HM Treasury

2017-18 Convergence Programme for the United Kingdom:

submitted in line with the Stability and Growth pact

April 2018

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OGL

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Foreword

The UK economy has been growing for five consecutive years. Our manufacturing sector has enjoyed its longest unbroken run of growth in 50 years and there are ongoing increases in the number of people with a job. The UK has made further progress in restoring the public finances to health. We are at a turning point, with debt projected to make its first sustained fall in 17 years.

Gross domestic product (GDP) grew by 1.8% in 2017, above the Office for Budget Responsibility's (OBR) forecast of 1.5% at Autumn Budget 2017. The OBR expects the UK economy to grow in each year of the forecast, with GDP growth in 2018 slightly higher than previously expected.

The employment rate is at a joint record high level at 75.3% in the three months to January 2018, while the unemployment rate is at its joint lowest since 1975 at 4.3%. Over the last year, the increase in employment was mainly driven by full-time workers. Total nominal pay rose by 2.8% in the three months to January 2018 compared with the same period a year earlier.

CPI inflation was 2.7% in February 2018, down from 3.0% in January. Inflation has increased over the past couple of years as a result of the depreciation of sterling since mid-2016. The OBR now expect CPI inflation to fall to 2.1% by Q4 2018.

The global economy is experiencing an upturn. The pick-up has been broad-based, as activity has strengthened in the euro area and Japan, and Brazil and Russia have emerged from recession. Growth has remained strong in China and firmed in the US. The UK is ranked as one of the best places to do business, demonstrating that a strong global economy is good for the UK economy.

The government has made significant progress since 2010 in improving the health of the public finances. The deficit has been reduced by three quarters from its 2010 post-war high. Debt is projected to fall from 2018. However, despite these improvements, borrowing and debt remain too high. The government's fiscal rules underpin a balanced approach to fiscal policy, getting debt falling but also investing in our economy and key public services like the NHS, and keeping taxes low.

The fiscal rules approved by Parliament in January 2017 commit the government to reducing the cyclically-adjusted deficit to below 2% of GDP by 2020-21 and having debt as a share of GDP falling in 2020-21. The government is forecast to meet its structural borrowing and debt falling targets two years early.

Chapter 1

Introduction

1.1 The Stability and Growth Pact (SGP) requires member states to provide information on economic developments in their country for the purposes of the multilateral surveillance procedure under Articles 121 and 126 of the EU Treaty. Member states submit either annual Stability Programmes (euro area countries) or annual Convergence Programmes (non euro area countries) setting out their medium-term fiscal policies.

1.2 The UK is not a member of the single currency and cannot face sanctions under the EU's SGP. The UK's obligation under the SGP is to "endeavour to avoid an excessive government deficit" as a result of its Protocol to the EU Treaties (Protocol 15). The Convergence Programme sets out the UK's medium-term fiscal policies.

1.3 Major fiscal events since the last Convergence Programme have been Autumn Budget 2017 and Spring Statement 2018. This Convergence Programme draws on those, particularly Autumn Budget 2017.

1.4 The forecasts for the economy and public finances included in the UK's Convergence Programme are prepared by the independent Office for Budget Responsibility (OBR). Information on the OBR's mandate is set out in Chapter 4. The forecasts set out in the Convergence Programme are from the OBR's March 2018 Economic and fiscal outlook, which was published alongside Spring Statement 2018.

1.5 Under Section 5 of the European Communities (Amendment) Act 1993, Parliament is required to approve the government's assessment of the UK's medium-term economic and budgetary position. This forms the basis of the UK's Convergence Programme. The UK presents copies of assessments of its Convergence Programme to Parliament.

Structure of the Convergence Programme

1.6 The first four chapters of this Convergence Programme set out the government's policy on the fiscal position, sustainability of the public finances and the macro-economy, as required by the Stability and Growth Pact Code of Conduct.

1.7 Detail on the OBR's economic and fiscal forecasts is set out separately in Annex A of the Convergence Programme, drawing upon the OBR's March 2018 Economic and fiscal outlook.

1.8 Annex B provides details of the financial impact of Autumn Budget 2017 policy decisions. Annex C provides supplementary data.

Chapter 2

Overall policy framework and objectives

2.1 In November 2016, the Chancellor announced that the government would move to a single fiscal event each year. Budgets will now be delivered in the autumn. The first Budget that took place under this new fiscal event timetable was delivered on 22 November 2017.

2.2 The Office for Budget Responsibility (OBR) is still required by law to produce two forecasts a year. One of these will remain at Budget, while the other will fall in the spring and the government will respond to it with a Spring Statement. The first of these took place on 13 March 2018.

2.3 The following chapters are from the Autumn Budget 2017 document. Please note that where these chapters reference the OBR forecast, they refer to the November 2017 vintage. Where discrepancies exist, the OBR's March 2018 Economic and fiscal outlook should now take precedence.

1 Economy and public finances

Economic context

1.1 The UK economy has demonstrated its resilience over the past 18 months.[1] Gross domestic product (GDP) growth has remained solid – extending the period of continuous growth to 19 quarters. Employment has risen by 3 million since 2010 and is close to its record high, and unemployment is at its lowest rate since 1975. The increase in employment has supported prosperity across the country and income inequality is at its lowest level in 30 years.

1.2 Over the past year, higher inflation has weighed on household income, business investment has been affected by uncertainty, and productivity has been subdued. Productivity growth has slowed across all advanced economies since the financial crisis, but it has slowed more in the UK than elsewhere. The Office for Budget Responsibility (OBR) has revised down expectations for productivity growth over the forecast period compared to Spring Budget 2017. There is an opportunity, if the UK can unlock productivity growth, to increase growth, wages and living standards over the long term.

1.3 In the near term, the Budget provides support for households and businesses. Over the medium term, the government has already set in train a plan to address the UK's productivity challenge, by cutting taxes to support business investment, improving skills and investing in high-value infrastructure. The Budget goes further, building an economy that is fit for the future and ready to take advantage of new opportunities.

UK economy

Growth

1.4 The Office for National Statistics (ONS) estimates that the UK economy grew by 1.8% in real terms in 2016 and by 1.0% on a per capita basis. The ONS published revisions to the National Accounts in September. While annual GDP growth in 2016 was not revised, there were changes to the quarterly path and composition of GDP that implied a little less momentum at the end of 2016.

1.5 In 2017 GDP growth has remained solid, but slowed slightly compared to the previous year. GDP growth was 0.3% in each of the first two quarters of this year and rose to 0.4% in Q3 2017. Services output increased by 0.4% in Q3, slightly stronger than the average pace of growth in the first half of the year, but a bit slower than in 2016. Construction output decreased by 0.9% in Q3, having also fallen by 0.5% in Q2. Production output grew by 1.1% in Q3, driven mainly by manufacturing output, which also grew by 1.1%.

1.6 Household consumption underpinned growth in demand last year, growing by 2.8% in 2016, but slowed in the first half of 2017 to an average of 0.3% per quarter. Consumer confidence and retail sales point to further modest consumption growth in the third quarter of this year.

[1] Details of the sources of all numerical references, including National Statistics, used in this section can be found in 'Autumn Budget 2017 data sources'.

1.7 Business investment was previously estimated to have fallen by 1.5% over the course of 2016, but the latest data suggests that the decline was less marked at 0.4% in 2016. Despite the recent revisions, business investment growth remains moderate at 2.5% in the year to Q2 2017, below its average annual rate of 4.9% between 2010 and 2015. Private business surveys cite uncertainty as a factor impeding investment.

1.8 In 2016, export and import volumes grew by 1.1% and 4.3% respectively. As a result, net trade subtracted 0.9 percentage points from GDP growth in 2016. Since Q4 2016, export volumes have started to increase, rising by 4.9% in Q2 2017 on a year earlier, above import volumes growth of 3.4% over the same period. Net trade has therefore made a small positive contribution to yearly GDP growth of 0.3 percentage points in the first two quarters of 2017. Surveys indicate that in 2017 export orders have been strong, with some reporting the highest level of orders since 2011.

1.9 The ONS published revised data for the current account in September. In 2016, the current account deficit was 5.9% of GDP. The current account deficit narrowed in Q4 2016 and Q1 2017 but widened again to 4.6% of GDP in Q2 2017. The wider current account deficit was driven by a deterioration in the investment income deficit but was partially offset by a narrowing in the trade deficit.

Productivity, labour market and earnings

1.10 In 2016, UK output per hour grew by 0.2%, close to its average since 2008 of 0.1% but well below its pre-crisis trend of 2.1% in the decade before (see Box 1.1 for further details). Productivity has remained subdued this year, falling in the first two quarters, but rising in Q3, pushed up by lower total hours worked.

Chart 1.1: Unemployment and employment rates since 1975

[1] Unemployed people (aged 16+) as a percentage of the economically active population (aged 16+)
[2] Employed people (aged 16-64) as a percentage of the population (aged 16-64)

Source: Office for National Statistics

1.11 The UK labour market continues to perform well. The number of people in work has risen over the last year; the employment rate was 75.0% in the three months to September 2017, close to the record high set earlier this year; the level of female employment is close to a record high at 15 million; and over the past year, higher employment has been accounted for by rising full-time employment. The unemployment rate has continued to fall since the last Budget and now stands at 4.3% – the lowest since 1975 (Chart 1.1). Since 2010, 75% of the fall in unemployment has come from outside London and the South East. The biggest falls in unemployment rates since 2010 have occurred in Yorkshire & the Humber and Wales. There are also 954,000 fewer workless households since 2010.

Box 1.1: Productivity – a long-term challenge

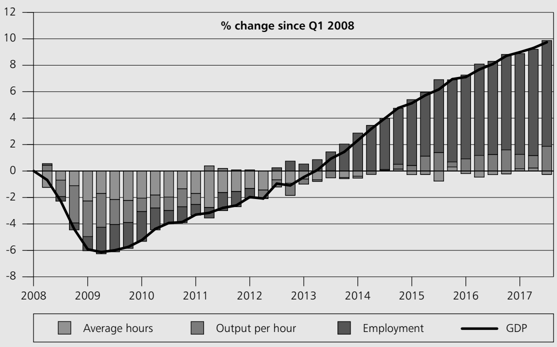
Productivity is the amount of output produced per hour worked. Improving productivity benefits the whole of the UK economy. It enables workers to produce more for the same number of hours worked. This in turn raises profits for companies and benefits households, as firms can pay higher wages and offer goods and services at lower prices.

Employment has risen to near record levels in the UK, accounting for the bulk of GDP growth since 2010 (Chart 1.2), and the government has supported living standards through raising the personal allowance and introducing the National Living Wage. However, raising wages over the long term requires improvements in productivity.[a]

Productivity growth has slowed around the world. In over two thirds of Organisation for Economic Co-operation and Development (OECD) countries, annual productivity growth has been at least 1 percentage point slower since 2008 than in the preceding decade. In the UK, however, the slowdown has been more acute; productivity growth has averaged 0.1% since 2008, compared to 2.1% in the decade prior (Chart 1.3).

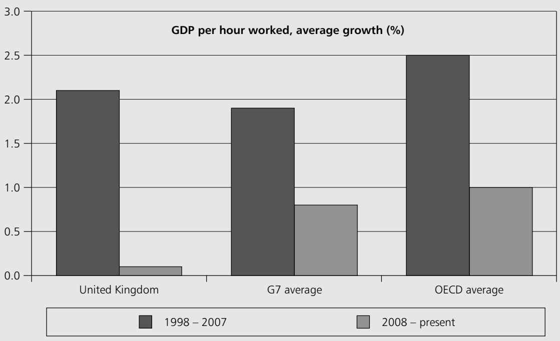
Historically, UK productivity has been below other advanced economies. This gap predates the financial crisis, but has widened since 2008. Raising productivity growth above the post-crisis average and closing the gap would generate significant improvements in living standards.

Chart 1.2: Contributions of productivity and labour to GDP growth



Source: Office for National Statistics

Chart 1.3: Average annual productivity growth



Source: Organisation for Economic Co-operation and Development

Evidence suggests the UK should prioritise upgrading infrastructure, improving skills, helping businesses to invest, and reforming the housing and planning systems.[b] The government has already made significant progress: increasing public investment in infrastructure and innovation, enhancing skills and delivering a competitive tax regime to support business investment.

The Budget goes further. It invests in infrastructure and R&D, ensures the UK is a world leader in new technologies, takes steps to transform lifelong learning and increases housing supply. Productivity is a long-term issue and these reforms will take time to have an impact. Taken together, they represent a significant step towards improving the UK's productivity, in order to boost wages and enhance people's living standards.

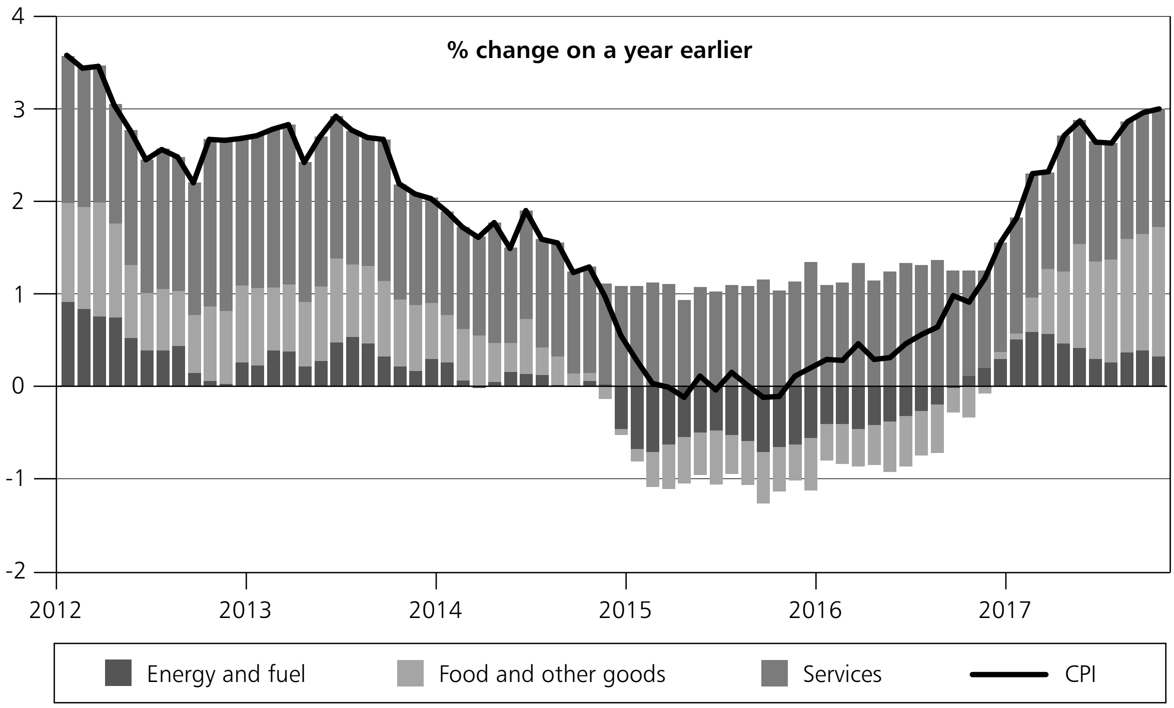
[a] 'Spring Budget 2017', HM Treasury, March 2017.
[b] See 'Fixing the foundations: creating a more prosperous nation', HM Treasury and Department for Business, Innovation & Skills, July 2015.

1.12 Both total pay (including bonuses) and regular pay (excluding bonuses) rose 2.2% in the three months to September compared with the same period a year earlier. Earnings growth for workers in lower paid jobs has been supported by the introduction of the NLW. The lowest earners saw their real wages grow strongly, by almost 7% in the last two years. With inflation rising, real household disposable income (RHDI) per head has fallen in recent quarters compared to a year earlier but remains 3.6% higher in Q2 2017 than at the start of 2010.

Prices

1.13 The value of sterling is little changed compared to Spring Budget 2017 in trade-weighted terms, but is around 10% below the level seen in the first half of 2016. This has fuelled an increase in inflation over the past year. Consumer Prices Index (CPI) inflation has risen from 0.9% in October 2016 to 3.0% in October this year and stands above the ten-year average of 2.4%. The increase has primarily been driven by a rise in goods price inflation, which has increased from -0.4% to 3.3% over the past year. In contrast, services price inflation has not increased materially, and remains below its long-run average.

Chart 1.4: CPI inflation



Source: Office for National Statistics and HM Treasury.

1.14 The Consumer Prices Index including owner occupiers' housing costs (CPIH)[2] became the ONS's headline measure of inflation in March 2017 and regained National Statistics status in July 2017.[3] CPIH inflation was 2.8% in October 2017 and has risen broadly in line with the trends seen in CPI inflation.

[2] CPIH extends CPI to include costs associated with owning, maintaining and living in one's own home as well as council tax.

[3] 'Statement on the redesignation of CPIH as a National Statistic' Office for National Statistics (ONS), July 2017 https://www.ons.gov.uk/news/statementsandletters/statementontheredesignationofcpihasanationalstatistic

Global economy

1.15 Global growth has strengthened in the first half of 2017. The OECD estimates that GDP growth for the G20 rose to 3.6% in the year to Q2 2017, up from 3.0% in Q2 2016. Growth has also become broader-based, as activity has strengthened in the euro area and Japan, and Brazil and Russia have emerged from recession. Growth has remained strong in China and firmed in the US. Higher global growth will benefit the UK economy. The OBR forecasts that global growth will be 3.6% in 2017 and 3.7% in 2018; these forecasts are both 0.2 percentage points higher than at Spring Budget 2017.

Economic outlook

1.16 The OBR's Autumn Budget forecast is for GDP to grow each year, with the level of employment higher than at Spring Budget 2017. The OBR has revised down its view of the outlook for trend productivity in each year of the forecast, and this has fed through to revisions to the forecast for actual GDP. Given the persistent weakness in productivity growth since the financial crisis, the OBR has revised its judgement and decided to place more weight on recent trends, although it still expects productivity growth to pick up in later years of the forecast. The OBR notes: "The outlook for potential or trend productivity growth is the most important, yet most uncertain, element of potential output growth and, indeed, of [this] forecast in general".[4] The OBR has also revised down its assessment of the sustainable rate of unemployment to 4.6% by the end of the forecast, and revised up its expectations for trend employment.

1.17 The OBR has revised down its forecast for GDP growth in 2017 to 1.5%, given slower growth than expected at the start of the year and revisions to past growth in 2016. Thereafter, slower growth is driven by the lower assumption for trend productivity. Lower GDP growth is reflected in lower consumption growth and business investment. From 2020, consumption growth picks up and GDP growth rises to 1.6% at the end of the forecast. Cumulative GDP growth is expected to be 2.1 percentage points lower over the forecast period, compared to the forecast at Spring Budget 2017. Policy measures announced in the Budget offer additional support to the economy when growth is weakest and invest in the UK's long-term productivity.

1.18 The OBR has not attempted to predict the precise outcome of negotiations with the EU. Instead, it has made broad assumptions, which have not changed since Spring Budget 2017.

[4] 'Economic and fiscal outlook', Office for Budget Responsibility, November 2017.

Table 1.1: Summary of the OBR's central economic forecast (percentage change on a year earlier, unless otherwise stated)[1]

		Forecast					
	2016	2017	2018	2019	2020	2021	2022
GDP	**1.8**	**1.5**	**1.4**	**1.3**	**1.3**	**1.5**	**1.6**
GDP per capita	**1.0**	**0.9**	**0.8**	**0.7**	**0.7**	**0.9**	**1.0**
Main components of GDP							
Household consumption[2]	2.8	1.5	0.8	1.2	1.2	1.5	1.6
General government consumption	1.1	0.3	1.0	0.7	0.5	1.0	1.0
Fixed investment	1.3	2.6	2.1	2.0	2.7	1.9	1.9
Business	-0.4	2.5	2.3	2.3	2.4	2.4	2.4
General government	1.5	2.4	1.4	2.3	6.2	1.1	0.9
Private dwellings[3]	5.5	3.0	1.9	1.3	1.2	1.5	1.5
Change in inventories[4]	-0.2	-0.4	0.1	0.0	0.0	0.0	0.0
Net trade[4]	-0.9	0.4	0.2	0.0	0.0	0.0	0.0
CPI inflation	**0.7**	**2.7**	**2.4**	**1.9**	**2.0**	**2.0**	**2.0**
Employment (millions)	**31.7**	**32.1**	**32.3**	**32.4**	**32.5**	**32.6**	**32.7**
LFS unemployment (% rate)[5]	**4.9**	**4.4**	**4.3**	**4.4**	**4.6**	**4.6**	**4.6**
Productivity per hour	**0.2**	**0.0**	**0.9**	**1.0**	**1.2**	**1.3**	**1.3**

[1] All figures in this table are rounded to the nearest decimal place. This is not intended to convey a degree of unwarranted accuracy. Components may not sum to total due to rounding and the statistical discrepancy.

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

[3] Includes transfer costs of non-produced assets.

[4] Contribution to GDP growth, percentage points.

[5] Labour Force Survey.

Source: Office for National Statistics and Office for Budget Responsibility.

Growth

1.19 GDP growth in 2017 has been revised down to 1.5%, reflecting weaker growth than expected at the start of the year and the ONS's revisions to GDP in 2016. The OBR forecasts slower growth to continue into 2018 and 2019 with GDP growth of 1.4% and 1.3% respectively, before rising to 1.6% at the end of the forecast period. Lower forecast GDP growth also reflects the ONS's latest population projections, with annual net migration lower by around 20,000; this reduces the level of GDP by around 0.2% by 2022.

1.20 Household consumption has been revised down in each year of the forecast. The OBR forecasts consumption growth of 1.5% in 2017, slowing to 0.8% in 2018, before increasing gradually to 1.6% in 2022.

1.21 The OBR has revised down the path of business investment growth relative to its forecast at Spring Budget 2017. Business investment is forecast to grow by 2.5% in 2017 and by either 2.3% or 2.4% in every other year of the forecast.

1.22 The OBR has revised up its net trade forecast for 2017 due to stronger exports growth in the first half of the year, and expects it to make a positive contribution to GDP growth of 0.4 percentage points. The net trade contribution then declines to 0.2 percentage points in 2018 and makes no contribution to growth for the rest of the forecast period. The current account deficit is expected to narrow to 4.6% in 2017 and remain at a similar level until 2020, before falling to 4.4% of GDP in the final years of the forecast.

Productivity, labour market and earnings

1.23 The OBR expects productivity to remain flat in 2017, before increasing 0.9% in 2018 and 1.0% in 2019. Productivity growth is then forecast to increase to 1.3% in later years. This compares to the Spring Budget 2017 forecast of 1.7% on average over the forecast period.

1.24 The OBR has revised down its forecast for the unemployment rate in every year. This is due to a revised judgement on the equilibrium rate of unemployment in the economy – the lowest unemployment rate which can be sustained while maintaining stable inflation. As a result, the number of people in employment is forecast to continue to increase to 32.7 million in 2022 – a further 600,000 people in work by the final year of the forecast. The unemployment rate is forecast to increase slightly over the forecast horizon as it returns to the OBR's new estimate of its equilibrium rate, remaining at 4.6% from 2020 onwards.

1.25 With a lower forecast for productivity growth the OBR expects average earnings growth of 2.3% in 2017, 2018 and 2019. It then increases to 2.6% in 2020, 3.0% in 2021 and 3.1% in 2022. The OBR expects RHDI per head to fall by 0.8% in 2017, before it then grows by 1.7% over the rest of the forecast period.

Prices

1.26 The OBR forecasts CPI inflation to peak at the end of this year, averaging 3.0% in Q4. It is then expected to ease over 2018, reaching 2.0% by the end of the year, as the effect of sterling's depreciation wanes. Inflation then remains steady around 2.0% until the end of the forecast.

Monetary policy

1.27 The Monetary Policy Committee (MPC) of the Bank of England has full operational independence to set monetary policy. Monetary policy is a critical element of the UK's macroeconomic framework which is important to maintain price stability and to support the economy.

1.28 Low and stable inflation supports living standards and provides certainty for households and businesses. This helps households and businesses make efficient decisions about saving, investment and spending. The MPC voted to raise interest rates from 0.25% to 0.5% at their November meeting.[5]

1.29 The Chancellor is responsible for setting the MPC's remit. In the Budget, the Chancellor reaffirms the symmetric inflation target of 2% for the 12-month increase in the CPI measure of inflation, which applies at all times. The government also confirms that the Asset Purchase Facility (APF) will remain in place for the financial years 2017-18 and 2018-19.

1.30 On 4 August 2016, the MPC announced a new Term Funding Scheme (TFS) and the Chancellor agreed that the total drawings of the TFS would be determined by actual usage of the scheme. In response to a request from the Governor of the Bank of England on 20 November 2017, the Chancellor authorised an increase in the total size of the APF of £25 billion to £585 billion, in order to accommodate expected usage of the TFS.[6] This will ensure that the TFS can continue to lend central bank reserves to banks and building societies at rates close to Bank Rate during the defined drawdown window, which will close on 28 February 2018.

[5] 'Monetary Policy Summary and minutes of the Monetary Policy Committee meeting ending on 1 November 2017' – Bank of England, November 2017 – http://www.bankofengland.co.uk/publications/minutes/Documents/mpc/pdf/2017/nov.pdf

[6] 'Asset Purchase Facility (APF) ceiling', HM Treasury and Bank of England, November 2017 https://www.gov.uk/government/publications/asset-purchase-facility-apf-ceiling-november-2017

Public finances

1.31 The government has made significant progress since 2010 in restoring the public finances to health. The deficit has been reduced by three quarters from a post-war high of 9.9% of GDP in 2009-10 to 2.3% in 2016-17, its lowest level since before the financial crisis.[7]

1.32 Despite these improvements, borrowing and debt remain too high. The OBR forecast debt will peak at 86.5 % of GDP in 2017-18,[8] the highest it has been in 50 years.[9] In order to ensure the UK's economic resilience, improve fiscal sustainability, and lessen the burden on future generations, borrowing needs to be reduced further.

1.33 The fiscal rules approved by Parliament in January 2017 commit the government to reducing the cyclically-adjusted deficit to below 2% of GDP by 2020-21 and having debt as a share of GDP falling in 2020-21.[10] These rules will guide the UK towards a balanced budget by the middle of the next decade. The OBR forecasts that the government will meet both its fiscal targets, and that borrowing will reach its lowest level since 2001-02 by the end of the forecast period.[11] Debt as a share of GDP is forecast to fall next year and in every year of the forecast.

1.34 The rules enable the government to take a balanced approach between returning the public finances to a sustainable position while helping households and businesses, supporting our world-class public services, and investing in Britain's future.

The fiscal outlook

1.35 Compared to the Spring Budget 2017 forecast, borrowing is significantly lower in the near term, due to a combination of stronger than expected receipts, lower spending, and classification changes. Over the medium term the impact of a weaker economic outlook and the measures taken at the Budget see borrowing higher than previously forecast. As at Spring Budget 2017, debt as a share of GDP peaks in 2017-18 and then falls over the remainder of the forecast.

1.36 Borrowing in 2017-18 is £49.9 billion, £8.4 billion lower than forecast at Spring Budget 2017. Receipts are forecast to be higher by £3.1 billion, reflecting stronger outturn data for 2016-17 in income tax, National Insurance contributions, VAT, excise duties and interest and dividends receipts. Spending is forecast to be £3.1 billion lower, due to lower spending on welfare and tax litigation, and changes to the OBR's forecast for departmental spending. Classification changes, predominantly the reclassification of English Housing Associations to the private sector,[12] also reduce borrowing by £2.8 billion in 2017-18. Measures taken by the government at the Budget, and described in Chapter 2, increase borrowing by £0.7 billion in 2017-18.

1.37 Compared to Spring Budget 2017, borrowing is £12.2 billion higher by 2020-21 due to a combination of the following factors:

- Receipts are £13.0 billion lower in 2020-21 due to a weaker economic outlook, which reduces income tax, National Insurance contributions and VAT receipts.
- Public spending in 2020-21 is £0.7 billion higher than forecast at Spring Budget 2017 due to higher local authority self-financed capital expenditure and spending on Network Rail.

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[7] 'Public sector finances: October 2017' ONS, November 2017.
[8] See Table 1.4, p.18.
[9] 'Public finances databank', OBR, November 2017.
[10] 'Charter for Budget Responsibility: autumn 2016 update', HM Treasury, January 2017.
[11] 'Public finances databank', OBR, November 2017.
[12] 'Statement on classification of English housing associations', ONS, November 2017.

- Classification changes, principally the reclassification of English Housing Associations to the private sector, reduce borrowing by £5.1 billion in 2020-21.
- Measures taken by the government at the Budget, and described in Chapter 2, increase borrowing by £3.6 billion in 2020-21.

Table 1.2: Changes to the OBR's forecast for public sector net borrowing since Spring Budget 2017 (£ billion)

	2017-18	2018-19	2019-20	2020-21	2021-22
Spring Budget 2017	**58.3**	**40.8**	**21.4**	**20.6**	**16.8**
Total forecast changes since Spring Budget 2017[1]	-9.0	-4.0	4.1	8.6	11.8
of which					
Receipts forecast	-3.1	0.4	8.4	13.0	20.6
Spending forecast	-3.1	0.9	0.8	0.7	-3.0
Accounting and classification changes	-2.8	-5.3	-5.0	-5.1	-5.8
Total effect of government decisions since Spring Budget 2017	0.7	2.7	9.2	3.6	1.5
Total changes since Spring Budget 2017	**-8.4**	**-1.3**	**13.4**	**12.2**	**13.3**
Autumn Budget 2017	**49.9**	**39.5**	**34.7**	**32.8**	**30.1**

Figures may not sum due to rounding.

[1] Equivalent to lines from Table 4.8, Table 4.18 and Table 4.40 of the 'OBR November 2017 Economic and fiscal outlook'; full references available in 'Autumn Budget 2017 data sources'.

Source: Office for Budget Responsibility and HM Treasury calculations.

1.38 Borrowing as a share of GDP rises from 2.3% last year to 2.4% this year, owing primarily to timing effects and one-off factors. It then falls over the remainder of the forecast period to 1.1% of GDP in 2022-23, its lowest level since 2001-02.[13]

Table 1.3: Overview of the OBR's borrowing forecast as a percentage of GDP

	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Public sector net borrowing	2.3	2.4	1.9	1.6	1.5	1.3	1.1
Cyclically-adjusted public sector net borrowing	2.2	2.3	1.8	1.5	1.3	1.2	1.1
Treaty deficit[1]	2.3	2.4	2.0	1.8	1.6	1.6	1.2
Memo: Output gap[2]	*-0.3*	*-0.1*	*-0.1*	*-0.2*	*-0.2*	*-0.1*	*0.0*
Memo: Total policy decisions[3]		*0.0*	*0.3*	*0.5*	*0.2*	*0.1*	

[1] General government net borrowing on a Maastricht basis.

[2] Output gap measured as a percentage of potential GDP.

[3] Equivalent to the 'Total policy decisions' line in Table 2.1.

Source: Office for National Statistics, Office for Budget Responsibility and HM Treasury calculations.

1.39 Debt is forecast to peak in 2017-18 at 86.5% of GDP, and then fall in every year thereafter, reaching 79.1% of GDP in 2022-23. Public sector net debt excluding the Bank of England (PSND ex BoE) is forecast to rise from 76.9% of GDP this year to 77.1% of GDP next year, then fall in every year thereafter to 76.4% of GDP in 2022-23. Public sector net financial liabilities (PSNFL) falls in every year of the forecast, reaching 64.9% of GDP in 2022-23.

[13] 'Public finances databank', OBR, November 2017.

Table 1.4: Overview of the OBR's debt forecast as a percentage of GDP

	Estimate[4]	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Public sector net debt[1]	85.8	86.5	86.4	86.1	83.1	79.3	79.1
Public sector net debt ex Bank of England[1]	79.9	76.9	77.1	77.0	76.8	76.5	76.4
Public sector net financial liabilities[2]	72.7	69.6	69.3	68.6	67.6	66.2	64.9
Treaty debt[3]	86.8	87.0	87.3	87.4	87.0	86.8	86.3

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

[2] Public sector net financial liabilities at end of March; 2016-17 is an experimental ONS statistic; GDP centred on end of March.

[3] General government gross debt on a Maastricht basis.

[4] Nominal 2017 GDP for Q3 has not yet been published therefore GDP centred on end of March is an estimate.

Source: Office for National Statistics and Office for Budget Responsibility.

Box 1.2: The OBR's Fiscal risks report

In July 2017, the OBR published its first 'Fiscal risks report' (FRR).[14] The report provides a comprehensive assessment of risks to the public finances over the medium-to-long term. It also illustrates the potential fiscal impact of a number of these risks materialising at the same time through a fiscal stress test based on the Bank of England's annual cyclical scenario. The publication of the FRR builds on the steps that the government has taken to improve fiscal transparency, including the creation of the OBR itself, and keeps the UK at the frontier of fiscal management worldwide.

The government has made significant progress in reducing its exposure to fiscal risks. Since 2010, the government has cut the deficit by three quarters as a share of GDP, strengthened financial sector supervision to reduce the likelihood and impact of financial instability, and established a new approval regime for government guarantees and other contingent liabilities.

Despite this progress, the FRR shows that the UK's fiscal position remains vulnerable. Elevated levels of government debt and growing demographic pressures leave the public finances exposed to possible shocks to economic growth, inflation, and interest rates, as illustrated by the FRR's stress test scenario which saw government debt rise to 114% of GDP by 2021-22. These high levels of debt also increase the burden on future generations.

The government is committed to enhancing the UK's fiscal resilience by reducing the structural deficit to below 2% of GDP and getting debt to fall as a share of GDP by 2020-21, on course to returning the public finances to balance by the mid-2020s. The government will also take further action to mitigate the risks identified in the FRR and publish its formal response to the report by the summer of 2018.

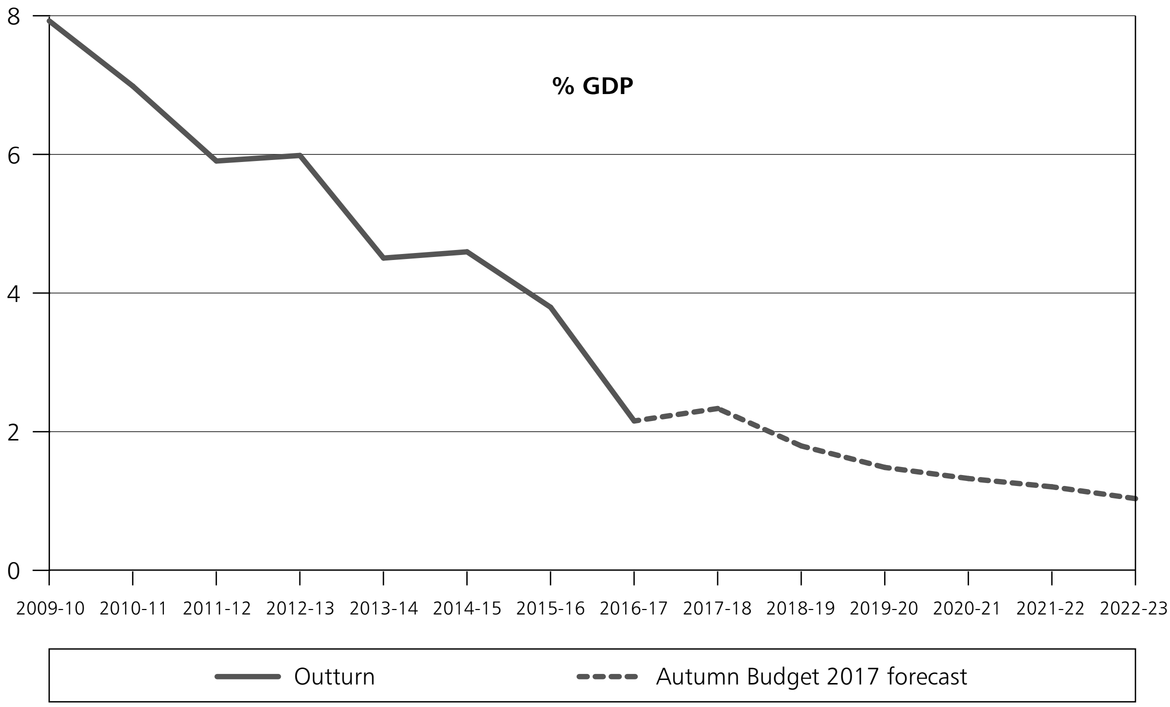
Performance against the fiscal rules

The fiscal mandate

1.40 The OBR's 'Economic and fiscal outlook' shows that the government is forecast to meet the 2% cyclically-adjusted deficit rule two years early in 2018-19, with £14.8 billion (0.7% of GDP) of headroom in the target year of 2020-21. The OBR judges that on current policy, the government has a 65% chance of achieving the fiscal mandate in 2020-21.

