and gas revenues	0.0	-0.2	-0.3	-0.2	-0.2	-0.2
VAT	0.0	0.1	0.2	0.2	0.4	0.4
Other	0.0	0.0	-0.5	-0.4	0.6	0.1
<b>Effects of scorecard AME measures</b>	<b>0.0</b>	<b>0.1</b>	<b>2.1</b>	<b>2.6</b>	<b>4.6</b>	<b>4.5</b>
<i>of which:</i>						
Welfare	0.0	0.0	0.7	1.3	1.4	1.4
Locally financed current expenditure	0.0	-0.1	0.6	0.8	1.1	1.4
Public service pensions	0.0	0.0	0.0	0.0	2.0	2.0
Other AME measures	0.0	0.2	0.8	0.5	0.1	-0.3
<b>Effects of scorecard DEL measures</b>	<b>0.0</b>	<b>-0.4</b>	<b>-2.7</b>	<b>-3.0</b>	<b>3.0</b>	<b>-1.1</b>
			Summary of changes			
<b>Total effect of Government decisions</b>	<b>0.1</b>	<b>1.0</b>	<b>-6.7</b>	<b>-4.5</b>	<b>13.7</b>	<b>13.1</b>
<i>of which:</i>						
Receipts and AME scorecard measures	0.0	0.7	-4.9	-1.7	10.9	5.3
RDEL changes	-0.4	-0.3	-1.8	-1.9	1.8	8.1
CDEL changes	0.4	-0.1	-0.7	-1.1	1.2	0.4
Indirect effect of Government decisions	0.1	0.7	0.6	0.3	-0.2	-0.7
Financial transactions <sup>1</sup>	0.0	0.0	0.0	0.1	0.2	0.3
Memo: gross tax increases	0.0	1.6	5.8	7.9	15.2	11.5
Memo: gross tax cuts	0.0	-0.9	-12.7	-12.2	-8.9	-10.7

<sup>1</sup> Affects PSNCR, not PSNB.

Note: The full Treasury scorecard can be found in Annex A. This table uses the Treasury scorecard convention that a positive figure means an improvement in PSNB, PSNCR and PSND.

4.8 Chart 4.1 summarises the impact of Government decisions on PSNB across the forecast. It shows how the Government has loosened policy in the short term and then tightened it significantly in 2019-20 and 2020-21 – the years in which its surplus target applies. This uneven path has meant the overall pace of fiscal tightening over the coming five years – which in November was relatively smooth and diminishing over time – is set to pick up slightly over the next three years, then dramatically in 2019-20 before slowing abruptly in 2020-21. This is shown in Chart 4.13 in the fiscal aggregates section of this chapter.

Chart 4.1: The effect of Government decisions on public sector net borrowing



Source: OBR

## Policy risks

4.9 Parliament requires that our forecasts only reflect current Government policy. As such, when the Government or governing party sets out ‘ambitions’ or ‘intentions’ we ask the Treasury to confirm whether they represent firm policy that should be reflected in our forecast. Where they are not yet firm policy, we note them as a source of risk to our central forecast. For this forecast, there are a number that we need to note:

- commitments on **income tax allowances**: in November’s Autumn Statement, the Government stated that it “is determined to support those in work by continuing to reduce taxes. In recognition of this, the government has committed to raise the personal allowance to £12,500 and the higher rate threshold to £50,000 by the end of this Parliament.” These objectives are specified in terms of the levels being targeted and by when (the end of the Parliament), but the Government has not set out how it would get from the current level to £12,500. The Treasury argues that it will do so progressively, assessing the affordability of incremental steps at each stage. As such, we are not able to quantify the effect on each year of the forecast of achieving this goal. In this Budget it has announced increases to £11,500 and £45,000 respectively, with a scorecard cost of £2.5 billion in 2019-20 and £2.6 billion in 2020-21. Our central forecast assumes that thresholds are updated in line with CPI inflation in years for which the Government has not set specific parameters, so by 2019-20 the personal allowance reaches £11,950 and by 2020-21 it reaches £12,190. For the higher rate threshold, those figures are £46,850 and £47,790. Due to the much larger number of taxpayers affected by changes in the personal allowance, it is that element of the Government’s commitment that would be most costly to meet. HMRC has provided an estimate of the cost in 2020-21 alone of closing the remaining gaps between the levels of the

personal allowance and higher rate threshold reached in our central forecast and the Government's commitments: £2.4 billion. If 'the end of this Parliament' was interpreted as 2019-20, the cost would be closer to £4 billion (reflecting the larger gaps that would remain to be closed);

- the **intention to localise all business rates** and to provide some additional discretion to local authorities in setting business rates, while also shifting some new spending responsibilities to local authorities. There are elements of this prospective package of measures that could be quantified now, but it would be misleading to include only part it in our central forecast when the Government has stated that when fully specified it will be fiscally neutral as a whole. When the package is fully specified, we will include it in the forecast and judge whether it is in fact fiscally neutral (see Box 4.3);
- the outcome of **the consultation on fee proposals for grants of probate**. Depending on classification, these fees could boost receipts or leave more space for departmental spending. The fees may also affect inheritance tax receipts; and
- the **intention to expand right-to-buy to tenants of housing associations**, which is currently being piloted and features in the Housing Bill that is progressing through Parliament, but which the Government has not yet specified in a manner that would allow its effects to be estimated on a year-by-year basis.

4.10 We are not able to estimate the effects of the planned restrictions on EU migrants' access to certain in-work benefits and tax credits at this stage because the Government has not set out the precise parameters of these policies that would be necessary for us to quantify specific effects in specific years. The Treasury has confirmed that the final details of the policy will be set out following the EU referendum, consistent with the conclusions of the February European Council. It intends to cost the policy at the Autumn Statement.

4.11 The Government has announced further cuts to departmental spending in 2019-20 and 2020-21, but these have not been fully allocated to individual departments. For 2019-20, where detailed plans were set in November's Spending Review, it has stated that the cuts will be allocated to departments following an 'efficiency review' that will report in 2018. Given the Treasury's long-standing track record in keeping departmental spending within its published limits, we have reflected these planned cuts in our forecast, although we have also reduced the amount by which we expect departments to underspend the lower spending limits. (It is not for us to judge now or later whether the cuts would in fact be genuine efficiency savings or cuts in the quality and quantity of public services.) The planned cuts in 2020-21 are much larger, but relate to totals that were not fully allocated in the Spending Review. Again, we have reduced our assumption of underspending as a result. This process of adjusting assumed departmental spending totals by sometimes large amounts between forecasts was a feature of the last Parliament too.



## Contingent liabilities

4.12 We have asked the Treasury to identify any changes to future contingent liabilities as a result of policy announcements since November. One announcement appears relevant:

- the new **Scottish Government fiscal framework** includes additional borrowing powers for the Scottish Government, allowing it to borrow for current spending in specific circumstances and extending its existing ability to borrow for capital spending. These borrowing powers will not be a contingent liability in the Whole of Government Accounts (WGA), but they do transfer certain economy-related fiscal risks from the UK to the Scottish Government.

4.13 A small number of universities in the UK have recently issued bonds in their own names, typically raising around £¼ billion each. Universities are classified as ‘non-profit institutions serving households’ in the National Accounts, so are part of the private sector. As such, these liabilities will not add to the ONS measure of public sector net debt or feature in our fiscal forecast. Moreover, since the bonds are not issued with a government guarantee, they are not contingent liabilities in WGA terms either. But given the public service nature of universities’ roles, it is possible that if one or more were to default on their bonds, the liabilities could ultimately be transferred to government. Investors in universities’ bonds might even anticipate such an implicit guarantee. This could represent a broader fiscal risk of the type that we will aim to address in the new *Fiscal risks report (FRR)* that Parliament – in the October 2015 update to the *Charter for Budget Responsibility* – has asked us to produce. We plan to publish a *FRR* discussion paper this autumn and our first full report next summer.

## Classification changes

4.14 In our November forecast, we anticipated the effect on the public finances of the ONS decision to reclassify housing associations into the public sector.<sup>3</sup> The ONS has now implemented that decision in the official data. Box 4.2 sets out how the latest data compare with the assumptions we made in November and the changes we have made to our forecasts since then. The Government is in the process of reforming the regulation of housing associations, with one of its stated aims being to reduce control sufficiently that they are reclassified back to the private sector. At this stage it is unclear whether this would lead the ONS to consider another classification decision.

4.15 Our November forecast included a number of other items that anticipated future revisions and classification changes that the ONS had announced, but had not yet implemented (see Box 4.1 of the November *EFO*). A number of these items are now included in outturn, including community infrastructure levy receipts, the heavy goods vehicle road user levy and other smaller items related to work that the ONS, Treasury and we have been undertaking to resolve previously unexplained differences between accrued and cash measures of

<sup>3</sup> ‘Classification announcement: “Private registered providers” of social housing in England’, ONS, 30 October 2015.

borrowing. Our current forecast includes further items related to this work, the details of which can be found in a supplementary fiscal table on our website.

- 4.16 The possibility of future classification decisions will always represent a source of uncertainty around our forecasts. The ONS publishes a quarterly forward workplan that lists classification issues currently under consideration. In its December 2015 publication, 13 items were listed, some of which – e.g. the treatment of various pension schemes and the classification of contracts under the Government’s ‘priority schools building programme’ – could have a substantial impact on the public sector finances were any classification decisions to result from these reviews.<sup>4</sup>

#### Box 4.2: The reclassification of housing associations into the public sector

In our November forecast, we anticipated the effect on the public finances of the ONS decision to reclassify private registered providers of social housing in England – which includes most housing associations (HAs) and some other private sector providers – into the public sector (see Annex B of that EFO.) The ONS has now implemented that decision in the official data, reflecting 2014-15 ‘global accounts’ data for HAs that were not available when we completed our November forecast. The ONS estimates that HAs increased public sector borrowing by £3.6 billion and net debt by £60 billion (3.3 per cent of GDP) in 2014-15. That is around £1 billion lower for borrowing than we had estimated (due to lower capital spending), but about £0.5 billion higher for debt (due to the inclusion of certain lease obligations and other items).

Our pre-measures forecast for HAs’ borrowing in 2015-16 is £0.7 billion lower than in November, mainly due to lower capital spending. We have recalibrated our forecast model to be consistent with the latest ONS estimate for 2014-15, which implied that HAs had leveraged grants and cash surpluses by less than we had assumed. All else equal, that would reduce capital spending in the initial years of the forecast. Offsetting that, we have revised up our forecast of rental income and cash surpluses to make the forecast consistent with how the ONS has grossed up the ‘global accounts’ data for small providers not covered in that report. That pushes up capital spending via our assumption about leveraging. By 2020-21, that means our pre-measures HAs borrowing forecast has been revised up by £0.4 billion. Effects on PSND have been largely offsetting, with revisions since November averaging less than £1 billion a year across the forecast period.

Our forecast now factors in the effect of the **right-to-buy pilot** that was announced in November, but that the Government did not provide us with a costing at that time. The full expansion of right-to-buy to HA tenants has not yet been specified sufficiently to be included in our forecast. In this Budget, the Government has announced two further policy measures that affect our HAs fiscal forecast:

- the **pay to stay** policy announced in July 2015 has been amended in two ways. First, it has been made voluntary for HAs (although it remains mandatory for local authorities) as the Government seeks to reduce its control over HAs. Some HAs are expected not to charge tenants the additional rent and some to implement the policy in a way that is

<sup>4</sup> ‘National Accounts Sector Classification: December 2015’, ONS, 31 December 2015.

more generous to tenants. The Government has also announced that rent increases will now be tapered as income rises, replacing the 'cliff-edge' policy design whereby rents would jump to 80 per cent of market rent when a households' income topped £30,000 (£40,000 in London) and 100 per cent of market rent when it topped £40,000 (£50,000 in London). Both amendments are expected to reduce HAs' rental incomes; and

- the **1 per cent a year social sector rent cuts for supported housing** will also be deferred by a year, raising HAs' rental income.

The pay to stay policy amendments have the biggest effect on our HAs' borrowing forecast, because they reduce rental income and cash surpluses. We assume that this feeds more than one-for-one into lower capital spending on housebuilding.