[14] 'Fiscal risks report', OBR, July 2017.

Chart 1.5: Cyclically-adjusted public sector net borrowing (CAPSNB)



Source: Office for Budget Responsibility

1.41 The ONS's outturn data shows the UK's Treaty deficit[15] was 2.3% of GDP in 2016-17,[16] below the 3.0% of GDP target agreed in the Stability and Growth Pact. The OBR forecasts it will remain below 3.0% of GDP during the forecast period.

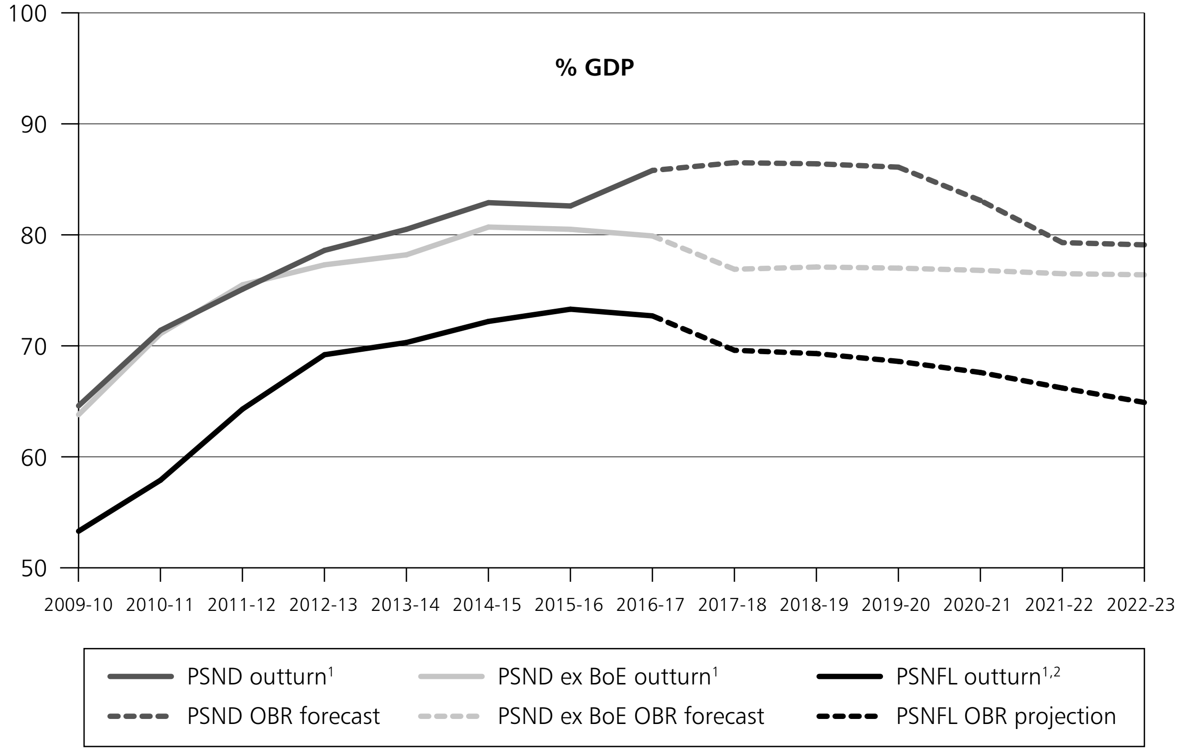
The supplementary debt target

1.42 The OBR's forecast also shows that the government is expected to meet its supplementary debt target. Debt as a share of GDP is forecast to fall in 2020-21 with £67.1 billion of headroom and is due to begin falling two years earlier in 2018-19.

[15] General government net borrowing on a Maastricht basis.

[16] 'Public finances databank', OBR, November 2017.

Chart 1.6: Public sector debt



[1] Outturn for 2016-17 is an OBR estimate.

[2] Experimental ONS statistic.

Source: Office for National Statistics and Office for Budget Responsibility.

Welfare cap

1.43 The welfare cap is designed to improve Parliamentary accountability of welfare spending. It currently applies to spending on benefits and tax credits within its scope in 2021-22, and includes a 3% margin to manage unavoidable fluctuations in spending.

1.44 In accordance with the Charter for Budget Responsibility, as is mandated for the first fiscal event of this Parliament, the OBR has formally assessed spending against the welfare cap in its 'Economic and fiscal outlook'. Spending within scope is forecast to be within the welfare cap and margin, and so the fiscal rule is judged to have been met with £2.5 billion of headroom.

1.45 The government is now required to reset the welfare cap for the new Parliament. The cap will be based on the OBR forecast in the Budget of the benefits and tax credits in scope as set out in Annex B, and will apply to welfare spending in 2022-23. In the interim years, progress towards the cap will be managed internally, based on the OBR's monitoring of forecasts of welfare spending. Again, to manage unavoidable fluctuations in welfare spending there will be a margin rising to 3% above the cap; the cap will be breached if spending exceeds the cap plus the margin at the point of assessment.

1.46 Performance against the cap will be formally assessed by the OBR in 2022-23. This will avoid the government having to make short term responses to changes in the welfare forecast, while ensuring welfare spending remains sustainable in the medium term.

1.47 Further details on the operation of the cap are set out in the Charter for Budget Responsibility.

Table 1.5: New welfare cap (in £ billion, unless otherwise stated)

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Cap	–	–	–	–	–	130.1
Interim pathway	119.3	120.9	122.1	123.8	126.9	–
Margin (%)	0.5	1.0	1.5	2.0	2.5	3.0

Source: HM Treasury

Public spending

1.48 With debt still too high, it is vital that the government continues to control public spending and improve the productivity of public bodies and services. Government spending as a share of GDP has been brought down from 44.8% in 2010-11 to 39.0% in 2016-17.[17] Total Managed Expenditure (TME) as a share of GDP is forecast to fall from 38.9% in 2017-18 to 37.7% in 2022-23, the same proportion of GDP as in 2003-04.[18] Table 1.6 sets out the path for TME, Public Sector Current Expenditure (PSCE) and Public Sector Gross Investment (PSGI) to 2022-23.

1.49 Tables 1.7 and 1.8 show the departmental resource and capital totals set at Spending Review 2015, adjusted to reflect subsequent announcements. These reflect the government's balanced approach to public spending set out in Spending Review 2015, including its commitments to priority public services, to defence and to international development.[19]

1.50 For the years beyond the current Spending Review period, the government sets out a path for overall expenditure. Before additional investment over the forecast period and excluding classification changes, departmental spending will continue to grow in 2020-21 and 2021-22 in line with the profiles set out at Autumn Statement 2016 and Spring Budget 2017. In 2022-23, departmental resource spending will continue to grow in line with inflation, and departmental capital spending will grow in line with GDP.

Table 1.6: Total managed expenditure (in £ billion, unless otherwise stated)[1,2]

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Current expenditure						
Resource AME	386.5	397.8	406.2	417.0	431.5	447.6
Resource DEL excluding depreciation	304.0	309.6	310.7	313.5	319.1	324.8
Ring-fenced depreciation	22.0	22.8	23.3	21.9	22.3	22.7
Total public sector current expenditure	**712.5**	**730.2**	**740.1**	**752.4**	**772.9**	**795.1**
Capital expenditure						
Capital AME	26.0	18.0	17.7	21.3	23.0	23.8
Capital DEL	56.9	61.1	69.0	76.2	75.8	77.9
Total public sector gross investment	**82.8**	**79.1**	**86.6**	**97.6**	**98.8**	**101.8**
Total managed expenditure	**795.3**	**809.3**	**826.7**	**849.9**	**871.7**	**896.8**
Total managed expenditure % of GDP	*38.9%*	*38.5%*	*38.3%*	*38.2%*	*37.9%*	*37.7%*

[1] Budgeting totals are shown including the OBR forecast allowance for shortfall. Resource DEL excluding ring-fenced depreciation is the Treasury's primary control within resource budgets and is the basis on which departmental Spending Review settlements are agreed. The OBR publishes Public Sector Current Expenditure (PSCE) in DEL and AME, and Public Sector Gross Investment (PSGI) in DEL and AME. A reconciliation is published by the OBR.

[2] The ONS has announced the reclassification of English Housing Associations to the private sector with effect from 16 November 2017, which means that from this date their expenditure is no longer part of PSGI. As a result of reclassification, the OBR now considers that from this date central government grants to Housing Associations will be part of PSGI in CDEL. More detail can be found in the OBR's Economic and Fiscal Outlook.

Source: Office for Budget Responsibility and HM Treasury calculations.

[17] 'Public finances databank', OBR, November 2017.

[18] 'Public finances databank', OBR, November 2017.

[19] 'Spending Review 2015', HM Treasury, November 2015.

Preparing for EU exit

1.51 The government is approaching the EU exit negotiations anticipating success. The government does not want or expect to leave without a deal, but while it seeks a new partnership, it is planning for a range of outcomes, as is the responsible thing to do. To support the preparations, nearly £700 million of additional funding has been provided to date. Details of additional departmental funding will be set out as part of the 2017-18 Supplementary Estimates process in the usual way.

1.52 The Budget sets aside a further £3 billion to ensure that the government can continue to prepare effectively for EU exit. £1.5 billion of additional funding will be made available in each of 2018-19 and 2019-20.

1.53 Departmental allocations for preparing for EU exit in 2018-19 will be agreed in early 2018. Ahead of these allocations, government departments will continue to refine their 2018-19 plans with the support of HM Treasury and the Department for Exiting the European Union. Details of additional departmental funding will be set out as part of the 2018-19 Supplementary Estimates process in the usual way. Departmental allocations for 2019-20 will be agreed later in 2018-19, when there is more certainty on the status of our future relationship with the EU.

Efficiency Review and Official Development Assistance

1.54 At Budget 2016, the government announced that spending would be reduced by £3.5 billion over Spending Review 2015 plans in 2019-20. An Efficiency Review was launched to help deliver this. As announced at Autumn Statement 2016 the government has reprioritised £1 billion of low value spend to fund new priorities, instead of putting savings toward deficit reduction as originally planned.

1.55 A further £1.4 billion reduction has been delivered by a number of savings in low value spend, announced in the previous Parliament, in addition to lower than forecast Official Development Assistance (ODA) spending. In line with the commitment to spend 0.7% of Gross National Income (GNI) on ODA each year, ODA budgets will be adjusted at the Budget to reflect the OBR's revised forecasts for GNI. Taking existing plans into account, ODA budgets will be adjusted down by £375 million in 2018-19 and £520 million in 2019-20.

1.56 Given potential new spending and administrative pressures faced by departments in 2019-20, the government has decided not to proceed with the remaining £1.1 billion reduction in spending in that year. Taking these changes together, departmental spending in 2019-20 will therefore be higher than envisaged at Budget 2016 by £2.1 billion.

Table 1.7: Departmental resource budgets (£ billion)

	Plans		
	2017-18	2018-19	2019-20
Resource DEL excluding depreciation[1]			
Defence	27.5	28.2	29.0
Single Intelligence Account[2]	2.0	1.9	2.0
Home Office	10.6	10.7	10.7
Foreign and Commonwealth Office[3]	2.0	1.2	1.2
International Development[3, 4]	7.6	8.7	8.2
Health (inc. NHS)	119.1	121.9	124.2
Work and Pensions	6.2	6.0	5.4
Education	61.3	62.4	63.3
Business, Energy and Industrial Strategy	1.7	1.8	1.6
Transport	2.0	2.1	1.7
Exiting the European Union	0.1	0.1	0.1
Digital, Culture, Media and Sport	1.4	1.5	1.5
DCLG Communities	2.8	2.3	2.2
DCLG Local Government	6.7	4.8	5.6
Scotland[5]	14.3	13.8	13.5
Wales[6]	13.4	13.2	11.2
Northern Ireland	10.0	10.0	10.0
Justice	6.6	6.2	6.0
Law Officers Departments	0.6	0.5	0.5
Environment, Food and Rural Affairs	1.6	1.5	1.5
HM Revenue and Customs	3.6	3.4	3.2
HM Treasury	0.2	0.2	0.1
Cabinet Office	0.5	0.3	0.3
International Trade	0.4	0.3	0.3
Small and Independent Bodies	1.4	1.3	1.3
Reserves[7]	3.5	6.5	7.2
Adjustment for Budget Exchange[8]	-0.4	0.0	0.0
Total resource DEL excluding depreciation	**306.7**	**310.9**	**311.9**
OBR allowance for shortfall[9]	*-2.8*	*-1.3*	*-1.3*
OBR resource DEL excluding depreciation forecast	**304.0**	**309.6**	**310.7**

[1] Resource DEL excluding depreciation is the Treasury's primary control total within resource budgets and the basis on which Spending Review settlements were made.

[2] The SIA budget in 2017-18 includes transfers from other government departments, which have yet to be reflected in later years.

[3] Figures for 2018-19 and beyond do not reflect all transfers which will be made from DFID to other government departments, as the cross government funds have not been allocated for these years.

[4] Figures reflect Autumn Budget 2017 adjustments, as well as further adjustments made as result of revised GNI forecasts at Autumn Statement 2016.

[5] The Scottish Government's resource DEL block grant has been adjusted from 2016-17 onwards as agreed in the Scottish Government's Fiscal Framework. In 2016-17 an adjustment of £5.5 billion reflected the devolution of Stamp Duty Land Tax and Landfill Tax and the creation of the Scottish Rate of Income Tax. In 2017-18 an adjustment of £12.5 billion reflects the devolution of further income tax powers and revenues from Scottish courts. In 2018-19 and 2019-20, adjustments of £13.1 billion and £13.4 billion also include the devolution of Air Passenger Duty. However, the UK and Scottish governments have now agreed to delay the devolution of Air Passenger Duty. As a result, the Scottish Government's block grant for 2018-19 and 2019-20 will be re-calculated.

[6] The Welsh Government's resource DEL block grant has been adjusted from 2018-19 onwards as agreed in the Welsh Government's Fiscal Framework. In 2018-19 an adjustment of £0.3 billion reflects the devolution of Stamp Duty Land Tax and Landfill Tax and in 2019-20 an adjustment of £2.3 billion reflects the devolution of the Welsh Rates of Income Tax.

[7] The reserve in 2017-18 reflects allocations made at Main Estimates and Autumn Budget 2017.

[8] Departmental budgets in 2017-18 include amounts carried forward from 2016-17 through Budget Exchange, which has been voted at Main Estimates. These increases will be offset at Supplementary Estimates, so are excluded from spending totals.

[9] The OBR's forecast of underspends in resource DEL budgets.

Table 1.8: Departmental capital budgets (£ billion)

	Plans			
	2017-18	2018-19	2019-20	2020-21
Capital DEL				
Defence	8.5	8.7	9.0	9.6
Single Intelligence Account	0.6	0.6	0.7	0.7
Home Office	0.6	0.5	0.5	0.4
Foreign and Commonwealth Office	0.1	0.1	0.1	0.1
International Development	2.9	3.2	3.5	3.6
Health (inc. NHS)	5.6	6.4	6.7	6.8
Work and Pensions	0.4	0.3	0.2	0.2
Education	5.1	5.2	5.1	4.5
Business, Energy and Industrial Strategy[1]	10.9	10.5	11.5	6.1
Transport	6.5	8.1	11.9	13.0
Exiting the European Union	0.0	0.0	0.0	0.0
Digital, Culture, Media and Sport	0.4	0.5	0.6	0.5
DCLG Communities	7.7	8.6	10.5	11.6
DCLG Local Government	0.0	0.0	0.0	0.0
Scotland	3.6	3.9	4.2	4.3
Wales	1.7	1.9	2.1	2.2
Northern Ireland	1.3	1.4	1.5	1.5
Justice	0.7	0.7	0.4	0.1
Law Officers Departments	0.0	0.0	0.0	0.0
Environment, Food and Rural Affairs	0.7	0.6	0.6	0.5
HM Revenue and Customs	0.2	0.2	0.2	0.2
HM Treasury	0.2	0.2	0.2	0.1
Cabinet Office	0.1	0.0	0.0	0.0
International Trade	0.0	0.0	0.0	0.0
Small and Independent Bodies	0.2	0.2	0.1	0.1
Reserves	1.1	1.0	1.4	1.4
Capital spending not yet in budgets[2]	0.0	0.0	0.4	2.3
Adjustment for Budget Exchange[3]	-0.5	0.0	0.0	0.0
Adjustment for Research & Development RDEL to CDEL switch[4]	0.0	0.0	0.0	6.5
Total capital DEL	**58.7**	**62.9**	**71.3**	**76.2**
Remove CDEL not in public sector gross investment[5]	*-8.6*	*-8.5*	*-9.2*	*-7.9*
OBR allowance for shortfall[6]	*-1.9*	*-1.8*	*-2.3*	*–*
Public sector gross Investment in CDEL	**48.2**	**52.6**	**59.7**	**68.3**

[1] Full BEIS capital DEL budgets for 2020-21 have not yet been set. See footnote 4.

[2] The uplift in capital DEL represents funding not allocated to departments. It is presented net of the OBR's allowance for shortfall in 2020-21.

[3] Departmental budgets in 2017-18 include amounts carried forward from 2016-17 through Budget Exchange, which have been voted at Main Estimates. These increases will be offset at Supplementary Estimates, so are excluded from spending totals.

[4] As most departmental resource DEL budgets have not been set in 2020-21, the OBR has forecast the size of the resource to capital switch for R&D that will take place in that year.

[5] Capital DEL that does not form part of public sector gross investment, including financial transactions in capital DEL.

[6] The OBR's forecast of underspends in capital DEL budgets.

Devolved administrations

1.57 The application of the Barnett formula to spending decisions taken by the UK government at the Budget will provide each of the devolved administrations with additional funding to be allocated according to their own priorities. The Scottish and Welsh governments' block grants will be further adjusted as set out in their respective fiscal frameworks.

Financial transactions

1.58 Some policy measures do not directly affect PSNB in the same way as conventional spending or taxation. These include financial transactions that directly affect only the central government net cash requirement (CGNCR) and PSND. Table 1.9 shows the effect of the financial transactions announced since Spring Budget 2017 on CGNCR.

Table 1.9: Financial transactions from 2017-18 to 2022-23 (£ million)[1,2]

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Help to Buy: Equity Loan (Spending)[3]	-1,895	-2,870	-3,325	-3,780	–	–
Help to Buy: Equity Loan (Receipts)	30	125	355	725	1,130	1,510
Estate Regeneration	0	-60	-85	-95	-120	-120
Home Building Fund: SMEs	0	-365	-620	-440	-235	-120
Patient Capital Investment Fund	0	0	-115	-175	-195	-195
Charging Infrastructure Investment Fund	0	-40	-80	-80	0	0
Tuition Fee Cap Freeze	0	105	220	225	230	235
Student Loans Repayment Threshold[4]	0	-125	-235	-370	-490	-615
RBS Share Sales	0	3,000	3,000	3,000	3,000	3,000
Universal Credit: Advances	-20	-100	-40	-35	-10	5
Innovation Loans	0	-20	-20	-5	0	0
Reprofile Financial Transactions (BEIS)	0	80	-80	0	0	0
Total policy decisions	**-1,885**	**-270**	**-1,025**	**-1,030**	**3,310**	**3,700**

[1] Costings reflect the OBR's latest economic and fiscal determinants, and are presented on a UK basis.
[2] Negative numbers in the table represent a cost to the Exchequer.
[3] The Government confirmed in October 2017 that Help to Buy Equity Loan will continue until March 2021.
[4] Student Loans Plan 2 Repayment Threshold Increase to £25,000 in 2018-19 and index with average earnings thereafter.

Sovereign Grant

1.59 The Sovereign Grant for 2018-19 will be £82.2 million. This grant provides funding in support of Her Majesty's official duties as Sovereign.

Asset sales

1.60 The government remains committed to returning the financial sector assets acquired in 2008 to 2009 to the private sector in a way that achieves value for money for taxpayers:

- Lloyds Banking Group (LBG) – The government fully exited its shareholding in LBG on 16 May 2017.[20] Sales of the government's stake in the bank generated over £21.2 billion for taxpayers, representing almost £900 million more than the original investment.[21]
- Royal Bank of Scotland (RBS) – RBS has made significant progress on resolving its legacy issues and refocusing on serving British businesses and consumers. It remains the government's objective to return the bank fully to the private sector when it represents value for money to do so and market conditions allow. The government intends to recommence the privatisation of RBS before the end of 2018-19 and to carry out over the forecast period a programme of sales expected to dispose of around £15 billion worth of shares, which represents around two thirds of our stake at current market prices.

[20] 'Lloyds Banking Group has been fully returned to private ownership', HM Treasury, May 2017.
[21] HM Treasury calculations.

- UK Asset Resolution (UKAR) – UKAR's balance sheet has already reduced from £115.8 billion in 2010 to £34.3 billion as at 31 March 2017.[22] UKAR has completed an £11.8 billion sale of Bradford & Bingley mortgages in 2017-18 as part of a programme of sales to repay Bradford & Bingley's debt to the Financial Services Compensation Scheme,[23] and this programme of sales is expected to complete in early 2018-19. Building on UKAR's strong track record of successful asset sales, the government expects to divest the remaining assets from the former Bradford & Bingley and Northern Rock by March 2021, subject to achieving value for money and market conditions remaining supportive.

1.61 The government continues to explore options for the sale of wider corporate and financial assets, where there is no longer a policy reason to retain them and when value for money can be secured for taxpayers. This is an integral part of the government's plan to repair the public finances:

- On 20 April 2017, the government announced the sale of the UK Green Investment Bank plc (GIB) to Macquarie Group Limited, with a £2.3 billion deal which secures a profit on the government's investment in the bank, provides value for taxpayers and ensures GIB continues its green mission in the private sector.[24]
- On 31 October 2017, the government announced the continuation of the process to sell part of the pre-2012 income contingent repayment student loan book.[25] The sale process is expected to take a number of weeks and remains subject to market conditions and a final assessment of value for money. This is the first tranche of a programme of sales which is forecast to raise £12 billion by 2021-22.
- On 17 November 2017, Network Rail announced its intention to sell the leases for commercial space under railway arches.[26] The sale is expected to complete in the autumn of 2018.

Debt and reserves management

1.62 The government's revised financing plans for 2017-18 are summarised in Annex A.

[22] 'UKAR fact sheet Financial Year to 31 March 2017', UKAR, July 2017.
[23] 'Bradford & Bingley asset sale to raise £11.8 billion for UK taxpayers', HM Treasury, March 2017.
[24] 'Statement on the sale of the UK Green Investment Bank (GIB) to Macquarie Group Limited', Department for Business, Energy and Industrial Strategy, April 2017.
[25] 'Government Asset Sale: Written statement to Parliament' (HCWS205), October 2017.
[26] 'Network Rail launches commercial asset sale', Network Rail, November 2017.

3 Tax

Introduction

3.1 The government remains committed to a low-tax economy, and is cutting taxes for both working people and businesses to help them respond to short-term pressures. Since 2010-11, the personal allowance (PA) has increased from £6,475 to £11,500 and the corporation tax rate has fallen to 19%, the lowest in the G20.[1] The Budget goes further by freezing fuel duty for the eighth consecutive year, reducing the upfront costs for first-time buyers by including a permanent Stamp Duty Land Tax (SDLT) relief, reducing business rates by £2.3 billion over the next 5 years, and further increasing the PA and higher rate threshold (HRT).

3.2 The Budget also introduces measures to ensure that everyone pays their fair share, including those seeking to evade or avoid tax using offshore structures. The Budget increases the time limits for HMRC assessments of offshore tax non-compliance, as much as tripling the current time limits to at least 12 years in all cases, further addresses online VAT fraud, and announces investment to provide HMRC with the resources it needs to continue to strengthen its ability to tackle tax avoidance in the future. These policy changes build on the government's longer-term record, including £160 billion secured in additional tax revenue since 2010 by being at the forefront of global efforts to tackle avoidance, evasion and non-compliance.[2]

3.3 This is the first Budget in the new annual tax policymaking cycle. The government's aim is to provide greater tax certainty for households and businesses by consulting with taxpayers further in advance of changes and changing taxes less frequently. Further details on this new process will be set out later this year. To accommodate the move to an Autumn Budget, at this Budget the government has changed the forecasted timetable for the uprating of alcohol and tobacco duties. The forecast now assumes that alcohol duties will be uprated on 1 February, and tobacco duties will be uprated at 6pm on Budget day. As the OBR confirms, the changes are designed to be largely neutral for receipts.[3] Further details are available in the *Autumn Budget 2017: policy costings* document.

Personal tax

3.4 The government puts the interests of ordinary working families first in the tax system. Since 2010-11, the PA has been increased from £6,475 to £11,500. Successive increases in the PA and HRT have allowed over 31 million working people to keep more of what they earn, and have taken over a million people out of paying income tax altogether.[4]

[1] KPMG and HMT analysis; 'Corporate tax rates table', KPMG, November 2017.
[2] 'HMRC annual report and accounts', HMRC, 28 June 2012 and 13 July 2017; and 'Measuring tax gaps', HMRC, 26 October 2017.
[3] 'Economic and fiscal outlook', OBR, November 2017.
[4] HMRC analysis based on Survey of Personal Incomes (SPI) 2014-15 data, and Autumn Budget 2017 OBR forecasts.

Income tax and National Insurance

3.5 Personal allowance and higher rate threshold – The government is committed to raising the PA to £12,500 and the HRT to £50,000 by 2020 – which will mean an increase to the PA of over 90% in the space of a decade. The Budget announces that in 2018-19 the PA and HRT will increase further, to £11,850 and £46,350 respectively.[5] This will mean that in 2018-19 a typical taxpayer will pay at least £1,075 less tax than in 2010-11.

3.6 Marriage Allowance: allowing claims on behalf of deceased partners – The Marriage Allowance allows taxpayers to transfer up to 10% of their unused PA to their partner, reducing their tax bill by up to £230 a year in 2017-18. The government will now allow claims in cases where a partner has died before the claim was made. These claims will be able to be backdated by up to 4 years.

3.7 Off-payroll working in the private sector – The government reformed the off-payroll working rules (known as IR35) for engagements in the public sector in April 2017. Early indications are that public sector compliance is increasing as a result, and therefore a possible next step would be to extend the reforms to the private sector, to ensure individuals who effectively work as employees are taxed as employees even if they choose to structure their work through a company. It is right that the government take account of the needs of businesses and individuals who would implement any change. Therefore the government will carefully consult on how to tackle non-compliance in the private sector, drawing on the experience of the public sector reforms, including through external research already commissioned by the government and due to be published in 2018.

3.8 Employment status discussion paper – The government will publish a discussion paper as part of the response to Matthew Taylor's review of employment practices in the modern economy, exploring the case and options for longer-term reform to make the employment status tests for both employment rights and tax clearer. The government recognises that this is an important and complex issue, and so will work with stakeholders to ensure that any potential changes are considered carefully.[6]

3.9 Taxation of trusts – The government will publish a consultation in 2018 on how to make the taxation of trusts simpler, fairer, and more transparent.

3.10 National Insurance Contributions (NICs) Bill – As previously announced, to ensure that there is enough time to work with Parliament and stakeholders on the detail of reforms that will simplify the NICs system, the government has announced that it will delay implementing a series of NICs policies by one year. These are the abolition of Class 2 NICs, reforms to the NICs treatment of termination payments, and changes to the NICs treatment of sporting testimonials. (66)

3.11 Rent-a-room relief – The government will publish a call for evidence to establish how rent-a-room relief is used and ensure it is better targeted at longer-term lettings.

3.12 Mileage rates for landlords – The government will extend the option to use mileage rates to individuals operating property businesses, on a voluntary basis, to reduce the administrative burden for these businesses.

3.13 Benefits in kind: electric vehicles – From April 2018, there will be no benefit in kind charge on electricity that employers provide to charge employees' electric vehicles.

3.14 Taxation of employee business expenses – Following the call for evidence published in March 2017, the government will make several changes to the taxation of employee expenses:

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[5] This is in line with CPI inflation.

[6] 'Good work: the Taylor review of modern working practices', Matthew Taylor, July 2017.

- **Self-funded training** – The government will consult in 2018 on extending the scope of tax relief currently available to employees and the self-employed for work-related training costs.
- **Subsistence benchmark scale rates** – To reduce the burden on employers, from April 2019 they will no longer be required to check receipts when reimbursing employees for subsistence using benchmark scale rates. The existing concessionary accommodation and subsistence overseas scale rates will be placed on a statutory basis, to provide greater certainty for businesses.
- **Guidance and claims process for employee expenses** – HMRC will work with external stakeholders to improve the guidance on employee expenses, particularly on travel and subsistence and the process for claiming tax relief on non-reimbursed employment expenses.

3.15 Armed Forces personnel accommodation – An income tax and NICs exemption will be introduced for certain allowances paid to Armed Forces personnel for renting or maintaining accommodation in the UK private market. This will support the Ministry of Defence's aim to provide a more flexible, attractive and better value-for-money approach to accommodation.

3.16 Seafarers' Earnings Deduction and the Royal Fleet Auxiliary – Seafarers are entitled to an income tax deduction of their foreign earnings in certain circumstances. The existing extra-statutory treatment of the Royal Fleet Auxiliary will be placed on a statutory basis.

3.17 Qualifying Care Relief (QCR) and self-funded Shared Lives payments – QCR is a tax simplification covering expenses incurred when providing care that means carers only need to keep simple records. The government will extend the scope of QCR to cover self-funded Shared Lives care payments, to encourage the use of Shared Lives care.

3.18 Class 4 National Insurance contributions – As previously announced, the government will no longer proceed with an increase to the main rate of Class 4 NICs from 9% to 10% in April 2018, and to 11% in April 2019. (66)

Capital Gains Tax

3.19 Capital Gains Tax (CGT) payment window – The introduction of the 30-day payment window between a capital gain arising on a residential property and payment will be deferred until April 2020. (54)

Charity tax

3.20 Gift Aid donor benefit rules – Following the review of the Gift Aid donor benefit rules, to simplify the rules for charities the current three monetary thresholds will be reduced to two, while all existing extra-statutory concessions will be legislated. Changes will come into effect from April 2019.

Pensions and savings tax

3.21 Starting rate for savings – The band of savings income that is subject to the 0% starting rate will be kept at its current level of £5,000 for 2018-19.

3.22 Individual Savings Account (ISA) annual subscription limits – The ISA annual subscription limit for 2018-19 will remain unchanged at £20,000. The annual subscription limit for Junior ISAs and Child Trust Funds for 2018-19 will be uprated in line with CPI to £4,260.

3.23 Lifetime allowance for pensions – The lifetime allowance for pension savings will increase in line with CPI, rising to £1,030,000 for 2018-19.

3.24 Save As You Earn scheme – Employees on maternity and parental leave will be able to take up to a 12 month pause from saving into their Save As You Earn employee share scheme, increased from 6 months currently. The change will take effect from 6 April 2018.

3.25 Life assurance and overseas pension schemes – From April 2019, tax relief for employer premiums paid into life assurance products or certain overseas pension schemes will be modernised to cover policies when an employee nominates an individual or registered charity to be their beneficiary.

Business tax

3.26 The UK has one of the most competitive tax regimes for business, with the lowest corporate tax rate in the G20. The Budget reaffirms the government's commitment to low, stable taxes. It takes steps to support businesses to invest by increasing the R&D expenditure credit from 11% to 12%, while introducing measures that ensure businesses pay their fair share, including those seeking to evade or avoid tax using offshore structures.

Property tax

3.27 Business rates – At Budget 2016 the government announced major reforms to business rates worth approximately £9 billion by the end of this Parliament, including ensuring that 600,000 businesses will not pay business rates again.[7] Spring Budget 2017 announced an additional £435 million in this Parliament to support businesses most affected by the recent revaluation. In light of the recent rise in inflation, over the next 5 years the government will provide a further £2.3 billion of support to businesses and improve the fairness of the system in England, by:

- bringing forward to 1 April 2018 the planned switch in indexation from RPI to the main measure of inflation (currently CPI) (34)
- legislating retrospectively to address the so-called "staircase tax".[8] Affected businesses will be able to ask the Valuation Office Agency (VOA) to recalculate valuations so that bills are based on previous practice backdated to April 2010 – including those who lost Small Business Rate Relief as a result of the Court judgement. The government will publish draft legislation shortly
- continuing the £1,000 business rate discount for public houses with a rateable value of up to £100,000, subject to state aid limits for businesses with multiple properties, for one year from 1 April 2018 (35)
- increasing the frequency with which the VOA revalues non-domestic properties by moving to revaluations every three years following the next revaluation, currently due in 2022. To enable this, ratepayers will be required to provide regular information to the VOA on who is responsible for business rates and property characteristics including use and rent. The government will consult on the implementation of these changes in the spring

3.28 Local government will be fully compensated for the loss of income as a result of these measures.

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[7] HMT and DCLG calculations.

[8] by reinstating the previous valuation practice in multi-occupancy buildings, which applied before the recent Supreme Court judgement, Woolway (VO) v Mazars [2015] UKSC 53.

3.29 SDLT – The government will amend SDLT higher rates for additional properties with immediate effect. The changes will benefit those increasing their share of their own home, families affected by a divorce court order, and cases where properties are held in trust for children subject to Court of Protection orders. The government will also remove a potential opportunity for avoidance.

3.30 Taxing gains made by non-residents on immovable property – To align the UK with other countries and remove an advantage which non-residents have over UK residents, all gains on non-resident disposals of UK property will be brought within the scope of UK tax. This will apply to gains accrued on or after April 2019. The government intends to include targeted exemptions for institutional investors such as pension funds. (52)

Corporate tax

3.31 Corporate indexation allowance – To bring the UK in line with other major economies and broaden the tax base through removing relief for inflation that is not available elsewhere in the tax system, the corporate indexation allowance will be frozen from 1 January 2018. Accordingly, no relief will be available for inflation accruing after this date in calculating chargeable gains made by companies. (51)

3.32 Changing how non-resident companies' UK property income and certain gains are taxed – From April 2020, income that non-resident companies receive from UK property will be chargeable to corporation tax rather than income tax. Also from that date, gains that arise to non-resident companies on the disposal of UK property will be charged to corporation tax rather than CGT. (53)

3.33 Position paper: corporate tax and the digital economy – Alongside Budget the government has published a position paper setting out the challenges posed by the digital economy for the international corporate tax framework and its proposed approach for addressing those challenges.

3.34 Withholding tax: royalties – With effect from April 2019, withholding tax obligations will be extended to royalty payments, and payments for certain other rights, made to low or no tax jurisdictions in connection with sales to UK customers. The rules will apply regardless of where the payer is located. (42)

3.35 Corporate capital gains – The government will amend the Substantial Shareholding Exemption legislation and the Share Reconstruction rules to avoid unintended chargeable gains being triggered where a UK company incorporates foreign branch assets in exchange for shares in an overseas company.

3.36 Hybrid mismatch rules – Some aspects of the corporation tax rules which apply to arrangements involving hybrid structures and instruments – the hybridity arising from differences in tax treatment between two jurisdictions – will be amended to clarify how and when the rules apply, and to ensure that the rules operate as intended. HMRC has published further details of these amendments alongside the Budget.

3.37 Intangible Fixed Asset regime – The government will consult in 2018 on the tax treatment of intellectual property (the Intangible Fixed Asset regime). This will consider whether there is an economic case for targeted changes to this regime, so that it better supports UK companies investing in intellectual property.

Stamp taxes on shares

3.38 Financial institution bail-in exemption – The government will legislate to exempt certain transfers of shares and land from stamp taxes when resolving failing financial institutions. The exemption will be limited to transfers to public bodies and affected creditors. This will help simplify and strengthen the process of resolving a failing financial institution and help to ensure that the "no creditor worse off" principle is upheld.

3.39 Securities deposited with financial institutions liable to 1.5% charges – The government will not reintroduce the Stamp Duty and Stamp Duty Reserve Tax 1.5% charge on the issue of shares (and transfers integral to capital raising) into overseas clearance services and depositary receipt systems following the UK's exit from the EU.

Energy and transport tax

Transport tax

3.40 Fuel duty – Fuel duty will be frozen for an eighth year in 2018-19. Fuel duty freezes since 2011 will have saved the average driver a cumulative £850 by April 2019, compared to what they would have paid under the pre-2010 escalator plans.[9] (10)

3.41 Alternative fuels – The government will review whether the existing fuel duty rates for alternatives to petrol and diesel are appropriate, ahead of decisions at Budget 2018. In the meantime, the government will end the fuel duty escalator for Liquefied Petroleum Gas (LPG). The LPG rate will be frozen in 2018-19, alongside the main rate of fuel duty.

3.42 Air quality – In support of the National Air Quality Plan published in July, the government will provide £220 million for a new Clean Air Fund. This will allow local authorities in England with the most challenging pollution problems to help individuals and businesses adapt as measures to improve air quality are implemented. The government is launching a consultation alongside Budget on options that could be supported by this fund. (62) This will be paid for by:

- a Vehicle Excise Duty (VED) supplement that will apply to new diesel cars first registered from 1 April 2018, so that their First-Year Rate will be calculated as if they were in the VED band above. This will not apply to next-generation clean diesels – those which are certified as meeting emissions limits in real driving conditions, known as Real Driving Emissions Step 2 (RDE2) standards (61)
- a rise in the existing Company Car Tax diesel supplement from 3% to 4%, with effect from 6 April 2018. This will also apply only to diesel cars which do not meet the Real Driving Emissions Step 2 (RDE2) standards (60)

3.43 VED – The government will:

- increase in line with RPI from 1 April 2018 VED rates for cars, vans and motorcycles registered before April 2017 and the First-Year Rates for cars registered after April 2017
- freeze the Heavy Goods Vehicle (HGV) VED and Road User Levy rates from 1 April 2018. A call for evidence on updating the existing HGV Road User Levy will be launched this autumn. The government will work with industry to update the Levy so that it rewards hauliers that plan their routes efficiently, to encourage the efficient use of roads and improve air quality (38)
- from April 2019, exempt zero-emission capable taxis from the VED supplement that applies to expensive cars, consulting in advance on how to define such taxis

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[9] HMT calculations based on OBR RPI forecasts.

3.44 Company cars – The Fuel Benefit Charge and the Van Benefit Charge will both increase by RPI from 6 April 2018.

3.45 Air Passenger Duty (APD) – Short-haul APD rates for 2019-20 will remain frozen as they have been since 2012. The long-haul rate for economy passengers will be frozen at the 2018-19 rates while the rates for premium economy, business and first class will increase by £16 and for those travelling by private jet by £47. (12)

Energy tax

3.46 Total Carbon Price – The government is confident that the Total Carbon Price, currently created by the combination of the EU Emissions Trading System and the Carbon Price Support, is set at the right level, and will continue to target a similar total carbon price until unabated coal is no longer used. This will deliver a stable carbon price while limiting cost on business.

3.47 Climate Change Levy (CCL) – Budget 2016 announced the rebalancing of gas and electricity main rates; the government will set CCL main rates for the years 2020-21 and 2021-22 at Budget 2018. In addition, and to ensure better consistency between portable fuels for commercial premises not connected to the gas grid, the government will freeze the CCL main rate for LPG at the 2019-20 level until April 2022. To ensure that the CCL exemptions for businesses that operate mineralogical and metallurgical processes remain operable after EU exit, the government will clarify the definition of the exemptions in Finance Bill 2018-19. The revised definition will also ensure that the exemptions work better in landlord-tenant situations.

3.48 Enhanced Capital Allowances (ECAs): energy-saving technologies – The list of designated energy-saving technologies qualifying for an ECA, which support investment in energy-saving plant or machinery that might otherwise be too expensive, will be updated through Finance Bill 2017-18.

3.49 First Year Tax Credits – The government will extend the First Year Tax Credit scheme until the end of this Parliament, thereby making sure that loss-making companies are encouraged to invest in energy-efficient technology. The credit rate will be set at two-thirds the rate of corporation tax.

Environmental tax

3.50 Reducing plastics waste – The government will launch a call for evidence in 2018 seeking views on how the tax system or charges could reduce the amount of single-use plastics waste, building on the success of the existing plastic carrier bag charge.

3.51 Tackling waste crime – From 1 April 2018, operators of illegal waste sites will become liable for Landfill Tax, and those who continue to flout the rules will face tough civil and criminal sanctions. This follows a positive response to the consultation announced at Spring Budget 2017. In addition, the government is providing £30 million extra funding over the next four years to help the Environment Agency tackle waste crime and reduce the harm caused to the environment and to legitimate operators. (49)

3.52 Landfill Communities Fund – The government will set the Landfill Communities Fund for 2018-19 at £33.9 million, in accordance with the announcement at Spring Budget 2017 that the cap on contributions by landfill operators would be set at 5.3%.

3.53 Aggregates Levy – The government will freeze Aggregates Levy rates for 2018-19 at £2 per tonne but will return to index-linking the Levy in the longer term. Following consultation, the government has decided against introducing an exemption from the Aggregates Levy for aggregates extracted when laying underground utility pipes. (37)

Oil and gas

3.54 Transferable tax history for oil and gas – The government remains committed to the principles for oil and gas fiscal policy, as set out in the 2014 paper *Driving Investment,* and has published a paper on enabling oil and gas companies to transfer tax histories – a world first – to facilitate the transfer of late life oil and gas assets.[10] Draft legislation will be published in spring 2018 and the government will legislate to make transferable tax histories available from 1 November 2018. (24)

3.55 Other issues for late-life oil and gas assets – The government will also launch a technical consultation on allowing a petroleum revenue tax deduction for decommissioning costs incurred by a previous licence holder. This will support transfers of assets where the seller retains the decommissioning liability.

3.56 Tariff receipts – The government will legislate in Finance Bill 2017-18 to clarify that all tariff income earned by petroleum licence holders is within the ring fence corporation tax regime. This will support the government's commitment to extend the Investment and Cluster Area allowances to include income from tariff receipts.

Indirect tax

Alcohol and tobacco

3.57 Alcohol duty rates and bands – Duty rates on beer, cider, wine and spirits will be frozen. (11)

3.58 Alcohol structures consultation – Following the consultation launched at Spring Budget 2017, the government will introduce a new duty band for still cider and perry from 6.9% to 7.5% alcohol by volume (abv), to target white ciders. Legislation will be brought forward in Finance Bill 2018-19, for implementation in 2019, to allow producers time to reformulate and lower their abv.

3.59 Tobacco duty rates – Duty rates on all tobacco products will increase by two percentage points above RPI inflation until the end of this Parliament. Hand rolling tobacco will increase by an additional one percentage point. These changes will come into effect from 6pm on 22 November 2017. (56)

3.60 Minimum Excise Tax – The Minimum Excise Tax for cigarettes will rise to be set at £280.15 per 1,000 cigarettes. This will take effect from 6pm on 22 November 2017. (56)

VAT

3.61 VAT registration threshold – In response to the Office of Tax Simplification's report *Value Added Tax: Routes to Simplification*, the government will consult on the design of the threshold, and in the meantime will maintain it at the current level of £85,000 for two years from April 2018.[11] (55)

3.62 Import VAT – Businesses currently benefit from postponed accounting for VAT when importing goods from the EU. The government recognises the importance of such arrangements to business due to the cash flow advantage they provide. The government will take this into account when considering potential changes following EU exit and will look at options to mitigate any cash flow impacts.

[10] Driving investment: a plan to reform the oil and gas fiscal regime, HMT, December 2014

[11] Value added tax: routes to simplification, OTS, November 2014

3.63 Access to VAT refunds – The government will make the following changes to VAT refunds:

- **Combined Authorities** – Through Finance Bill 2017-18, legislation will be amended to ensure UK Combined Authorities and certain fire services in England and Wales will be eligible for VAT refunds.
- **Accident Rescue Charities Grant Scheme** – A grant will be provided to help accident rescue charities meet the cost of normally irrecoverable VAT.

3.64 VAT and vouchers – The government will consult on plans to legislate in Finance Bill 2018-19 to ensure that when customers pay with vouchers, businesses account for the same amount of VAT as when other means of payment are used, aligning the UK with similar changes being made across the rest of the EU.

Evasion, avoidance, and compliance

3.65 The government remains committed to tackling tax evasion and avoidance, aggressive tax planning and non-compliance, including those seeking to evade or avoid tax using offshore structures. Since 2010 the government has secured almost £160 billion in additional tax revenue and alongside the Budget publishes details of over 100 measures it has introduced. These actions have also helped the UK achieve one of the lowest tax gaps in the world at 6.0% in 2015-16.[12] Further steps taken in the Budget are forecast to raise £4.8 billion between now and 2022-23.

Tax evasion and the hidden economy

3.66 Requirement to notify HMRC of offshore structures – The government will publish a consultation response on the proposed requirement for designers of certain offshore structures, that could be misused to evade taxes, to notify HMRC of these structures and the clients using them. This work will be taken forward in conjunction with the OECD and EU.

3.67 Extending offshore time limits – Assessment time limits for non-deliberate offshore tax non-compliance will be extended so that HMRC can always assess at least 12 years of back taxes without needing to establish deliberate non-compliance, following a consultation in spring 2018. (44)

3.68 VAT fraud in labour provision in the construction sector – Following a consultation into options for tackling fraud in construction labour supply chains, the government will introduce a VAT domestic reverse charge to prevent VAT losses. This will shift responsibility for paying VAT along the supply chain to remove the opportunity for it to be stolen. Changes will have effect on and after 1 October 2019. The long lead-time reflects responses to the consultation and the government's commitment to give businesses adequate time to prepare for the change. (48)

3.69 Hidden economy: conditionality – The government will consult further on how to make the provision of some public sector licences conditional on being properly registered for tax. This would make it more difficult to trade in the hidden economy, helping to level the playing field for compliant businesses.

[12] 'Measuring tax gaps', HMRC, 26 October 2017

Tax avoidance

3.70 NICs Employment Allowance – The government has found evidence of some employers abusing the Employment Allowance to avoid paying the correct amount of NICs, often by using offshore arrangements. To crack down on this, HMRC will require upfront security from employers with a history of avoiding paying NICs in this way. This will take effect from 2018 and raise up to £15 million a year. (39)

3.71 Disguised remuneration – The government will tackle disguised remuneration avoidance schemes used by close companies – companies with five or fewer participators – by introducing the close companies' gateway, revised following consultation, and measures to ensure liabilities from the new loan charge are collected from the appropriate person.

3.72 Profit fragmentation – The government will consult in 2018 on the best way to prevent UK traders or professionals from avoiding UK tax by fragmenting their UK income between unrelated entities.

3.73 Intangible fixed assets: related party step-up schemes – The Intangible Fixed Asset rules will be updated with immediate effect, so that a licence between a company and a related party in respect of intellectual property is subject to the market value rule, and to ensure that the tax value of any disposal of a company's intangible assets is correct, even if the consideration is in something other than cash. (40)

3.74 Depreciatory transactions – The government will remove the 6-year time limit within which companies must adjust for transactions that have reduced the value of shares being disposed of in a group company. This will ensure that any losses claimed are in line with the actual economic loss to the group. This change will take effect for disposals of shares or securities in a company made on or after 22 November 2017. (41)

3.75 Carried interest – To prevent the avoidance of legislation designed to ensure that asset managers receiving carried interest pay CGT on their full economic gain, the government will remove the transitional commencement provisions with immediate effect. (45)

3.76 Double Taxation Relief – From 22 November 2017 a restriction will be introduced to the relief for foreign tax incurred by an overseas branch of a company, where the company has already received relief overseas for the losses of the branch against profits other than those of the branch. This ensures the company does not get tax relief twice for the same loss. The Double Taxation Relief targeted anti-avoidance rule will also be amended to remove the requirement for HMRC to issue a counteraction notice, and extend the scope to ensure it is effective.

3.77 Double taxation arrangement: multilateral instrument – With effect from the Royal Assent of the Finance (No. 2) Act 2017, the powers giving effect to double taxation arrangements will be amended to allow the *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* to be implemented.[13]

Taxation and digital platforms

3.78 Online VAT fraud: extending powers to UK businesses – The government will legislate in Finance Bill 2017-18 to extend HMRC's powers to hold online marketplaces Jointly and Severally Liable (JSL) for the unpaid VAT of overseas traders on their platforms to include all (including UK) traders. This extension will help tackle the UK hidden economy and eliminate the risk of overseas traders establishing a UK shell company simply to escape the existing JSL regime. This will come into force on Royal Assent in the spring. (43)

[13] Multilateral convention to implement tax treaty related measures to prevent base erosion and profit shifting, OECD, June 2017

3.79 Online VAT fraud: extending powers on overseas businesses – The government will legislate in Finance Bill 2017-18 to extend HMRC's powers to hold online marketplaces JSL for any VAT that a non-UK business selling goods on their platforms fails to account for, where the business was not registered for VAT in the UK and that online marketplace knew or should have known that the business should be registered for VAT in the UK. This will come into force on Royal Assent in the spring.(43)

3.80 Online VAT fraud: VAT number display – The government will legislate in Finance Bill 2017-18 to require online marketplaces to ensure that VAT numbers displayed for businesses operating on their website are valid. They will also be required to display a valid VAT number when they are provided with one by a business operating on their platform. This will come into force on Royal Assent in the spring. (43)

3.81 Online VAT fraud: split payments – To reduce online VAT fraud and improve how VAT is collected, the government is looking at a split payment model. Following the call for evidence launched at Spring Budget 2017, the government will publish a response in December.

3.82 Encouraging compliance by users of digital platforms – The government expects digital platforms to play a wider role in ensuring their users are compliant with the tax rules. The government will publish a call for evidence in spring 2018 to explore what more digital platforms can do to prevent non-compliance among their users.

Tax administration and compliance

3.83 Making Tax Digital (MTD) – As announced in July and legislated for in the Finance (No. 2) Act 2017, no business will be mandated to use MTD until April 2019. Only those with turnover above the VAT threshold will be mandated at that point, and then only for VAT obligations. The scope of MTD will not be widened before the system has been shown to work well, and not before April 2020 at the earliest. (67)

3.84 Late Submission Penalties and Late Payment Interest – The government will reform the penalty system for late or missing tax returns, adopting a new points-based approach. It will also consult on whether to simplify and harmonise penalties and interest due on late payments and repayments. This will ensure that the system is fair, simple and effective across different taxes. Final decisions on both measures will be taken following this latter consultation.

3.85 Closure of Certificate of Tax Deposit scheme – To make the tax system simpler and fairer, the government will close the Certificate of Tax Deposit scheme for new certificates on and after 23 November 2017. Existing certificates will continue to be honoured for 6 years.

3.86 Faster recovery of Self-Assessment debt – HMRC will use new technology to recover additional Self-Assessment debts in closer to real-time by adjusting the tax codes of individuals with Pay As You Earn (PAYE) income. These changes will take effect from 6 April 2019. (47)

3.87 Securing debt in insolvency: extension of security deposit legislation – The government will expand existing security deposit legislation to corporation tax and Construction Industry Scheme deductions. These changes will be legislated for in Finance Bill 2018-19 and take effect from 6 April 2019. The government will consult on the most effective means of introducing this change. (46)

Investing in HMRC

3.88 The government is investing a further £155 million in additional resources and new technology for HMRC. This investment is forecast to help bring in £2.3 billion of additional tax revenues by allowing HMRC to:

- transform their approach to tackling the hidden economy through new technology (39)

- further tackle those who are engaging in marketed tax avoidance schemes (39)
- enhance efforts to tackle the enablers of tax fraud and hold intermediaries accountable for the services they provide using the Corporate Criminal Offence (39)
- increase their ability to tackle non-compliance among mid-size businesses and wealthy individuals (39)
- recover greater amounts of tax debt including through a new taskforce to specifically tackle tax debts more than 9 months old (39)

4 Productivity

Introduction

4.1 The Budget sets out the government's vision for an economy that is fit for the future and provides greater opportunities for the next generation. An economy driven by innovation that will see the UK becoming a world leader in new technologies such as Artificial Intelligence (AI), immersive technology, driverless cars, life sciences, and FinTech. An economy that creates more highly-skilled and better-paid jobs, underpinned by increased investment in the skills and infrastructure needed for the future and a modern Industrial Strategy that shows how government can build an economy that works for everyone.

4.2 The Industrial Strategy will explain the active role the government will take, working in partnership with the private sector, to encourage investment in the technologies of the future and to ensure every part of the UK can share in the rewards.

4.3 Over the long term, improving productivity is vital to building an economy fit for the future. This is the best way to boost wages, improve living standards and enhance prosperity. The UK's productivity lags behind other advanced nations: this is both a challenge and an opportunity.[1] Closing the gap between the UK's productivity and Germany's would increase the size of the UK economy by a third.[2]

4.4 The government has already set in train a plan to address the UK's productivity challenge, including: cutting taxes to support business investment, with corporation tax cut from 28% to 19%; improving skills through a significant increase in apprenticeships and the introduction of T levels, to transform technical education; and delivering high value infrastructure projects like the Mersey Gateway Bridge, the Northern Hub in Manchester and Crossrail.[3]

4.5 This approach is underpinned by a major increase in public investment. Excluding the exceptional years following the financial crisis, public investment as a proportion of GDP will reach its highest level in 30 years by 2020-21.[4] This includes a 50% increase in transport investment, funding the biggest road investment programme in a generation, and the biggest rail transformation in modern times.[5]

4.6 Much of this increase in investment is delivered through the NPIF created at Autumn Statement 2016. The Budget goes further, extending the NPIF into 2022-23 and increasing the size of the fund to £31 billion. This money is targeted at areas crucial for productivity: housing (see chapter 5), transport, R&D and digital communications. This investment provides the financial underpinning for a modern Industrial Strategy that will help businesses create better, higher-paying jobs.

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[1] 'International Comparisons of UK Productivity', ONS, October 2017.
[2] For more information see Autumn Budget 2017 data sources.
[3] Further information on apprenticeship figures is available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/650904/201617_Oct_Apps_Geography_Data_Pack_Final.xlsm
[4] 'Public Finances Databank', OBR, October, 2017. (Excludes the exception years following the financial crisis).
[5] 'Corporate report: Single department plan 2015 to 2020', Department for Transport, October 2016.

Table 4.1: National Productivity Investment Fund (£ million)[1]

	2017-18	2018-19	2019-20	2020-21	2021-22[2]	2022-23[2]
Housing						
Accelerated Construction	90	230	170	200	–	–
Affordable Housing	495	605	1,215	610	–	–
Housing Infrastructure Fund	60	300	1,160	2,135	1,060	1,185
Small sites infrastructure and remediation	0	275	355	120	–	–
Land Assembly Fund	0	0	220	355	355	355
Transport						
Roads and local transport	365	360	290	415	–	–
Next generation vehicles	75	145	155	115	–	–
Digital railway enhancements	30	55	165	285	–	–
Cambridge - Milton Keynes - Oxford corridor	5	135	0	0	–	–
Transforming Cities Fund	0	140	355	485	1,010	–
Tyne & Wear Metro	0	0	25	35	265	–
Digital Communications						
Fibre and 5G investment	25	150	275	290	–	–
Research and Development						
Research and Development funding	425	820	1,500	2,000	2,345	–
Total	**1,570**	**3,215**	**5,885**	**7,045**	**6,475**	**7,000**

[1] Gross costs are presented on a UK basis.
[2] Further allocations will be made at future fiscal events.

4.7 Backed by this additional funding, the Budget and the modern Industrial Strategy together set out the next steps in the government's plan to build an economy fit for the future:

- **New technologies and innovation** – the Budget introduces further ground-breaking approaches to regulatory frameworks for AI and driverless cars, in order to attract the world's most innovative companies (27)
- **Backing innovators and investing in R&D** – the government has already committed to the biggest increase in R&D spending by any government in the last 40 years.[6] The Budget invests a further £2.3 billion in R&D in 2021-22 from the NPIF, and increases the R&D expenditure credit to 12%, demonstrating clear progress towards the government's ambition to raise the level of investment in R&D in the economy to 2.4% of GDP. This means that, based on current forecasts, total support for R&D will increase by a third by 2021-22[7] (22)
- **Skills and jobs for a new economy** – the Budget makes a step change in transforming lifelong learning, with a unique partnership between employers, unions and the government to deliver a new National Retraining Scheme to help people adapt to the changing world of work (31)
- **Stimulating long-term business investment and exports** – the Budget takes a radical step to stimulate investment in high growth, innovative businesses with a plan to attract £20 billion of new funding into these firms
- **Driving stronger competition** – the Budget backs the Competition and Markets Authority (CMA), the UK's internationally-respected competition authority, providing additional funding to stamp out anti-competitive practices (36)

[6] 'Further information is available at: www.gov.uk/government/speeches/plans-for-an-effective-and-reliable-road-network-in-the-decades-ahead.
[7] Including both direct spending and support provided through R&D tax credits. Source: HMT analysis of OBR and HMRC data.

- **Upgrading infrastructure** – the Budget announces a £1.7 billion Transforming Cities Fund to improve local transport connections and commits £385 million to projects to develop next generation 5G mobile and full-fibre broadband networks, both funded from the NPIF. The Budget also commits to specific improvements for the Tyne & Wear Metro, and rail and road connections in the Cambridge – Milton Keynes – Oxford corridor (28)

4.8 The Budget raises growth and prosperity across the UK, granting local areas more control over decisions which affect them. Seven areas across the UK already benefit from directly elected Mayors, including London, the West Midlands and Greater Manchester. The Budget announces the next steps for the North of Tyne area, paving the way for the area to elect a Mayor in 2019.

New technologies and innovation

4.9 Digital technologies have enormous potential to transform the economy – AI, for example, has the potential to increase productivity by up to 30% in some industries.[8] It is predicted that the UK driverless car industry will be worth £28 billion to the UK economy and employ 27,000 people.[9] The Budget sets out the steps that the government is taking to make the UK a leader in the development and deployment of digital technologies. To further support this, the Industrial Strategy will set out the first set of sector deals that have been agreed between the government and some of the UK's leading sectors.

Technology

4.10 AI – The government will create a new Centre for Data Ethics and Innovation to enable and ensure safe, ethical and ground-breaking innovation in AI and data-driven technologies. This world-first advisory body will work with government, regulators and industry to lay the foundations for AI adoption, which estimates suggest could benefit households across the UK by up to £2,300 per year by 2030, and increase GDP by 10%.[10] The government will invest over £75 million to take forward key recommendations of the independent review on AI, including exploratory work to facilitate data access through 'data trusts'.[11] The government will create new AI fellowships, and initially fund 450 PhD researchers, to secure the UK's leading position in the global AI market. (27)

4.11 Regulators' Pioneer Fund – To help unlock the potential of emerging technologies, the government will establish a new £10 million Regulators' Pioneer Fund. This will help regulators to develop innovative approaches aimed at getting new products and services to market. (27)

4.12 Tech Nation – To secure the UK's world-leading position in digital innovation, the government will invest £21 million over the next 4 years to expand Tech City UK's reach – to become 'Tech Nation' – and support regional tech companies and start-ups to fulfil their potential. Tech Nation will roll out a dedicated sector programme for leading UK tech specialisms, including AI and FinTech. Regional hubs will be located in: Cambridge, Bristol and Bath, Manchester, Newcastle, Leeds and Sheffield, Reading, Birmingham, Edinburgh and Glasgow, Belfast, and Cardiff. (27)

4.13 UK Games Fund – The government will provide a further £1 million to extend the UK Games Fund until 2020, aiding access to finance and business support for early stage video game developers. (27)

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[8] Bank of America Merrill Lynch, Robot Revolution – Global Robot & AI Primer, December 2015.

[9] 'Market forecast for connected and autonomous vehicles', Centre for Connected and Autonomous Vehicles, September 2017.

[10] The economic impacts of artificial intelligence on the UK economy ', PwC, June 2017.

[11] Further information is available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/652097/Growing_the_artificial_intelligence_industry_in_the_UK.pdf

4.14 Geospatial data – The UK has some of the best geospatial data in the world, and much of it is held by public bodies. The potential economic value of this data is huge. To maximise the growth of the digital economy and consolidate the UK's position as the best place to start and grow a digital business, the government will establish a new Geospatial Commission to provide strategic oversight to the various public bodies who hold this data. To further boost the digital economy, the government will work with the Ordnance Survey (OS) and the new Commission, by May 2018, to establish how to open up freely the OS MasterMap data to UK-based small businesses in particular, under an Open Government Licence or through an alternative mechanism, while maintaining the OS's strategic strengths. The Budget provides £40 million a year over the next two years to support this work.

Next generation vehicles

4.15 Ultra-low emission vehicles – To support the transition to zero emission vehicles, the government will regulate to support the wider roll-out of charging infrastructure; invest £200 million, to be matched by private investment into a new £400 million Charging Investment Infrastructure Fund; and commit to electrify 25% of cars in central government department fleets by 2022. The government will also provide £100 million to guarantee continuation of the Plug-In Car Grant to 2020 to help consumers with the cost of purchasing a new battery electric vehicle. (26)

4.16 Connected and Autonomous Vehicles (CAVs) – The government wants to see fully self-driving cars, without a human operator, on UK roads by 2021. The government will therefore make world-leading changes to the regulatory framework, such as setting out how driverless cars can be tested without a human safety operator. The National Infrastructure Commission (NIC) will also launch a new innovation prize to determine how future roadbuilding should adapt to support self-driving cars.

Research and development

4.17 Long-term support for science and innovation – Supporting the government's ambition of increasing R&D investment in the economy to 2.4% of GDP by 2027, the Budget confirms that the £4.7 billion NPIF investment in science and innovation announced at Autumn Statement 2016 will grow by a further £2.3 billion of additional spending in 2021-22, taking total direct R&D spending to £12.5 billion per annum by 2021-22. (22) The Industrial Strategy White Paper will provide further detail on what this funding will support, including:

- support for our creative and digital industries by developing pioneering immersive technology for creative content, and launching a new AI and machine-learning programme targeted at the services sector
- £170 million for innovation to transform productivity in the construction sector
- new support to grow the next generation of research talent and ensure that the UK is able to attract and retain the best academic leaders globally

4.18 Research and development expenditure credit – The government will increase the rate of the R&D expenditure credit from 11% to 12% with effect from 1 January 2018. To provide businesses with the confidence to make R&D investment decisions, the government will also introduce a new Advanced Clearance Service for R&D expenditure credit claims. (23)

4.19 International talent – To support its ambitions on innovation and R&D, the government is encouraging the best and the brightest international scientific and research talent to work in the UK. The government will: change immigration rules to enable world-leading scientists and researchers endorsed under the Tier 1 (Exceptional Talent) route to apply for settlement after three years; make it quicker for highly-skilled students to apply to work in the UK after finishing their degrees; and reduce red tape in hiring international researchers and members of established research teams, by relaxing the labour market test and allowing the UK's research councils and other select organisations to sponsor researchers. This is alongside the expansion of the exceptional talent route, benefiting current and future leaders in the digital technology, science, arts and creative sectors.

Skills and jobs for a new economy

4.20 Nearly 50% of UK employers working in STEM report that they struggle to recruit people with relevant skills.[12] Studying STEM subjects at university is correlated with higher average wages.[13] The Budget invests an additional £406 million in maths and technical education, and in helping people develop the skills they need to succeed in the new economy.

Lifelong learning

4.21 National Retraining Partnership – The government will enter into a formal skills partnership with the Trades Union Congress and the Confederation of British Industry, to develop the National Retraining Scheme. Together they will help set the strategic priorities for the scheme and oversee its implementation, working with new Skills Advisory Panels to ensure that local economies' needs are reflected. (31)

4.22 Retraining to work in priority sectors – As a first step, the National Retraining Partnership will oversee targeted short-term action in sectors with skills shortages, initially focussing on construction and digital skills. Alongside the government's investment in housing and construction, the government will invest £30 million to test the use of AI and innovative EdTech in online digital skills courses so that learners can benefit from this emerging technology, wherever they are in the country. There will also be new employer-designed courses in construction and digital. (31)

4.23 Work-based training – The government will provide £8.5 million over the next two years to support Unionlearn, an organisation of the Trades Union Congress to boost learning in the workplace. (31)

Education

4.24 Maths – The Budget announces support for maths, given its crucial role in preparing the next generation for jobs in the new economy. The government will:

- give more children the opportunity to be taught using world-leading techniques by providing £27 million to expand the successful Teaching for Mastery maths programme into a further 3,000 schools (32)
- reward schools and colleges who support their students to study maths by giving them £600 for every extra pupil who decides to take Maths or Further Maths A levels or Core Maths – with over £80 million available initially, and no cap on numbers (32)
- nurture top mathematical talent by delivering its commitment to open maths schools across the country. The Budget commits £18 million to fund an annual £350,000 for every maths school under the specialist maths school model, which includes outreach work (32)
- test innovative approaches to improve GCSE Maths resit outcomes by launching a £8.5 million pilot, alongside £40 million to establish Further Education Centres of Excellence across the country to train maths teachers and spread best practice (32)

[12] 'Engineering UK's report: The State of Engineering UK 2016', Engineering UK, February 2016.
[13] 'Graduate outcomes for all subjects by university', Department for Education', June 2017.

4.25 Computer science – The Budget will ensure that every secondary school has a fully qualified computer science GCSE teacher, by committing £84 million to upskill 8,000 computer science teachers by the end of this Parliament. The government will also work with industry to set up a new National Centre for Computing to produce training material and support schools. (32)

4.26 T levels – The government announced T levels at Spring Budget 2017. As implementation gets underway, the government will invest up to £20 million to help teachers prepare for this change.

4.27 Apprenticeship levy – The government will continue to work with employers on how the apprenticeship levy can be spent so that the levy works effectively and flexibly for industry, and supports productivity across the country.

4.28 Gender disparity in STEM – Girls are disproportionately less likely to study most STEM subjects at A level,[14] hindering progress into higher education and careers in STEM. To deepen the understanding of the gender disparity in subject choices at age 16, the government will explore how to improve the accessibility and transparency of data on this issue by institution and subject.

4.29 Teacher Development Premium – The government will invest £42 million to pilot a Teacher Development Premium. This will test the impact of a £1,000 budget for high-quality professional development for teachers working in areas that have fallen behind. This will support the government's ambition to address regional productivity disparities through reducing the regional skills gap. (33)

4.30 Reducing student loan overpayments – The government will tackle the problem of graduates overpaying their student loans. The Student Loans Company and HMRC will update their processes by April 2019, in order to share data more frequently and stop payments after a borrower has fully repaid.

Supporting labour market productivity

4.31 NLW and National Minimum Wage (NMW) – The percentage of full-time jobs that are low paid is at its lowest in at least 20 years.[15] Following the recommendations of the independent Low Pay Commission (LPC), the government will increase the NLW by 4.4% from £7.50 to £7.83 from April 2018. The LPC estimate this will benefit over 2 million workers.[16] In total, earnings for a full-time worker on the NMW will have increased by over £2,000 a year since the introduction of the NLW in April 2016.[17]

The government will also accept all of the LPC's recommendations for the other NMW rates to apply from April 2018. For youth rates, this represents the largest increase in 10 years.[18] The recommendations include:

- increasing the rate for 21 to 24 year olds by 4.7% from £7.05 to £7.38 per hour
- increasing the rate for 18 to 20 year olds by 5.4% from £5.60 to £5.90 per hour
- increasing the rate for 16 to 17 year olds by 3.7% from £4.05 to £4.20 per hour
- increasing the rate for apprentices by 5.7% from £3.50 to £3.70 per hour

[14] 'Revised A Level and other 16-18 results in England, 2015/2016', Department for Education, January 2017.
[15] 'Annual Survey of Hours and Earnings', ONS, October 2017.
[16] Further information is available at: www.gov.uk/government/publications/national-minimum-wage-low-pay-commission-autumn-2016-report
[17] For more information see Autumn Budget 2017 data sources.
[18] For more information see Autumn Budget 2017 data sources.

Business investment and exports

4.32 The UK is already one of the best places in the world to start a business, but some of the UK's most innovative start-ups do not grow to scale due to lack of finance.[19] The Budget provides businesses with additional support to grow and also to export. The government's Industrial Strategy will provide further detail of how businesses in every part of the country will get the help they need to access support and improve their productivity.

Access to finance

Box 4.1: Financing growth in innovative firms

The Budget announces an action plan to unlock over £20 billion of patient capital investment to finance growth in innovative firms over 10 years by:

- establishing a new £2.5 billion Investment Fund incubated in the British Business Bank with the intention to float or sell once it has established a track record. By co-investing with the private sector, a total of £7.5 billion of investment will be unlocked
- doubling the annual allowance for people investing in knowledge-intensive companies through the Enterprise Investment Scheme (EIS) and the annual investment those companies can receive through EIS and the Venture Capital Trust scheme, and introducing a new test to reduce the scope for and redirect low-risk investment, together unlocking over £7 billion of growth investment
- investing in a series of private sector fund of funds of scale. The British Business Bank will seed the first wave of investment with up to £500 million, unlocking double its investment in private capital. Up to three waves will be launched, supporting a total of up to £4 billion investment
- backing new and emerging fund managers through the British Business Bank's established Enterprise Capital Fund programme, unlocking at least £1.5 billion of new investment
- backing overseas investment in UK venture capital through the Department for International Trade, expected to unlock £1 billion of investment

The government will also support long-term investment by:

- giving pension funds confidence that they can invest in assets supporting innovative firms as part of a diverse portfolio. The Pensions Regulator will clarify guidance on investments with long-term investment horizons. With over £2 trillion in UK pension funds, small changes in investment have the potential to transform the supply of capital to innovative firms
- changing the qualifying rules in Entrepreneurs' Relief to remove the disincentive to accept external investment and consulting on the detailed implementation of that change
- launching a National Security Strategic Investment Fund to invest in advanced technologies to contribute to the national security mission. The British Business Bank will also support developing clusters of business angels outside London through a new commercial investment programme

The government's response to the consultation 'Financing Growth in Innovative Firms' published alongside Autumn Budget 2017 provides further details of these measures.

4.33 Supporting businesses – The government will support businesses to get the finance they need by extending the British Business Bank's Enterprise Finance Guarantee to March 2022 and expanding the programme to support up to £500 million of loans per annum. The government will also work with businesses, lenders, insurers, the British Business Bank and the

[19] Further information is available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/642456/financing_growth_in_innovative_firms_consultation_web.pdf

Intellectual Property Office to overcome the barriers to high growth, intellectual property-rich firms, such as those in the creative and digital sector, using their intellectual property to access growth funding.

Reaching new markets

4.34 Support for exporters – UK Export Finance (UKEF) will introduce a new guarantee to banks designed to increase liquidity in the supply chain. This will improve exporters' access to capital and enable their suppliers to fulfil new orders. UKEF will also launch a targeted campaign to promote the support they offer to exporters and overseas buyers, as part of the wider GREAT campaign. The Department for International Trade will also set out details of their new export strategy review.

Asset management

4.35 Investment Management Strategy 2 – The government will publish a new long-term strategy to ensure that the UK asset management industry continues to thrive and deliver the best possible outcomes for investors and the UK economy. This will include actions, to be taken forward in close collaboration with the industry, on skills, harnessing financial technology solutions, mainstreaming innovative investment strategies, and continuing a coordinated programme of international engagement.