Table A: March forecast for HAs' effects on the public finances

	£ billion, unless otherwise stated						
	Outturn	Forecast					
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Current receipts (a)	6.5	6.9	6.7	6.8	6.6	6.4	6.9
Current spending (b)	3.0	2.9	3.0	3.2	3.4	3.6	3.8
Depreciation (c)	1.6	1.6	1.7	1.7	1.8	1.8	1.9
Capital spending (d)	7.1	7.9	6.9	6.4	5.8	5.1	6.3
of which: Additional capital	6.4	7.0	5.9	5.5	6.4	7.0	9.7
<b>Current deficit (b+c-a)</b>	<b>-1.9</b>	<b>-2.3</b>	<b>-2.1</b>	<b>-1.9</b>	<b>-1.4</b>	<b>-1.0</b>	<b>-1.2</b>
Pre-measures borrowing (b+d-a)	3.6	3.9	3.2	2.8	2.7	2.3	3.2
Budget policy measures (e)	0.0	0.0	0.0	-0.3	-0.3	-0.4	-0.4
Post-measures net borrowing (b+d-a+e)	3.6	3.9	3.2	2.4	2.4	2.0	2.8
<b>Net debt (post measures)</b>	<b>60</b>	<b>64</b>	<b>67</b>	<b>69</b>	<b>72</b>	<b>74</b>	<b>77</b>
<b>Net debt (post measures) as a share of GDP</b>	<b>3.2</b>	<b>3.3</b>	<b>3.4</b>	<b>3.4</b>	<b>3.3</b>	<b>3.3</b>	<b>3.3</b>

Table B: Changes in post-measures HAs forecast since November

	£ billion, unless otherwise stated						
	Outturn	Forecast					
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Current receipts (a)	0.1	0.3	0.3	0.3	0.2	0.3	0.3
Current spending (b)	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Depreciation (c)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Capital spending (d)	-1.2	-0.4	0.4	0.6	0.6	0.6	0.6
of which: Additional capital	-1.1	-0.2	0.6	1.0	1.0	1.2	1.4
<b>Current deficit (b+c-a)</b>	<b>0.3</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.2</b>	<b>-0.2</b>	<b>-0.2</b>	<b>-0.2</b>
Pre-measures borrowing (b+d-a)	-1.0	-0.7	0.1	0.4	0.3	0.3	0.4
Post-measures net borrowing	-1.0	-0.7	0.0	0.0	0.0	0.0	-0.1
<b>Net debt (post measures)</b>	<b>0.5</b>	<b>-0.2</b>	<b>-0.1</b>	<b>0.2</b>	<b>0.5</b>	<b>0.9</b>	<b>1.2</b>
<b>Net debt (post measures) as a share of GDP</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>

## Financial sector interventions

- 4.17 The Government undertook a number of interventions in the financial sector as a result of the crisis and recession of the late 2000s. In each *EFO* we provide an update on the estimated net effect of those interventions on the public finances. Table 4.4 summarises the position as at the end of December 2015.<sup>5</sup>
- 4.18 In total, £133 billion was disbursed by the Treasury during and following the crisis. By the end of December, principal repayments on loans, proceeds from share sales and redemptions of preference shares amounted to £56 billion, up from the £50 billion reported in our last *EFO*. The additional proceeds mainly relate to a £4.5 billion repayment on the Government's loan to NRAM, associated with the sale of the Granite securitisation vehicle and some other assets. The figures in the table predate the final repayment from Icesave that was received in January. In total, the Treasury also received a further £21 billion in other fees and interest, so the net cash position stood at around a £56 billion shortfall.
- 4.19 As of the end of December, the Treasury was owed £31 billion (largely the value of loans outstanding). The value of the shares it still retained in Lloyds and RBS by the end of February had fallen to £25 billion, down from £34 billion in November, as their share prices fell and some Lloyds shares were sold. Its holdings in B&B and NRAM plc had an equity book value of around £7½ billion.

Table 4.4: Gross and net cash flows of financial sector interventions

	£ billion						
	Cash outlays	Principal repayments	Other fees received <sup>1</sup>	Outstanding payments	Market value <sup>2</sup>	Implied balance	Change since November <i>EFO</i> <sup>3</sup>
Lloyds	-20.5	16.9	3.0	0.0	4.1	3.4	-0.9
RBS	-45.8	2.6	4.1	1.2	20.7	-17.2	-6.7
UK Asset Resolution <sup>4</sup>	-40.8	26.9	4.0	13.4	7.6	11.2	0.6
FSCS <sup>5</sup>	-20.9	5.2	2.7	15.7	-	2.7	0.4
Other interventions	-5.3	4.5	0.2	0.7	-	0.2	0.1
Credit Guarantee Scheme	-	-	4.3	-	-	4.3	0.0
Special Liquidity Scheme	-	-	2.3	-	-	2.3	0.0
<b>Pre-financing total</b>	<b>-133.2</b>	<b>56.2</b>	<b>20.6</b>	<b>31.0</b>	<b>32.3</b>	<b>6.9</b>	<b>-6.5</b>
<b>Exchequer financing</b>						<b>-24.4</b>	<b>-0.8</b>
<b>Total</b>						<b>-17.5</b>	<b>-7.2</b>

<sup>1</sup> Fees relating to the asset protection scheme and contingent capital facility are included within the Lloyds and RBS figures.

<sup>2</sup> Lloyds and RBS figures are based on average share prices in the 10 working days to 25 February 2016. UKAR is book value of equity derived from its Interim Financial Report for the 6 months to 30 September 2015.

<sup>3</sup> November *EFO* figures were consistent with 30 September 2015 data.

<sup>4</sup> Holdings in Bradford & Bingley and Northern Rock Asset Management plc are now managed by UK Asset Resolution.

<sup>5</sup> Financial services compensation scheme.

- 4.20 If the Treasury was to receive all loan payments in full, and sold its remaining shares at their end-February 2016 values, it would realise an overall cash surplus of £6.9 billion. But that

<sup>5</sup> The Lloyds and RBS figures show the position at 25 February, so they are consistent with the market-derived assumptions used in the rest of our fiscal forecast. All other figures reflect end-December data, allowing time for detailed scrutiny before the figures are provided to us.

excludes the costs to the Treasury of financing these interventions. If all interventions were financed through debt, the Treasury estimates that additional debt interest costs would have amounted to £24.4 billion by the end of December 2015, implying an overall cost of £17.5 billion to the Government. This is £7.2 billion higher than we estimated in the November, reflecting the fall in the value of Lloyds and RBS shares.

## Public sector receipts

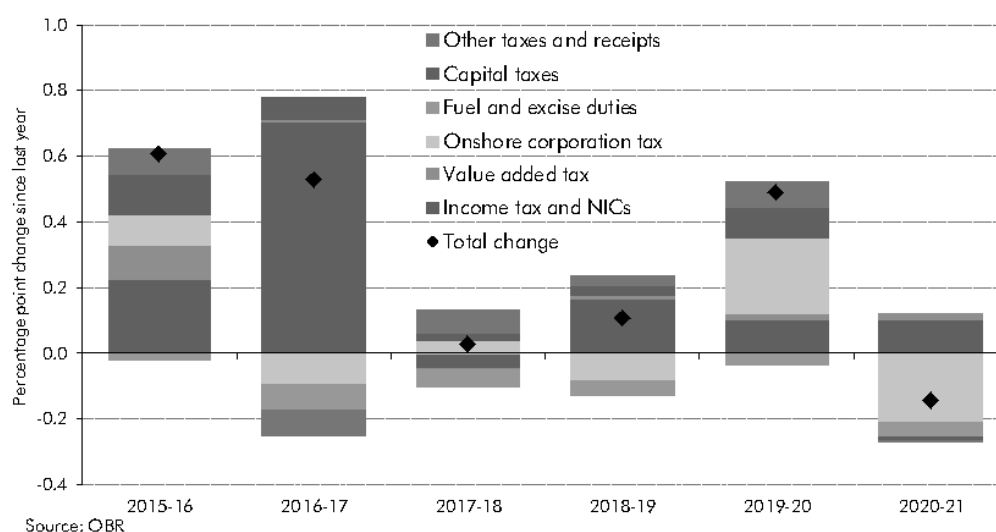
4.21 Table 4.5 summarises our receipts forecast. The tax-to-GDP ratio is expected to rise between 2014-15 and 2019-20, then fall in 2020-21.

Table 4.5: Major receipts as a per cent of GDP

	Per cent of GDP						
	Outturn	Forecast					
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Income tax and NICs	15.0	15.2	15.9	15.8	16.0	16.1	16.2
Value added tax	6.1	6.2	6.2	6.2	6.2	6.2	6.2
Onshore corporation tax	2.2	2.3	2.2	2.3	2.2	2.4	2.2
Fuel duties	1.5	1.5	1.4	1.4	1.3	1.3	1.3
Business rates	1.5	1.5	1.5	1.4	1.4	1.4	1.3
Council tax	1.5	1.5	1.5	1.6	1.6	1.6	1.6
Excise duties	1.1	1.1	1.0	1.0	1.0	1.0	1.0
Capital taxes	1.3	1.4	1.5	1.5	1.5	1.6	1.6
UK oil and gas receipts	0.1	0.0	-0.1	-0.1	0.0	0.0	0.0
Other taxes	2.9	3.0	3.0	3.2	3.2	3.2	3.2
<b>National Accounts taxes</b>	<b>33.0</b>	<b>33.6</b>	<b>34.2</b>	<b>34.2</b>	<b>34.3</b>	<b>34.8</b>	<b>34.6</b>
Interest and dividend receipts	0.3	0.3	0.3	0.3	0.3	0.4	0.5
Other receipts	2.4	2.4	2.4	2.3	2.3	2.3	2.3
<b>Current receipts</b>	<b>35.7</b>	<b>36.3</b>	<b>36.9</b>	<b>36.9</b>	<b>37.0</b>	<b>37.5</b>	<b>37.4</b>

4.22 Chart 4.2 shows the year-on-year change in the receipts-to-GDP ratio over the forecast. It shows that the rise in 2015-16 is broad-based as receipts hold up despite the weakness in nominal GDP growth recorded in the latest ONS data. In 2016-17, the abolition of the NICs contracting out rebate and other measures help boost income tax and NICs receipts by 0.7 per cent of GDP. The tax-to-GDP ratio flattens off in 2017-18 and 2018-19, before jumping in 2019-20 thanks to the one-off boost to corporation tax receipts from bringing forward large firms' payments (in effect recording five quarterly payments in that year). That boost is not repeated in 2020-21, so the tax-to-GDP ratio falls back again. Non-tax receipts – in particular interest and dividend receipts – are also expected to rise over the forecast period, so that total receipts rise by 1.0 per cent of GDP between 2015-16 and 2020-21.

Chart 4.2: Year-on-year changes in the receipts-to-GDP ratio



### Sources of changes in the tax-to-GDP ratio

4.23 Movements in the tax-to-GDP ratio arise from two sources:

- changes in the **composition of GDP** can lead to specific tax bases growing more or less quickly than the economy as a whole; and
- the **effective tax rate paid on each tax base** can change due to policy or other factors.

4.24 We have used this approach to identify the main drivers of the rise in the tax-to-GDP ratio over the forecast period.

### Change in the tax-to-GDP ratio over the forecast period

4.25 Chart 4.2 shows that the main sources of the 0.9 percentage point rise in the tax-to-GDP ratio between 2015-16 and 2020-21 are:

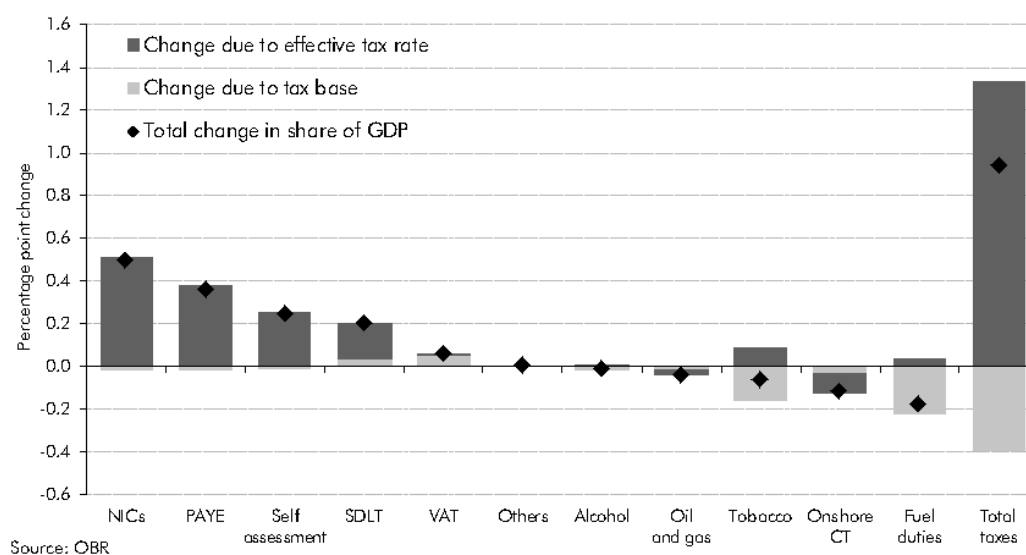
- a 0.9 per cent of GDP rise in **PAYE income tax and NICs receipts**. This is driven almost entirely by a rise in the effective tax rate. Most of this is explained by the return of 'fiscal drag', as productivity and real earnings growth are assumed to pick up (although to still historically subdued rates), dragging more income into higher tax brackets. Around 0.3 per cent of GDP is accounted for by the Budget 2013 policy decision to abolish the NICs contracting out rebate from April 2016. This is expected to raise NICs receipts by over £5 billion in 2016-17;
- a 0.2 per cent of GDP rise in **self-assessment (SA) receipts**. This largely reflects the strong receipts boost in 2016-17 from a number of measures announced in previous Budgets and Autumn Statements; and

- a 0.2 per cent of GDP rise in **stamp duty land tax (SDLT)** receipts (including the Scottish land and buildings transaction tax (LBTT)). This reflects both the tax base and the effective tax rate. Growth in the base reflects rising prices and transactions. With SDLT thresholds still fixed in cash terms over the forecast period, rising house prices drag a greater proportion of the value of residential transactions into higher tax brackets.

4.26 Partly offsetting these rises are:

- a 0.3 per cent of GDP fall in **excise duties**. This is explained by declining tax bases, due to falling alcohol and tobacco consumption and rising fuel efficiency. These falls are only partly offset by assumed rises in duty rates, raising the effective tax rate; and
- a 0.1 per cent of GDP fall in **onshore corporation tax** receipts. This is volatile between years given the measure to change the timing of payments for large companies. Over the whole of the forecast period, the fall in the ratio is driven by a falling effective tax rate: the main corporation tax rate is set to fall to 17 per cent in 2020-21, strong growth in investment increases the use of capital allowances and the financial sector is expected to set past losses against future liabilities.

Chart 4.3: Sources of changes in the tax-to-GDP ratio (2015-16 to 2020-21)



### Detailed current receipts forecast

4.27 Our detailed receipts forecasts and changes since November are presented in Tables 4.6 and 4.7. Further detailed breakdowns of other taxes and non-tax revenues are available in supplementary fiscal tables on our website. Our forecasts for Scottish and Welsh devolved taxes are discussed in more detail in *Devolved tax forecasts*, also available on our website.

Table 4.6: Current receipts

	£ billion						
	Outturn	Forecast					
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Income tax (gross of tax credits) <sup>1</sup>	163.7	169.8	182.1	186.6	198.2	208.1	218.8
of which: Pay as you earn	140.0	146.5	153.4	161.1	169.7	177.8	186.4
Self assessment	23.6	24.1	30.2	28.0	30.9	33.1	34.9
National insurance contributions	110.3	114.9	126.5	133.4	138.9	144.5	151.1
Value added tax	111.2	115.8	120.1	124.8	130.3	135.9	142.0
Corporation tax <sup>2</sup>	43.0	44.1	43.5	46.0	46.1	52.8	50.2
of which: Onshore	40.9	43.6	43.4	45.9	46.1	53.0	50.4
Offshore	2.1	0.5	0.1	0.1	0.0	-0.1	-0.1
Petroleum revenue tax	0.1	-0.5	-1.1	-1.1	-0.9	-0.9	-0.8
Fuel duties	27.2	27.5	27.6	27.8	28.2	28.7	29.3
Business rates	27.5	27.8	28.4	27.7	28.7	29.8	30.5
Council tax	28.2	28.8	30.1	31.4	32.8	34.1	35.6
VAT refunds	13.7	14.3	14.7	15.0	15.0	15.1	15.5
Capital gains tax	5.6	7.0	7.0	6.9	7.5	9.2	8.9
Inheritance tax	3.8	4.6	4.8	4.9	5.0	5.3	5.6
Stamp duty land tax <sup>3</sup>	10.9	10.7	12.9	14.2	15.2	16.3	17.4
Stamp taxes on shares	2.9	3.2	3.0	3.2	3.3	3.4	3.5
Tobacco duties	9.3	9.2	9.2	9.3	9.4	9.5	9.7
Spirits duties	3.0	3.3	3.3	3.4	3.6	3.8	3.9
Wine duties	3.8	4.0	4.2	4.4	4.7	5.0	5.3
Beer and cider duties	3.7	3.6	3.5	3.7	3.7	3.8	3.8
Air passenger duty	3.2	3.1	3.2	3.3	3.5	3.7	3.9
Insurance premium tax	3.0	3.6	4.6	4.8	4.9	4.9	5.0
Climate change levy	1.6	1.8	2.1	2.2	2.1	2.4	2.2
Other HMRC taxes <sup>4</sup>	6.6	7.1	7.0	7.1	7.4	7.6	7.8
Vehicle excise duties	5.9	5.6	5.5	5.7	5.8	6.0	6.2
Bank levy	2.8	3.5	2.9	2.7	2.5	2.3	2.2
Bank surcharge	0.0	0.0	0.8	1.1	1.1	1.5	1.5
Apprenticeship levy	0.0	0.0	0.0	2.7	2.8	2.9	3.0
Licence fee receipts	3.1	3.1	3.1	3.2	3.2	3.3	3.4
Environmental levies	3.6	6.2	7.4	8.6	10.4	11.9	12.3
EU ETS auction receipts	0.6	0.5	0.5	0.4	0.4	0.4	0.4
Scottish taxes <sup>5</sup>	0.0	0.5	0.6	0.7	0.8	0.8	0.9
Diverted profits tax	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Soft drinks industry levy	0.0	0.0	0.0	0.0	0.5	0.5	0.5
Other taxes	6.5	7.3	7.8	8.0	8.1	8.4	8.8
<b>National Accounts taxes</b>	<b>604.5</b>	<b>630.5</b>	<b>665.1</b>	<b>692.1</b>	<b>723.3</b>	<b>761.4</b>	<b>788.3</b>
Less: own resources contribution to EU	-3.0	-3.2	-3.3	-3.2	-3.2	-3.4	-3.6
Interest and dividends	6.0	6.3	5.6	6.3	7.3	9.3	11.1
Gross operating surplus	44.1	45.4	47.0	48.6	50.0	51.5	54.1
Other receipts	3.3	2.7	2.0	2.0	2.1	2.1	2.2
<b>Current receipts</b>	<b>654.8</b>	<b>681.8</b>	<b>716.5</b>	<b>745.8</b>	<b>779.5</b>	<b>820.9</b>	<b>852.2</b>
Memo: UK oil and gas revenues <sup>6</sup>	2.2	0.0	-1.1	-1.0	-0.9	-1.0	-0.9

<sup>1</sup> Includes PAYE, self assessment, tax on savings income and other minor components.

<sup>2</sup> National Accounts measure, gross of reduced liability tax credits.

<sup>3</sup> Forecast for SDLT is for England, Wales and Northern Ireland from 2015-16.

<sup>4</sup> Consists of landfill tax (excluding Scotland from 2015-16), aggregates levy, betting and gaming duties and customs duties.

<sup>5</sup> Consists of Scottish LBTT and landfill tax but not the Scottish rate of income tax or aggregates levy.

<sup>6</sup> Consists of offshore corporation tax and petroleum revenue tax.



Table 4.7: Change to current receipts since November

	£ billion						
	Outturn	Forecast					
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Income tax (gross of tax credits) <sup>1</sup>	0.0	-2.0	-4.8	-8.5	-10.0	-11.7	-14.7
of which: Pay as you earn	0.0	-0.7	-3.5	-6.8	-8.1	-9.2	-11.7
Self assessment	0.0	-0.8	-1.3	-1.1	-1.7	-2.0	-2.5
National insurance contributions	0.0	0.2	-0.6	0.2	-0.4	-1.5	-2.3
Value added tax	0.0	0.2	0.0	-0.1	0.1	0.0	-0.3
Corporation tax <sup>2</sup>	0.0	-0.2	-1.3	-3.8	-1.8	7.5	3.7
of which: Onshore	0.0	0.2	-0.8	-3.3	-1.3	8.0	4.3
Offshore	0.0	-0.4	-0.5	-0.5	-0.5	-0.5	-0.6
Petroleum revenue tax	0.0	0.2	-0.6	-0.7	-0.6	-0.7	-0.6
Fuel duties	0.0	0.1	0.1	-0.2	-0.3	-0.4	-0.4
Business rates	0.2	0.0	0.2	-1.4	-1.6	-1.6	-2.0
Council tax	0.2	0.1	0.3	0.5	0.6	0.7	0.8
VAT refunds	0.0	0.1	0.2	0.3	0.4	0.2	0.0
Capital gains tax	0.0	0.6	0.3	-0.4	-0.4	-0.3	-0.5
Inheritance tax	0.0	0.2	0.2	0.1	0.0	0.0	0.0
Stamp duty land tax <sup>3</sup>	0.0	-0.5	-0.1	0.0	-0.2	-0.3	-0.4
Stamp taxes on shares	0.0	0.3	0.0	0.0	-0.1	-0.1	-0.1
Tobacco duties	0.0	0.0	0.1	0.1	0.2	0.2	0.2
Spirits duties	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wine duties	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beer and cider duties	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Air passenger duty	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Insurance premium tax	0.0	0.1	-0.1	0.1	0.0	0.0	0.0
Climate change levy	0.0	-0.3	-0.4	-0.2	-0.2	0.2	0.2
Other HMRC taxes <sup>4</sup>	0.0	0.2	0.1	0.2	0.2	0.2	0.1
Vehicle excise duties	0.0	0.2	0.2	0.1	0.1	0.1	0.1
Bank levy	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bank surcharge	0.0	0.0	-0.1	-0.5	-0.5	0.2	0.2
Apprenticeship levy	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Licence fee receipts	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Environmental levies	0.0	0.0	0.0	0.1	0.1	-0.3	-0.9
EU ETS auction receipts	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.2
Scottish taxes <sup>5</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diverted profits tax	0.0	0.0	-0.2	-0.3	-0.2	-0.2	-0.3
Soft drinks industry levy	0.0	0.0	0.0	0.0	0.5	0.5	0.5
Other taxes	0.2	0.0	0.3	0.0	-0.1	-0.1	0.0
<b>National Accounts taxes</b>	<b>0.7</b>	<b>-0.4</b>	<b>-6.1</b>	<b>-14.5</b>	<b>-14.2</b>	<b>-7.4</b>	<b>-17.1</b>
Less: own resources contribution to EU	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Interest and dividends	0.0	0.1	-0.6	-1.9	-2.4	-2.2	-2.1
Gross operating surplus	-0.4	-0.3	-0.2	-0.5	-0.4	-0.5	-0.5
Other receipts	0.3	0.2	0.1	0.0	0.1	0.1	0.1
<b>Current receipts</b>	<b>0.5</b>	<b>-0.4</b>	<b>-6.9</b>	<b>-16.9</b>	<b>-17.0</b>	<b>-10.2</b>	<b>-19.8</b>
Memo: UK oil and gas revenues <sup>6</sup>	0.0	-0.1	-1.1	-1.2	-1.1	-1.2	-1.2

<sup>1</sup> Includes PAYE, self assessment, tax on savings income and other minor components.

<sup>2</sup> National Accounts measure, gross of reduced liability tax credits.

<sup>3</sup> Forecast for SDLT is for England, Wales and Northern Ireland from 2015-16.

<sup>4</sup> Consists of landfill tax (excluding Scotland from 2015-16), aggregates levy, betting and gaming duties and customs duties.

<sup>5</sup> Consists of Scottish LBTT and landfill tax but not the Scottish rate of income tax or aggregates levy.

<sup>6</sup> Consists of offshore corporation tax and petroleum revenue tax.