Competitive markets

4.36 A thriving market economy rewards enterprise, investment and innovation. Competition is the best way of delivering value and choice for consumers. Competition also boosts productivity in the economy by incentivising companies to become more efficient, ensuring investment and talent go where they are best used, in turn boosting wages. Independent regulators make sure markets for essential services, like energy and water, work fairly and efficiently.

4.37 CMA – The government will provide the CMA with an extra £2.8 million a year, so it can take on more cases against companies that are acting unfairly, and will allow the CMA to use more of the fines it collects to meet the legal costs of defending its decisions. The government will ensure the UK has the robust and effective competition system it needs after the UK has left the EU. (36)

4.38 Review into airline insolvency arrangements – The government will launch a review, led by an independent chair, into consumer protection in the event of an airline or travel company failure. This will draw on lessons from the collapse of Monarch and will consider both repatriation and refund protection to identify the market reforms necessary to ensure passengers are protected. This will include full consideration of options to allow airlines to wind down in an orderly fashion so that they are able to conduct and finance repatriation operations without the without impact on the taxpayer.

Modern banking services

4.39 The government is committed to supporting competition in banking, and the Budget sets out further actions which will enable innovation in banking services, strengthen challenger banks, and improve access to affordable credit for consumers.

- **Open Banking** – the Open Banking project will, from early next year, make it easier for customers to access innovative products and services that better suit their needs. The government has now secured the commitment of the largest banks to extend Open Banking to more payment products, including credit cards. The second phase of the Nesta Open-Up Challenge will also award £2.5 million to firms to develop innovative Open Banking apps to support greater customer choice and flexibility

- **Support for challenger banks** – as agreed with the European Commission in September 2017, RBS will fund and deliver a £775 million package of measures designed to improve competition in the UK business banking market. The Prudential Regulation Authority will also make capital requirements more proportionate for eligible smaller banks, helping them compete more effectively in the market
- **Post Office banking services** – the government will ask Post Office Limited and UK Finance to raise public awareness of the banking services available at the Post Office, both for personal customers and Small and Medium Enterprises (SMEs)
- **Credit Unions** – to improve access to reputable sources of credit, the government will increase the number of potential members that a credit union serving a local area is able to have from 2 to 3 million

Financial services supporting the community

4.40 Banking fines – The government has committed a further £36 million of banking fines over the next 3 years to support Armed Forces and Emergency Services charities and other related good causes. This completes the LIBOR Charity Funding scheme, bringing the total of funding committed since 2012 to £773 million.[20]

Infrastructure

4.41 Good quality infrastructure is essential for the economy and productivity. The Budget and the government's modern Industrial Strategy set out the next steps in a major programme to upgrade the country's infrastructure networks, capitalising on new technologies. The government's plans mean that by the end of this Parliament public investment in economic infrastructure will have doubled in a decade, from £12 billion in 2012-13 to at least £24 billion in 2022-23, in real terms an increase of more than 60%.[21]

Modernising transport

4.42 Transforming Cities Fund – A £1.7 billion fund from the NPIF to support intra-city transport, will target projects which drive productivity by improving connectivity, reducing congestion and utilising new mobility services and technology. Half will be allocated via competition for transport projects in cities and the other half will be allocated on a per capita basis to the 6 combined authorities with elected metro mayors – £74 million for Cambridgeshire and Peterborough, £243 million for Greater Manchester, £134 million for Liverpool City Region, £80 million for West of England, £250 million for West Midlands and £59 million for Tees Valley – enabling them to invest in their transport priorities. (28)

4.43 Pothole fund – The government is investing an additional £45 million in 2017-18 to tackle around 900,000 potholes across England. (28)

4.44 Digital rail upgrade – Digital rail technology will transform the railways, enabling trains to run more frequently, at lower cost and greater resilience, and replacing the legacy of Victorian railway technologies. The government announces £84 million for fitting state-of-the-art in-cab digital signalling across a range of trains. The government is allocating a further £5 million from the NPIF for development funding for a digital railway upgrade on the South East and East London Lines. The government will also fund a digital signalling scheme at Moorgate that will enable more frequent and reliable services.

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[20] 'Investigation into the management of the Libor Fund', NAO, September 2017.

[21] Public investment in economic infrastructure is defined by the National Infrastructure Commission's Fiscal remit. For more information see Autumn Budget 2017 data sources.

4.45 New National Infrastructure Commission study: Freight – The government is announcing a new NIC study on the future of freight infrastructure, to be published in Spring 2019. The study will look at urban congestion, decarbonisation and how to harness the potential of new technologies. This includes platooning, where trucks travel in convoy using smart technology to communicate.

4.46 Travel discounts – The government will work with industry to extend the benefits of discounted rail travel to ensure those aged 16 to 30 can access appropriate concessions. This will include the introduction of a new railcard for ages 26 to 30, which the government anticipates will increase the number of journeys taken. Further details will be announced in agreement with the industry and will be implemented from Spring 2018.

Digital communications

4.47 5G testbeds and trials – The UK has an opportunity to become a world leader in 5G, which is the next generation of mobile communications. The government will invest a further £160 million from the NPIF in new 5G infrastructure. The first projects to benefit are:

- £10 million to create facilities where the security of 5G networks can be tested and proven, working with the National Cyber Security Centre
- £5 million for an initial trial, starting in 2018, to test 5G applications and deployment on roads, including helping to test how we can maximise future productivity benefits from self-driving cars, building on the work already progressing on connected and autonomous vehicle trials in the West Midlands

4.48 Local full-fibre networks – Full-fibre is the gold standard for fast and reliable broadband. The government is launching a new £190 million Challenge Fund that local areas around the country will bid for to encourage faster rollout of full-fibre networks by industry. Children in 100 schools around the country will be some of the first to benefit, starting with a pilot in the East Midlands in early 2018.

4.49 Rail passenger communications – The government will shortly consult on commercial options to improve mobile communications for rail passengers and will invest up to £35 million to enable trials. This will be used to: upgrade the Network Rail test track in Melton Mowbray; install trackside infrastructure along the Trans-Pennine route between Manchester, Leeds and York; and support the rollout of full-fibre and 5G networks.

Environment

4.50 Flood defence investment – An additional £76 million will be spent on flood and coastal defence schemes over the next three years. This funding will better protect 7,500 households and boost flood defence investment to over £2.6 billion between 2015-16 and 2020-21.[22] Of this, £40 million will be focussed on deprived communities at high flood risk, boosting local regeneration.

4.51 Sustainable investment in energy – The government will continue to support low carbon electricity as it becomes more cost-competitive, including through up to £557 million for further Contracts for Difference. The government is also committed to keeping energy costs as low as possible. Therefore, in order to protect consumers, the government will not introduce new low carbon electricity levies until the burden of such costs are falling. On the basis of the current forecast, this means there will be no new low carbon electricity levies until 2025.[23] All existing commitments will be respected.

[22] 'Flood and coastal erosion risk management investment programme 2015-2021', Environmental Agency, April 2017.

[23] 'Control for Low Carbon Levies', HM Treasury, November 2017. Further information is available at: www.gov.uk/government/topical-events/autumn-budget-2017

Infrastructure delivery

4.52 Construction – The government is taking a series of steps to improve the cost effectiveness, productivity and timeliness of infrastructure delivery. The government will use its purchasing power to drive adoption of modern methods of construction, such as offsite manufacturing. Building on progress made to date, the Department for Transport, the Department of Health, the Department for Education, the Ministry of Justice, and the Ministry of Defence will adopt a presumption in favour of offsite construction by 2019 across suitable capital programmes, where it represents best value for money.

4.53 Infrastructure delivery – The Infrastructure and Projects Authority will publish an update to the National Infrastructure and Construction Pipeline in December 2017. This will set out a 10 year projection of public and private investment in infrastructure of around £600 billion, and demonstrate the UK's strong track record of infrastructure delivery since 2010.

Local growth

4.54 Every region in the UK has a role to play in boosting the national economy. If the UK could increase the productivity of the five biggest city regions outside of London so that they matched UK average productivity, that could increase UK GDP by £31 billion a year, which equates to £1,100 per household.[24] The Budget demonstrates how the government will support the comparative advantages of regional economies, provide the skills and infrastructure people need to access employment, and continue to back devolution. Further detail will be set out in the Industrial Strategy.

Northern Powerhouse

4.55 Northern Powerhouse rail – As announced in October 2017, £300 million will go towards ensuring High Speed 2 (HS2) infrastructure can accommodate future Northern Powerhouse and Midlands rail services. Transport for the North and Midlands Connect are working up the case for these services. This will enable faster services between Liverpool and Manchester, Sheffield, Leeds and York, as well as to Leicester and other places in the East Midlands and London. It will also enable future services between Liverpool and Leeds to go via Manchester Piccadilly station.

4.56 North of Tyne devolution deal – The government has agreed a 'minded to' devolution deal with the North of Tyne authorities, which will be subject to the consent of local partners. This will see £600 million of investment in the region over 30 years and create a new mayor elected in 2019 with powers over important economic levers including planning and skills.

4.57 Tyne & Wear Metro – The government will invest £337 million from the NPIF to replace the Tyne & Wear Metro's nearly 40-year-old rolling stock with modern energy-efficient trains. The new fleet will cut running costs while boosting performance and reliability for the 38 million passengers that use the system annually.[25] (28)

4.58 Redcar Steelworks – The Budget will provide £5 million to help enable the South Tees Development Corporation to take ownership of the SSI Redcar Steelworks site, and the government will work with local partners to prepare the site for redevelopment.

4.59 Greater Manchester – Greater Manchester and the government will work in partnership to develop a local Industrial Strategy. The government will provide a £243 million allocation from the Transforming Cities Fund and will continue to work with Transport for Greater Manchester to explore options for the future beyond the Fund, including land value capture.

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[24] For more information see Autumn Budget 2017 data sources.

[25] 'Light Rail and Tram Statistics: England 2016/17', Department for Transport, June 2017.

4.60 Jodrell Bank – The government is providing £4 million to Jodrell Bank, subject to approval of a sustainable business case, as part of their £20.5 million project to create a new interpretation centre promoting the historically significant scientific work undertaken at this site in Cheshire.

4.61 Liverpool City Region and Tees Valley – The government will enter into discussions with the Liverpool City Region and Tees Valley to explore scope for further devolution to these areas, to promote local growth.

Midlands Engine

4.62 West Midlands – The government has agreed a second devolution deal in principle with the West Midlands Mayor and Combined Authority to address local productivity barriers. This includes £6 million for a housing delivery taskforce, £5 million for a construction skills training scheme and a £250 million allocation from the Transforming Cities fund to be spent on local intra-city transport priorities.

4.63 Midlands Connect – To support the delivery of the Midlands Connect strategy, the government will provide £2 million to develop options to address key constraints on the Coventry – Leamington Rail Corridor, and £4 million for congestion measures. (28)

4.64 Manufacturing zone – The government will pilot a manufacturing zone in the East Midlands. This will reduce planning restrictions to allow land to be used more productively, providing certainty for business investment, and boosting local productivity and growth.

Cambridge – Milton Keynes – Oxford corridor

4.65 The corridor between Cambridge and Oxford has the potential to be a globally significant economy. Following the National Infrastructure Commission's report, the Budget sets out an ambitious integrated programme of infrastructure, housing, business investment and development.

4.66 Housing – The government recognises the need, highlighted by the NIC's report, to build up to 1 million new homes in the area by 2050 to maximise its economic potential, starting with a housing deal with Oxfordshire for 100,000 homes by 2031, and working with Central and Eastern sections on commitments in 2018. The government will also consider significant new settlements and the potential role of development corporations to deliver these using private finance.

4.67 Rail – By 2024 the western section of East West Rail will be complete, allowing services between Oxford and Bedford, and Aylesbury and Milton Keynes. A new East West Rail Company is being established to accelerate delivery of the central section between Bedford and Cambridge, aiming for completion by the mid-2020s and leveraging private sector investment. Working in partnership with local stakeholders, the government is committing £5 million to develop proposals for Cambridge South station, and is starting a study on the enhancements needed to accommodate future rail growth across Cambridgeshire. As a first step towards opening a station at Cowley, the government will also make available £300,000 to co-fund a study of opportunities for new stations, services and routes across the Oxfordshire rail corridor. (28)

4.68 Road – Construction will begin on key elements of the Expressway between Cambridge and Oxford in the second Roads Investment Strategy. The government will also accelerate work on the 'missing link' elements of the Expressway so that it is ready to open by 2030. The government is commissioning England's Economic Heartland to analyse how communities not on the route of the 'missing link' will be able to benefit from it.

4.69 Land value uplift – The government expects authorities and delivery bodies in the Cambridge – Milton Keynes – Oxford corridor to use existing mechanisms of land value capture and the new powers (subject to consultation) announced at the Budget to capture rising land values from the additional public investment. The government will also encourage authorities to explore the introduction of a Strategic Infrastructure Tariff, in addition to the Community Infrastructure Levy (CIL), supported by appropriate governance arrangements. These approaches will require developers to baseline their contributions towards infrastructure into the values they pay for land.

4.70 Governance – The government is setting out its vision for the future, and inviting local partners to contribute. The government has agreed with Oxfordshire that it will work toward the adoption of a new joint statutory plan (JSP), and will seek further JSPs in central and eastern sections.

London

4.71 London business rates retention pilot – The government has agreed a pilot of 100% business rates retention in London in 2018-19. The Greater London Authority (GLA) and London boroughs will come together to form a pool and invest revenue growth strategically on a pan-London basis.

4.72 Crossrail 2 – The government recognises the need for investment in London's infrastructure to support its growth, and will continue to work with Transport for London on developing fair and affordable plans for Crossrail 2, including through an independent review of funding and financing.

Other local growth policies

4.73 Thames Estuary 2050 Growth Commission – The government has appointed Sir John Armitt to chair the Thames Estuary 2050 Growth Commission, with Professor Sadie Morgan as deputy chair. The Commission will publish its final report by Spring 2018. The government will make a further announcement on the Commission's priorities and will explore options for ambitious housing deals with local authorities in the Thames Estuary region.

4.74 New link road in Cornwall – Government will help to improve access to the A391 near St Austell by providing £79 million towards a new A30 link road, supporting housing development in the area.

4.75 New bridge in Great Yarmouth – Government will contribute £98 million to support a new bridge in Great Yarmouth, alleviating congestion and stimulating growth in the Enterprise Zone.

4.76 Bristol Temple Meads – The government will work with stakeholders on their proposals for direct access from the station to help unlock housing and employment benefits from the new Enterprise Zone.

4.77 Isles of Scilly rural fuel duty rebate scheme – The rural fuel duty rebate scheme for the Isles of Scilly will be extended until 2023, allowing drivers in this rural part of England to continue to benefit from a 5p per litre reduction in fuel costs.

4.78 Capacity funding for Mayoral Combined Authorities – The government will make available to Mayoral Combined Authorities with elected mayors a £12 million fund for 2018-19 and 2019-20, to boost the new mayors' capacity and resources.

4.79 Local infrastructure rate – Following a consultation earlier this year, the government confirms that it will lend local authorities in England up to £1 billion at a new discounted interest rate of gilts + 60 basis points accessible for three years to support infrastructure projects that are high value for money. Details of the bidding process will be published in December 2017, and corresponding shares will be made available to local authorities in Scotland and Wales. (30)

4.80 Business rates retention – The government will continue to pilot additional business rates retention for councils across England. In addition to the London pilot announced in the Budget, new pilots for 2018-19 will be announced following the Department for Communities and Local Government's (DCLG) assessment of recent applications to its scheme.

4.81 Centenary fund – At Spring Budget 2017 the government announced £5 million for projects to celebrate the centenary of voting rights being extended to women for the first time in 1918. From this, £1.2 million will fund activities in 7 cities and towns with strong links to the campaign for women's suffrage – Bolton, Bristol, Leeds, Leicester, London, Manchester, and Nottingham. The government will allocate the rest to local and community projects, a statue of Millicent Fawcett in Parliament Square, and other activities.

4.82 Poppy Factories – The government has committed £4.7 million to modernise the Poppy Factories in Richmond and Edinburgh, to make them fit for purpose and to secure the production of the Poppy, the iconic symbol of National Remembrance, throughout the UK for the next generation.

4.83 Cultural Development Fund – To support the role culture can play in regeneration and local growth, the government will provide £2 million funding to the Department for Digital, Culture, Media and Sport for place-based cultural development.

Scotland, Wales and Northern Ireland

4.84 The UK benefits from a strong internal market and the government is committed to the continuing sustainability and prosperity of the economies of Scotland, Wales and Northern Ireland within that. In addition to all the decisions in the Budget that apply UK-wide, the government is also taking decisions to provide targeted support in each of Scotland, Wales and Northern Ireland. Alongside these government policy decisions, some key economic levers are devolved. The UK government will work with the devolved administrations to deliver the maximum benefit for everyone across the UK.

4.85 Funding – Spending decisions taken by the UK government in the Budget have resulted in Barnett consequentials for the devolved administrations to deliver their devolved responsibilities:

- the Scottish Government's budget will increase by £2 billion through to 2020-21
- the Welsh Government's budget will increase by £1.2 billion through to 2020-21. For the first time, this includes over £65 million as a result of a 5% uplift in Barnett consequentials agreed as part of the Welsh Government's fiscal framework
- the budget for a Northern Ireland Executive will increase by £660 million through to 2020-21

4.86 The government also commits to publishing for the first time a breakdown of changes in devolved administrations' block grant funding by the end of the year. This breakdown will be published on an annual basis.

4.87 City and growth deals – City and growth deals will support growth and create opportunity across Scotland, Wales and Northern Ireland. The government continues to make good progress towards a city deal for Stirling and is in negotiations for a Tay cities deal. The government will also begin negotiations on a growth deal for the Borderlands. The government is working with local partners and the Scottish Government to achieve this.

4.88 The government will begin formal negotiations towards a North Wales growth deal. The government will also consider proposals for a mid-Wales growth deal, and work with local partners and the Welsh Government on this. Upon restoration of a Northern Ireland Executive, the government will open negotiations for a city deal for Belfast as part of the government's commitment to work towards a comprehensive and ambitious set of city deals across Northern Ireland to boost investment and productivity.

4.89 VAT and APD – Through Finance Bill 2017-18, legislation will be amended to ensure that Scottish Police and Fire Services will be eligible for VAT refunds. Early in 2018, the government will publish a call for evidence which will consider the impact of VAT and APD on tourism in Northern Ireland, to report at Budget 2018.

4.90 Northern Ireland rate of corporation tax – The government remains committed to the commencement of a Northern Ireland rate of corporation tax once a restored Executive has demonstrated that its finances are on a sustainable footing. Subject to this, the government will consider an announcement in 2018-19 on implementing the regime.

4.91 Scottish Islands rural fuel duty rebate scheme – The rural fuel duty rebate scheme for the Scottish Islands will be extended until 2023, allowing drivers in this rural part of Scotland to continue to benefit from a 5p per litre reduction in fuel costs. (59)

4.92 Welsh rail – The government will invest in infrastructure upgrades that will provide direct services from Pembroke Dock to London via Carmarthen on new, state of the art Intercity Express trains. Additionally, the Department for Transport continues to develop proposals for a number of potential rail schemes within Wales. This includes station improvements at Cardiff Central Station and Swansea, improving Cardiff to Severn Tunnel Junction Relief Lines, and improving journey times between: Swansea and Cardiff; South Wales, Bristol and London; and on the North Wales Main Line. The government will also consider proposals to improve journey times on the Wrexham – Bidston line and provide necessary funding to develop the business case.

4.93 Tolls on Severn bridges – As previously announced, the government will abolish tolls on the Severn bridges at the end of 2018, and cut the tolls in January 2018 as the bridges come back into public ownership.

4.94 Banking fines – The government will allocate over £5 million in Scotland, Wales and Northern Ireland from banking fines. Projects supported include mental health support for veterans in the Scottish Highlands, training and work opportunities for veterans in North East Wales and support for injured police officers and their families in Northern Ireland.

5 Housing

Housing

5.1 The government is determined to fix the broken housing market, and restore the dream of home ownership for a new generation. In England, average house prices are now almost 8 times the average worker's salary; in parts of the West Midlands, they are over 9 times; in London, they are nearly 12 times.[1] Despite the government's support for home ownership – such as helping over 320,000 people through the Help to Buy schemes – home ownership rates have declined.[2] This is especially true for young people, for whom home ownership has fallen by 20% since 2003-04.[3]

5.2 The cost of housing near the most productive centres of employment has become a barrier to productivity growth. High house prices can prevent people from living near the best job opportunities for them, limiting the productivity of companies that might have employed them.

5.3 The only sustainable way of making housing more affordable in the long term is to build more homes in the right places. The government has made strong progress: housing supply has increased by over 1.1 million since 2010, including more than 300,000 affordable homes.[4] The latest figures show that housing supply increased by 217,000 last year, up from 137,000 in 2010.[5]

5.4 There is no single solution to this problem. The government needs to push on all fronts. The Budget announces a comprehensive package of new policy which will raise housing supply by the end of this Parliament to its highest level since 1970, on track to reach 300,000 per year, through:

- **making available £15.3 billion of new financial support for housing over the next five years**, bringing total support for housing to at least £44 billion over this period
- **introducing planning reforms that will ensure more land is available for housing**, and that better use is made of underused land in our cities and towns
- **providing £204 million of funding for innovation and skills in the construction sector**, including to train a workforce to build new homes

5.5 The Budget also announces further support for those getting on the housing ladder now. The government will permanently raise the price at which a property becomes liable for SDLT to £300,000 for first-time buyers to help young people buy their first home. The relief will not apply for purchases of properties worth over £500,000.

[1] 'Ratio of house price to workplace-based earnings (lower quartile and median)', Office for National Statistics, March 2017
[2] 'Help to Buy (Equity Loan scheme) and Help to Buy: NewBuy statistics: Data to 30 June 2017, England', DCLG, September 2017 (more Information available in 'Autumn Budget 2017 data sources')
[3] 'English Housing Survey headline report 2015 to 2016: section 1 household tables', Department for Communities and Local Government, March 2017. Percentage change in homeownership for 25-34 year olds was 20.4% between 2003-04 (58.6%) and 2015-16 (38.2%)
[4] 'Live tables on housing supply: net additional dwellings', Department for Communities and Local Government, November 2017
[5] 'Housing supply; net additional dwellings, England: 2016-17', Department for Communities and Local Government, November 2017

Box 5.1: Housing supply and productivity

Increasing the supply of housing in the right places brings productivity gains. It supports flexible and responsive labour markets, enabling people to work where they are most productive, and allows successful towns and cities to become even more productive by realising agglomeration economies.

Expanding the stock of housing in urban areas can lead to agglomeration benefits where it increases the density of economic activity. Studies find larger cities boost productivity: doubling a city size or density increases productivity by 3 to 8%.[5]

Increasing housing supply guards against macroeconomic instability. House prices tend to rise faster in environments with lower responsiveness of new housing supply. Cross-country studies show that lower house price variability is associated with lower variability in inflation, interest rates and real incomes.[6]

Planning for more homes

5.6 The planning system needs reform to boost the availability of land in the right places for homes, and to ensure that better use is made of underused land in towns and cities. The Budget builds on the reforms in the Housing White Paper. The Budget confirms the government's commitment to maintain the existing protections for the Green Belt.

5.7 Deallocating sites from plans – The government will consult on strengthening policy to be clear that allocated land should be taken out of a plan if there is no prospect of a planning application being made.

5.8 Intervention where there is a failure to progress Local Plans – DCLG has begun the formal process of considering intervention in 15 areas where the local authority has failed to put an up-to-date plan in place. The government will shortly activate powers that will enable it to direct local planning authorities to produce joint statutory plans and undertake an assessment of where they should be used.

5.9 First-time buyer led developments – The government will consult on a new policy whereby local authorities will be expected to permission land outside their plan on the condition that a high proportion of the homes are offered for discounted sale for first-time buyers, or for affordable rent. This will exclude land in the Green Belt.

5.10 Increasing housing density in urban areas – To ensure that our brownfield and scarce urban land is used as efficiently as possible, the government will consult on introducing:

- minimum densities for housing development in city centres and around transport hubs, with greater support for the use of compulsory purchase powers for site assembly
- policy changes to support the conversion of empty space above high street shops
- policy changes to make it easier to convert retail and employment land into housing
- a permitted development right to allow commercial buildings to be demolished and replaced with homes

[6] 'Evidence on the nature and sources of agglomeration economies, Rosenthal and Strange', 2004

[7] 'Real house prices in OECD countries: The role of demand shocks and structural policy factors', Andrews. D, 2010

Ensuring that planning permissions are built out faster

5.11 The government is determined to ensure that land released for housing is put to the best use. It will consult on:

- **strengthening the Housing Delivery Test** with tougher consequences where planned homes are not being built, by setting the threshold at which the presumption in favour of development applies at 75% of housing delivery by 2020
- **expecting local authorities to bring forward 20% of their housing supply as small sites**. This will speed up the building of new homes and supports the government's wider ambition to increase competition in the house building market
- **speeding up the development process** by removing the exemptions from the deemed discharge rules. This will get builders on site more quickly, ensuring that development is not held back by delays in discharging planning conditions

5.12 Review of build out – The government will set up a review panel, chaired by Sir Oliver Letwin, to explain the significant gap between housing completions and the amount of land allocated or permissioned, and make recommendations for closing it. The review will provide an interim report in time for Spring Statement 2018 and a full report at Budget 2018.

5.13 Register of planning permissions – The government will develop a central register of residential planning permissions from local authorities to improve information on where permissions are held and progress towards them being built out.

Developer contributions

5.14 Land value uplift – In this year's Housing White Paper, the government committed to respond to the CIL Review. DCLG will launch a consultation with detailed proposals on the following measures:

- **removing restriction of Section 106 pooling** towards a single piece of infrastructure where the local authority has adopted CIL, in certain circumstances such as where the authority is in a low viability area or where significant development is planned on several large strategic sites.[8] This will avoid the unnecessary complexity that pooling restrictions can generate
- **speeding up the process of setting and revising CIL** to make it easier to respond to changes to the market. This will include allowing a more proportionate approach than the requirement for two stages of consultation and providing greater clarity on the appropriate evidence base. This will enable areas to implement a CIL more quickly, making it easier to set a higher 'zonal CIL' in areas of high land value uplift, for example around stations
- **allowing authorities to set rates which better reflect the uplift in land values between a proposed and existing use**. Rather than setting a flat rate for all development of the same type (residential, commercial, etc.), local authorities will have the option of a different rate for different changes in land use (agricultural to residential, commercial to residential, industrial to residential). All the protections for viability from CIL, such as the Examination in Public, will be retained
- **changing indexation of CIL rates to house price inflation, rather than build costs**. This will reduce the need for authorities to revise charging schedules. This will ensure CIL rates keep up with general housing price inflation and if prices fall, rates will fall too, avoiding viability issues

[8] Section 106 agreements are legal agreements between local authorities and developers. They are a mechanism which makes a development proposal acceptable in planning terms, which would not otherwise be acceptable. Section 106 agreements provide site specific mitigations.

- **giving Combined Authorities and planning joint committees with statutory plan-making functions the option to levy a Strategic Infrastructure Tariff (SIT) in future**, in the same way that the London Mayoral CIL is providing funding towards Crossrail. The SIT would be additional to CIL and viability would be examined in public. DCLG will consult on whether it should be used to fund both strategic and local infrastructure

Housing investment

5.15 The reforms above will ensure that there is more land for housing, but the private sector and local authorities will need support to ensure homes get built on that land as soon as possible. The government will strengthen the ability of the Homes and Communities Agency (to be renamed Homes England) to use investment and planning powers to intervene more actively in the land market.

5.16 Land Assembly Fund – The government will provide £1.1 billion for a new Land Assembly Fund, funded from the NPIF. The new fund will enable Homes England to work alongside private developers to develop strategic sites, including new settlements and urban regeneration schemes. (1)

5.17 New garden towns – The government will bring together public and private capital to build five new garden towns, using appropriate delivery vehicles such as development corporations, including in areas of high demand such as the South East.

5.18 Increasing the Housing Infrastructure Fund – The government will invest further in infrastructure through the NPIF to support new housing in high-demand areas. The Budget commits a further £2.7 billion to the competitively allocated Housing Infrastructure Fund (HIF) in England. This takes the total investment in the HIF to £5 billion. (2)

5.19 Strategic planning in the South East – To ensure that this investment is well-targeted and helps grow the economy, the government will support more strategic and zonal planning approaches through housing deals in the South East, where housing need is at its most acute. As a first step, the government has agreed a housing deal with Oxfordshire, part of its wider strategic investment in the Cambridge-Milton Keynes-Oxford corridor. Oxfordshire has agreed to bring forward for adoption a joint statutory spatial plan and commit to a stretching target of 100,000 homes in the county by 2031, in return for a package of government support over the next five years, including £30 million a year for infrastructure and further support for affordable housing and local capacity. The government is also continuing housing deal negotiations with Greater Manchester, the West Midlands, Leeds and the West of England.

5.20 Small sites: infrastructure and remediation – The government will provide a further £630 million through the NPIF to accelerate the building of homes on small, stalled sites, by funding on-site infrastructure and land remediation. (3)

5.21 Home Building Fund: SMEs – The Budget announces a further £1.5 billion for the Home Building Fund, providing loans specifically targeted at supporting SMEs who cannot access the finance they need to build.

5.22 Housing guarantees – The government will explore options with industry to create £8 billion worth of new guarantees to support housebuilding, including SMEs and purpose built rented housing.

5.23 Affordable housing – The government has already shown its commitment to increasing the supply of affordable homes:

- the Budget confirms the further £2 billion of funding for affordable housing announced in October, including funding for social rented homes. This takes the total budget for the Affordable Homes Programme from £7.1 billion to £9.1 billion to 2020-21. It is expected that this will provide at least 25,000 new affordable homes
- **the Budget will lift Housing Revenue Account borrowing caps** for councils in areas of high affordability pressure, so they can build more council homes. Local authorities will be invited to bid for increases in their caps from 2019-20, up to a total of £1 billion by the end of 2021-22. The government will monitor how authorities respond to this opportunity, and consider whether any further action is needed (4)

5.24 Estate regeneration – The Budget provides £400 million of loan funding for estate regeneration to transform run-down neighbourhoods and provide new homes in high-demand areas.

5.25 Construction skills – The government will support industry to help ensure that there is a workforce fit to build these homes, providing £34 million to scale up innovative training models across the country, including a programme in the West Midlands. The government is working with industry to finalise a Construction Sector Deal that will support innovation and skills in the sector, including £170 million of investment through the Industrial Strategy Challenge Fund. Construction skills will also be a focus for the National Retraining Scheme. (31)

5.26 Grenfell Tower – Following the tragedy at Grenfell Tower, the government is determined to ensure that those affected receive the support they need. The Budget re-confirms that, where measures are essential to make a building fire safe, the government will make sure that current restrictions on the use of local authority financial resources will not prevent them going ahead. The government awaits the findings of the Hackitt Review and will respond to the recommendations when they are published. The Budget also commits £28 million additional community support to victims, including new mental health services, regeneration support for the Lancaster West estate, and a new community space.

Homeownership

5.27 Building more homes will not happen overnight. In the short term, there is a need to help those who have been shut out of the housing market by rising prices.

5.28 Stamp duty land tax – the government will permanently raise the price at which a property becomes liable for SDLT to £300,000 for first-time buyers to help young people buy their first home. The relief will not apply for purchases of properties worth over £500,000. 95% of first-time buyers that pay SDLT will benefit, up to a maximum of £5,000, and 80% of first-time buyers will pay no SDLT at all.

5.29 Help to Buy Equity Loan – The Help to Buy Equity Loan scheme helps people to buy a home with a 5% deposit and has supported 135,000 people so far.[9] The Budget confirms the announcement in October of a further £10 billion for the scheme, supporting another 135,000 people to buy a new home.

5.30 Creditworthiness and rental payment data – The government will launch a £2 million competition, to support FinTech firms developing innovative solutions that help first-time buyers ensure their history of meeting rental payments on time is recognised in their credit scores and mortgage applications. Mortgage lenders and credit reference agencies are often unable to take rental payment history into account as they do not have access to this data. This competition will support firms to solve this problem.

[9] 'Help to Buy (equity Loan scheme) and Help to Buy: NewBuy statistics: Data to 30 June 2017, England', Department for Communities and Local Government, September 2017

5.31 Empty homes premium – The government is keen to encourage owners of empty homes to bring their properties back into use. To help achieve this, local authorities will be able to increase the council tax premium from 50% to 100%. (7)

5.32 Right to Buy pilot – The Budget confirms that government will proceed with a £200 million large-scale regional pilot of the Right to Buy for housing association tenants in the Midlands.

Homelessness

5.33 Rough sleeping – The Budget sets out the government's first steps towards its commitment to halve rough sleeping by 2022, and to eliminate it by 2027, including the launch of the Homelessness Reduction Taskforce, which will develop a cross-government strategy to work towards this commitment.

5.34 Housing First pilots – The government will invest £28 million in three Housing First pilots in Manchester, Liverpool and the West Midlands, to support rough sleepers with the most complex needs to turn their lives around.

5.35 Private rented sector access schemes: support for households at risk of homelessness – The government will also provide £20 million of funding for schemes to support people at risk of homelessness to access and sustain tenancies in the private rented sector. (17)

Support for renters

5.36 Longer tenancies – The government will consult on the barriers to landlords offering longer, more secure tenancies to those tenants who want them.

5.37 Targeted Affordability Funding – To support Housing Benefit and Universal Credit claimants living in areas where private rents have been rising fastest, the government will increase some Local Housing Allowance rates by increasing Targeted Affordability Funding by £40 million in 2018-19 and £85 million in 2019-20. This will increase the housing benefit awards of approximately 140,000 claimants in 2018-19, by an average of £280, in areas where affordability pressures are greatest. (13)

6 Public services

Introduction

6.1 The government's commitment to a balanced approach to managing the public finances means more funding is available for public services. The government is committed to making this funding available where it is needed most. Therefore the Budget provides £6.3 billion additional funding for the NHS. This includes £3.5 billion of capital investment in estates transformation, and improvement and efficiency schemes, so that the NHS can locally deliver more integrated care for patients and better meet demand. It also includes £2.8 billion in resource funding, as a significant first step towards meeting the government's commitment to increase NHS spending by a minimum of £8 billion in real terms by the end of this parliament. In addition, the government is committing to funding pay awards for NHS staff on the Agenda for Change contract that are agreed as part of a pay deal to improve productivity, recruitment and retention.

6.2 The government also remains committed to making sure the welfare system is simple and sustainable in the long term, and that work always pays. At the same time, it is ensuring that the most vulnerable in society are protected. The measures in the Budget will make sure that those most in need get the support they require, learning lessons from the early stages of the roll-out of Universal Credit.

6.3 The government will continue to ensure that public money is used as effectively as possible throughout the public sector. The Budget announces a step change in how the government assesses, incentivises and innovates to raise public sector productivity. This includes piloting the use of a Public Value Framework, as recommended by Sir Michael Barber, to drive productivity improvements across the public sector.

Health

6.4 The government will provide the NHS with £6.3 billion of additional funding in England.

6.5 **NHS funding** – At Spending Review 2015, the government funded the NHS's 'Five Year Forward View' plan. Even with this significant investment the health service remains under pressure, with high demand on its services caused by the UK's ageing population and rapidly advancing technology. The government will therefore provide the NHS with £2.8 billion of additional resource funding in England. This will help it get back on track to meet its performance targets on waiting times both in A&E and after patients are referred to treatment: (8)

- £335 million of this will be provided this year, to help the NHS to increase capacity over winter
- £1.6 billion will be provided in 2018-19 – taking the overall increase in the NHS's resource budget next year to £3.75 billion
- £900 million will be provided in 2019-20, to help address future pressures

6.6 This funding should enable the NHS to meet the A&E four-hour target next year, make inroads into waiting lists and improve performance against waiting time targets. It will therefore ensure that more patients receive the care that they need more quickly. Alongside this investment, the government expects the NHS to continue to improve its efficiency and productivity, and deliver its plan to transform services and deliver seamless care for patients.