## Changes in the receipts forecast since November

4.28 We have revised our receipts forecast down in every year of the forecast, with the size of the revision increasing over time to reach £19.8 billion in 2020-21. As Table 4.8 shows, the main downward revisions are explained by:

- **PAYE income tax and national insurance contributions (NICs).** Weaker earnings growth (due to our downward revision to underlying productivity growth) and updated assumptions about differential earnings growth (reflecting the latest ONS Annual Survey on Hours and Earnings) have reduced receipts significantly over the forecast;
- **VAT receipts.** Weaker consumer spending (also a consequence of weaker underlying productivity growth hitting incomes and therefore spending) is only partly offset by upward revisions to the standard rated share of spending;
- **corporation tax.** Weaker industrial and commercial profits (again productivity driven) reduce receipts in all years; and
- **stamp duty land tax (SDLT).** A boost from stronger house price growth is more than offset by weak outturn receipts (pointing to underperformance of transactions in high priced properties) and changes to the modelling of the transaction distribution.

4.29 Over the forecast period as a whole, the effect of Budget tax measures is to lower receipts slightly (£0.7 billion a year on average) but the effect is very uneven across years (reducing receipts by £7.0 billion in 2017-18, but raising them by £6.3 billion in 2019-20). The indirect effects of Government decisions on receipts are slightly positive in the first half of the forecast, but negative by 2020-21, largely reflecting the overall decisions on the pace of fiscal tightening.

Table 4.8: Sources of change to the receipts forecast since November

	£ billion					
	Forecast					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
November forecast	682.2	723.4	762.7	796.5	831.1	871.9
March forecast	681.8	716.5	745.8	779.5	820.9	852.2
<b>Change</b>	<b>-0.4</b>	<b>-6.9</b>	<b>-16.9</b>	<b>-17.0</b>	<b>-10.2</b>	<b>-19.8</b>
	Underlying OBR forecast changes					
<b>Total change to underlying forecast</b>	<b>-0.4</b>	<b>-8.2</b>	<b>-10.5</b>	<b>-14.0</b>	<b>-16.3</b>	<b>-19.5</b>
<i>of which:</i>						
<b>Income and expenditure</b>	<b>-2.1</b>	<b>-6.8</b>	<b>-8.8</b>	<b>-11.0</b>	<b>-12.3</b>	<b>-13.8</b>
Average earnings	-2.1	-4.7	-5.6	-6.8	-7.6	-8.5
Employee numbers	0.4	-0.1	-0.5	-1.0	-1.1	-1.3
Non-financial company profits	-0.1	-0.9	-1.3	-1.5	-1.7	-1.9
Consumer expenditure	-0.2	-0.8	-1.1	-1.4	-1.5	-1.7
Investment	0.0	0.0	0.5	0.7	1.0	1.2
Other	-0.2	-0.3	-0.8	-1.0	-1.3	-1.6
<b>North Sea</b>	<b>0.3</b>	<b>0.0</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>
Oil and gas prices	-0.1	-0.4	-0.5	-0.4	-0.4	-0.4
Production and expenditure	0.4	0.4	0.4	0.3	0.3	0.3
<b>Property markets</b>	<b>0.2</b>	<b>0.5</b>	<b>0.4</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>
<b>Market-derived assumptions</b>	<b>-0.1</b>	<b>-1.1</b>	<b>-2.4</b>	<b>-2.8</b>	<b>-3.2</b>	<b>-3.4</b>
Equity prices	-0.1	-0.8	-1.8	-1.9	-2.1	-2.3
Interest rates	0.0	-0.3	-0.6	-0.9	-1.1	-1.1
<b>Prices</b>	<b>0.0</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.1</b>	<b>-0.1</b>	<b>0.0</b>
<b>Other economic determinants</b>	<b>0.2</b>	<b>-0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>-0.1</b>
<b>Other assumptions</b>	<b>1.2</b>	<b>-0.3</b>	<b>0.4</b>	<b>-0.5</b>	<b>-0.9</b>	<b>-2.2</b>
IT and NICs receipts and modelling	0.1	0.0	0.6	0.7	0.5	0.1
SDLT receipts and modelling	-0.7	-0.9	-1.0	-1.1	-1.2	-1.4
Corporation tax receipts and modelling	0.4	-0.4	0.8	-0.3	0.1	-0.4
VAT receipts and modelling	0.5	0.4	0.1	-0.1	-0.1	0.1
Incorporations modelling	-0.1	-0.4	-0.7	-0.9	-1.3	-1.6
Other judgements and modelling	1.0	1.1	0.7	1.3	1.1	0.9
	Effect of Government decisions					
<b>Total effect of Government decisions</b>	<b>0.0</b>	<b>1.3</b>	<b>-6.4</b>	<b>-3.0</b>	<b>6.1</b>	<b>-0.2</b>
<i>of which:</i>						
Scorecard measures	0.0	0.6	-7.0	-4.3	6.3	0.8
Indirect effects	0.0	0.7	0.6	1.3	-0.2	-1.1
<i>Memo: March forecast on a pre-measures basis</i>	<i>681.8</i>	<i>715.1</i>	<i>752.2</i>	<i>782.6</i>	<i>814.8</i>	<i>852.4</i>

## Receipts in 2015-16

4.30 In preparing this forecast, we had access to full ONS receipts data up to January 2016 and some administrative data for February. Central government receipts in January were up by £2.4 billion (3.4 per cent) on a year earlier, largely reflecting payments of SA income tax and capital gains tax (CGT) relating to 2014-15 liabilities.

- 4.31 Table 4.9 looks at receipts growth in the first ten months of 2015-16. It shows that we expect overall growth in National Accounts taxes in the final two months of 2015-16 to be considerably higher than in the first ten months. This reflects a number of factors:
- **stamp duty land tax** receipts are expected to be 16.5 per cent higher in February and March combined than in the same months last year, up from a 0.3 per cent increase year-to-date. This is due largely to the December 2014 introduction of a 'slice' system for residential properties. The giveaway associated with this change stopped depressing year-on-year growth in SDLT receipts in December. The expected pick-up in the growth of SDLT receipts remains despite a £0.5 billion downward revision to our forecast since November;
  - stronger growth in **income tax and NICs receipts**, reflecting indications from HMRC administrative data for February. The Government's **marriage tax allowance** is also costing less than expected, thanks to IT problems for many people trying to claim it and a combination of lack of awareness and reluctance to attract the attention of HMRC among other potential recipients. That more than offsets the lower yield from the introduction of **Class 3A voluntary NICs**, where lack of awareness has also led to much lower take-up than expected;
  - our forecast for **environmental levies** receipts (contained within the 'other' line of Table 4.9) is higher than would be suggested by receipts year to date. We are investigating differences in estimates between DECC and the ONS;
  - **alcohol duties** grow more strongly in the final two months of the year, as we expect that reverse forestalling associated with cuts in duty rates last year will not be repeated;
  - **stamp duty on shares** and **VAT** receipts will both be boosted by large payments made in February; and
  - **insurance premium tax (IPT)** receipts will be boosted by the July Budget measure to increase the standard rate of IPT to 9.5 per cent from November 2015.
- 4.32 Weaker growth in corporation tax receipts (where timing effects boosted receipts at the end of 2014-15) partly offsets this growth. Our forecasts for the split of SA between income tax, CGT and NIC4 in 2015-16 are based on the latest estimates from HMRC. These estimates have been revised from the initial data used in the January ONS numbers.

Table 4.9: Receipts in 2015-16

	£ billion			Percentage change on 2014-15		
	Outturn	Forecast		Outturn	Forecast	
	Apr-Jan	Feb-Mar	Full year	Apr-Jan	Feb-Mar	Full year
Income tax and NICs	230.0	54.7	284.7	3.8	4.6	3.9
of which:						
PAYE and NICs	209.9	51.5	261.4	4.4	4.6	4.4
Self assessment	21.1	3.1	24.1	2.7	-3.0	2.0
Value added tax	96.4	19.4	115.8	3.6	6.6	4.1
Corporation tax	40.5	3.6	44.1	3.0	-1.4	2.6
Petroleum revenue tax	-0.3	-0.2	-0.5			
Fuel duties	23.1	4.4	27.5	1.5	-0.3	1.2
Capital gains tax	5.5	1.6	7.0	28.0	22.2	26.7
Inheritance tax	3.9	0.7	4.6	19.6	21.9	19.9
Stamp duties	12.1	2.3	14.4	1.5	21.5	4.2
Tobacco duties	7.0	2.2	9.2	-0.4	0.8	-0.1
Alcohol duties	9.1	1.8	10.9	2.6	14.9	4.5
Business rates	23.5	4.3	27.8	1.8	-1.2	1.3
Council tax	24.1	4.7	28.8	2.8	-0.2	2.2
Other <sup>1</sup>	44.4	10.0	54.4	4.8	19.7	7.3
<b>National Accounts taxes<sup>1</sup></b>	<b>519.2</b>	<b>109.5</b>	<b>628.7</b>	<b>3.6</b>	<b>5.9</b>	<b>4.0</b>

<sup>1</sup> Forecast data have been adjusted to exclude feed-in-tariffs, the warm home discount and other items which were excluded in the January ONS Public Sector Finances release. Further detail on these items can be found in the fiscal supplementary tables on our website.

## Tax-by-tax analysis

### Income tax and NICs

- 4.33 Receipts of income tax and NICs are expected to be £1.7 billion lower in 2015-16 than we forecast in November. This reflects shortfalls in a number of tax streams – PAYE and NIC receipts on employment income are expected to be £0.5 billion lower, self-assessment (SA) income tax £0.8 billion lower, non-SA (largely PAYE) repayments £0.4 billion higher and the yield from the Budget 2014 measure on voluntary NICs just under £0.4 billion lower. Receipts from NICs on the self-employed (NIC4) were £0.4 billion higher than expected.
- 4.34 The shortfall in the pre-measures income tax and NICs forecast relative to November widens to £13.1 billion by 2020-21, with weaker earnings growth explaining £8.5 billion of the shortfall by then. Lower earnings growth in each year reflects our judgement in the economic forecast that trend productivity growth will be around 0.2 percentage points lower each year. This lowers real (and nominal) wage growth by a similar amount.
- 4.35 Earnings growth in the second half of 2015-16 has been weaker than we expected in November and more than explains the £0.5 billion shortfall in PAYE and NIC receipts on employment income. Lower earnings growth should have taken around £2.1 billion off the 2015-16 forecast since November, but has been partly offset by a higher effective tax rate on these earnings, particularly due to strong growth of receipts from the business services sector. In the light of initial receipts from bonuses and recent announcements about major banks' bonus pools, we have assumed a 5 per cent fall in financial sector bonuses in 2015-

16. With most bonuses paid in February and March (and associated tax received by HMRC in March and April), this judgement remains uncertain.
- 4.36 Receipts from PAYE and NICs are expected to rise by 0.5 per cent of GDP in 2016-17, with NICs accounting for the majority of the rise. This mainly reflects the Budget 2013 policy decision to abolish the NICs contracting-out rebate from April 2016. This is expected to raise NICs receipts by £5.6 billion, 0.3 per cent of GDP in 2016-17, with around 50 per cent of the extra burden falling on public sector employers in higher employer NICs. NIC receipts will also be boosted in 2016-17 by unchanged tax thresholds, since CPI inflation in September 2015 (the month used for uprating NIC thresholds for the following financial year) was -0.1 per cent. Growth in PAYE receipts will be slower reflecting the decision to raise the personal allowance to £11,000 and the higher rate threshold to £43,000 from April 2016.
- 4.37 In this Budget, further above-inflation rises in the personal allowance and higher rate thresholds in 2017-18 have been announced. We have not included the effect from the Government's commitment to raise the personal allowance to £12,500 for all taxpayers and raising the higher rate threshold to £50,000 by the end of the Parliament. Paragraph 4.9 provides an estimate of the additional cost of meeting these commitments in 2020-21.
- 4.38 We expect a further 0.4 percentage point rise in the income tax and NICs to GDP ratio in the final three years of the forecast, with earnings growth outpacing inflation-linked rises in thresholds and allowances. This will drag more income into higher tax brackets.
- 4.39 Our forecast for PAYE and NIC receipts depends on the shape of the income distribution. In particular PAYE income tax benefits from stronger growth at the top end, given its progressive structure. When calculating marginal and average tax rates to feed into the forecast, we allow for differential earnings growth for different parts of the income distribution. These are based on historical averages from the ONS's Annual Survey of Hours and Earnings (ASHE). In contrast to the pre-crisis period, when earnings growth at the top end was stronger than for the whole distribution, the latest 7-year average suggests that earnings growth at the top end is similar to the distribution as a whole. Including the latest information on the income distribution takes around £0.8 billion off the forecast by 2020-21 relative to our November forecast. We have also continued to allow for the effects of introducing the National Living Wage. With many of those on the minimum wage close to or below the personal allowance or the lower earnings limit for NICs, the effective tax rate on their higher earnings will be very low.
- 4.40 A number of policy measures came into effect in 2015-16:
- tax from pension withdrawals relating to the **pension flexibility measure** is expected to be around £0.9 billion for the whole of 2015-16, around £0.2 billion higher than assumed in the original costing;
  - take-up of the **transferable marriage allowance** has been much lower than initially assumed. We have incorporated a take-up rate of 12 per cent for 2015-16 compared

with over 70 per cent in the original costing. We assume that take-up eventually rises to around 50 per cent by the end of the forecast period. Lower take-up is likely to reflect issues with HMRC's IT systems, a lack of awareness of the allowance (e.g. reflecting limited initial advertising) and possibly a reluctance by those eligible to engage with HMRC. The lower take-up rate has boosted receipts by £0.4 billion in 2015-16. The improvement in receipts is smaller in future years, because taxpayers will be able to claim for previous years as take-up increases; and

- the yield from the Budget 2014 measure on **voluntary NICs** has been much lower than anticipated. This measure enabled pensioners to acquire additional state pension in exchange for a lump sum National Insurance payment at an actuarially fair price. Take-up has been much lower than expected, although the average amount contributed has been higher. We now expect receipts of around £65 million in both 2015-16 and 2016-17, compared with original estimates of £435 million in both years.

4.41 We expect self-assessment (SA) income tax receipts in 2015-16 (which relate to 2014-15 liabilities) to be up 2 per cent on the previous year, which itself had been boosted by the deferral of income relating to the reduction in the additional rate of income tax to 45 per cent. Relative to our November forecast, receipts were £0.8 billion lower than expected. This is partly due to lower SA from the Construction Industry Scheme and may also reflect lower than expected receipts from the Budget 2013 and Autumn Statement 2013 measures on partnerships. Preliminary data from SA returns suggests partnership income did not grow as strongly as expected. We will look further at this measure in our analysis of anti-avoidance measures in our next *EFO*.

4.42 We expect SA income tax receipts to rise by just over £6 billion in 2016-17 (0.3 per cent of GDP), with forestalling ahead of the rise in dividend tax adding £2.5 billion. This estimate is informed by the 2010-11 introduction of the 50p additional rate of income tax for incomes over £150,000<sup>6</sup>. We also expect 2016-17 to be the peak year for yield from the accelerated payments measure. If our estimate of the yield is correct, this explains a further £0.9 billion of the rise in 2016-17 SA receipts. The unwinding of the forestalling in 2017-18 and 2018-19 will depress receipts in those years but we expect SA receipts to increase by 45 per cent between 2015-16 and 2020-21, almost double the 25 per cent rise in public sector current receipts as a whole. In addition to the rise in dividend tax, a number of other measures announced at recent Budgets and Autumn Statements will boost receipts. These include changes in non-domicile rules, HMRC compliance and 'making tax digital' measures, restrictions on residential landlords' deductions from taxable income and the savings tax reforms. Much of the remaining liabilities on savings income will now be collected via SA.

<sup>6</sup> The Survey of Personal Incomes released at the start of March indicated that tax liabilities from additional rate taxpayers rose by £8 billion between 2012-13 and 2013-14. Taxpayers shifting income between years to take advantage of the lower 45p rate is likely to be a major factor driving this increase. In Box 4.2 of the March 2012 *EFO*, we forecast that deferring income between the two years would reduce tax liabilities by £3.4 billion in 2012-13 and raise them by £3.3 billion in 2013-14. Underlying growth in self-employment and dividend income will also have increased tax liabilities. The March 2012 costing of the pre-announced reduction in the additional rate estimated the measure would reduce receipts by £0.1 billion in 2013-14. The extent of the income-shifting prompted by the pre-announcement means it will never be possible to estimate the true cost of reducing the rate with any confidence, but we believe the original costing remains a reasonable guide to its effect on receipts.

- 4.43 We have reduced the yield we expect from the Liechtenstein and Crown Dependencies disclosure facilities in light of lower than expected registrations when they closed at the end of 2015. Much of the yield was expected to come through via SA in 2016-17 and this has reduced SA receipts by £0.6 billion in that year. Annex A provides more detail on the re-costing of these measures.
- 4.44 Our forecasts for PAYE, SA, NICs and corporation tax have included an effect from the rising trend in incorporations. When individuals choose to form companies, there will be a tax saving given the lower tax rates faced by incorporated businesses. This will lower PAYE, SA and NIC receipts, but raise corporation tax receipts, with the net effect negative for receipts overall. We have re-assessed the trend in incorporations in light of continued strong growth in the number of one-director companies. Tax rate differentials will be one reason for this growth, but in sectors such as information technology and construction, incorporation is becoming an increasingly popular way of working. We have assumed that there will be stronger growth in incorporations over the forecast period. Compared with our November forecast, this takes £2.6 billion off PAYE, SA and NIC receipts by 2020-21, but adds £1.1 billion to corporation tax.

Table 4.10: Key changes to the income tax and NICs forecast since November

	£ billion					
	Forecast					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
November forecast	286.4	313.9	328.3	347.5	365.8	386.8
March forecast	284.7	308.6	320.0	337.1	352.6	369.8
<b>Change</b>	<b>-1.7</b>	<b>-5.3</b>	<b>-8.3</b>	<b>-10.5</b>	<b>-13.1</b>	<b>-17.0</b>
	Underlying OBR forecast changes					
<b>Total</b>	<b>-1.7</b>	<b>-5.9</b>	<b>-7.0</b>	<b>-9.0</b>	<b>-10.9</b>	<b>-13.1</b>
<i>(by economic determinant)</i>						
Average earnings	-2.1	-4.7	-5.6	-6.8	-7.6	-8.5
Employee numbers	0.4	-0.1	-0.5	-1.0	-1.1	-1.3
Inflation	0.0	-0.1	0.3	0.6	0.7	0.7
SA determinants	0.1	-0.2	-0.3	-0.5	-0.6	-0.7
Other economic determinants	0.0	-0.3	-0.4	-0.6	-0.7	-0.7
<i>(by other category)</i>						
Outturn IT and NICs receipts	1.0	0.8	0.7	0.7	0.8	0.8
Outturn SA receipts	-0.3	-0.4	-0.6	-0.6	-0.6	-0.6
Incorporations modelling	-0.1	-0.5	-1.0	-1.4	-2.0	-2.6
Income distribution modelling	-0.2	-0.1	-0.3	-0.3	-0.5	-0.8
Marriage tax allowance recosting	0.4	0.1	0.3	0.4	0.3	0.3
Offshore recostings	0.0	-0.6	-0.2	0.2	0.1	0.0
Voluntary NICs recosting	-0.4	-0.4	0.0	0.0	0.0	0.0
Other costing revisions	0.2	0.6	0.4	0.1	0.1	0.2
Other modelling and receipts changes	-0.6	-0.1	0.3	0.3	0.3	0.3
	Changes due to Government decisions					
Scorecard measures	0.0	0.2	-1.8	-2.3	-1.7	-2.8
Indirect effects of Government decisions	0.0	0.4	0.5	0.9	-0.6	-1.0



## VAT

- 4.45 Accrued VAT receipts are expected to increase by 4.1 per cent in 2015-16 from a year earlier and are £0.2 billion higher than our November forecast. Very weak growth in cash VAT receipts in April and May 2015 depressed 2014-15 accruals, boosting accrued receipts growth in 2015-16. The share of consumer spending subject to the standard rate of VAT is expected to rise by 0.3 percentage points in 2015 despite lower spending on standard-rated road fuels resulting from the sharp drop in the oil price. This has been offset by higher spending on new cars and on recreation and culture.
- 4.46 Compared with our November forecast, we expect accrued VAT receipts to be lower from 2016-17 onwards. Growth in nominal consumer spending has been revised down in each year reflecting our judgement that trend productivity growth will be weaker than previously assumed. This feeds into lower real wages and lower real (and nominal) consumer spending. This takes £1.6 billion off the VAT forecast by 2020-21. Partly offsetting this, the share of consumer spending subject to the standard rate of VAT is expected to be higher throughout the forecast. This reflects the higher 2015 starting point and our lower interest rate assumptions which mean less income will be spent on mortgage interest payments.
- 4.47 A key element of the VAT forecast is the assumption for the VAT gap – the difference between the theoretical level of VAT payments and actual amounts received by HMRC. In the absence of measures, we hold the underlying VAT gap flat at its 2015-16 level. After measures, we expect a fall in the VAT gap of just over 1 percentage point to 10.3 per cent by the end of the forecast period. The decline largely reflects the operational measures announced in the July 2015 Budget and the measures tackling overseas trader evasion and the reverse charge on electronic communication services announced in this Budget.

Table 4.11: Key changes to the VAT forecast since November

	£ billion					
	Forecast					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
November forecast	115.6	120.1	124.9	130.2	135.9	142.3
March forecast	115.8	120.1	124.8	130.3	135.9	142.0
<b>Change</b>	<b>0.2</b>	<b>0.0</b>	<b>-0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>-0.3</b>
	Underlying OBR forecast changes					
<b>Total</b>	<b>0.2</b>	<b>-0.2</b>	<b>-0.4</b>	<b>-0.5</b>	<b>-0.7</b>	<b>-1.0</b>
<i>of which:</i>						
Household spending	-0.2	-0.8	-1.1	-1.3	-1.4	-1.6
Standard rated share	0.5	0.4	0.7	1.0	1.1	1.1
Other economic determinants	-0.1	0.1	0.1	0.1	-0.1	-0.4
Outturn receipts and modelling	0.0	0.1	-0.2	-0.3	-0.3	-0.1
	Changes due to Government decisions					
Scorecard measures	0.0	0.1	0.2	0.2	0.4	0.4
Indirect effects of Government decisions	0.0	0.0	0.2	0.5	0.3	0.3

### Onshore corporation tax

- 4.48 We expect receipts from onshore corporation tax (CT) in 2015-16 to be up by 6.6 per cent from a year earlier, in light of strong growth in payments from the financial sector and from larger industrial and commercial companies. Strong growth in receipts from the financial sector is likely to be the result of the Autumn Statement 2014 measure to limit the use of trading losses by the financial sector. Growth in receipts from larger industrial and commercial companies was boosted by unusually high payments relating to previous years' liabilities. This helped offset the effect from the cut in the main rate of corporation tax to 20 per cent. In contrast, CT receipts from smaller industrial and commercial companies have fallen in 2015-16, partly reflecting the increase in the annual investment allowance to £500,000 until December 2015.
- 4.49 Growth in onshore CT slowed through 2015-16 and is expected to fall slightly in 2016-17. This reflects a combination of factors – the slowdown in profit growth evident in the latest National Accounts data, a return to a more usual pattern of payments relating to liabilities from previous years, the effect of lower equity prices on the profits of life assurance firms and that the accelerated payments measure has brought forward receipts into 2015-16 at the expense of lower yield in future years. We expect growth in receipts from smaller industrial and commercial companies to resume in 2016-17, helped by the rise in incorporations (particularly of one-director companies).
- 4.50 Compared with November, our pre-measures onshore CT forecast is lower in each year from 2016-17 onwards. Weaker growth in industrial and commercial company profits takes off £1.9 billion by 2020-21, but this is partly offset by weaker growth in investment (which means that fewer capital allowances are used to offset taxable profits) and an upward revision to the number of incorporations expected over the forecast period. This adds £1.1 billion to the forecast by 2020-21 (although the loss of PAYE, SA and NIC receipts more than offsets higher CT receipts).
- 4.51 The profile of onshore CT receipts over the forecast period – with a sharp rise in 2019-20 – largely reflects the measures announced in this Budget and the July 2015 Budget. In July, the Government decided to bring the CT payment date for larger companies forward by four months from April 2017 raising receipts by over £5 billion in 2017-18 and around £3 billion in 2018-19. In this Budget, the Government has delayed the start of this policy to April 2019 “to give business more time to prepare”. This moves the boost to receipts back to 2019-20 and 2020-21. Of the £6.9 billion rise in onshore CT in 2019-20, around £5.8 billion is from the CT timing measure. Receipts are in effect being brought forward from later years, providing a one-off boost that is neither repeated nor subsequently reversed.
- 4.52 Abstracting from the CT timing measure, this Budget raises onshore CT receipts in each year of the forecast. Measures such as those on restricting the use of trading losses, the tax deductibility of corporate interest expenses, reducing evasion by offshore property developers and extending the scope of the hybrid mismatch rules raise over £2 billion in 2017-18 and 2018-19. The announcement that the rate of corporation tax will be reduced to 17 per cent in 2020-21 provides a partial offset at the end of the forecast period.