6.7 NHS pay – To protect frontline services in the NHS, the government is also committing to fund pay awards as part of a pay deal for NHS staff on the Agenda for Change contract, including nurses, midwives and paramedics. Any pay deal will be on the condition that the pay award enables improved productivity in the NHS, and is justified on recruitment and retention grounds. This does not prejudge the role of the independent NHS Pay Review Body in recommending the level of pay award that these staff should receive.

6.8 NHS capital investment – The government is delivering on its share of the £10 billion package of investment recommended by Sir Robert Naylor's review of NHS property and estates, by providing a further £3.5 billion of new capital funding for the NHS in England – on top of the £425 million already provided at Spring Budget 2017.[1] This will be allocated as follows: (9)

- £2.6 billion will be for local groups of NHS organisations (Sustainability and Transformation Partnerships) to deliver transformation schemes that improve their ability to meet demand for local services. This funding will enable them to deliver more integrated care for patients, more care out of hospital and reduce waiting times. Alongside the Budget, the government has announced the first group of schemes to benefit from this funding, subject to the usual approvals processes
- £700 million will support turnaround plans in the individual trusts facing the biggest performance challenges, and tackle the most urgent and critical maintenance issues that trusts are facing – to help ensure every patient is treated in a safe environment, conducive to the highest quality of care
- £200 million will support efficiency programmes that will, for example, help reduce NHS spending on energy, and fund technology that will allow more money and staff time to be directed towards treating patients

6.9 This £3.5 billion will allow the NHS to increase the proceeds from selling surplus NHS land and buildings to at least £3.3 billion, almost doubling the scale of investment available to the NHS, and unlocking land for housing. It will also be accompanied by private finance investment in the health estate where this provides good value for money. And it will be complemented by work to review and improve the rules that inform trusts' use of capital funding, to help make sure that they can maintain their facilities most effectively. Taken together, these measures will help hospitals and commissioners to bring down running costs and invest in high quality patient care.

6.10 Mental health – the government is committed to parity of esteem between mental health and physical health. In December, a green paper will be published setting out the government's plans to transform mental health services for children and young people.

6.11 Disabled Facilities Grant – The Budget also provides £42 million of additional funding for the Disabled Facilities Grant in 2017-18, supporting people to stay in their own homes. This will increase the total budget for this year to £473 million.

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[1] 'NHS property and estates', Sir Robert Naylor, March 2017

Welfare and pensions

6.12 Changes to the welfare system since 2010 have helped to create a system where it pays to work and where the most vulnerable in society are protected, and which remains fair to the taxpayer.

6.13 Universal Credit – Universal Credit ensures work always pays, and it is working – more people are moving into work within 6 months under Universal Credit than in the legacy system.[2] The government is committed to ensuring Universal Credit supports people in work, which is why at Autumn Statement 2016 the government reduced the Universal Credit taper rate. The taper rate will be kept under review and the government will continue to consider the case for further changes.

6.14 The government will provide more support to Universal Credit claimants:

- from January 2018 those who need it, and who have an underlying entitlement to Universal Credit, will be able to access up to a month's worth of Universal Credit within five days via an interest-free advance. The government will extend the period of recovery from six months to twelve months, making it easier for claimants to manage their finances. New claimants in December will be able to receive an advance of 50% of their monthly entitlement at the beginning of their claim and a second advance to take it up to 100% in the new year, before their first payment date (14)
- from February 2018 the government will remove the seven-day waiting period so that entitlement to Universal Credit starts on the first day of application (14)
- from April 2018 those already on Housing Benefit will continue to receive their award for the first two weeks of their Universal Credit claim (15)
- the government will also make it easier for claimants to have the housing element of their award paid directly to their landlord

6.15 To support these changes the government will roll out Universal Credit more gradually between February 2018 and April 2018, and roll-out to all jobcentres will be complete in December 2018. (14)

6.16 Universal Credit also offers new opportunities to support people in low-paid work to progress in the labour market. The Budget allocates £8 million to trial innovative approaches to help individuals on Universal Credit to earn more. (16)

6.17 State Pension and Pension Credit – The basic State Pension will be increased by the triple lock. The rise in April 2018 will be 3%, a cash increase of £3.65 per week for the full basic State Pension. The benefits of the triple lock uprating will also be passed on to the poorest pensioners through an increase to the Standard Minimum Guarantee in Pension Credit to match the cash rise in the basic State Pension. This will be paid for through an increase in the Savings Credit threshold – the Savings Credit starting point. The full new State Pension will also be increased by the triple lock, rising by £4.80 per week.

6.18 Benefit fraud and error – Overall fraud and error in the benefit system remains low at 1.9% of the Department for Work and Pensions' (DWP) total welfare expenditure.[3] However, the government is committed to further improvements to ensure that taxpayers get value for money. The government will invest in the better use of data to ensure that fraudulent and error related payments are reduced. (50)

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[2] 'Universal Credit Employment Impact Analysis', Department for Work and Pensions, September 2017

[3] 'Fraud and Error in the Benefit System: 2015/16 Final Estimates', Department for Work and Pensions, December 2016

6.19 Relationship support – The government will provide funding for DWP's relationship support work, to help keep families together and reduce parental conflict. (19)

Public sector productivity

6.20 Raising the UK's public sector productivity is a prerequisite for maintaining control of public finances while meeting growing demands for world class public services. With public services accounting for around 20% of the UK economy, public sector productivity also plays an important role in the UK's productivity growth overall.[4]

6.21 Barber Review – The government welcomes Sir Michael Barber's review, 'Delivering better outcomes for citizens: practical steps for unlocking public value' published on 17 November 2017.[5] The government accepts the central recommendation to introduce a new Public Value Framework, a tool that will be used by government to measure how effectively public spending delivers results that improve people's lives. This will support more constructive conversations on public sector productivity and offer practical insights into improving public services. The approach will be piloted in collaboration with departments during 2018.

6.22 GovTech Catalyst – Growing and diversifying the UK digital economy, while ensuring the public sector can benefit from emerging technologies, is a priority for government. The government will create a GovTech Catalyst, a small central unit based in the Government Digital Service that will give businesses and innovators a clear access point to government. The unit will help them navigate government and collaborate to solve public sector challenges, which could include improving the planning process and freeing up teachers time.

6.23 GovTech Fund – The Budget commits up to £20 million over 3 years, starting in 2018-19, of R&D NPIF funding for a GovTech Fund. Public bodies will be able to access this fund to support procurement of innovative products through the Small Business Research Initiative (SBRI), run by Innovate UK.

6.24 Balance Sheet Review – The government holds £1.7 trillion of assets and £3.7 trillion of liabilities on its balance sheet.[6] The government is launching a Balance Sheet Review to make more effective use of these holdings, looking at areas such as estates optimisation, improving the return on investments, and reducing the cost of liabilities. The Review will help to release resources for further investment in public services and improve the sustainability of the public finances. The government will update on progress of the Review at Budget 2018.

6.25 Workforce strategy – To develop and support public sector workers in driving productivity improvements, the government will build capability in workforce planning, management and monitoring. This will ensure the right people are in place, with the right skills and experiences to deliver key services.

6.26 Public sector leadership – Great leadership is crucial for improving productivity. The government will establish a Public Service Leadership Academy to complement existing provision, create networks and share best practice across the public services. A taskforce will be set up to advise on the role, remit and responsibilities of the new Academy and will provide an interim report by Spring Statement 2018.

6.27 Public sector pay – In September 2017 the government announced its intention to move away from the 1% basic public sector pay award policy, which is paid to public servants in addition to any incremental pay progression and allowances. The government will ensure that the overall pay award is fair to public sector workers, as well as to taxpayers, and reflects the vital contribution they make to delivering high quality public services. In 2018-19, for

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[4] 'Quarterly National Accounts Data Tables' (General Government expenditure as a percentage of GDP at market prices), ONS, September 2017

[5] 'Delivering better outcomes for citizens: practical steps for unlocking practical value', Sir Michael Barber, November 2017

[6] 'Whole of government accounts 2015-16', HM Treasury, July 2017

those workforces covered by an independent Pay Review Body (PRB), the relevant Secretary of State will shortly write to the PRB Chair to initiate the 2018-19 pay round, before later submitting detailed evidence outlining recruitment and retention data and reflecting the different characteristics and circumstances of their workforce. Each PRB will then make its recommendations in the spring or summer, based on the submitted evidence. Secretaries of State will make final decisions on pay awards, taking into account their affordability, once the independent PRBs report.

Chapter 3

Quality of public finances

3.1 The government's fiscal rules take a balanced approach to government spending, getting debt falling but also investing in our key public services like the NHS, and keeping taxes low.

3.2 With debt still too high, it is vital that the government continues to control public spending and improve the productivity of public bodies and services. Government spending as a share of GDP has been brought down from 44.8% in 2010-11 to 39.0% in 2016-17. Total Managed Expenditure (TME) as a share of GDP is forecast to fall from 38.9% in 2017-18 to 37.7% in 2022-23, the same proportion of GDP as in 2003-04.

3.3 The following tables are taken directly from Autumn Budget 2017. As noted in Chapter 2, the OBR has since produced an updated economic and fiscal forecast. For updated figures, please refer to the March 2018 Economic and Fiscal Outlook document, reproduced in Annex A.

3.4 Table 3.A sets out the path for Total Managed Expenditure (TME) to 2022-23.

Table 3.A: Total Managed Expenditure[1]

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
CURRENT EXPENDITURE						
Resource AME	386.5	397.8	406.2	417.0	431.5	447.6
Resource DEL, excluding depreciation[2]	304.0	309.6	310.7	313.5	319.1	324.8
Ring-fenced depreciation	22.0	22.8	23.3	21.9	22.3	22.7
Public Sector Current Expenditure	**712.5**	**730.2**	**740.1**	**752.4**	**772.9**	**795.1**
CAPITAL EXPENDITURE						
Capital AME	26.0	18.0	17.7	21.3	23.0	23.8
Capital DEL	56.9	61.1	69.0	76.2	75.8	77.9
Public Sector Gross Investment	**82.8**	**79.1**	**86.6**	**97.6**	**98.8**	**101.8**
TOTAL MANAGED EXPENDITURE	**795.3**	**809.3**	**826.7**	**849.9**	**871.7**	**896.8**
Total Managed Expenditure (% GDP)	*38.9%*	*38.5%*	*38.3%*	*38.2%*	*37.9%*	*37.7%*

[1] *Budgeting totals are shown including the Office for Budget Responsibility (OBR) forecast allowance for shortfall. Resource DEL excluding ring-fenced depreciation is the Treasury's primary control total within resource budgets and is the basis on which*

departmental Spending Review settlements are agreed. The OBR publishes Public Sector Current Expenditure (PSCE) in DEL and AME, and Public Sector Gross Investment (PSGI) in DEL and AME. A reconciliation is published by the OBR.

2 *The ONS has announced the reclassification of English Housing Associations to the private sector with effect from 16 November 2017, which means that from this date their expenditure is no longer part of PSGI. As a result of reclassification, the OBR now considers that from this date central government grants to Housing Associations will be part of PSGI in CDEL. More detail can be found in the OBR's Economic and Fiscal Outlook.*

Source: Autumn Budget 2017

Departmental Expenditure Limits

3.5 Tables 3.B and 3.C show the departmental resource and capital totals set at Spending Review 2015, adjusted to reflect subsequent announcements up to Autumn Budget 2017. For the years beyond the current Spending Review period, the government sets out a path for overall expenditure. Before additional investment over the forecast period and excluding classification changes, departmental spending will continue to grow in 2020-21 and 2021-22 in line with the profiles set out at Autumn Statement 2016 and Spring Budget 2017. In 2022-23, departmental resource spending will continue to grow in line with inflation, and departmental capital spending will grow in line with GDP.

Devolved administrations

3.6 The application of the Barnett formula to spending decisions taken by the UK government at the Budget will provide each of the devolved administrations with additional funding to be allocated according to their own priorities. The Scottish and Welsh governments' block grants will be further adjusted as set out in their respective fiscal frameworks.

3.7 Other information relevant to the quality of public finances is presented in Chapter 2:

- Paragraphs 1.35 to 1.61 deal with the government's fiscal plan.
- Paragraphs 3.4 to 3.64 deal with taxes for individuals and business.
- Paragraphs 3.65 to 3.88 cover ensuring a fair contribution through the tax system

Table 3.B: Departmental Resource Budgets (Resource DEL excluding depreciation)

	Plans		
	2017-2018	2018-19	2019-20
Resource DEL excluding depreciation[1]			
Defence	27.5	28.2	29.0
Single Intelligence Account[2]	2.0	1.9	2.0
Home Office	10.6	10.7	10.7
Foreign and Commonwealth Office[3]	2.0	1.2	1.2
International Development[3,4]	7.6	8.7	8.2
Health (inc. NHS)	119.1	121.9	124.2
Work and Pensions	6.2	6.0	5.4
Education	61.3	62.4	63.3
Business, Energy and Industrial Strategy	1.7	1.8	1.6
Transport	2.0	2.1	1.7
Exiting the European Union	0.1	0.1	0.1
Digital, Culture, Media and Sport	1.4	1.5	1.5
DCLG Communities	2.8	2.3	2.2
DCLG Local Government	6.7	4.8	5.6
Scotland[5]	14.3	13.8	13.5
Wales[6]	13.4	13.2	11.2
Northern Ireland	10.0	10.0	10.0
Justice	6.6	6.2	6.0
Law Officers Departments	0.6	0.5	0.5
Environment, Food and Rural Affairs	1.6	1.5	1.5
HM Revenue and Customs	3.6	3.4	3.2
HM Treasury	0.2	0.2	0.1
Cabinet Office	0.5	0.3	0.3
International Trade	0.4	0.3	0.3
Small and Independent Bodies	1.4	1.3	1.3
Reserves[7]	3.5	6.5	7.2
Adjustment for Budget Exchange[8]	-0.4	0.0	0.0
Total Resource DEL excluding depreciation	**306.7**	**310.9**	**311.9**
OBR allowance for shortfall[9]	-2.8	-1.3	-1.3
OBR resource DEL excluding depreciation forecast	**304.0**	**309.6**	**310.7**

1 *Resource DEL excluding depreciation is the Treasury's primary control total within resource budgets and the basis on which Spending Review settlements were made.*

2 *The SIA budget in 2017-18 includes transfers from other government departments, which have yet to be reflected in later years.*

3 *Figures for 2018-19 and beyond do not reflect all transfers which will be made from DFID to other government departments, as the cross-government funds have not been allocated for these years.*

4 *Figures reflect Autumn Budget 2017 adjustments, as well as further adjustments made as a result of revised GNI forecasts at Autumn Statement 2016*

5 *The Scottish Government's resource DEL block grant has been adjusted from 2016-17 onwards as agreed in the Sottish Government's Fiscal Framework. In 2016-17 an adjustment of £5.5bn reflected the devolution of Stamp Duty Land Tax and Landfill Tax and the creation of the Scottish Rate of Income Tax. In 2017-18 an adjustment of £12.5bn reflects the devolution of further income tax powers and revenues from Scottish courts. In 2018-19 and 2019-20, adjustments of £13.1bn and £13.4bn also include the devolution of Air Passenger Duty. However, the UK and Scottish governments have now agreed to delay the devolution of Air Passenger Duty. As a result, the Scottish Government's block grant for 2018-19 and 2019-20 will be re-calculated.*

6 *The Welsh Government's resource DEL block grant has been adjusted from 2018-19 onwards as agreed in the Welsh Government's Fiscal Framework. In 2018-19 an adjustment of £0.3 billion reflects the devolution of Stamp Duty Land Tax and Landfill Tax and in 2019-20 an adjustment of £2.3 billion reflects the devolution of the Welsh Rate of Income Tax.*

7 *The reserve in 2017-18 reflects allocations made at Main Estimates and Autumn Budget 2017.*

8 *Departmental budgets in 2017-18 include amounts carried forward from 2016-17 through Budget Exchange, which has been voted at Main Estimates. These increases will be offset at Supplementary Estimates, so are excluded from spending totals.*

9 *The OBR's forecast of underspends in resource DEL budgets.*

Table 3.C: Departmental Capital Budgets (Capital DEL)

		Plans		
	2017-18	2018-19	2019-20	2020-21
Capital DEL				
Defence	8.5	8.7	9.0	9.6
Single Intelligence Account	0.6	0.6	0.7	0.7
Home Office	0.6	0.5	0.5	0.4
Foreign and Commonwealth Office	0.1	0.1	0.1	0.1
International Development	2.9	3.2	3.5	3.6
Health (inc. NHS)	5.6	6.4	6.7	6.8
Work and Pensions	0.4	0.3	0.2	0.2
Education	5.1	5.2	5.1	4.5
Business, Energy and Industrial Strategy[1]	10.9	10.5	11.5	6.1
Transport	6.5	8.1	11.9	13.0
Exiting the European Union	0.0	0.0	0.0	0.0
Digital, Culture, Media and Sport	0.4	0.5	0.6	0.5
DCLG Communities	7.7	8.6	10.5	11.6
DCLG Local Government	0.0	0.0	0.0	0.0
Scotland	3.6	3.9	4.2	4.3
Wales	1.7	1.9	2.1	2.2

Northern Ireland	1.3	1.4	1.5	1.5
Justice	0.7	0.7	0.4	0.1
Law Officers Departments	0.0	0.0	0.0	0.0
Environment, Food and Rural Affairs	0.7	0.6	0.6	0.5
HM Revenue and Customs	0.2	0.2	0.2	0.2
HM Treasury	0.2	0.2	0.2	0.1
Cabinet Office	0.1	0.0	0.0	0.0
International Trade	0.0	0.0	0.0	0.0
Small and Independent Bodies	0.2	0.2	0.1	0.1
Reserves	1.1	1.0	1.4	1.4
Capital spending not in budgets[2]	0.0	0.0	0.4	2.3
Adjustment for Budget Exchange[3]	-0.5	0.0	0.0	0.0
Adjustment for Research & Development RDEL to CDEL switch[4]	0.0	0.0	0.0	6.5
Total Capital DEL	**58.7**	**62.9**	**71.3**	**76.2**
Remove CDEL not in Public Sector Gross Investment[5]	*-8.6*	*-8.5*	*-9.2*	*-7.9*
OBR Allowance for shortfall[6]	*-1.9*	*-1.8*	*-2.3*	-
Public Sector Gross Investment in CDEL	**48.2**	**52.6**	**59.7**	**68.3**

[1] Full BEIS capital DEL budgets for 2020-21 have not yet been set. See footnote 4.
[2] The uplift in capital DEL represents funding not allocated to departments. It is presented net of the OBR's allowance for shortfall in 2020-21.
[3] Departmental budgets in 2017-18 include amounts carried forward from 2016-17 through Budget Exchange, which have been voted at Main Estimates. These increases will be offset at Supplementary Estimates, so are excluded from spending totals.
[4] As most departmental resource DEL budgets have not been set in 2020-21, the OBR has forecast the size of the resource to capital switch for R&D that will take place in that year.
[5] Capital DEL that does not form part of public sector gross investment, including financial transactions in capital DEL.
[6] The OBR's forecast of underspends in capital DEL budgets.

Chapter 4

Institutional features of public finances

The fiscal policy framework

4.1 In recent years, many governments internationally have used fiscal targets as a tool to demonstrate political commitment to fiscal policy goals. Increasingly they have established independent fiscal institutions (IFIs) to assess compliance with these targets, and to increase trust in the forecasts and analysis on which such assessments are usually based.

4.2 In the case of the UK, the Office for Budget Responsibility (OBR) was established in 2010 to "ensure that policy is made on an unbiased view of future prospects, improving confidence in the fiscal forecasts".[1]

Office for Budget Responsibility

4.3 The government established the OBR on an interim basis on 17 May 2010. Since then the OBR has been placed on a permanent, statutory footing through the Budget Responsibility and National Audit Act 2011 (the act), which received Royal Assent on 22 March 2011.

4.4 The OBR comprises the Chair of the OBR and two other members of the Budget Responsibility Committee (BRC), and two non-executive members. It is supported by a civil service staff.

4.5 There are three BRC members: Robert Chote (Chair of the OBR), Charlie Bean and Graham Parker were appointed by the Chancellor with the approval of the Treasury Select Committee. Graham Parker will be stepping down at the end of August 2018, and will be replaced ahead of Autumn Budget 2018. Robert Chote and Graham Parker were appointed in October 2010 and Charlie Bean in September 2016. The Chancellor re-appointed for a second term of office Robert Chote in September 2015.

4.6 There are ordinarily two non-executive members: Sir Christopher Kelly was appointed by the Chancellor in June 2017. There is currently a process underway to replace Lord Terry Burns, who stepped down in January 2018.

[1] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/210667/press_01_10.pdf

Remit of the OBR

4.7 The government's fiscal policy decisions are based on the independent forecasts of the economy and public finances, prepared by the OBR. Since the general election in May 2010, the OBR has produced all the official forecasts of the economy and public finances, independently of ministers.

4.8 The act sets out the main duty of the OBR; to examine and report on the sustainability of the public finances. This duty feeds directly into the Treasury's fiscal objective to deliver sound and sustainable public finances.

4.9 As set out in the act, the OBR's responsibilities include:

- the production of at least two fiscal and economic forecasts each financial year, including independent scrutiny of the impact of policy measures and any resultant impact on the forecasts and the main risks and assumptions
- an assessment of the extent to which the fiscal and debt management objectives have been, and are likely to be, achieved alongside these forecasts
- an assessment on the accuracy of the previous fiscal and economic forecasts
- an analysis of the sustainability of the public finances

Operating framework

4.10 The Charter for Budget Responsibility provides guidance to the OBR in line with, and in support of, the provisions in the Act. This guidance helps to explain the role of the OBR within the fiscal framework and provide greater clarity as to the OBR's duty to independently examine and report on the sustainability of the public finances.

4.11 This guidance provides for the OBR to investigate the impact of trends and policies on the public finances from a multitude of angles including through forecasting, long-term projections and balance sheet analysis. The OBR must perform its duty objectively, transparently and impartially and on the basis of government policy. This protects the independence of the OBR and ensures a clear separation between analysis (which is the role of the OBR) and policy making (which is the responsibility of ministers). The OBR has complete discretion in the performance of its duty subject to its statutory obligations.

4.12 As set out in the Charter, the OBR has additional responsibilities including:

- the production of a fiscal risks statement setting out the main risks to the public finances, including macroeconomic risks and specific fiscal risks, to be produced at least once every two years. This requirement was included in amendments to the Charter in October 2015.
- the assessment of spending against the welfare cap and margin at the first Budget or fiscal update of each new Parliament, coinciding with the incoming government's setting of a new cap. In addition, the OBR will monitor welfare spending against the pathway and margin at each Budget and fiscal update before the formal assessment against the cap.

4.13 To ensure credibility of the fiscal framework and protect the independence of the OBR it is vital for there to be transparency in the responsibilities of the OBR. A Memorandum of Understanding established a transparent framework for cooperation between the OBR and the Treasury, as well as other parts of government that the OBR needs to work closely with to perform its forecasting and analytical duties.

4.14 The OBR is accountable to Parliament and the Chancellor for the analysis it produces and the way it uses public funds. A framework document sets out the broad governance and management framework within which the OBR operates.

4.15 The Charter requires the government to set out before Parliament its fiscal policy objectives, and the means by which these objectives will be attained ("the fiscal mandate").

The fiscal mandate and supplementary targets

4.16 The Charter was modified in November 2016 to reflect the government's new fiscal rules. The fiscal rules approved by Parliament on 24 January 2017 are:

- In order to provide for sustainable public finances, ensure confidence in the economy, and support the effectiveness of monetary policy, the Treasury's objective for fiscal policy is to: **return the public finances to balance by the middle of the next decade.**
- In order to achieve the above objective, the Treasury's mandate for fiscal policy in this Parliament is: **a target to reduce cyclically-adjusted public sector net borrowing to below 2% of GDP by 2020-21.**
- The Treasury's mandate for fiscal policy is supplemented by: **a target for public sector net debt as a percentage of GDP to be falling in 2020-21.**
- To ensure that expenditure on welfare remains sustainable, the Treasury's mandate for fiscal policy is further supplemented by: **a target to ensure that expenditure on welfare in 2022-23 is contained within a predetermined cap and margin set by the Treasury at Autumn Budget 2017.**
- In the event of a significant negative shock to the UK economy, the Treasury will review the appropriateness of the fiscal mandate and supplementary targets as a means of returning the public finances to balance as early as possible in the next Parliament.

Accounting and statistics

4.17 The independent Office for National Statistics and HM Treasury compile monthly statistics for the public sector and sub-sectors, on both a cash and accrued basis. Reconciliation tables between these are produced. The production is guided by the UK's code of practice which is consistent with the United Nations Fundamental Principles of Official Statistics and the European Statistics Code of Practice.

4.18 Information on the UK's contingent liabilities is published for all central government departments. The publication of the audited 'Whole of

Government Accounts' (WGA), based on International Financial Reporting Standards, extends the coverage across government, with the latest report covering the year ended 31 March 2016. A summary of publicly available information on contingent liabilities is also published in the OBR's 'Fiscal sustainability report'.

4.19 WGA is a full accruals based set of accounts covering the whole public sector and audited by the National Audit Office. WGA is a consolidation of the accounts of over 6,000 organisations across the public sector, including central government departments, local authorities, devolved administrations, the health service, and public corporations.

Annex A
OBR analysis

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 2018 '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 2017 'Fiscal sustainability report'.

3 Economic outlook

Introduction

3.1 This chapter:

- describes the assumptions and judgements that we have made in respect of **the UK's forthcoming exit from the EU** (from paragraph 3.2);
- sets out our estimates of the amount of **spare capacity** in the economy and our judgement regarding the **growth in the economy's productive potential** that underpin our forecasts for actual GDP growth (from paragraph 3.6);
- describes the key **conditioning assumptions** for the forecast, including credit conditions, the exchange rate and the world economy (from paragraph 3.21);
- sets out our **real GDP growth forecasts** (from paragraph 3.39) and the associated outlook for **inflation** (from paragraph 3.49) and **nominal GDP** (from paragraph 3.60);
- discusses recent developments and prospects for the household, corporate, government and external **sectors of the economy** (from paragraph 3.63); and
- outlines **risks and uncertainties** (from paragraph 3.117) and compares our central forecast with those of selected external organisations (from paragraph 3.120).

Assumptions and judgements for the UK's exit from the EU

3.2 The OBR is required by legislation to produce its forecasts based on current government policy (but not necessarily assuming that particular objectives will be met). With negotiations over the UK's exit from the EU still taking place, this is not straightforward. We asked the Government if it wished to provide any additional information on its current policies in respect of Brexit that would be relevant to our forecasts. As set out in the Foreword, it directed us to the Prime Minister's Florence speech from September.

3.3 The position laid out in that speech was reinforced and expanded upon in the Prime Minister's Mansion House speech on 2 March, which was delivered after our forecast had been closed. We did not have advance access to any content from this speech, but it would not have altered our assumptions relating to Brexit. As with previous speeches and Government publications, achieving the outcomes the Government seeks will depend on further policy development by UK authorities as well as continuing negotiations with the EU.

3.4 Given the current uncertainty as to how the Government will respond to the choices and trade-offs facing it during the negotiations, we still have no meaningful basis for predicting a precise outcome upon which we could then condition our forecast. Moreover, even if the outcome of the negotiations were predictable, its impact on the economy, monetary policy and the public finances would still be uncertain. We have therefore retained the same broad-brush assumptions regarding Brexit that underpinned our previous post-referendum forecasts. Specifically, as regards the economy forecast, we assume that:

- **The UK leaves the EU in March 2019** – two years after Article 50 was invoked.
- **The negotiation of new trading arrangements with the EU and others slows the pace of import and export growth over a 10-year period**. We calibrated this slowdown on the basis of a range of external studies of different possible trade regimes and have assumed offsetting impacts from exports and imports on GDP growth.
- **The UK adopts a tighter migration regime following departure from the EU than that currently in place**, but not sufficiently restrictive to reduce net inward migration to the desired 'tens of thousands'.

3.5 These assumptions will, of course, be updated once firmer information about the outcome of the negotiations becomes available. As well as these broad-brush assumptions about the Brexit process, our recent forecasts have incorporated specific judgements regarding the impact of the referendum result on the UK economy in the short term (see Box 2.1).

The output gap and potential output

3.6 Judgements about the margin by which economic activity currently exceeds or falls short of its potential or sustainable level (the 'output gap') and about the future growth rate of potential output provide the foundations of our forecast. Together they determine the scope for growth in GDP over the next five years consistent with the Bank of England meeting its inflation target over the medium term. GDP growth is in turn a key driver of the overall budget deficit and the path of public sector debt.

3.7 An estimate of the output gap is also necessary for us to be able to judge the size of the structural budget deficit – in other words, the deficit that would be observed if the economy were operating at its sustainable level.[1] If the economy were running below potential, part of the headline deficit would be cyclical, and could therefore be expected to diminish as the output gap closed and above-trend growth boosted revenues and reduced spending. The opposite would be the case if the economy were running above potential. The Government has a target – the 'fiscal mandate' – for the structural deficit in 2020-21.

3.8 In this section, we first assess the gap between the current and potential levels of output (excluding the small but volatile oil and gas sector). Next, we consider the pace at which potential output is likely to grow in the future. We then describe our central forecast for

[1] The methodology we use is described in Helgadottir *et al* (2012): *OBR Working Paper No.3: Cyclically adjusting the public finances*.

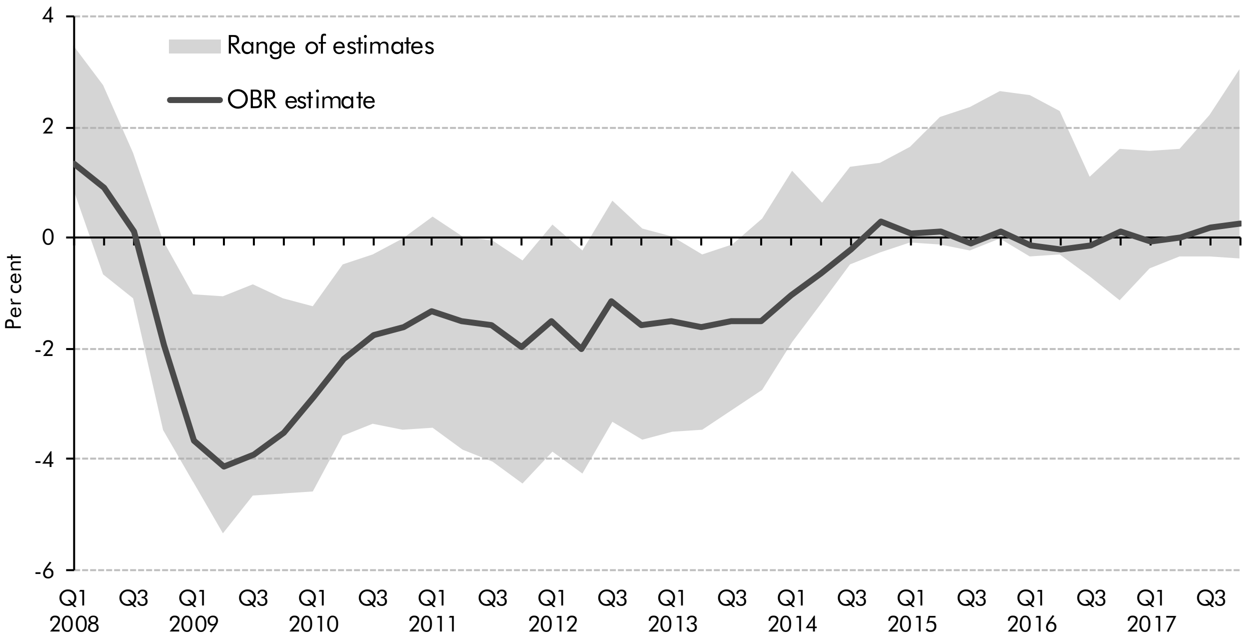
actual output over the next five years. Finally, to complete our GDP forecast, we add on a separate forecast for oil and gas production.

Our latest estimates of the output gap

3.9 One of the first steps in our forecast is to assess how the current level of activity compares with the level consistent with stable inflation in the long term. This 'potential output' cannot be observed directly, but various techniques can be used to infer it indirectly, including survey indicators, statistical filters and production functions. Every method has its limitations and none avoids the need for judgement. We therefore consider a broad range of evidence afresh at each forecast. Specifically, our judgement is informed by estimates of the output gap implied by nine different approaches. But we place more weight on some than others and this can vary from forecast to forecast. The swathe implied by these estimates is shown in Chart 3.1.[2] We also sense-check our judgement by comparing the assumed profile for the output gap with the paths for output growth and the unemployment rate.

3.10 On the basis of the latest information, we judge that the economy was operating slightly above potential in the fourth quarter of 2017 – by 0.3 per cent. This is 0.2 percentage points higher than we judged in November. Given the amplitude of past fluctuations, that should still be thought of as 'close to trend'. Our current estimate lies in the bottom half of the swathe of indicators shown in the chart. In Chapter 5, one of our scenarios considers the implications of the current level of output lying further above potential, with the corresponding output gap being in the top half of the swathe.

Chart 3.1: Range of output gap model estimates



Source: OBR

[2] Methodological details, along with some of the strengths and weaknesses of each approach, were set out in Murray (2014): *OBR Working Paper No.5: Output gap measurement: judgement and uncertainty*.

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

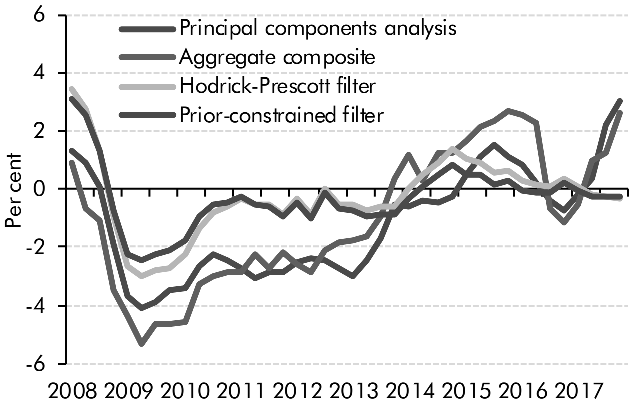
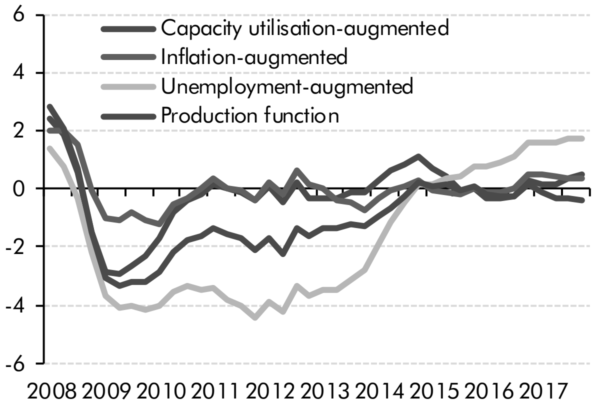


Chart 3.3: Multivariate filter-based estimates of the output gap



Note: the production function model shown here is based on a filter-based NAIRU estimate up to 2011, which then falls towards our judgement-based central estimate by the third quarter of 2017.
Source: OBR

3.11 In the fourth quarter of 2017, output growth was in line with our November forecast but some survey indicators suggest that output has moved above potential. This is reflected in several of our output gap models:

- Within our cyclical indicator models, the **'principal components analysis' (PCA)** estimate moved into positive territory during 2017, reflecting a reported rise in both capacity utilisation and recruitment difficulties. It now indicates a positive output gap of around 3 per cent, the highest among all our models. Similarly, the **'aggregate composite' (AC)** estimate has been lifted by strong survey data throughout 2017 and indicates a positive output gap in the fourth quarter of 2017.[3]

- The two **'statistical filters'** that utilise output data alone imply that the economy is currently operating slightly below potential. We place least weight on these measures because the estimate of potential output for the most recent past can be overly influenced by the recent movements in actual output (the so-called 'end-point problem') and can be revised substantially as new data become available.

- Models augmenting output data with other information on the cyclical position, such as inflation and indicators of capacity utilisation, tell a broadly consistent story of an economy operating close to potential. The **'inflation-augmented'** and **'capacity utilisation'** measures point to output being slightly above trend, close to our central estimate of 0.3 per cent. The **'unemployment-augmented'** measure points to a slightly larger positive output gap, reflecting the fall in unemployment over recent years. Our **'production function'** approach, which uses a filter-based estimate of the equilibrium unemployment rate (NAIRU) somewhat higher than our judgement-based central estimate, currently points to a small positive output gap. If, instead, we impose a

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

NAIRU that falls towards our central estimate, the output gap produced by this model is slightly negative.

3.12 Charts 3.4 and 3.5 compare our estimates of the output gap for 2018 and 2019 to those of other forecasters, as set out in the Treasury's February *Comparison of independent forecasts*. These may vary not only as a result of differences of judgement, but also because of differences in the concepts of potential output being estimated. The average estimate of the output gap is -0.1 per cent in both 2018 and 2019, compared with our estimates of +0.3 per cent and +0.1 per cent respectively. These are not large differences.

Chart 3.4: Output gap estimates: 2018

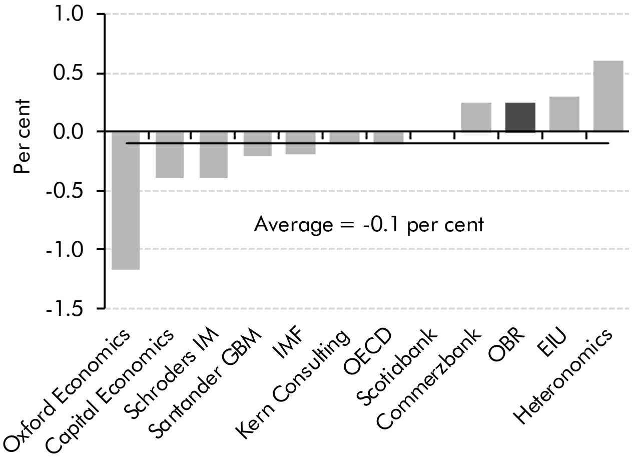
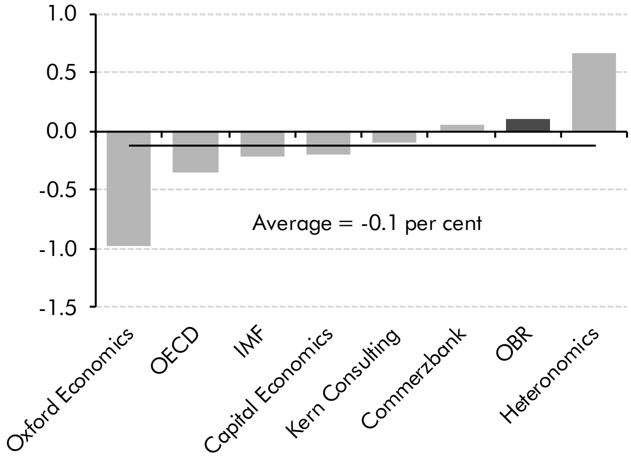


Chart 3.5: Output gap estimates: 2019



Source: HM Treasury

The path of potential output

3.13 Our forecast for the size of the economy in five years' time is in large part derived from our judgement regarding the prospective path for potential output, as a persistent output gap would be incompatible with the MPC achieving and maintaining its inflation objective over the medium term. There is considerable uncertainty surrounding this judgement, which is further heightened by the UK's prospective exit from the EU.

3.14 A key judgement relates to whether the stagnation in productivity seen since the financial crisis will continue or unwind (and, if the latter, at what pace). That weak productivity growth has been offset by unexpectedly-large increases in the labour available to businesses. But that pace of growth in labour input is unlikely to be sustained now that the unemployment rate is nearing historic lows and migration inflows are falling back. So a revival in productivity growth is essential if even the subdued output growth rates of the past few years are to be maintained. As it is, and in light of the continuing weakness of productivity growth, we have revised down our forecast for productivity in several recent *Economic and fiscal outlooks* (*EFO*s). The most significant such revision was in November 2017, resulting in a 3.0 per cent reduction in the level of potential output at the five-year forecast horizon.

3.15 Brexit provides an additional source of uncertainty regarding the future path of potential output. In our first post-referendum forecast in November 2016, we made a downward adjustment to productivity growth worth an average of 0.3 percentage points per year, primarily to reflect the impact of heightened uncertainty about the future trading and migration regime on business investment and capital deepening. In the longer term, productivity growth could also be adversely affected if the new regime leads to less trade and FDI into the UK than would otherwise have been the case (Box 3.3 discusses this in more detail). Most Brexit outcomes are also expected to result in lower net inward migration than would otherwise have been the case. Without mitigating actions, these effects can be expected to lower the prospective path for potential output.

Growth in potential total hours worked

3.16 There are four elements to our forecast for the potential total number of hours worked in the economy: the number of adults in the country; the proportion of them participating in the labour market; the proportion of those that could find employment; and the average number of hours that they, in turn, would be willing and able to work:

- Population: with net migration over the past year tracking the downward path assumed in the latest ONS 'principal' population projections, we continue to base our forecast on that. A key element of this is the assumption the ONS makes about net inward migration, which falls to 165,000 a year by 2023.

- Participation: we forecast the participation rate using the same cohort-based labour market model that underpins our long-term projections. By projecting age-specific participation rates, this model captures the consequences of an ageing population and the effect on labour market activity rates of the ongoing rises in the state pension age.[4] Overall, it implies a participation rate that is relatively stable over the first half of the forecast period, but which falls in the second half as the compositional effect of population ageing outweighs the effect of rising participation by older people.

- Employment: the proportion of those active in the labour force that would be able to find employment sustainably is governed by our NAIRU judgement. We continue to expect it to increase slightly over the forecast period from the current rate of around 4.5 per cent, thanks to the higher National Living Wage (NLW). Box 3.1 sets out more detail about the evolution of our NAIRU judgements in recent years.

- Average hours: we continue to assume that equilibrium average hours worked remains broadly flat over our forecast period.

[4] Annex A of our July 2014 *Fiscal sustainability report* discusses our longer-term approach to labour market modelling in more detail.

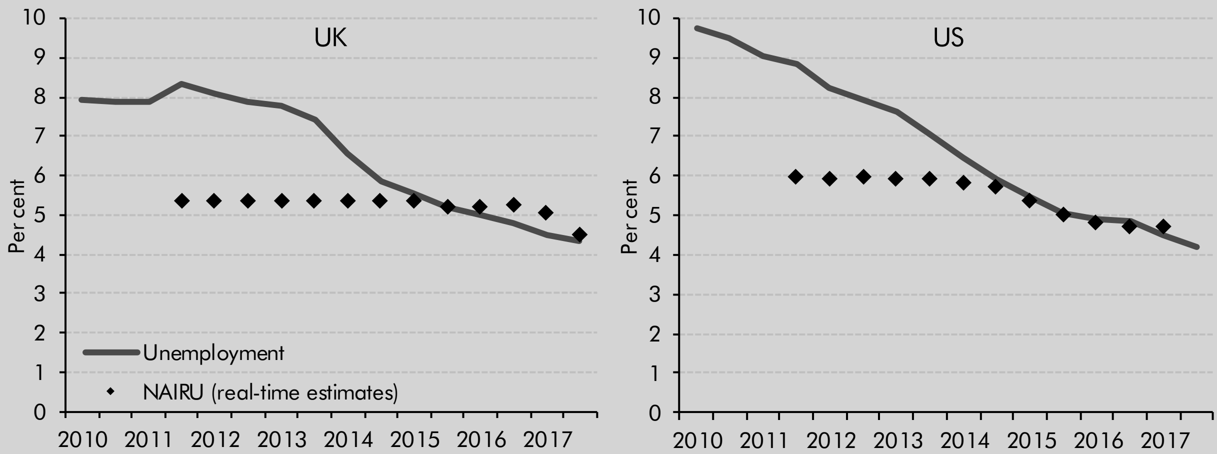
Box 3.1: The equilibrium unemployment rate

Our judgements about the equilibrium unemployment rate anchor our employment and unemployment forecasts. The equilibrium rate cannot be observed directly, but there are several ways to infer it. Some forecasters use statistical filters based on a Phillips curve relationship between the unemployment 'gap' and inflation or wage growth. These extract a smoothed series for the 'non-accelerating inflation rate of unemployment' (NAIRU), which filters out short-term volatility and cyclical fluctuations in the headline unemployment rate. This method can provide informative estimates of the NAIRU for the past. It is somewhat less useful for the very latest quarters because information about subsequent unemployment and inflation outturns are not yet available to help pin down the current NAIRU. As a result, 'real time' estimates of the NAIRU of this type are especially prone to revision as more data becomes available. While we use a similar approach to estimate the NAIRU as part of our suite of output gap models, our central forecast is ultimately a judgement.

In the US, the Congressional Budget Office (CBO) uses a different approach to produce its NAIRU estimates for the most recent period, based on the assumption that the US labour market was roughly in equilibrium in 2005.[a] The CBO separates the population into subgroups by age, sex, education and race, and then assumes that the natural rate of unemployment for each of these groups is equal to the observed actual rate of unemployment in that year. That approach means that while the NAIRU judgement is based on labour market conditions in a specific year, the real-time estimates will evolve to reflect, amongst other factors, demographic changes that alter the weights of each of these subgroups in the population.

Between 2011 and 2014 our NAIRU estimates for the UK remained broadly constant, with the higher unemployment rate coupled with subdued wage growth giving us little reason to adjust our assessment of the trade-off between unemployment and inflation. More recently, with unemployment falling faster than we had expected but little evidence of rising wage pressure, we have made three successive downward revisions to our NAIRU estimates. Unemployment has followed a similar downward trend in the US in recent years and this has confronted the CBO with similar forecast decisions, as the degree of spare capacity in the labour market (the 'unemployment gap') has gradually been eroded.

Chart A: Equilibrium and actual unemployment rates



Source: ONS, OBR

Source: Bureau of Labor Statistics, Congressional Budget Office

[a] Robert W. Arnold (2018): *CBO Working Paper 2018-02: How CBO produces its 10-Year economic forecast.*

Growth in potential output per hour worked

3.17 The outlook for potential (or trend) productivity is the most important, yet most uncertain, element of potential output growth. In our November 2017 *EFO,* we significantly lowered our forecast for growth in trend output per hour. Rather than reverting to close to its pre-crisis average by the end of the forecast period, it instead recovers rather more slowly, closing only around half of the gap. That judgement was driven by a reassessment of the various explanations of the sustained weakness in productivity growth since the financial crisis, rather than reflecting any change in our assumptions regarding the impact of Brexit.

3.18 We continue to assume that trend hourly productivity growth will rise gradually over the forecast period to reach 1.2 per cent in 2022. The average rate of 1.0 per cent a year from 2018 to 2022 lies roughly half way between the pre-crisis and post-crisis averages of actual productivity growth. There is, of course, considerable uncertainty around our central judgement. Table 3.1 summarises our potential output growth forecast.

Table 3.1: Potential output growth forecast

	Percentage change on a year earlier, unless otherwise stated					
	Potential population[1]	Equilibrium employment rate[1]	Equilibrium average hours	Potential productivity[2]	**Potential output[3]**	*memo: NAIRU (per cent)*
2017	0.6	0.0	0.0	0.9	**1.6**	*4.5*
2018	0.5	0.0	0.0	0.8	**1.4**	*4.5*
2019	0.5	0.0	0.0	0.9	**1.4**	*4.6*
2020	0.5	-0.1	0.0	1.0	**1.4**	*4.6*
2021	0.5	-0.2	0.0	1.1	**1.5**	*4.6*
2022	0.6	-0.3	0.0	1.2	**1.5**	*4.6*

[1] Corresponding to those aged 16 and over.
[2] Output per hour.
[3] Components may not sum to total due to rounding.

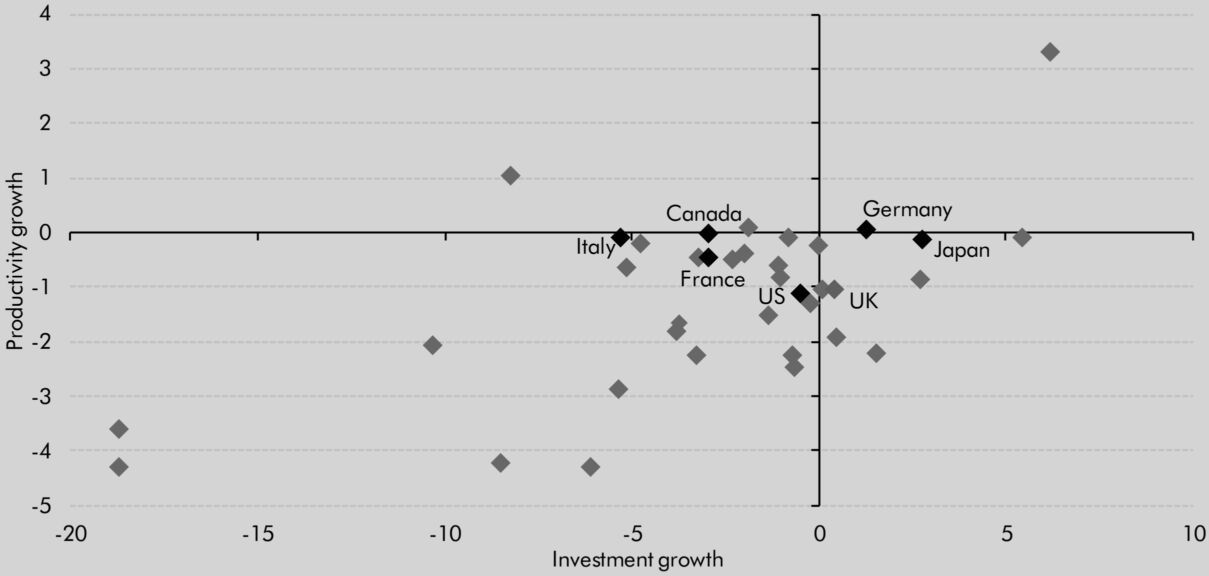
3.19 The expected rise in potential productivity growth over the forecast period is based on several factors. Our conditioning assumption for monetary policy implies that Bank Rate will rise over the forecast period (and more so than assumed in November). This should make it more difficult for 'zombie firms' to finance their debts and continue to trade, which should boost productivity growth through the exit of less productive firms. We also expect the current tightness of the labour market to encourage firms to seek to raise the productivity of their existing workforce, including through increased investment in automation. The resolution of Brexit-related uncertainty could have similar effects, with firms becoming more willing to invest in additional capacity. While business investment growth is expected to remain subdued relative to past recoveries, by the end of our forecast period, we still expect the level of business investment to be around 60 per cent above its post-crisis trough – contributing to productivity growth through capital deepening.

3.20 Box 3.2 looks at how actual productivity growth can be broken down into contributions from capital deepening and total factor productivity (TFP) growth and how differences in investment across countries could be related to post-crisis productivity performance.

Box 3.2: Productivity growth: international comparisons

Investment contributes to productivity growth by raising the amount of capital available per worker – a process known as 'capital deepening'. The likelihood that Brexit-related uncertainty would weigh on business investment and reduce capital deepening was a key reason we lowered our projection for productivity growth in November 2016, our first post-referendum forecast. More generally, low investment is often cited as a reason for the continued weakness of productivity growth since the financial crisis. Chart B shows that across all the countries surveyed by the OECD, those that have seen a weaker recovery in investment since the financial crisis have also tended to experience a weaker recovery in productivity growth.

Chart B: Comparing investment and productivity growth before and after the late-2000s recession



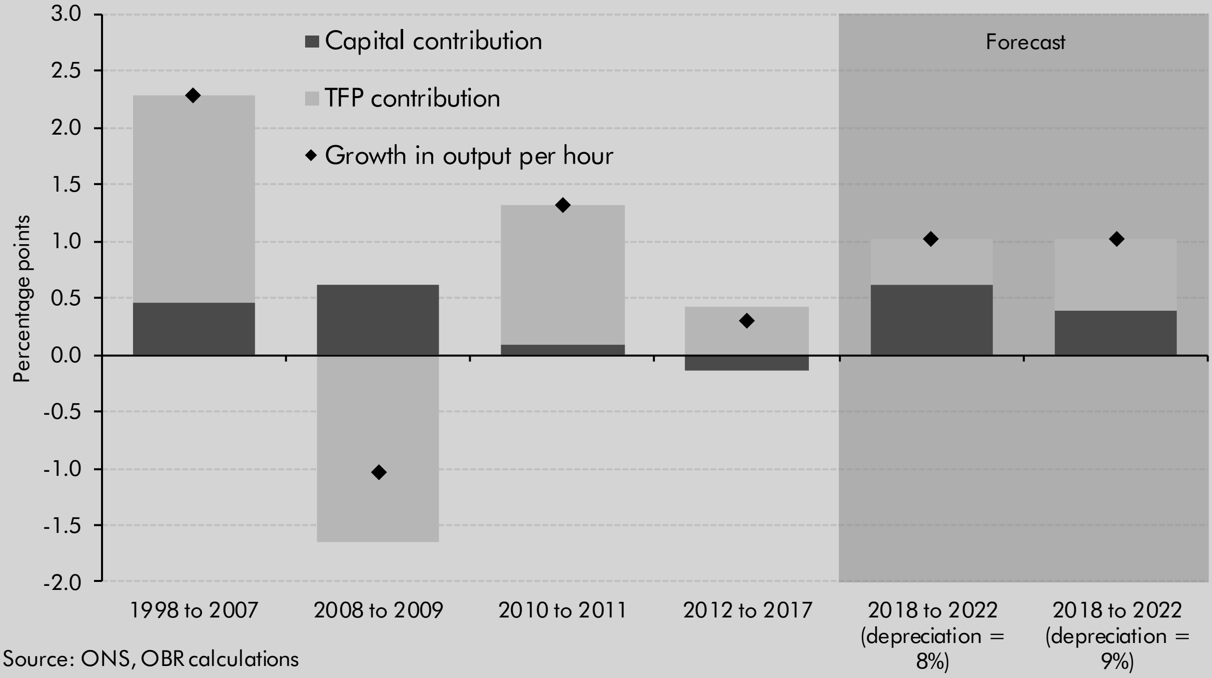
Note: The scale on both axes show the percentage point difference between the average growth rates from 1998 to 2007 compared with 2010 to 2016.
Source: OECD

Using a standard growth accounting framework, growth in output per hour must be driven either by capital deepening or by the efficiency with which labour and capital inputs are combined to produce output, known as 'total factor productivity' (TFP). The future growth in TFP that is implicit in our productivity and investment forecasts can thus be used to provide a cross-check on whether the former looks plausible. To do that, we first need to generate a forecast for the future capital stock from the assumed path of investment. That in turn requires an assumption regarding the rate at which existing capital depreciates, with a higher rate yielding a lower capital stock for any given path of business investment. Importantly, the rate of depreciation may vary over time, reflecting both economic and technological factors.

Chart C shows hourly productivity growth broken into the contribution from capital deepening and the TFP residual over various periods since 1998 and over our forecast horizon. It shows that output per hour grew by 2.3 per cent a year on average in the pre-crisis decade, with most of that (1.8 percentage points) explained by TFP growth. Output per hour fell sharply during the financial crisis, then rebounded in the next couple of years. Since 2012, growth in output per hour has averaged just 0.3 per cent a year. Robust growth in total hours worked meant that the amount of capital available per hour worked actually fell, while TFP growth was subdued.

We forecast that business investment growth will average 2.2 per cent a year over the next five years and growth in output per hour 1.0 per cent a year. Using a constant depreciation rate of 8 per cent throughout the forecast – a simplifying assumption based on the average during the pre-crisis decade between 1998 and 2007 – this would imply a capital deepening contribution of 0.6 percentage points a year on average and a TFP growth contribution of 0.4 percentage points, close to the subdued rate of the past five years. But at an assumed depreciation rate of 9 per cent – the more recent average since 2012 – the split would be 0.4 percentage points from capital deepening and 0.6 percentage points from TFP, higher than the post-crisis average.

Chart C: Capital deepening, TFP and productivity growth



Source: ONS, OBR calculations

This demonstrates the sensitivity of the decomposition to the assumed depreciation rate. Moreover, the depreciation rate may be particularly uncertain at present. For example, the adjustment to a new trading regime after Brexit may render some parts of the nation's capital stock obsolete, leading to a higher rate of depreciation for a while. Furthermore, business investment data and the implied path for the capital stock are prone to significant revisions, which can have a substantial impact on this type of decomposition.

Key economy forecast assumptions

3.21 We condition our economy forecasts on several assumptions. Among them, we assume that domestic and international interest rates, the exchange rate and oil prices move in line with market expectations, taking the 10-day average to 16 February. We also base our forecasts on the Government's current stated policies on taxes, public spending and financial transactions, as required by Parliament. And we continue to adopt broad-brush assumptions about the effects of Brexit, as described in paragraph 3.2. The risks to our forecasts are discussed later in the chapter.

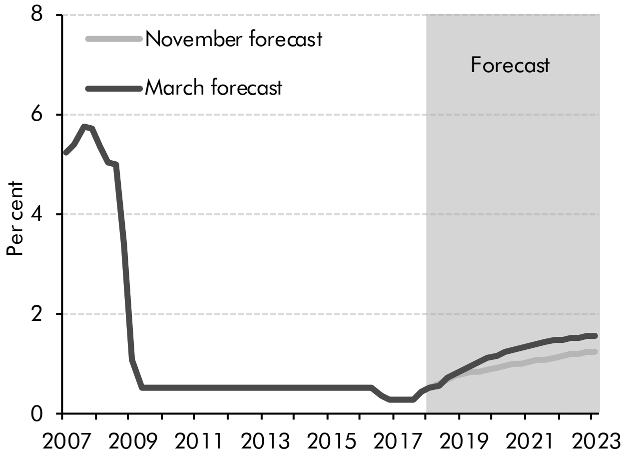
Credit conditions

3.22 Our forecast assumes that the Bank of England brings CPI inflation back to the 2 per cent target over the medium term, consistent with the Chancellor's remit to the Monetary Policy Committee (MPC). At its February meeting, the MPC voted unanimously to hold Bank Rate at 0.5 per cent and to leave unchanged its stock of purchased assets. This reflected its view that *"the current policy stance remained appropriate to balance the demands of the MPC's remit*". However, the Committee stated that "*monetary policy would need to be tightened somewhat earlier and by a somewhat greater extent over the forecast period than anticipated at the time of the November* Report*, in order to return inflation sustainably to the target*". In its accompanying *Inflation Report*, the MPC's central projection was for CPI inflation to peak at 3 per cent in the final quarter of 2017. The MPC then expected inflation to fall back gradually towards the 2 per cent target over the next three years, although – on the market interest rate expectations prevailing at the time – the central projection still remained a little above the target even at the three-year forecast horizon. Market interest rates have risen somewhat since the publication of the *Inflation Report*.

3.23 The market interest rates upon which our forecasts are conditioned suggest that market participants expect Bank Rate to rise gradually over the next five years, reaching 1.5 per cent by the end of our forecast period (Chart 3.6). This is slightly higher than the market expectation of 1.2 per cent prevailing at the time of our November forecast and it implies four further 25 basis point increases over the forecast period.

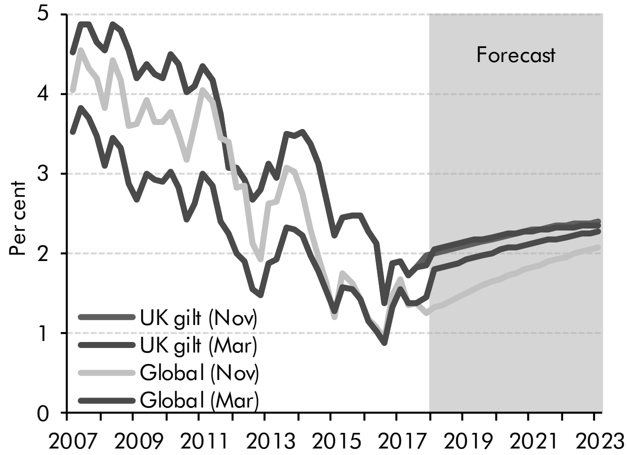
3.24 Gilt rates are currently little changed since our November forecast (Chart 3.7). In contrast, after dipping in the middle of 2017, global bond yields have risen since November, perhaps reflecting increased momentum in the global economy through the second half of 2017 and subsequent expectations for higher policy rates. We have changed our methodology for calculating global bond yields since November (see paragraph 3.29 for more details).

Chart 3.6: Bank Rate



Source: Bank of England, Bloomberg, Datastream, OBR

Chart 3.7: Global bond yields



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

3.25 Since our November forecast, average mortgage rates are little changed. Our forecast shows mortgage rates rising gradually from the first quarter of 2018, reflecting increases in Bank Rate partly offset by falling margins. Although bank funding costs have fallen somewhat since November, this effect is outweighed by the higher profile for Bank Rate, so that we now expect a marginally higher path for mortgage rates. By the first quarter of 2023, we expect the effective mortgage rate to reach 3.0 per cent, above the 2.6 per cent forecast in November. It stood at 6.0 per cent in the final quarter of 2007, before the crisis.

3.26 Following the EU referendum in 2016, the Bank's Financial Policy Committee (FPC) relaxed the regulatory constraints on the financial system by reducing the countercyclical capital buffer from 0.5 to 0 per cent of banks' UK exposure.[5] Since then, the FPC has raised the countercyclical capital buffer twice, most recently in November, to 1 per cent. The FPC deems this to be the level that should prevail in a normal risk environment and reflects its view that "*apart from those related to Brexit, domestic risks are at a standard level overall.*" Although risks to stability remain from persistently-strong growth in consumer credit and the level of household debt relative income, the FPC cited mitigating factors such as low debt-servicing costs and the broad alignment of overall credit growth with the growth of nominal GDP. We discuss household debt from paragraph 3.89.

Fiscal policy

3.27 Our forecast is conditioned on announced plans for spending and taxes. These plans are essentially unchanged from November because the Chancellor decided that Spring Statement 2018 would not contain any new significant fiscal measures. Of the small number of tax and spending policy measures that have been announced since November, only the faster rises in council tax permitted via the Local Government Finance Settlement have affected our economy forecast (described in paragraph 3.56). More generally, planned reductions in government spending mean that the structural deficit is expected to narrow gradually over the forecast period. Chapter 4 sets out our fiscal forecasts.

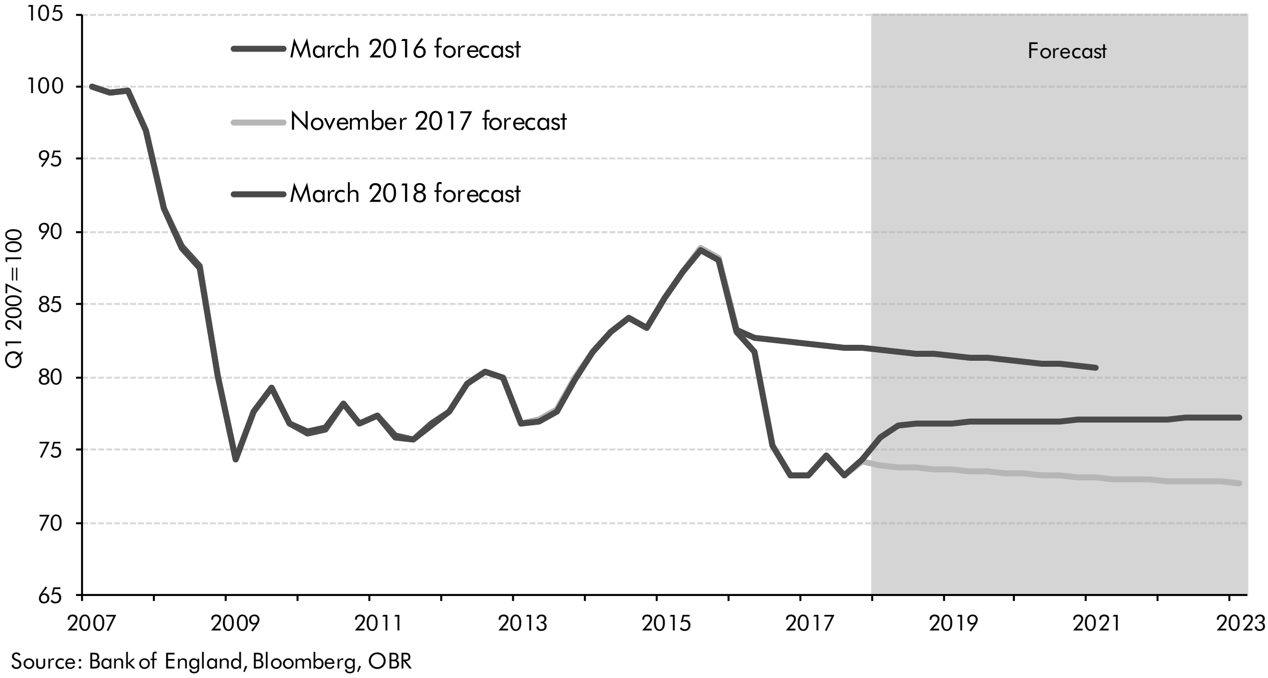
[5] The countercyclical capital buffer is set to reflect prevailing economic and financial market conditions. A high buffer is designed to protect the banking system from periods of excess aggregate credit growth when risks are deemed to be higher than usual. A reduction in the buffer would increase capacity for lending to households and businesses.

Sterling effective exchange rate

3.28 In the 15 months between its peak in late 2015 and its trough in late 2016, sterling fell by 17 per cent, with the sharpest falls occurring in the wake of the June 2016 referendum. This is likely to reflect market participants' belief that a real depreciation is necessary to compensate for the reduced competitiveness associated with a less open trading relationship between the UK and the EU. Investors may also be more pessimistic about the future returns on UK assets and/or attach a higher risk premium to them. Sterling has recovered a little in recent months, and we now expect the sterling effective exchange to be 3.9 per cent higher in the second quarter of 2018 than our November assumption. Much of this increase can be attributed to the weakness of the dollar, against which the pound is now expected to be 7.8 per cent higher in the same quarter.

3.29 From its current level, we assume that the exchange rate will follow the path implied by uncovered interest parity: namely, that it will move to reflect the difference between UK and overseas interest rates to equalise the expected return to investing at home and abroad. We have moved to using asset, rather than trade, weights to calculate overseas interest rates, using IMF estimates of gross government debt to proxy the size of relevant asset markets. This places less weight on euro-area interest rates and more on US rates in the calculation, thus increasing the effective overseas interest rate. This modelling change largely explains the change in the medium-term forecast path of sterling compared to November. On average, our latest assumption is around 5 per cent above our November 2017 assumption, but still about 5 per cent below our March 2016 assumption (Chart 3.8).

Chart 3.8: Sterling effective exchange rate assumptions

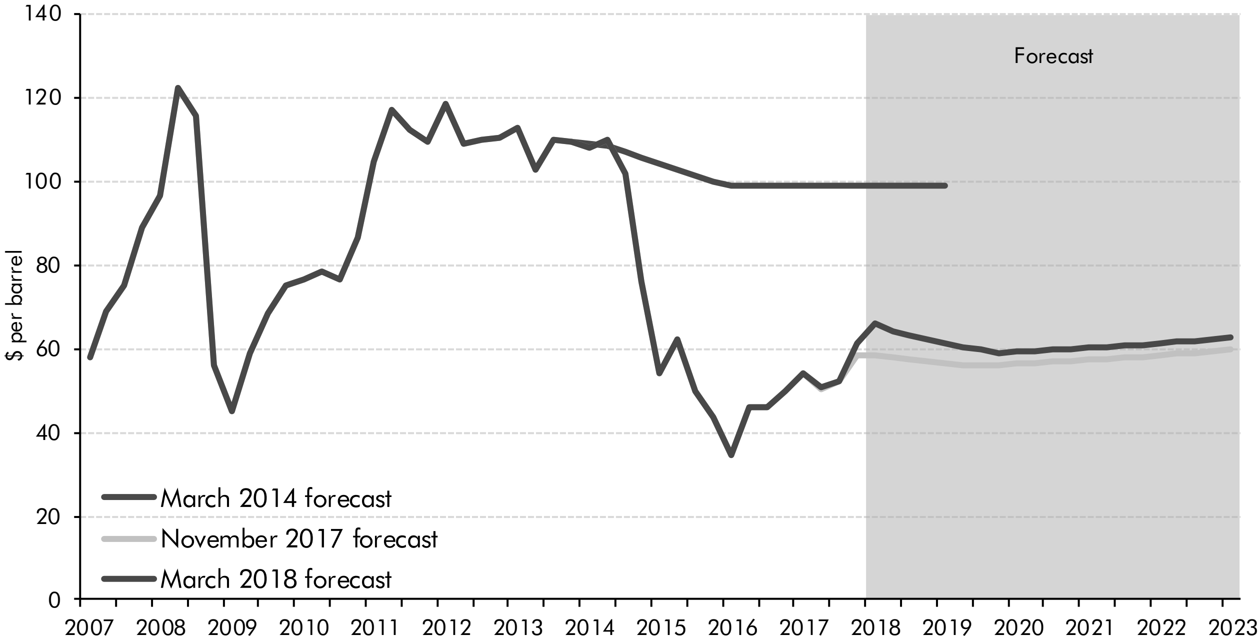


Source: Bank of England, Bloomberg, OBR

Oil prices

3.30 As Chart 3.9 shows, oil prices rose steadily in the second half of 2017 and more sharply in recent months. This reflected both demand and supply factors. Strengthening global economic activity boosted demand while the extension of OPEC production curbs until the end of 2018 and falling US production in the wake of Hurricane Harvey weighed on supply. Our assumption for the first quarter of 2018 lies 13 per cent above our November projection. However, the oil price futures curve falls more rapidly in the near term, so oil prices are only 5 per cent above the November assumption at the end of the forecast.

Chart 3.9: Oil price assumptions



Source: Datastream, IMF, OBR

World economy

3.31 The global economy has continued to gain momentum, especially in the developed economies. World GDP is estimated to have risen 3.7 per cent in 2017, up from 3.2 per cent in the preceding year and the fastest growth since 2011. Our projection for global growth is informed by the forecasts in the IMF's October 2017 *World Economic Outlook (WEO)* and its January 2018 update. In light of these, and the rapid growth recorded in the second half of last year, we expect global GDP growth to strengthen in 2018 and 2019, before the pace of expansion then eases back in 2020 (Table 3.2). This is consistent with some of the strength in 2018 and 2019 being a cyclical phenomenon.

Table 3.2: Global forecast variables

	Percentage change on a year earlier						
	Outturn	Forecast					
	2016	2017	2018	2019	2020	2021	2022
GDP							
Euro Area	1.8	2.5	2.2	2.0	1.6	1.4	1.4
US	1.5	2.3	2.7	2.5	1.8	1.6	1.6
World	3.2	3.7	3.9	3.9	3.7	3.7	3.7
Trade							
UK export markets	2.5	4.2	4.6	4.6	4.0	3.7	3.8
World	2.7	4.9	4.6	4.4	3.9	3.7	3.8

3.32 Relative to our November forecast, world growth this year and next has been revised up by 0.2 percentage points, mainly reflecting stronger growth in the US and euro area. But with some of that strength assumed to be cyclical, we have also revised growth down a touch in both 2021 and 2022. Growth in the emerging economies is little changed from November.

3.33 Euro-area GDP is estimated to have grown by 2.5 per cent in 2017, up from 1.8 per cent in 2016 and the highest rate since 2007. Based on the IMF's forecast, we assume growth will moderate from 2018 to 2021 and then stabilise. Our forecasts for 2018 and 2019 are both 0.3 percentage points higher than in November, while growth in the final years of the forecast is a little weaker. Our forecast for euro-area GDP growth averages 1.7 per cent a year between 2018 and 2022, somewhat higher than our forecast of 1.4 per cent for the UK.