- 4.53 The Government announced the introduction of a diverted profits tax in Autumn Statement 2014. This is designed to target multinationals that use contrived tax arrangements and was expected to raise around £300 million a year from 2016-17 onwards. Our forecast assumes that overall yield from the measure will be close to that originally scored, but we now expect that around two-thirds of the yield will come through higher CT payments (as firms restructure their tax affairs) rather than via the diverted profits tax itself. Yield from multinationals using such tax arrangements is highly uncertain, so we will need to look again at the yield and the split between CT and diverted profits tax in future forecasts.

Table 4.12: Key changes to the onshore corporation tax forecast since November

	£ billion					
	Forecast					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
November forecast	43.4	44.2	49.2	47.4	44.9	46.1
March forecast	43.6	43.4	45.9	46.1	53.0	50.4
<b>Change</b>	<b>0.2</b>	<b>-0.8</b>	<b>-3.3</b>	<b>-1.3</b>	<b>8.0</b>	<b>4.3</b>
	Underlying OBR forecast changes					
<b>Total</b>	<b>0.3</b>	<b>-1.3</b>	<b>-0.2</b>	<b>-0.9</b>	<b>-0.2</b>	<b>-0.4</b>
<i>of which:</i>						
Industrial and commercial company profits	-0.1	-0.9	-1.3	-1.5	-1.7	-1.9
Industrial and commercial company investment	0.0	0.2	0.4	0.6	0.8	1.0
Other economic determinants	0.0	-0.3	-0.4	-0.3	-0.2	-0.2
Incorporations modelling	0.0	0.1	0.3	0.5	0.7	1.1
Other modelling and costings updates	-0.5	-0.1	0.8	-0.1	0.3	-0.2
Latest receipts data	0.9	-0.2	-0.1	-0.1	-0.2	-0.2
	Changes due to Government decisions					
<b>Scorecard measures</b>	<b>0.0</b>	<b>0.5</b>	<b>-3.1</b>	<b>-0.5</b>	<b>8.3</b>	<b>4.8</b>
<b>Indirect effects of Government decisions</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>

#### UK oil and gas revenues

- 4.54 We expect UK oil and gas revenues to be slightly negative (-£10 million) in 2015-16, down from £2.2 billion in 2014-15 and almost £11 billion as recently as 2011-12. We have revised oil and gas revenues down by an average of £1.2 billion a year from 2016-17. Receipts are expected to be negative throughout the forecast period – with repayments around £1 billion higher than payments in each year.
- 4.55 A key element of the downward revision in oil and gas revenues since our November forecast is the further drop in oil and gas prices. Oil prices are projected using futures prices for the first two years and then held flat in nominal terms. This leaves them \$18 a barrel lower in 2015 and \$15 a barrel lower in the medium term than in our November forecast. The depreciation of sterling against the dollar in recent months means that the percentage fall in sterling oil prices has been smaller. Gas prices are expected to be 9.2p a therm lower in 2016 and then nearly 8p a therm lower over the rest of the forecast.
- 4.56 Oil production rose by 12.8 per cent in 2015, partly reflecting the lagged effects of high levels of investment in the North Sea in recent years and an unusually low level of both planned and unplanned outages. Despite the lower oil price environment, we expect this

higher level of production to be sustained in the near term. In light of higher plans for capital expenditure that have already been sanctioned by the Oil and Gas Authority (OGA), we also expect higher capital expenditure in the near term. But given lower oil and gas prices, we have reduced our forecast for capital expenditure towards the end of the forecast as lower prices are expected to result in lower unit costs and fewer projects clearing investment hurdle rates. Operating expenditure fell by more than we expected in 2015 and this effect is pushed into the near-term forecast.

- 4.57 With oil and gas prices down on their 2015 levels, we expect a further decline in the profitability of the sector in 2016-17 with many firms making losses. Payments of offshore CT and petroleum revenue tax (PRT) will be lower and are likely to be dwarfed by repayments relating to decommissioning costs and the carry back of trading losses.
- 4.58 The Budget announced that the rate of PRT will be reduced from 35 per cent to zero and the supplementary charge reduced to 10 per cent. This lowers receipts by an average of £0.2 billion a year from 2016-17. The cost is small because there are only a few profitable firms in the sector. Lower tax rates will boost the post-tax returns on oil and gas production, but we have assumed only a modest behavioural response. As noted earlier, the low oil and gas price environment will make it difficult for projects to clear investment hurdles. This is likely to be the case even with lower tax rates.
- 4.59 This forecast remains subject to significant uncertainty, particularly the extent to which much lower oil and gas prices will affect production and expenditure. The forecast model that HMRC operates for us to produce this forecast implies big rises in aggregate losses across the forecast period, which, if it proved accurate, might lead to bigger changes in activity in the North Sea than are assumed in our central forecast.

#### Stamp duties

- 4.60 Stamp duty land tax (SDLT) receipts are forecast to increase from £10.7 billion in 2015-16 to £17.4 billion in 2020-21<sup>7</sup>. This strong rise reflects both tax base effects – rising prices and, to a lesser extent, transactions – as well as a rising effective tax rate, as rising house prices drag a greater proportion of the value of residential transactions into higher tax brackets. It also reflects announcements in Autumn Statement 2015 and in this Budget raising the stamp duty on second homes and buy-to-let properties and the move to a ‘slice’ system for SDLT on commercial property. These measures add around £1.1 billion to SDLT receipts in 2016-17, rising to £1.6 billion by the end of the forecast.
- 4.61 Compared with November, SDLT receipts in 2015-16 have been revised down by £0.5 billion. This is despite house prices being a little stronger than expected in recent months and property transactions close to forecast. The effective tax rate appears to have fallen, reflecting the weaker top end of the residential property market. Pushing the weaker 2015-16 receipts through the forecast (plus modelling changes) takes over £1 billion off receipts by 2020-21. In particular, SDLT receipts are weaker because transactions among properties

<sup>7</sup> SDLT is no longer paid in Scotland, where property transactions tax has been devolved and the Scottish Government introduced a land and buildings transactions tax (LBTT) in April 2015.

worth at least £2 million have fallen. While the 9 per cent year-on-year drop over the first ten months of 2015-16 represents only around 390 fewer transactions, each transaction pays a very large amount of SDLT. Assuming an average transaction price in this bracket of £4 million would imply a £150 million drop in receipts.

- 4.62 We have reduced our forecast for stamp duty on shares by £0.1 billion a year on average from 2016-17. This is more than explained by the lower path for equity prices. Stamp duty on shares is up £0.3 billion in 2015-16 compared with our November forecast reflecting a large one-off payment and a higher volume of stampable shares than previously assumed. The latter effect is pushed through the forecast.

Table 4.13: Key changes to the SDLT forecast since November

	£ billion					
	Forecast					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
November forecast	11.2	12.9	14.3	15.4	16.6	17.8
March forecast	10.7	12.9	14.2	15.2	16.3	17.4
<b>Change</b>	<b>-0.5</b>	<b>-0.1</b>	<b>0.0</b>	<b>-0.2</b>	<b>-0.3</b>	<b>-0.4</b>
	Underlying OBR forecast changes					
<b>Total</b>	<b>-0.5</b>	<b>-0.6</b>	<b>-0.7</b>	<b>-0.8</b>	<b>-1.0</b>	<b>-1.2</b>
<i>of which:</i>						
House prices	0.2	0.3	0.3	0.3	0.3	0.2
Residential property transactions	0.0	0.1	0.0	0.0	0.0	0.0
Commercial property market	0.0	0.0	0.0	-0.1	-0.1	-0.1
Other modelling and receipts outturns	-0.7	-0.9	-1.0	-1.1	-1.2	-1.4
	Changes due to Government decisions					
Indirect effects of Government decisions	0.0	0.0	0.0	0.0	0.0	0.1
Scorecard measures	0.0	0.5	0.6	0.6	0.7	0.7

#### Taxes on capital

- 4.63 **Capital gains tax (CGT)** is currently paid via SA in the final quarter of the financial year after the year in which the gains from the sale of an asset are realised. So CGT receipts in 2015-16 reflect asset disposals in 2014-15. CGT receipts have risen from £5.6 billion in 2014-15 to £7.0 billion in 2015-16, a rise of 27 per cent. This is on top of a rise of 42 per cent in 2014-15, so that 2015-16 receipts are 80 per cent up on 2013-14. CGT receipts in 2015-16 were stronger than would have been suggested by growth in house and equity prices in 2014-15. Preliminary analysis suggests disposals of property (because CGT is payable on the gains from non-principal residences) and unlisted shares drove the rise in receipts.
- 4.64 Compared to our November forecast, CGT receipts are £0.6 billion higher in 2015-16 but weaker from 2017-18 onwards. Lower equity prices more than offset the effect of pushing the higher 2015-16 outturn through the forecast. CGT is highly geared to changes in equity prices, since around two-thirds of chargeable gains are related to financial assets and CGT is only charged on the gain rather than the disposal price. The profile for receipts over the forecast largely reflects the path of equity prices and the Autumn Statement 2015 measure that from 2019-20 CGT on residential property would be due 30 days after the disposal

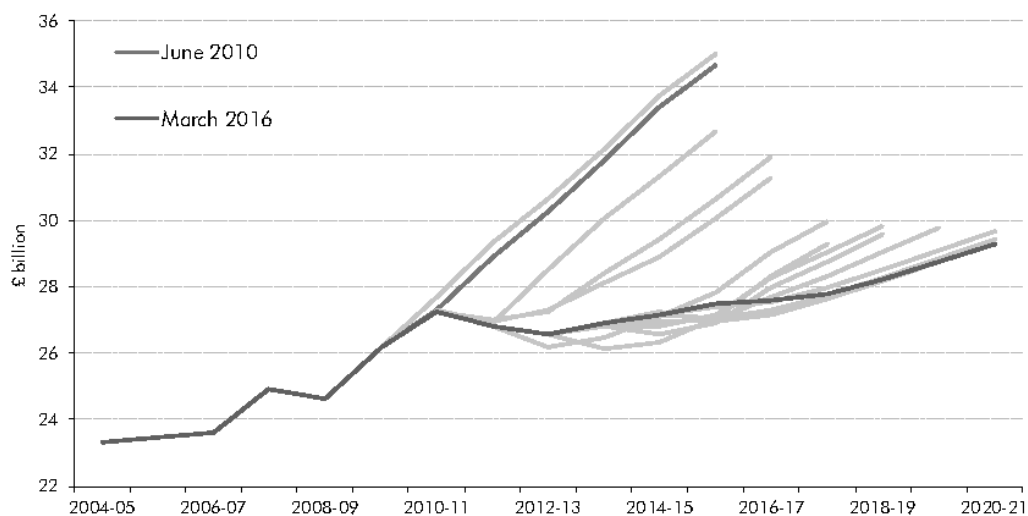
rather than between 10 and 21 months after the sale. This brings around £0.9 billion of CGT receipts into 2019-20. As with the measures that bring forward CT payment dates, this represents a one-off increase in receipts that is neither repeated nor reversed in later years.

- 4.65 Receipts from **inheritance tax (IHT)** are expected to rise by around 20 per cent in 2015-16 and have been revised up by £0.2 billion from our estimate in November. Given the lags before IHT is paid, strong growth in house prices in 2014-15 is likely to be a key factor driving recent receipts growth. Housing assets account for around 50 per cent of the value of estates notified for probate. A higher number of deaths last winter and some exceptionally high-value estates have also boosted receipts this year. Further out, the effect from lower equity prices broadly offsets this higher starting point, meaning that IHT receipts are similar to our November forecast. The Government recently opened a consultation on proposals to change the fees payable for an application for a grant of probate. We would expect these changes to reduce IHT receipts if they go ahead, but since they are currently proposals subject to consultation no impact has been included in this forecast.