3.34 US GDP also accelerated in 2017, rising 2.3 per cent versus the 1.5 per cent increase seen the preceding year. In line with the IMF's forecast, we expect growth to pick up further, to 2.7 and 2.5 per cent in 2018 and 2019 respectively. This upward revision mainly reflects the fiscal stimulus announced since our November *EFO*, including substantial cuts to the corporate tax rate. Due to the time-limited nature of most of the stimulus measures, and the likelihood that they will push output above potential, we expect growth then to fall back over the following two years. The temporary boost from fiscal policy raises projected US growth in 2018 and 2019 by 0.3 and 0.4 percentage points respectively, but lowers it in each of the two subsequent years by 0.2 percentage points.

World trade and UK export market growth

3.35 The revival in global economic activity appears to be translating into stronger trade growth. We estimate that world trade accelerated sharply in 2017 to reach its fastest pace of expansion since 2011 and comfortably above world GDP growth. In line with the IMF forecast, we expect world trade growth to moderate to around 4.5 per cent this year and next. Thereafter, we expect annual world trade growth to ease further to just below 4 per cent in the medium term – more in line with world GDP growth. Relative to November, our forecast for world trade growth is around 0.5 percentage points higher in both 2018 and 2019, but around 0.2 percentage points lower in 2021 and 2022.

3.36 We estimate that growth in UK export markets was slightly weaker than world trade growth in 2017. In contrast to world GDP, much of the pick-up in world trade growth has been concentrated in emerging markets, which generally have a lower weight in UK export markets than in world trade overall. We expect growth in UK export markets to rise to around 4.5 per cent in both 2018 and 2019 as advanced economies' import growth picks up. Over the medium term, we expect growth in UK export markets to average slightly below 4 per cent a year – broadly in line with world trade growth. Revisions to UK export market growth are commensurate with those for world trade growth.

Summary

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

- **The UK leaves the EU in March 2019**, moving to a less open trade regime and a tighter migration regime than would otherwise have been the case.
- **Credit conditions** remain highly accommodative, although monetary policy is expected to tighten slightly faster than we assumed in November.
- **Fiscal policy** is set to tighten throughout the forecast period as a result of government spending cuts. This assumption is unchanged from November.
- **Sterling** is higher than we assumed in November, but on average still around 5 per cent below the level assumed in our pre-referendum forecast in March 2016.
- Dollar **oil prices** are higher than we assumed in November, but are expected to fall slightly in the near term. Beyond the two-year horizon, they are assumed to remain constant in real terms.
- **Global GDP and the demand for UK exports** are expected to accelerate in 2018 and 2019 before slowing slightly in the medium term.

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

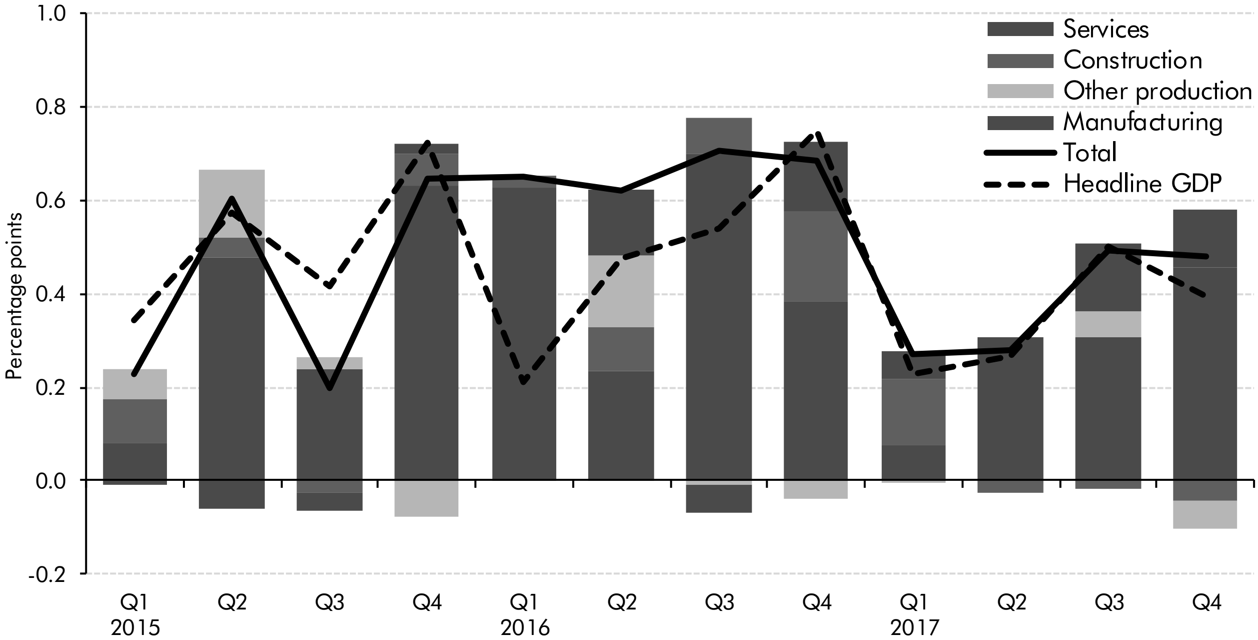
Prospects for real GDP growth

3.39 Looking at the output measure of GDP, the services sector appears to have held up well in the immediate aftermath of the EU referendum, with annualised growth of 2.8 per cent in the second half of 2016 – in line with the average since the start of 2012. But growth in the sector then slowed to just 1.4 per cent in the year to the fourth quarter of 2017, mainly as the inflationary impact of the fall in the pound around the time of the referendum hit growth in consumer-facing services.

3.40 The other sectors account for smaller shares of overall output, but they tend to be more volatile and so, in some cases, have had significant effects on recent quarterly GDP growth (Chart 3.10). The construction sector grew strongly in 2016, but output fell in the second, third and fourth quarters of 2017. Manufacturing output has been volatile recently but underlying growth appears to have picked up significantly since the referendum – output was broadly flat over the six quarters before the vote but has risen 4.2 per cent since then.

3.41 That said, this sectoral breakdown should be treated with caution. As we noted in Chapter 2, and as shown in Chart 3.10, the bottom-up output measure of GDP shows significantly stronger growth than the composite headline measure through 2016 and the ONS has applied a negative statistical discrepancy adjustment to reconcile them. Growth in output through 2017 is much more in line with the other measures of GDP.

Chart 3.10: Contributions to quarterly output growth



Source: ONS

3.42 The headline measure of real GDP growth held up in the second half of 2016. The latest data report annualised growth of 2.6 per cent, revised up from 1.9 per cent at the time of our November forecast (as discussed in Chapter 2), and close to the average rate recorded for the preceding three and a half years. But the economy has since slowed, with real GDP in the fourth quarter of 2017 only 1.4 per cent higher than a year earlier – the lowest four-quarter rate of growth since the second quarter of 2012, and in stark contrast with the pick-up seen in most other advanced economies.

3.43 Quarterly GDP growth on the latest estimates did reach 0.5 and 0.4 per cent in the third and fourth quarters of 2017 respectively, as output growth in business-facing services and manufacturing both strengthened. These sectors in particular are likely to have benefitted from the stronger global demand and the earlier fall in sterling. However, the tendency for GDP growth to be revised means one should not place too much weight on any particular vintage of the precise path of quarterly growth. This is true at the current juncture due to the changing patterns of spending throughout the year – for example, problems with seasonal adjustment due to the growing importance of 'Black Friday'[6] – and the divergence between the three approaches to measuring GDP.

3.44 We expect quarterly GDP growth to remain at 0.4 per cent in the first and second quarters of 2018 (Table 3.3) as net trade is supported by strong global growth and the continuing benefit of the earlier fall in the pound. Thereafter, as this support begins to fade, we expect quarterly GDP growth to ease to 0.3 per cent in the second half of 2018 – slightly below potential output growth. This gives calendar year growth of 1.5 per cent in 2018, down slightly from 1.7 per cent in 2017.

Table 3.3: The quarterly GDP profile

	Percentage change on previous quarter											
	2016				2017				2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
March forecast[1]	0.2	0.5	0.5	0.7	0.2	0.3	0.5	0.4	0.4	0.4	0.3	0.3
November forecast[2]	0.2	0.5	0.4	0.6	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3
Change[3]	**0.1**	**-0.1**	**0.2**	**0.2**	**0.0**	**0.0**	**0.1**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**

[1] Forecast from first quarter of 2018.
[2] Forecast from fourth quarter of 2017.
[3] Changes may not sum due to rounding.

3.45 We expect GDP growth to ease further to 1.3 per cent in 2019 and 2020, before edging up to 1.5 per cent by the end of the forecast. The profile for real GDP growth reflects the combination of several factors:

- A lower contribution from **net trade**, as the effects of the weaker pound and the boost from global demand begin to fade. UK export market growth is expected to slow from 2020 onwards, weighing on exports growth in the medium term.

- Real **consumption** growth is expected to remain subdued in the near term. We expect a revival in real household income growth, as inflation moderates, to be offset by an end to falls in the household saving rate. From 2020, faster productivity growth begets a modest increase in real wage and consumption growth.

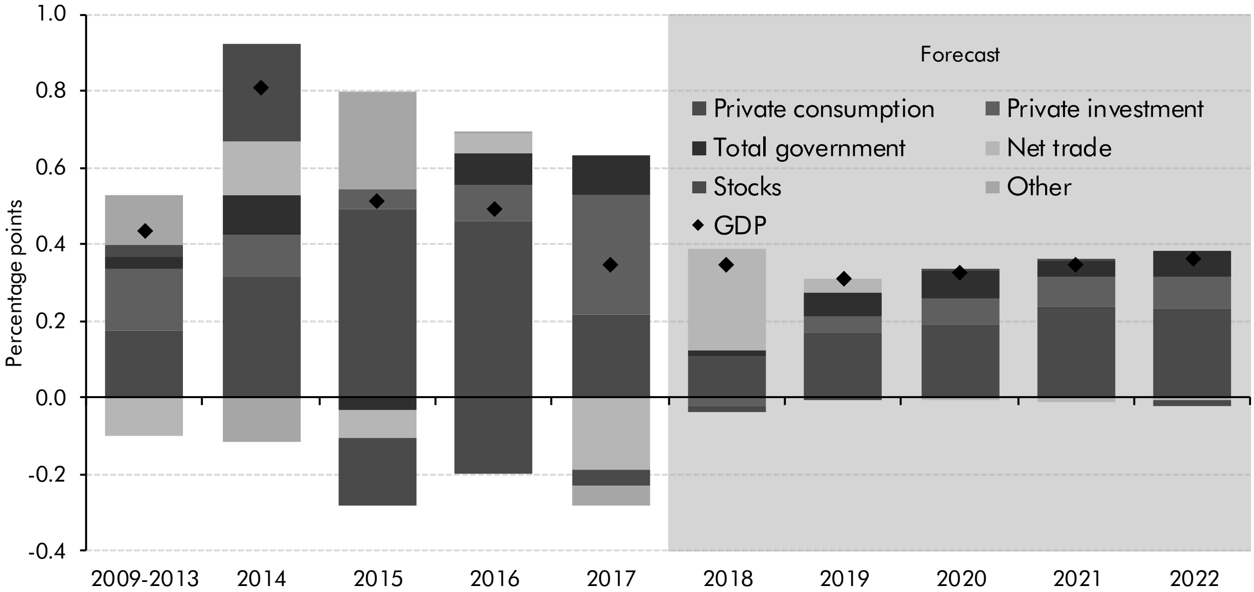
- **Fiscal consolidation** gathers pace again in the near term, weighing on GDP growth. Real government consumption growth falls back in 2019 and 2020, while the ongoing benefits freeze and fiscal drag in the tax system weigh on household disposable income growth. From 2021, GDP growth is boosted slightly by the waning effects of the fiscal consolidation.

- **Investment** growth is expected to remain subdued in the face of Brexit-related uncertainty. This is despite the current investment-friendly conditions created by historically-low borrowing costs and improved profitability in the export and import-competing sectors after the fall in sterling. The gradual dissipation of uncertainty as the

[6] See the ONS December 2017 *Retail Sales Bulletin* for more information.

post-Brexit regime is clarified is expected to provide a slight boost to GDP growth towards the end of the forecast period.

Chart 3.11: 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 (2015).
Source: ONS, OBR

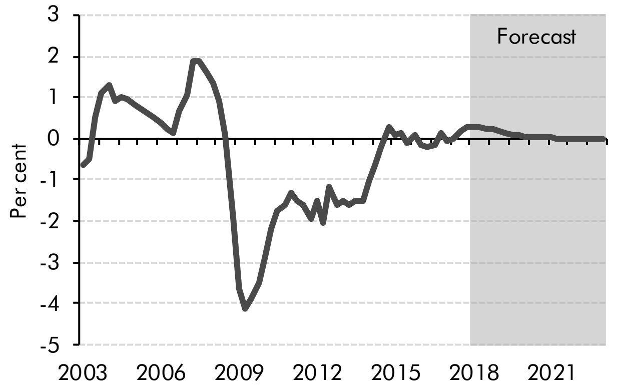
Table 3.4: Expenditure contributions to real GDP

	Percentage points, unless otherwise stated					
	Outturn	Forecast				
	2017	2018	2019	2020	2021	2022
GDP growth (per cent)	1.7	1.5	1.3	1.3	1.4	1.5
Main contributions						
Private consumption	1.1	0.6	0.6	0.7	0.9	1.0
Business investment	0.2	0.2	0.2	0.2	0.2	0.2
Dwellings investment[1]	0.3	0.1	0.0	0.0	0.1	0.1
Government[2]	0.1	0.3	0.2	0.3	0.2	0.2
Change in inventories	-0.4	0.0	0.0	0.0	0.0	0.0
Net trade	0.3	0.5	0.3	0.0	0.0	0.0
Other[3]	0.0	-0.1	0.0	0.0	0.0	0.0

[1] The sum of public corporations and private sector investment in new dwellings, improvements to dwellings and transfer costs.
[2] The sum of government consumption and general government investment.
[3] Includes the statistical discrepancy and net acquisition of valuables.
Note: Components may not sum to total due to rounding.

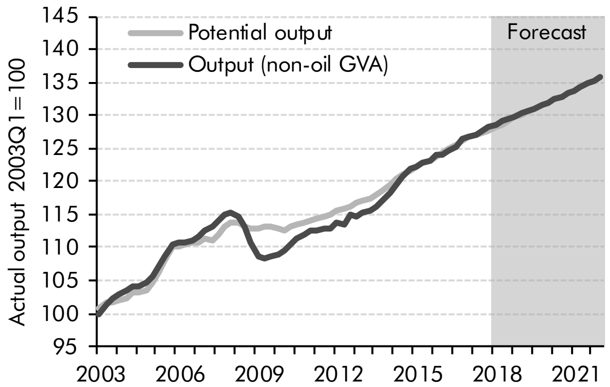
3.46 GDP growth of 1.3 per cent in both 2019 and 2020 is slightly below potential output growth, narrowing the small positive output gap so that it closes fully by 2021 (Charts 3.12 and 3.13). But the output gap is small throughout our forecast, so the pace at which it is closed is not material to our overall GDP growth forecast.

Chart 3.12: The output gap



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

Chart 3.13: Actual and potential output

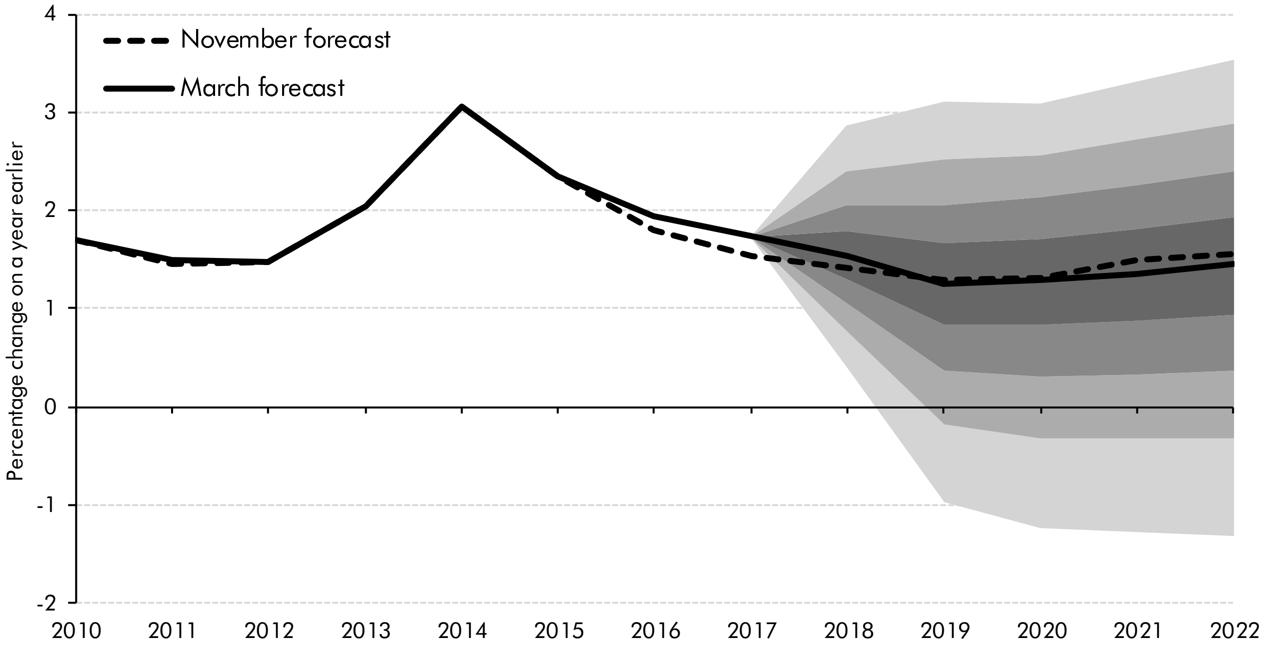


Source: ONS, OBR

3.47 Relative to November, we have revised up our forecast for GDP growth in 2018 from 1.4 to 1.5 per cent. This is due to stronger growth in the first half of 2018 and is entirely explained by the unexpected strength of the global economy. Upward revisions to growth in the UK's trading partners is consistent with stronger export growth and, consequently, a larger net trade contribution to GDP growth. We have also increased the net trade contribution to GDP growth in 2019 and 2020, reflecting stronger growth overseas. However, this is fully offset by weaker domestic demand as higher interest rates result in weaker investment and private consumption growth. GDP growth in 2021 and 2022 is lower than in November as the near-term cyclical boost to growth from stronger global activity fades and as higher interest rates continue to weigh on private consumption growth.

3.48 This analysis relates to our central projection for GDP growth, but there is of course significant uncertainty around this forecast. Chart 3.14 shows the probability distribution of different outcomes surrounding the central forecast based purely on past forecast performance. The solid black line shows our median forecast, with successive pairs of lighter shaded areas around it representing 20 per cent probability bands. The chart implies a roughly one-in-four chance of the economy shrinking in calendar year 2019. These estimates are based on the historical distribution of official forecast errors. They do not represent a subjective measure of the distribution of risks and uncertainties around our central forecast. Such risks and uncertainties are discussed at the end of the chapter.

Chart 3.14: Real GDP growth fan chart



Source: ONS, OBR

Prospects for inflation

3.49 In assessing the outlook for the economy and the public finances, we are interested in several measures of inflation, principally the Consumer Prices Index (CPI) and the Retail Prices Index (RPI). The source information is the same for both indices, but there are differences in coverage and methodology (see Box 3.3 of our March 2015 *EFO* for details). We also need to forecast the GDP deflator and its components, which are required to generate a projection for nominal GDP.

3.50 CPI and RPI inflation affect the public finances in several ways. The Government uses the CPI to index many tax allowances and thresholds, and to uprate benefits and public service pensions. The RPI is no longer a National Statistic, because it falls short of agreed international statistical standards,[7] but the Government still uses it to calculate interest payments on index-linked gilts, interest charged on student loans and to revalorise excise duties. The ONS publishes several other inflation measures – most notably CPIH, a variant of the CPI that includes housing costs and is now the ONS headline inflation measure. But as these do not currently affect the public finances, we do not forecast them.

CPI inflation

3.51 CPI inflation averaged 3.0 per cent in the fourth quarter of 2017 – in line with our November forecast and 0.2 percentage points higher than in the third quarter. CPI inflation has been running above the Bank of England's 2 per cent target since February 2017, reflecting the continuing pass through of higher import prices following the earlier

[7] ONS, *Shortcomings of the Retail Prices Index as a measure of inflation*, March 2018.

depreciation of sterling and rising global commodity prices – in particular, for food and oil. CPI inflation was also 3.0 per cent in January 2018.

3.52 We expect inflation to remain above the Bank's target in the near term as past rises in sterling import prices continue to enter the 12-month rate. But inflation is expected to fall back through 2018 and 2019 as that effect subsides. Once most of the inflationary impact of the fall in the pound has passed, we expect CPI inflation to dip a little below target in 2019 and 2020, due to the combined effects of the Government's policy to reduce social rents by one per cent a year, the assumed decline in oil prices, and the relative weakness in domestic cost pressures (we explore the impact of unanticipated strength in domestic cost pressures on the outlook in Chapter 5). Later, as wage growth picks up slightly relative to productivity growth, and as the social rent downrating policy ends, inflation is expected to settle close to the 2 per cent target.

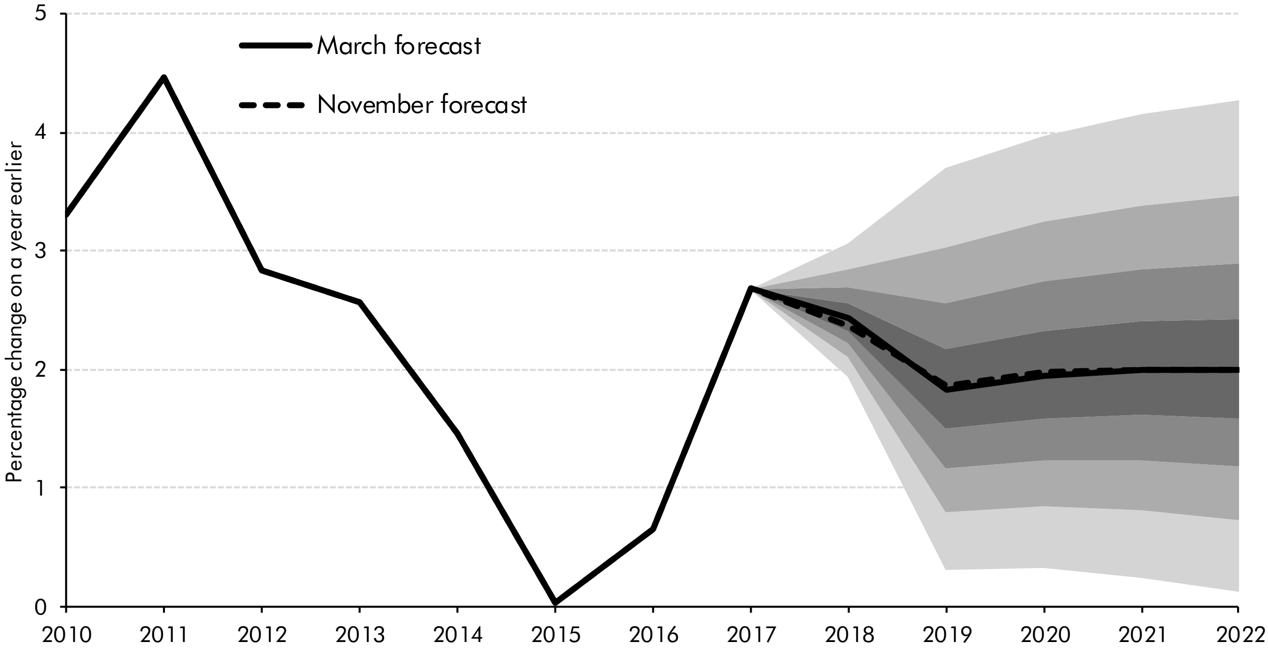
3.53 In its February 2018 *Inflation Report* (IR), the Bank of England projected that inflation would fall more gradually, with the MPC's central projection remaining above the target throughout the three-year forecast period. The Bank attributed this overshoot of the inflation target mainly to the lingering effects of sterling's depreciation on import prices. The MPC's projection was conditioned on the market interest rates prevailing at the time, signalling that Bank Rate would need to rise more than implied by market prices to achieve the target in the medium term. Market interest rates duly rose, so that the path for Bank Rate underpinning our forecast is on average 0.1 percentage point higher. That is one reason we expect inflation to fall more quickly than in the Bank's February *IR* projections.

3.54 Since November, the main developments affecting our inflation forecast include:

- Trade-weighted **sterling** is 5.1 per cent higher across the forecast than we assumed in November, reducing import prices and putting downward pressure on inflation.
- **Oil prices** in the first quarter of 2018 are 13.1 per cent higher in dollar terms than we assumed in November, raising inflation in the near term. But the oil futures curve is downward sloping in 2019, so falling petrol prices lower inflation in the future.
- In the near term, we expect stronger **average earnings growth** relative to productivity, putting upward pressure on domestically-generated inflation.

3.55 Chart 3.15 shows our latest central forecast within a fan chart produced using the same methodology that underpins the GDP fan chart (Chart 3.14 above). It illustrates the range of possible outcomes one would expect if past official forecast errors were a reasonable guide to the range of future outcomes. It also shows that the revisions to our forecast since November are small in comparison to historical differences between forecasts and outturns.

Chart 3.15: CPI inflation fan chart



Source: ONS, OBR

RPI inflation

3.56 RPI inflation averaged 4.0 per cent in the fourth quarter of 2017, 0.1 percentage points below our November forecast. We compile our RPI inflation forecast by adding a wedge to our CPI inflation forecast for differences in measurement, coverage and weights. We have revised this up since November due largely to:

- A stronger near-term **house price inflation** forecast, which feeds into the housing depreciation component of RPI inflation.
- A higher path for the **mortgage interest payments** component of RPI inflation, mainly due to the higher path for mortgage rates.
- Faster **council tax** rises, which are included in the RPI but not the CPI. This reflects the higher referendum threshold – the maximum increase in council tax that central government allows local authorities to impose without consulting residents – that was included in the 2018-19 Local Government Finance Settlement. This is expected to add less than 0.1 percentage point to RPI inflation in 2018-19 and 2019-20.

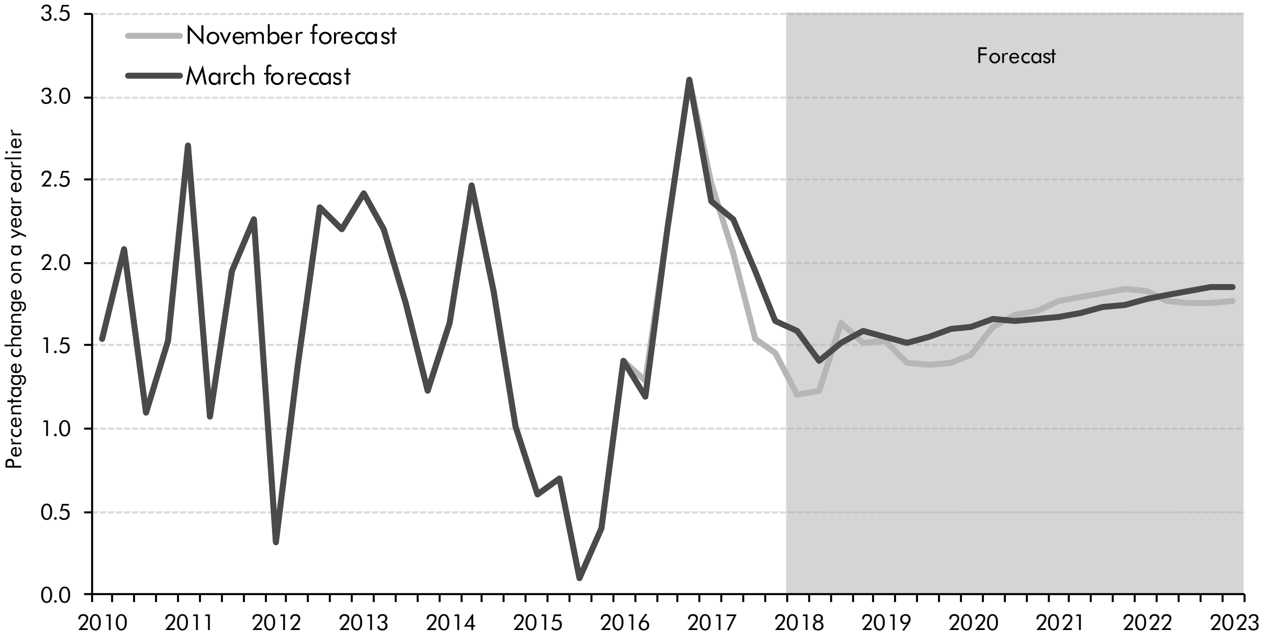
The GDP deflator

3.57 The GDP deflator is a broad measure of prices in the domestic economy. It covers all the goods and services that comprise GDP, including those relating to private and government consumption, investment and the relative price of exports to imports – the terms of trade.

3.58 Relative to the corresponding quarter a year earlier, the GDP deflator increased by 2.0 and 1.7 per cent in the third and fourth quarters of 2017 respectively, above our November forecasts but below the recent peak of 3.1 per cent in the year to the fourth quarter of 2016. GDP deflator inflation is expected to fall a little further the near term, reaching 1.4 per cent on an annual basis in mid-2018 (Chart 3.16), reflecting the path of government spending. Over the medium term, we expect annual GDP deflator inflation to rise to a little under 2 per cent as the terms of trade flatten out and consumer prices rise in line with the 2 per cent target but fiscal consolidation dampens government consumption deflator inflation.

3.59 Relative to November, we expect GDP deflator inflation to be higher in the near term due to an increase in our forecast for the terms of trade. This is the result of a higher path for sterling generating lower goods import price inflation than in November and weaker services import prices, which we now assume will rise in line with services export prices instead of outpacing them.

Chart 3.16: GDP deflator



Source: ONS, OBR

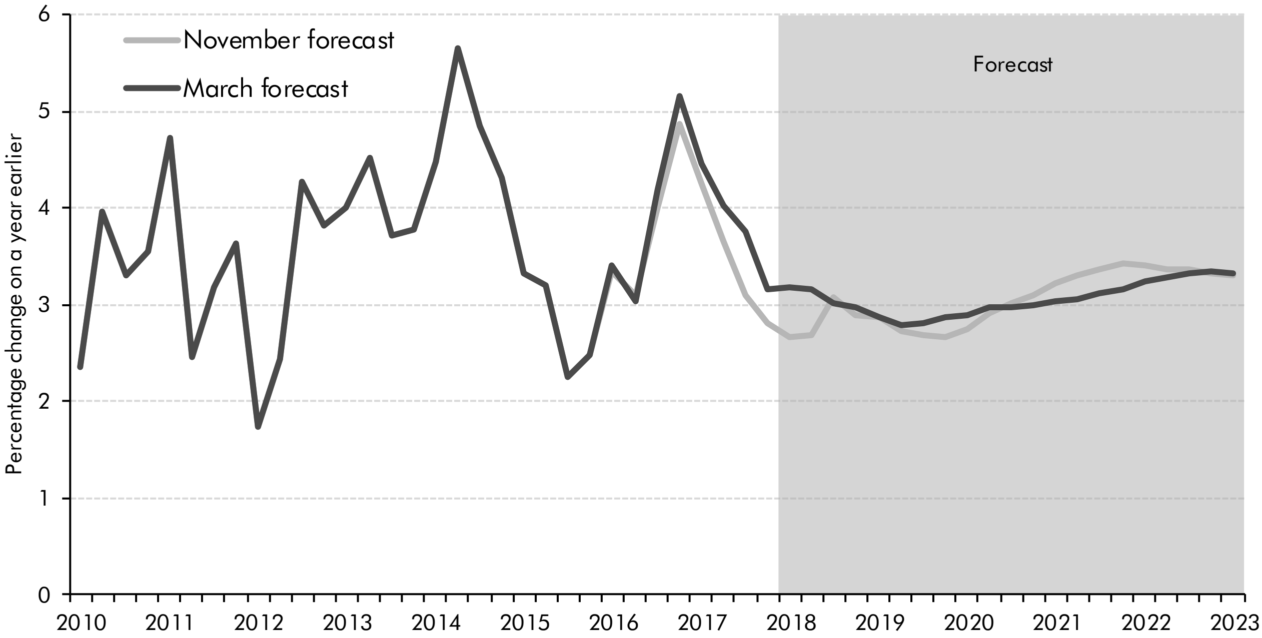
Prospects for nominal GDP

3.60 Most public discussion of the economic outlook 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 for 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 much 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 (including benefits, tax credits and interest on index-linked gilts).

3.61 Nominal GDP growth fell back slightly in 2017, with annual growth of 3.8 per cent, down from 3.9 per cent in 2016. On the expenditure side, private and government consumption growth both eased slightly, partly offset by stronger growth of investment and a greater contribution from net trade. While a full decomposition of GDP by income is not yet available, it appears that the modest slowdown in nominal GDP growth was concentrated in labour income.

3.62 We expect nominal GDP growth to moderate further in 2018 and 2019 (Chart 3.17) as household saving stabilises, implying weaker growth in private consumption, while investment growth falls back slightly and net trade's positive contribution to GDP growth fades. Nominal GDP growth then rises gradually from 2020 onwards as slightly stronger productivity growth supports a pick-up in wage growth and hence also consumer spending. Government consumption growth also increases slightly from 2021 as the pace of fiscal consolidation eases. On a fiscal year basis, we expect nominal GDP growth of just over 16 per cent between 2017-18 and 2022-23, unchanged from our November forecast.

Chart 3.17: Nominal GDP growth



Source: ONS, OBR

Prospects for individual sectors of the economy

3.63 This section covers our forecasts for the household sector (including the labour market), the corporate sector, the government sector and the rest of the world (including the current account balance).

The household sector

3.64 The household sector dominates income and spending in the economy. In 2016, household disposable income accounted for 68 per cent of nominal GDP by income and consumer spending 66 per cent of nominal GDP by expenditure.

Labour market

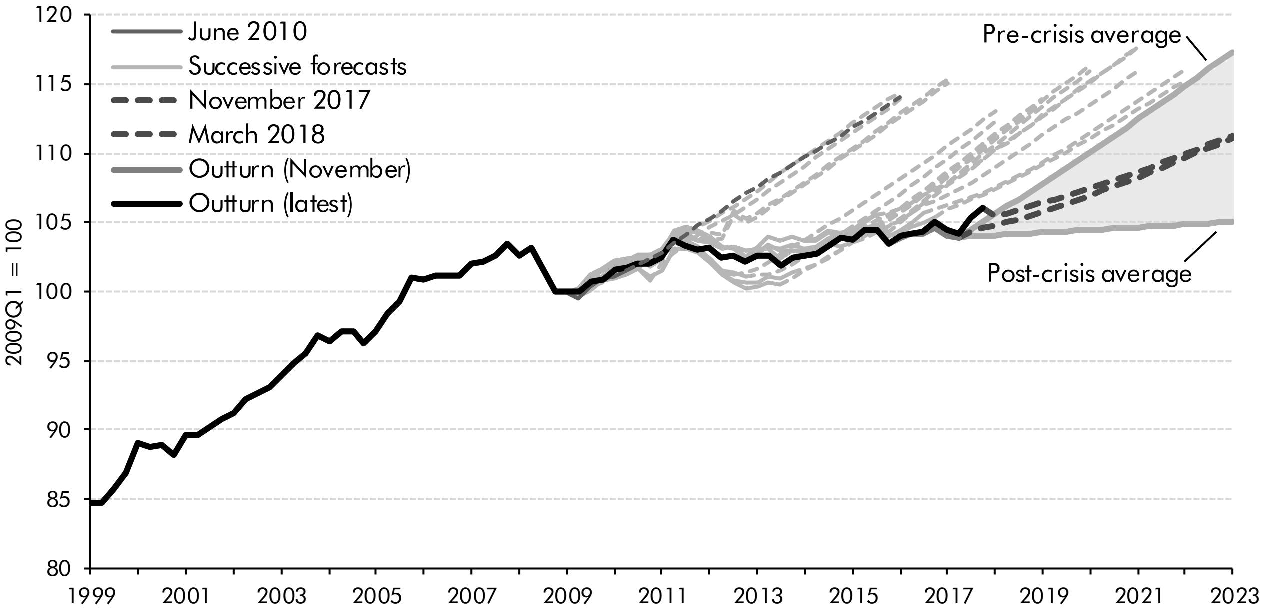
3.65 The unemployment rate stood at 4.4 per cent of the labour force in the final quarter of 2017, a slight increase compared with the previous quarter, which had seen the joint lowest unemployment rate since 1975. We expect it to continue to rise slowly towards its equilibrium rate, reaching 4.6 per cent in 2020. Average unemployment over the forecast period is little changed from November.