#### Fuel duties

- 4.66 Compared with November, we have revised fuel duty receipts up by £0.1 billion in 2015-16, leaving them up around 1 per cent on a year earlier. With duty rates frozen, this reflects a small rise in fuel clearances. These had fallen in every year between 2007-08 and 2012-13, reflecting improvements in fuel efficiency and the effects of the late 2000s recession on mileage. With fuel duty charged on a pence per litre basis, the drop in pump prices has helped raise the demand for fuel and boost receipts in the past three years. The further fall in oil prices since November provides a £0.2 to £0.3 billion a year boost to receipts, but there are offsets from our lower forecasts for both real GDP growth and RPI inflation.
- 4.67 The Budget announced that fuel duty would be frozen in April 2016 rather than being uprated in line with RPI inflation – the first freeze in this Parliament, following the five freezes and one cut that took place in the last Parliament. The Government maintains in its *Budget 2016 policy costings document* that its policy is to uprate duty rates with RPI inflation each year from April 2017. With improved fuel efficiency likely to reduce the demand for fuel from 2017-18 onwards, the £1.7 billion increase in receipts between 2016-17 and 2020-21 is more than explained by the implied duty rises. But this could be considered a source of policy risk to the forecast, given repeated decisions to cancel planned duty rises in recent years. Chart 4.3 shows our forecasts for fuel duty since June 2010, with the downward revisions dominated by these policy decisions.

Chart 4.4: Successive fuel duty forecasts since June 2010



Source: HMRC, OBR

### Alcohol and tobacco duties

- 4.68 Alcohol duty is expected to rise from £10.9 billion in 2015-16 to £13.0 billion in 2020-21. Receipts from wine and spirits are expected to increase by £1.3 billion and £0.6 billion respectively, but we expect a rise of just £0.2 billion from beer and cider. We assume that the downward trend in beer clearances continues through the forecast. Our forecast for alcohol duties is little changed since November. It incorporates the Budget announcement that alcohol duties for beer, cider and spirits will be frozen in April 2016.
- 4.69 Tobacco receipts are expected to rise only slightly, from £9.2 billion in 2015-16 to £9.7 billion in 2020-21, despite RPI plus 2 per cent rises in duty each year. The effect of these duty rises is largely offset by the downward trend in cigarette clearances, thanks in part to the recent above-RPI increases in duty, changing attitudes to smoking, policies (such as the display ban) and the growing popularity of e-cigarettes. Our forecast is little changed since November. Receipts are £0.1 billion a year higher reflecting a lower euro/sterling exchange rate, which reduces the relative benefits of cross border shopping.

### Other taxes

- 4.70 **Business rates** receipts are calculated by multiplying the rateable value of non-domestic property by the multiplier (which is uprated in line with RPI inflation). In the absence of measures, receipts would be down by around £0.2 billion by 2020-21, reflecting the downward revisions in our RPI forecasts. The Budget announced a package of measures on business rates which reduce receipts by between £1.4 and £1.9 billion a year from 2017-18. These include the permanent doubling of the small business rate relief and a widening in its eligibility criteria, as well as moving indexation of the multiplier to CPI rather than RPI

from 2020-21. The Government had previously extended the doubling of small business rate relief for one year every year since 2011.

- 4.71 Our business rates forecast is subject to some further policy-related uncertainty following the Government's announcement of its intention to localise all business rates and to provide some additional discretion to local authorities in setting business rates. However, the Government has told us that because this will be implemented as part of a wider package that it intends to be fiscally neutral, this element alone does not yet constitute firm Government policy. We have not therefore reflected it in this forecast (see Box 4.3).
- 4.72 Receipts from **council tax** are expected to be around £0.8 billion higher in 2020-21 than in our November forecast. These changes are explained in more detail in the expenditure section of this chapter. Changes in council tax receipts are offset within the locally financed expenditure forecast and are therefore neutral for borrowing.
- 4.73 **Environmental levies** include levy-funded spending policies such as the renewables obligation (RO), contracts for difference (CfD), feed-in tariffs (FITs) and the warm homes discount. Environmental levy receipts also include receipts from the carbon reduction commitment, but not other DECC schemes that affect energy bills such as the energy company obligation. Our forecast shows environmental levy receipts are expected to rise from £6.2 billion in 2015-16 to £12.3 billion in 2020-21. This steep rise mainly reflects the expected rise in electricity generation from renewable sources.
- 4.74 Compared with November, our forecast is lower by £0.9 billion by 2020-21, although it would have been higher prior to policy announcements. This reflects higher assumptions on load factors for a variety of renewable technologies (leading to higher electricity generation) and the fact that lower electricity prices will raise spending through the CfD scheme. The December announcements on FITs (lower tariffs and a deployment cap) and closing the RO to small-scale solar PV from April 2016 reduce spending by 2020-21 by a little over £400 million and £60 million respectively. The Spending Review decision to remove the capital budget for the carbon capture and storage (CCS) competition means that we no longer expect the CCS demonstration projects to deploy. The associated CfD spending is reduced by £0.5 billion in 2020-21. All these policies have the same effect on both receipts and spending, so are neutral for borrowing. The abolition of the carbon reduction commitment reduces receipts by around £0.5 billion in 2020-21.
- 4.75 The environmental levies forecasts are produced for us by DECC using forecasting models that are relatively complex and that rely on commercially sensitive information. Both factors reduce the transparency of the forecasting process and our ability to scrutinise forecast changes in detail. This is an area that we hope to be able to improve over time, subject to the availability of analytical resources.
- 4.76 The Budget has announced that a **soft drinks industry levy** will be introduced from 2018-19 onwards. The liability to pay will be at the point beverages are packaged for sale and will rely on producers and importers to report volumes each quarterly accounting period. It will consist of two rates, based on the sugar content of these beverages. The levy will operate



with a specific revenue target of £500 million for the second year of implementation (2019-20). This currently implies levy rates of 18 pence and 24 pence per litre unit. These take into account a variety of behavioural effects which will affect the revenue raised.

- 4.77 The costing for this measure allows for several behavioural responses to the introduction of the levy. These include an initial 0.8 per cent reduction in demand for every 1 per cent rise in price, rising to 1 per cent. Producers are also assumed to reformulate their products to reduce sugar content or introduce sub-brands. We have assumed a 5 per cent a year drop in volumes subject to the higher rate and a 2 per cent a year rise in those subject to the lower rate. We also expect some initial forestalling ahead of the introduction of the tax, plus the emergence of a 'tax gap' given the incentive for increased cross-border shopping and illicit trade. From a pre-behavioural yield of over £900 million, the behavioural responses lower the yield to around £500 million a year. As a new tax likely to prompt a large behavioural response, these estimates are clearly subject to significant uncertainty.
- 4.78 Receipts from **insurance premium tax (IPT)** are expected to rise by over 50 per cent between 2014-15 and 2016-17, reflecting the July 2015 Budget measure to increase the standard rate of IPT from 6 to 9.5 per cent in November 2015 and the further rise to 10 per cent from September 2016 announced in the Budget. Abstracting from the increases in the IPT rate, growth in underlying IPT receipts in the forecast is expected to remain modest. We have continued to assume a small negative effect from reforms designed to reduce the cost of certain forms of road traffic personal injury claims.
- 4.79 **Air passenger duty** receipts are expected to rise from £3.1 billion in 2015-16 to £3.9 billion in 2020-21. This reflects duty rate rises and growth in passenger numbers. Our forecast is little changed since November.
- 4.80 **Vehicle excise duty (VED)** is levied annually on road vehicles and is expected to rise from £5.6 billion in 2015-16 to £6.2 billion in 2020-21, reflecting the uprating of duties in line with RPI inflation and measures announced in the July 2015 Budget. Relative to November, our forecast is higher by £0.1 to £0.2 billion a year, reflecting higher receipts so far this year that have been pushed through to the rest of the forecast.
- 4.81 Receipts from the **climate change levy (CCL)** are expected to be around £0.3 billion lower in 2015-16 than in our November forecast. This reflects lower than expected receipts from the carbon price floor (CPF) element of the CCL. The almost doubling of the carbon support rates in 2015-16 was expected to lead to a strong rise in CPF receipts this year. However, DECC data suggest that the switch away from coal-fired to gas-fired electricity generation (which has a lower tax rate) was much bigger than previously assumed, limiting the growth in CPF receipts. With CPF tax rates little changed until 2020-21 (when they rise in line with RPI inflation), the smaller tax base reduces receipts by at least £0.2 billion a year. In contrast to declining CPF receipts, we expect a rise in CCL receipts (excluding CPF), reflecting the July 2015 Budget decision to remove the CCL exemption from energy generated from renewable sources and the higher CCL rates from 2019-20 announced in the Budget to compensate for the loss of revenues from removing the carbon reduction commitment.

- 4.82 **Bank levy** receipts are expected to fall from £3.5 billion in 2015-16 to £2.2 billion in 2020-21. This mainly reflects the graduated cuts in the bank levy rate from 0.21 per cent to 0.1 per cent by 2021, which were announced in the July 2015 Budget. Our forecast is unchanged since November.
- 4.83 **VAT refunds** to central and local government are neutral for borrowing, as they are offset within spending. The forecast for VAT refunds largely reflects the path of government procurement and investment. Relative to November, our forecast is higher by around £0.2 billion a year, reflecting changes to overall central and local government spending.

#### Other receipts

- 4.84 **Interest and dividend** receipts include interest income on the government's stock of financial assets, which includes student loans and holdings related to financial sector interventions. Our forecast for interest and dividend receipts is significantly lower than in November, with receipts expected to be over £2 billion lower in each of the final three years of the forecast. The key driver is that interest rates are expected to remain lower for longer – with the direct effect of lower interest rates on the stock of central government assets (including foreign exchange reserves) and local authority assets over £1½ billion by 2020-21.
- 4.85 Lower interest rates also affect the accrued interest on the stock of some older student loans and the interest from the UK Asset Resolution mortgage book. The Budget announcement of a further large sale of mortgage assets in 2016-17 and 2017-18 will lower interest received by around £0.3 billion a year. With the sale of the Government's remaining stake in Lloyds delayed into 2016-17, we have factored in an additional dividend payment of £130 million before the sale has been completed.
- 4.86 Our forecast for **gross operating surplus (GOS)** comprises general government depreciation and public corporations' gross operation surplus (PCGOS), including the operating surpluses of housing associations. Our forecast for GOS has fallen by an average of £0.4 billion a year over the forecast period since November, largely because of the scorecard measure that makes pay to stay voluntary for housing associations, which is assumed to reduce additional rents from pay to stay by an average of £0.3 billion a year from 2017-18 onwards.

## Public sector expenditure

### Definitions and approach

- 4.87 This section explains our central forecast for public sector expenditure, which is based on the National Accounts aggregates for public sector current expenditure (PSCE), public sector gross investment (PSGI) and total managed expenditure (TME), which is the sum of PSCE and PSGI. In our forecast, we combine these National Accounts aggregates with the two administrative aggregates used by the Treasury to manage public spending:

- **departmental expenditure limits (DELS)**<sup>8</sup> – mostly covering spending on public services, grants, administration and capital investment, which can be planned over extended periods. Our fiscal forecast therefore shows PSCE in resource DEL and PSGI in capital DEL. We typically assume (in line with historical experience) that departments will underspend the limits that the Treasury sets for them, so – unless otherwise stated – when we refer to PSCE in RDEL and PSGI in CDEL (or RDEL and CDEL for simplicity) we are referring to the net amount that we assume is actually spent; and
- **annually managed expenditure (AME)** – categories of spending less amenable to multi-year planning, such as social security spending and debt interest. Again, our fiscal forecast shows PSCE in current AME and PSGI in capital AME.

### Summary of the expenditure forecast

4.88 Table 4.14 summarises our latest forecast for public spending. TME is expressed as a share of GDP, but not all of TME contributes directly to GDP – benefit payments, debt interest and other cash transfers merely transfer income from some individuals to others. The table also shows how TME is split between DEL spending and AME, and the main components of each. It shows that TME is expected to fall by 3.2 per cent of GDP over the four years of the latest Spending Review period up to 2019-20, and slightly further in 2020-21.

Table 4.14: TME split between DEL and AME

	Per cent of GDP						
	Outturn 2014-15	Forecast					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
<b>TME</b>	<b>40.8</b>	<b>40.2</b>	<b>39.7</b>	<b>38.8</b>	<b>38.0</b>	<b>37.0</b>	<b>36.9</b>
<i>of which:</i>							
<b>TME in DEL<sup>1</sup></b>	<b>19.4</b>	<b>18.8</b>	<b>18.6</b>	<b>18.1</b>	<b>17.6</b>	<b>16.9</b>	<b>16.9</b>
<i>of which:</i>							
PSCE in RDEL	17.3	16.9	16.6	16.1	15.6	14.9	14.6
PSGI in CDEL	2.0	1.9	2.0	2.0	2.0	2.0	2.3
<b>TME in AME<sup>1</sup></b>	<b>21.4</b>	<b>21.4</b>	<b>21.1</b>	<b>20.7</b>	<b>20.4</b>	<b>20.1</b>	<b>19.9</b>
<i>of which:</i>							
Welfare spending	11.7	11.5	11.2	10.8	10.5	10.2	10.1
Debt interest net of APF	1.8	1.8	1.8	1.9	2.0	2.0	1.9
Locally-financed current expenditure	2.0	2.2	2.1	2.1	2.1	2.1	2.1
Net public service pension payments	0.7	0.6	0.6	0.6	0.6	0.6	0.6
Other PSCE in AME	3.3	3.3	3.4	3.3	3.4	3.5	3.5
PSGI in AME	2.0	2.0	2.0	1.9	1.7	1.6	1.7

<sup>1</sup> In relation to Table 4.15, TME in DEL is defined as PSCE in RDEL plus PSGI in CDEL plus SUME, and TME in AME is defined as PSCE in AME plus PSGI in AME minus single use military equipment (SUME).

4.89 Tables 4.15 and 4.16 detail our latest spending forecast and the changes since November.

<sup>8</sup> Our presentation of expenditure only shows those components of RDEL, CDEL and AME that are included in the fiscal aggregates of PSCE and PSGI. For budgeting purposes, the Treasury also includes other components in DEL and AME such as non-cash items and financial transactions, which are discussed later in this chapter.

Table 4.15: Total managed expenditure

	£ billion						
	Outturn	Forecast					
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
<b>Public sector current expenditure (PSCE)</b>							
PSCE in RDEL	317.6	316.1	321.7	325.3	327.7	327.1	333.7
PSCE in AME	355.7	365.1	372.5	380.8	394.9	404.3	416.2
<i>of which:</i>							
Welfare spending	213.9	216.6	218.3	219.2	221.2	224.2	229.5
<i>of which:</i>							
<i>Inside welfare cap</i>	119.3	120.4	119.8	118.0	116.4	116.2	118.1
<i>Outside welfare cap</i>	94.7	96.2	98.4	101.2	104.8	108.1	111.4
Company and other tax credits	2.1	2.4	2.6	2.7	2.7	2.8	2.8
Net public service pension payments	12.3	11.5	11.2	12.1	13.7	13.2	14.7
National lottery current grants	1.4	1.4	1.4	1.4	1.5	1.5	1.5
BBC current expenditure	3.8	3.8	3.8	3.8	3.7	3.6	3.7
Network Rail other current expenditure <sup>1</sup>	1.0	0.8	0.8	0.3	-0.2	-0.1	-0.1
Other PSCE items in departmental AME	1.0	1.2	0.9	0.9	0.8	0.8	0.8
Expenditure transfers to EU institutions	10.4	10.5	11.8	9.4	11.2	11.6	11.9
Locally financed current expenditure	36.0	40.5	40.8	43.3	45.1	47.0	48.8
Central government gross debt interest	45.2	45.7	47.8	51.0	54.1	54.4	53.5
Reductions in debt interest due to APF	-12.4	-11.6	-12.4	-12.4	-11.7	-11.0	-10.1
Public corporations' debt interest	2.9	3.1	3.3	3.5	3.8	4.0	4.2
General government depreciation	28.5	29.4	31.1	32.8	34.5	36.1	37.8
Current VAT refunds	11.5	12.1	12.4	12.5	12.6	12.6	12.8
R&D expenditure	-7.2	-7.8	-7.9	-7.9	-8.0	-8.1	-8.4
Single use military expenditure	0.3	0.4	0.2	0.2	0.2	0.3	0.3
Environmental levies	3.2	5.9	7.3	8.7	10.7	12.4	13.4
Local authority imputed pensions	1.8	1.8	1.9	2.0	2.1	2.2	2.3
Other National Accounts adjustments	0.0	-2.7	-2.8	-2.9	-3.0	-3.2	-3.3
<b>Total public sector current expenditure</b>	<b>673.3</b>	<b>681.2</b>	<b>694.2</b>	<b>706.0</b>	<b>722.6</b>	<b>731.4</b>	<b>749.8</b>
<b>Public sector gross investment (PSGI)</b>							
PSGI in CDEL	37.3	35.6	39.2	40.9	42.9	43.0	52.6
PSGI in AME	36.1	37.1	38.5	37.6	35.5	36.1	38.7
<i>of which:</i>							
Tax litigation	0.0	0.0	0.9	1.2	1.5	1.8	1.9
Network Rail capital expenditure	6.2	6.3	6.9	6.1	5.1	5.0	5.3
Other PSGI items in departmental AME	0.8	0.2	1.1	1.5	1.7	2.0	2.4
Locally financed capital expenditure	6.9	7.3	6.9	7.3	5.8	6.4	6.6
Public corporations' capital expenditure	15.9	15.8	14.8	13.6	12.9	12.0	13.2
R&D expenditure	7.2	7.8	7.9	7.9	8.0	8.1	8.4
Other National Accounts adjustments	-0.8	-0.2	0.0	0.1	0.5	0.8	1.0
<b>Total public sector gross investment</b>	<b>73.4</b>	<b>72.7</b>	<b>77.8</b>	<b>78.6</b>	<b>78.4</b>	<b>79.1</b>	<b>91.3</b>
Less public sector depreciation	-38.6	-39.5	-41.4	-43.2	-45.1	-46.9	-48.9
<b>Public sector net investment</b>	<b>34.8</b>	<b>33.2</b>	<b>36.4</b>	<b>35.3</b>	<b>33.2</b>	<b>32.1</b>	<b>42.4</b>
<b>Total managed expenditure</b>	<b>746.7</b>	<b>753.9</b>	<b>771.9</b>	<b>784.6</b>	<b>801.0</b>	<b>810.4</b>	<b>841.1</b>

<sup>1</sup> Other than debt interest and depreciation, which are included in totals shown separately in this table.

Table 4.16: Changes to total managed expenditure since November

	£ billion						
	Outturn	Forecast					
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
<b>Public sector current expenditure (PSCE)</b>							
<b>PSCE in RDEL</b>	<b>0.0</b>	<b>0.7</b>	<b>0.6</b>	<b>2.1</b>	<b>2.2</b>	<b>-1.5</b>	<b>-7.8</b>
<b>PSCE in AME</b>	<b>0.0</b>	<b>-1.7</b>	<b>-2.4</b>	<b>-6.8</b>	<b>-5.1</b>	<b>-9.1</b>	<b>-9.4</b>
<i>of which:</i>							
Welfare spending	0.0	-0.6	0.4	-0.5	-0.3	0.1	0.1
<i>of which:</i>							
<i>Inside welfare cap</i>	0.0	-0.5	0.6	0.3	0.6	0.9	1.1
<i>Outside welfare cap</i>	0.0	-0.1	-0.2	-0.8	-0.8	-0.7	-1.0
Company and other tax credits	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
Net public service pension payments	0.0	0.2	-0.3	-0.6	-0.6	-2.5	-2.0
National lottery current grants	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBC current expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Network Rail other current expenditure <sup>1</sup>	-0.1	0.0	0.1	-0.1	-0.1	0.0	0.0
Other PSCE items in departmental AME	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Expenditure transfers to EU institutions	0.0	-1.2	1.1	-0.2	0.2	0.2	0.2
Locally financed current expenditure	-0.2	0.7	0.5	-0.1	-0.4	-0.9	-1.1
Central government gross debt interest	0.0	-0.8	-3.2	-3.2	-1.5	-3.0	-3.1
Reductions in debt interest due to APF	0.0	0.2	-0.8	-1.9	-2.5	-2.7	-2.6
Public corporations' debt interest	0.3	-0.1	0.0	0.0	0.0	0.0	0.0
General government depreciation	0.0	-0.2	-0.1	-0.1	0.1	0.1	0.0
Current VAT refunds	0.0	0.1	0.2	0.3	0.4	0.3	0.0
R&D expenditure	0.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4
Single use military expenditure	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Environmental levies	0.0	0.0	0.0	-0.1	0.0	-0.3	-0.4
Local authority imputed pensions	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Other National Accounts adjustments	0.0	0.3	0.3	0.2	0.2	0.1	0.1
<b>Total public sector current expenditure</b>	<b>0.0</b>	<b>-1.1</b>	<b>-1.8</b>	<b>-4.7</b>	<b>-2.9</b>	<b>-10.6</b>	<b>-17.2</b>
<b>Public sector gross investment (PSGI)</b>							
<b>PSGI in CDEL</b>	<b>0.0</b>	<b>-0.2</b>	<b>0.3</b>	<b>0.8</b>	<b>1.3</b>	<b>-1.0</b>	<b>-0.2</b>
<b>PSGI in AME</b>	<b>-2.3</b>	<b>-0.5</b>	<b>0.1</b>	<b>1.0</b>	<b>1.4</b>	<b>1.1</b>	<b>1.3</b>
<i>of which:</i>							
Tax litigation	0.0	-0.2	0.2	0.0	0.0	0.0	0.0
Network Rail capital expenditure	0.0	-0.5	-0.5	0.5	0.7	0.0	0.0
Other PSGI items in departmental AME	0.0	-0.3	0.0	0.3	0.2	0.4	0.5
Locally financed capital expenditure	0.1	0.7	-0.2	-0.2	-0.1	0.2	0.5
Public corporations' capital expenditure	-0.1	0.1	0.4	0.0	0.1	-0.1	-0.2
R&D expenditure	0.0	0.3	0.3	0.3	0.3	0.3	0.4
Other National Accounts adjustments	-2.3	-0.6	-0.1	0.0	0.2	0.2	0.3
<b>Total public sector gross investment</b>	<b>-2.3</b>	<b>-0.7</b>	<b>0.4</b>	<b>1.8</b>	<b>2.7</b>	<b>0.1</b>	<b>1.1</b>
Less public sector depreciation	-0.1	0.3	0.2	0.1	-0.1	-0.1	-0.1
<b>Public sector net investment</b>	<b>-2.4</b>	<b>-0.4</b>	<b>0.6</b>	<b>1.9</b>	<b>2.6</b>	<b>0.0</b>	<b>1.0</b>
<b>Total managed expenditure</b>	<b>-2.3</b>	<b>-1.8</b>	<b>-1.4</b>	<b>-2.9</b>	<b>-0.2</b>	<b>-10.5</b>	<b>-16.1</b>

<sup>1</sup> Other than debt interest and depreciation, which are included in totals shown separately in this table.

4.90 Table 4.17 summarises the sources of changes to our forecast since November. It shows that:

- **economy forecast driven changes** have reduced spending, with the main impact from lower inflation, which has reduced spending throughout the forecast, with reductions ranging from £2.0 billion in 2016-17 to £0.6 billion in 2020-21;
- **debt interest** spending has been revised down significantly, due to further falls in market interest rate expectations. Higher borrowing offsets some of that reduction;
- our **pre-measures forecast for other AME spending** is higher every year. Welfare spending has been revised up, thanks largely to higher-than-expected caseloads and average awards as disabled people are migrated from disability living allowance to the new personal independence payment. Spending by local authorities and public corporations has also been revised up. We have made smaller downward revisions to spending on state pensions, tax credits and public service pensions;
- the **direct effect of Government decisions** reduces AME in all years. However overall spending is increased for the three years up to 2018-19 because of scorecard measures that increase departments RDEL and CDEL spending. Thereafter, in 2019-20 and 2020-21, although some scorecard measures continue to increase RDEL (in both years) and CDEL (in 2019-20), these increases are outweighed by larger RDEL and CDEL cuts so that overall spending falls by £7.6 billion in 2019-20, and by £13.0 billion in 2020-21; and
- the **indirect effect of Government decisions** are mostly small, with the biggest effect a £1.0 billion increase in the accrued interest on index-linked gilts due to the effect on RPI inflation of the introduction of a soft drinks industry levy.