3.66 The latest data showed a rise in the participation rate in the fourth quarter of 2017, partially offsetting the fall in the third quarter. This brings it broadly into line with what we believe to be its underlying equilibrium. The rate is expected to remain broadly flat this year and next, before declining as the share of older people in the population rises. The 0.6 million increase in employment over the forecast is therefore more than accounted for by population growth.

3.67 In recent years, the number of self-employed workers has risen more rapidly than the number of employees, possibly reflecting a desire for more flexible working patterns as well as differences in the way that different forms of income are taxed. We expect that trend to continue, with the share of the self-employed in total employment rising by 0.1 percentage points a year over the forecast period.

3.68 Data released since we closed our November forecast report that average hours worked fell more sharply in the second half of 2017 (by 1.0 per cent) than in any equivalent period since mid-2011. With little difference in GDP growth, that means that output per hour has risen more strongly than we forecast – indeed, more strongly than in any two quarters since mid-2011 (Chart 3.18). However, it is worth noting that GDP per hour fell in the first half of 2017 and was only 1.0 per cent higher in the fourth quarter of 2017 than a year earlier.

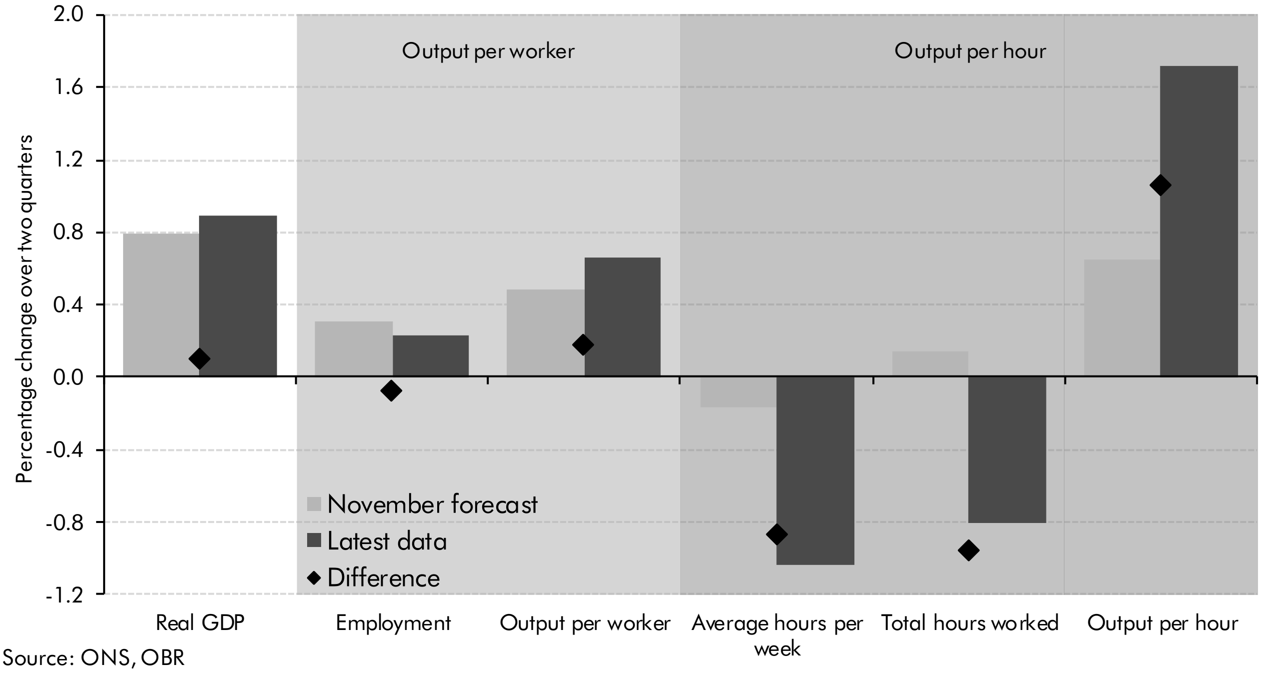
Chart 3.18: Successive forecasts for productivity growth



Note: Solid lines represent the outturn data that underpinned the forecast.
Source: ONS, OBR

3.69 Chart 3.19 shows the surprises relative to our November forecast through the second half of 2017. In terms of real GDP growth, employment and output per worker they are small. But in terms of hours worked and output per hour they are large. How should we interpret this news when updating our forecast? Compared with the experience since mid-2011, the fall in average hours and the rise in average hourly productivity were both unusually large, yet real GDP growth was just a touch weaker than average. Hours data can be erratic, so it is plausible that the sharp drop in average hours recorded in the second half of 2017 reflects statistical sampling errors rather than developments in the real world. After a similarly sharp fall in mid-2011, measured average hours rebounded sharply and hourly productivity fell. We have assumed that a similar pattern will be seen in early 2018.

Chart 3.19: Real GDP, labour input and productivity: 2017Q2 to 2017Q4



Source: ONS, OBR

Average earnings

3.70 Rather than the official ONS measure of average weekly earnings (AWE), our forecast uses an implicit measure of average earnings constructed by dividing the National Accounts measure of wages and salaries by the number of employees. While we do not yet have wages and salaries data for the fourth quarter of 2017, AWE growth was 2.5 per cent in that quarter, higher than the 2.3 per cent growth in the previous quarter. We have therefore assumed that our measure of earnings will also show growth of 2.5 per cent.

3.71 Earlier this year, HMRC published new experimental statistics based on 'real-time information' recorded in the PAYE income tax system. These only included information up to the third quarter of 2017 and have a slightly different coverage than the AWE, but they suggest that wage pressures were building more quickly in 2017 than implied by the AWE. The Bank of England regional agents' annual pay survey published in February was also consistent with pay growth picking up, with average private sector pay settlements in 2017 higher than companies had expected in the previous year's survey and settlements expected to rise further in 2018 to the highest rate since 2008. We therefore expect wage growth to rise a little to 2.7 per cent in 2018, higher than we forecast in November.

3.72 We expect wage growth to ease again in 2019, in line with slower GDP growth in that year, but also reflecting the temporary dampening effects of previously announced government policies that are discussed immediately below. Beyond 2020, average earnings growth rises gradually, reaching 3.0 per cent in the final year of the forecast, reflecting the modest pick-up in productivity growth in those years. Throughout the forecast period, average earnings growth remains well below the rates typical before the financial crisis.

3.73 Some of the weakness in our central forecast for earnings growth reflects judgements about the impact of government policies. We assume that the burden of these interventions is ultimately borne by workers, with wages lower than would otherwise be the case. The most significant are the introduction of the apprenticeship levy and the continued rolling out of auto-enrolment into workplace pensions, which we estimate will reduce average earnings by 0.3 and 0.4 per cent respectively by 2021. In both cases this is based on an assumption that 80 per cent of the additional cost to employers will be passed through to earnings. As auto-enrolment boosts households' pension savings in an offsetting way, we assume that the reduction in average earnings growth does not weigh on consumption growth (as discussed below). But we assume that the apprenticeship levy weighs on average earnings and consumption equally. Some of these effects will already be reflected in the outturn data, but a significant portion is assumed to occur in 2018 and 2019 as the contribution rates required by auto-enrolment rise significantly, so around half of the total effect is still expected to be seen in earnings over the forecast period.

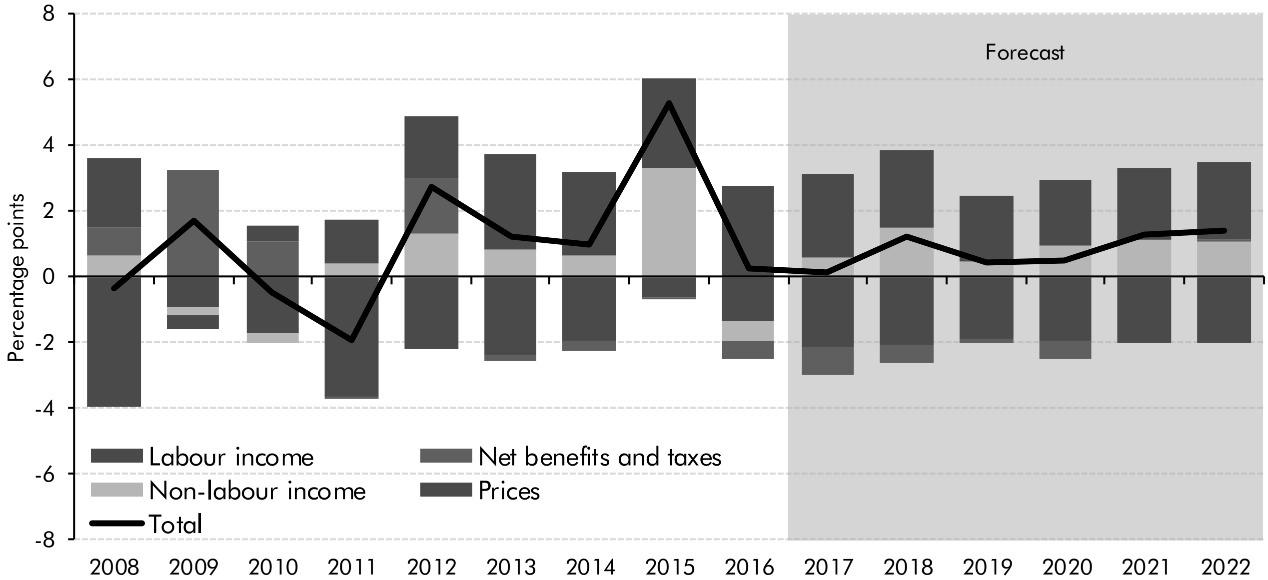
Household disposable income

3.74 While full data are not yet available, we expect real household disposable income to have grown by just 0.2 per cent in 2017, a similar rate to 2016. A recovery in measured dividend income, following the substantial shifting forward of this income ahead of the April 2016 rise in dividend taxes, was offset by higher consumer price inflation and relatively weak earnings growth.

3.75 We expect real household disposable income growth to rise in 2018, as dividend income continues to recover, average earnings growth picks up and CPI inflation eases. Household disposable income growth is then expected to fall back slightly in 2019 as average earnings growth slows – partly due to higher pension contributions as auto-enrolment expands and minimum contribution rates increase – and dividend income growth stabilises.[8] Thereafter gradual increases in nominal earnings growth support a modest increase in real income growth. The freeze in most working-age benefits and tax credits, together with fiscal drag in the income tax system, weighs on household income growth in most years (Chart 3.20).

[8] We factor in the changing composition of household income due to incorporations in our fiscal forecast rather than our economy forecast. The greater granularity of the fiscal forecast allows us to capture the effects of incorporations on individual tax receipts more accurately – in particular, the incentive to incorporate changes along the income distribution which affects the size of the adjustment that needs to be made to our tax forecasts

Chart 3.20: Contributions to real household income growth



Note: We have made a small change to the definition of net benefits and taxes. For further details and full definitions please see our supplementary economy tables, available on our website.
Source: ONS, OBR

3.76 Our central forecast implies weak growth in real earnings and even weaker growth in real disposable incomes. Table 3.5 sets out our forecast of real household disposable income per person and its components. Between 2017 and 2020, real per capita disposable incomes fall despite positive, albeit weak, contributions from real labour income. The modest positive contribution from labour income is more than offset by negative contributions from other components of disposable income:

- **Net taxes and benefits**: real labour income is measured pre-tax whereas household disposable income is measured post-tax and includes income from benefits and tax credits. This reduces household income growth, particularly in the period up to 2020 when most working-age welfare payments are frozen in cash terms. For example, net social benefits paid by government – which includes working-age benefits, state pensions and public sector pension payments – are expected to reduce growth in real household disposable income per person by an average of 0.2 percentage points between 2017 and 2020. This compares to an average positive contribution of 0.1 percentage points from 2021. Fiscal drag in the income tax system also weighs on household income growth.

- **Other non-labour income**: household income growth is boosted in 2018 by the shifting of dividend income between years in response to pre-announced changes in the dividend tax rate. Dividend income is assumed to stabilise from 2019, accounting for a large part of the weaker contribution of non-labour income to household income growth in that year. Other elements of income are expected to rise gradually as nominal GDP growth picks up.

Table 3.5: Real earnings and real incomes

	Forecast, annual percentage change					
	2017	2018	2019	2020	2021	2022
Real disposable income per capita	**-0.5**	**0.6**	**-0.1**	**-0.1**	**0.7**	**0.9**
contributions:						
Labour income[1,2]	0.7	0.4	0.3	0.2	0.3	0.5
Net taxes and benefits[2]	-1.0	-0.7	-0.2	-0.6	-0.1	0.0
Other non-labour income[2]	-0.2	0.9	-0.2	0.3	0.5	0.4

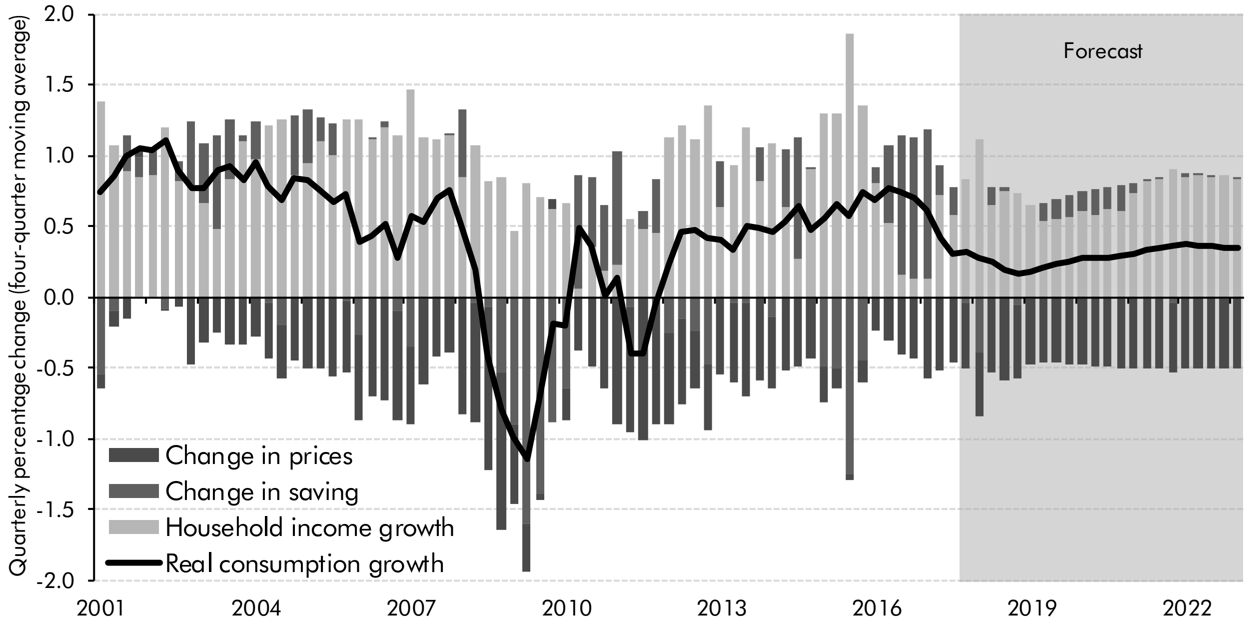
[1] Employee compensation (including net compensation from abroad) plus mixed income less employer social contributions.
[2] Per capita basis, deflated by consumption deflator.

Real consumer spending and saving

3.77 The saving ratio has been falling since 2010, with the decline especially sharp over the past two years. That allowed real consumption to grow by 1.7 per cent in 2017, despite the near stagnation in real household disposable incomes because of higher inflation. This may have reflected households' tardiness in adjusting to the decline in living standards associated with the weaker pound – pre-referendum surveys, for instance, suggested that a majority of households did not expect a leave vote to adversely affect their personal finances.[9]

3.78 Chart 3.21 shows that, in the near term, we expect the squeeze on real household incomes from inflation to continue to weigh on consumer spending. But we still expect consumption growth to outpace disposable income growth in the first half of the forecast – although by less than it did over the past two years. This path is supported by historically low interest rates and relatively low unemployment. One factor contributing to this is the fiscal consolidation over the next couple of years. This will keep interest rates lower than they would otherwise be, boosting private consumption.

Chart 3.21: Contributions to real consumption growth



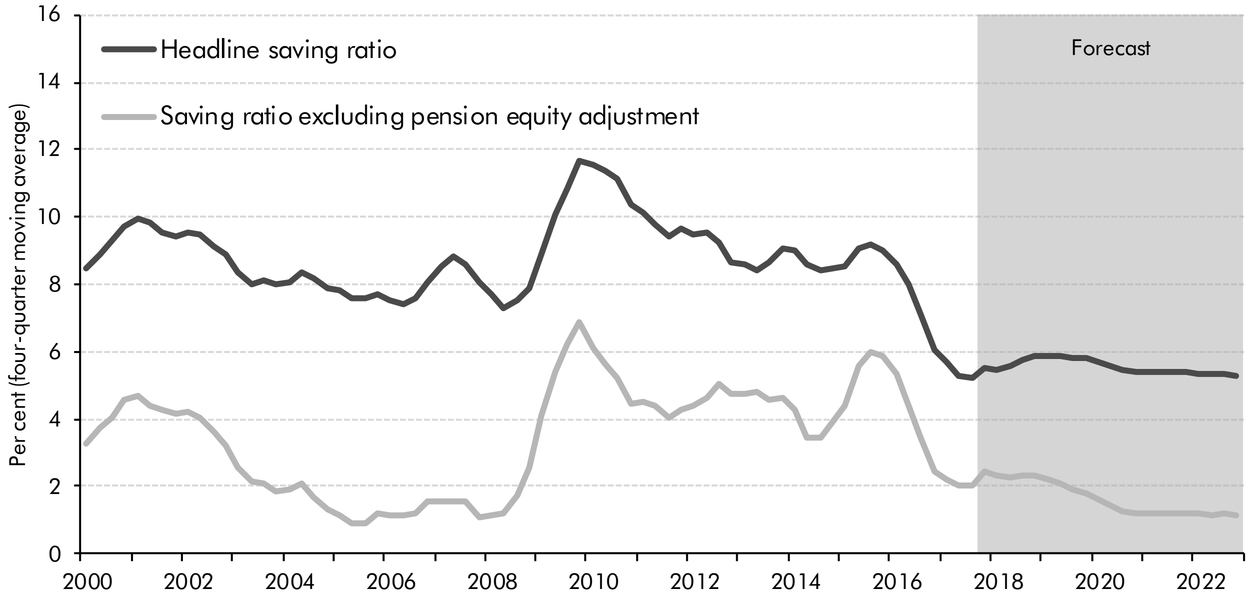
Note: Household saving excludes pension equity adjustment.
Source: ONS, OBR

[9] For example, see YouGov/Times poll number 160233 from 24 February 2016.

3.79 When forming our judgement about the path of household consumption growth, we have generally focused on a measure of saving that excludes pension contributions (the yellow line in Chart 3.22), as many of these – such as employers' contributions – are often largely invisible to the employee in real time. Auto-enrolment in workplace pensions may, however, make workers more aware of their own saving towards a pension and the contributions of their employer and of the Government. So they may be more likely to take them into account when making spending decisions. As the employer and government contributions are not part of household disposable income, but do contribute to the headline saving ratio, the headline ratio flattens out in the near term while the adjusted ratio is assumed to continue falling until 2020.

3.80 The saving ratio cannot decline indefinitely. So, over the medium term, we assume that the saving ratio stabilises and that consumption thereafter grows in line with disposable income. From the end of 2018, we therefore expect quarterly real consumption growth to edge higher as inflation falls back and the gradual recovery in productivity growth raises nominal income growth. But alternative outcomes represent a key risk to the outlook.

Chart 3.22: 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 residential investment

3.81 House price inflation rose in the second half of 2017 – averaging 5.1 per cent on an annual basis, up from an average of 4.4 per cent in the first half of the year. But it was still less than the 7.0 per cent recorded in 2016.

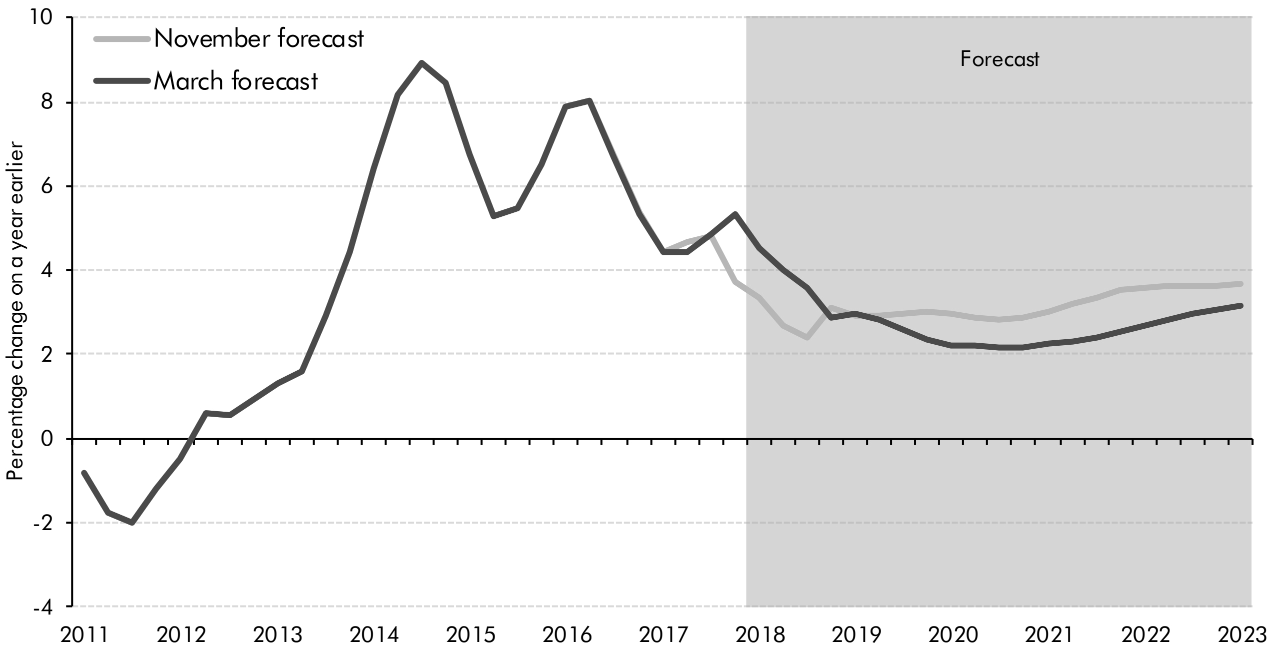
3.82 Our forecast for the first half of 2018 draws on a variety of indicators of housing market activity, including survey information from the Royal Institution of Chartered Surveyors (RICS) and mortgage data from the Bank of England. Most are consistent with a slowing housing market. Given the weakness of these indicators, we expect annual house price inflation to slow to 4.0 per cent in the second quarter. The major lenders' measures – which are timelier than the ONS measure – have slowed more sharply in recent months. Annual house price inflation fell to just 0.8 per cent on the Halifax measure and 2.5 per cent on the Nationwide measure in December last year. The latest data for February reports annual inflation rates of around 2 per cent for both measures. This means that house prices are growing slightly below the recent rates of consumer price inflation on these measures.

3.83 The main influence on house prices in the medium term is income growth, as this drives demand for housing while the overall supply generally rises only relatively slowly. The near-term weakness in real earnings growth means that we expect house price growth to slow further, reaching a low of around 2.2 per cent in 2020 (Chart 3.23). Slightly higher real income growth then drives a modest pick-up in house price inflation from 2021.

3.84 The unexpectedly strong house price outturns in the second half of 2017 and the upward revision to our near-term household income growth forecast drive the stronger near-term forecast compared to November. But over the medium term, we expect house price inflation to be somewhat less than projected in November, reflecting higher mortgage rates (which have risen in line with the higher market expectations for Bank Rate), lower income growth, and a larger than anticipated per capita stock of dwellings. Overall, house prices are expected to rise by 15 per cent between the fourth quarter of 2017 and the first quarter of 2023, compared to 18 per cent in November.

3.85 In the six years since the recovery in house prices began in 2012, the ratio of house prices to annual earnings has risen about 17 per cent, returning to around its pre-crisis peak of 7.4 times annual incomes. We expect the ratio to stabilise over the next five years.

Chart 3.23: House price inflation forecast



Source: ONS, OBR

3.86 Residential property transactions in the fourth quarter of 2017 were 2,900 lower than we expected in November. Over the medium term, we assume that transactions will increase gradually to a level consistent with the housing stock turning over once every 22 years – the average turnover rate prior to the pre-crisis housing boom, adjusted for policy changes.

3.87 Real residential investment rose by 7.8 per cent in 2017, up from 7.6 per cent in 2016. In line with our forecasts for house prices and property transactions, we expect relatively subdued growth in residential investment over the forecast period. Housebuilding is expected to slow in the near term, reflecting subdued turnover in the housing market and modestly higher interest rates. Housebuilding is then expected to rise as housing market turnover picks up. Housing improvements are also expected to slow in the near term thanks to recent weakness in real wages, before picking up as real earnings growth picks up. Over the medium term, residential investment is expected to grow broadly in line with real GDP.

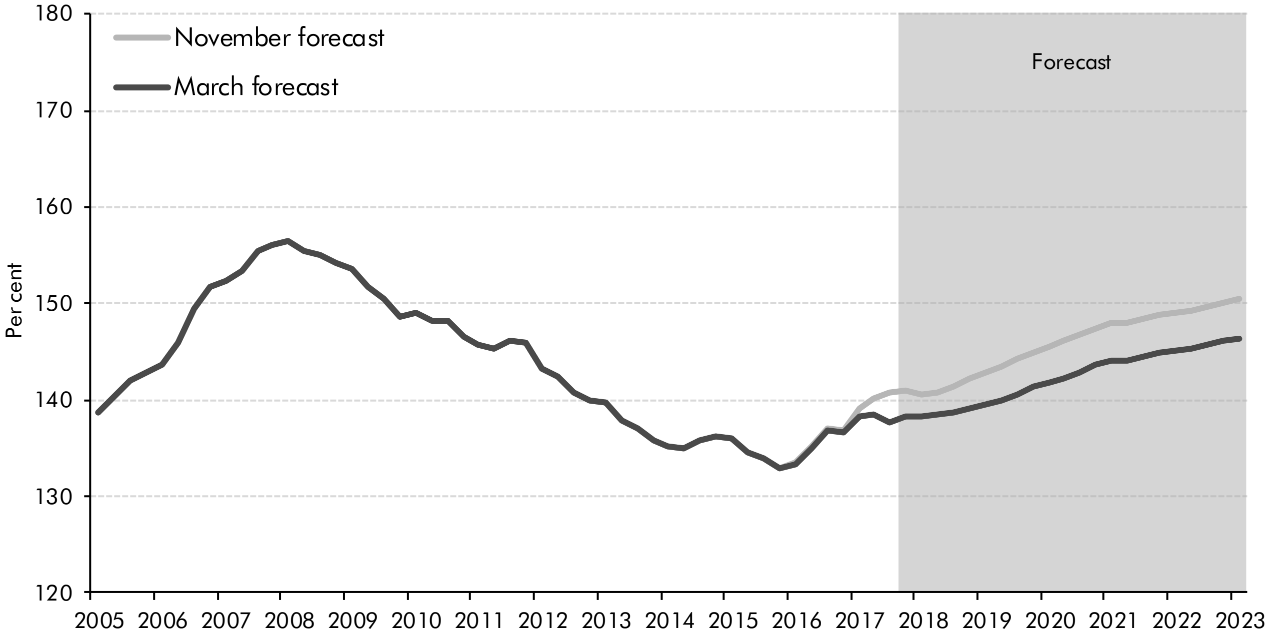
Household net lending and balance sheets

3.88 Our forecast for the household balance sheet is built up from the accumulation of assets and liabilities, constrained to be consistent with our forecast for households' net lending.

3.89 After eight years of steady deleveraging following the crisis, the ratio of household debt to income has risen over the past two years. We expect this to continue at a similar pace, with the ratio reaching 146 per cent by the start of 2023 – although this remains below the 2008 peak. The rise largely reflects increases in unsecured debt as nominal consumption growth outpaces nominal disposable income over the forecast period. We expect only a slight increase in the ratio of mortgage debt to income, as house prices rise broadly in line with household income and property transactions pick up only slightly.

3.90 Relative to our November forecast, we expect a lower household debt-to-income ratio (Chart 3.24). This largely reflects recent data releases, with the level of unsecured debt in the first half of 2017 revised down from previous estimates and the accumulation of secured debt weaker than expected in the third quarter of 2017. The accumulation of debt over the forecast period is little changed from November. Table 3.6 decomposes these changes.

Chart 3.24: Household gross debt to income



Source: ONS, OBR

Table 3.6: Sources of change to the household debt forecast since November

	Per cent of household disposable income[1]				
	2018	2019	2020	2021	2022
November forecast	142.2	144.9	147.4	148.8	150.0
March forecast	139.1	141.3	143.6	144.9	146.0
Change (percentage points)	**-3.0**	**-3.6**	**-3.8**	**-4.0**	**-4.0**
of which:					
Change in household debt	-2.5	-2.9	-3.2	-3.4	-3.6
Change in household disposable income[2]	-0.5	-0.8	-0.7	-0.5	-0.3
	£ billion[3]				
November forecast	2003	2086	2176	2272	2373
March forecast	1968	2045	2129	2219	2315
Change	**-35**	**-41**	**-47**	**-52**	**-58**
of which:					
Revision to starting point	-38	-38	-38	-38	-38
Revision to accumulation of secured debt	0	-2	-4	-7	-9
Revision to accumulation of unsecured debt	4	-1	-4	-7	-10

[1] Level of household debt in fourth quarter of calendar year divided by household disposable income in calendar year.
[2] Positive values indicate a downward revision to household disposable income.
[3] Level of household debt in fourth quarter of calendar year.

The corporate sector

3.91 The corporate sector contributes to the expenditure measure of GDP through business investment and stockbuilding and to the income measure in the form of profits. In contrast to consumer spending, much corporate spending is tax-deductible, while corporate profits are also taxed less heavily than most forms of household income.

Corporate profits

3.92 Corporate profit growth fell back in 2017. Following an increase of just under 8 per cent in 2016, non-oil corporate profits grew at an average annual rate of around 3½ per cent in the first three quarters of 2017. Data on non-oil profits in the fourth quarter are not yet available, but the high-level breakdown indicates that the corporate operating surplus increased at a quarterly rate of just over 1 per cent. We expect profits to have grown by 2.1 per cent in 2017, revised up from our November forecast of 0.3 per cent. We expect profits to grow slightly less quickly than nominal GDP in 2018 as the economy slows and margins are squeezed by rising unit labour costs that result from the tight labour market. We expect profits to grow broadly in line with nominal GDP in the medium term.

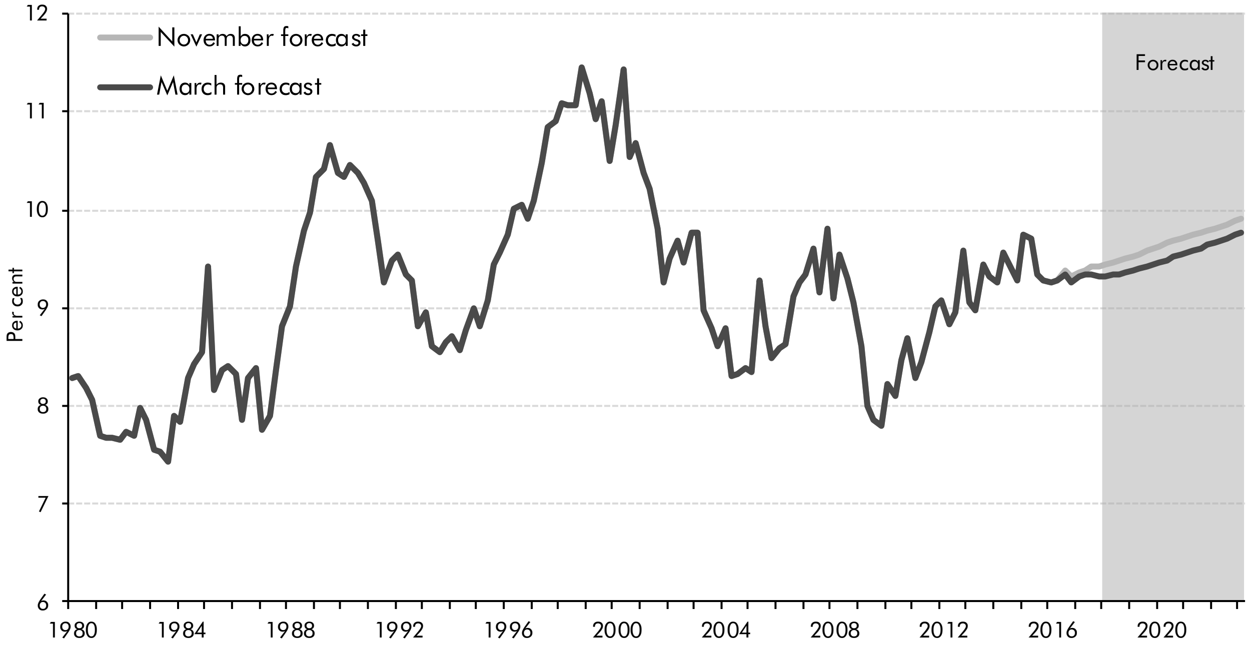
Business investment and stockbuilding

3.93 Business investment appears to have held up better than might have been expected since the EU referendum, rising by 3.3 per cent over the subsequent six quarters, compared to a 2.7 per cent increase over the preceding six quarters. However, as Box 2.1 in Chapter 2 notes, business investment has still been much weaker than our pre-referendum March 2016 forecast. Also, the relative strength in business investment probably reflects other factors. There are large lags in some categories of investment between the decision to invest and when investment is implemented (e.g. aircraft); and the strengthening of the global economy may have boosted the incentive to invest for some exporting firms. It should also be remembered that business investment estimates are both volatile and prone to revision.

3.94 Chart 3.25 shows that we expect a modest rise in business investment as a share of real GDP over the forecast period – less than would be typical at this stage of an economic cycle with a limited amount of spare capacity remaining. This is in part because we assume that investment will be dampened by uncertainty regarding Brexit. Uncertainty of this sort makes firms wary of larger investment projects, which might prove difficult or expensive to reverse if outcomes disappoint. The full implications of Brexit will only become clear gradually, so the uncertainty, and subsequent hit to investment, will probably only resolve itself slowly.

3.95 Adaptation to the post-EU trading regime will probably require some reallocation of resources within the economy, with some firms scrapping capital that has become obsolete and others investing more in other sectors. This investment might not make a net contribution to capital deepening and productivity growth as it may be needed to offset a faster rate of economic depreciation (see Box 3.2 for more details).

Chart 3.25: Real business investment as a share of real GDP



Source: ONS, OBR

3.96 The latest data suggest that stockbuilding acted as a slight drag on growth in 2016 and 2017. This came after stockbuilding had boosted GDP growth for four consecutive years. We expect it to be broadly neutral across our forecast period.

The government sector

3.97 Total public spending amounted to 39 per cent of GDP in 2016-17.[10] But barely half 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 through its production of goods and services. In terms of expenditure, government consumption and investment accounted for 21 per cent of GDP in 2016-17.

Government consumption

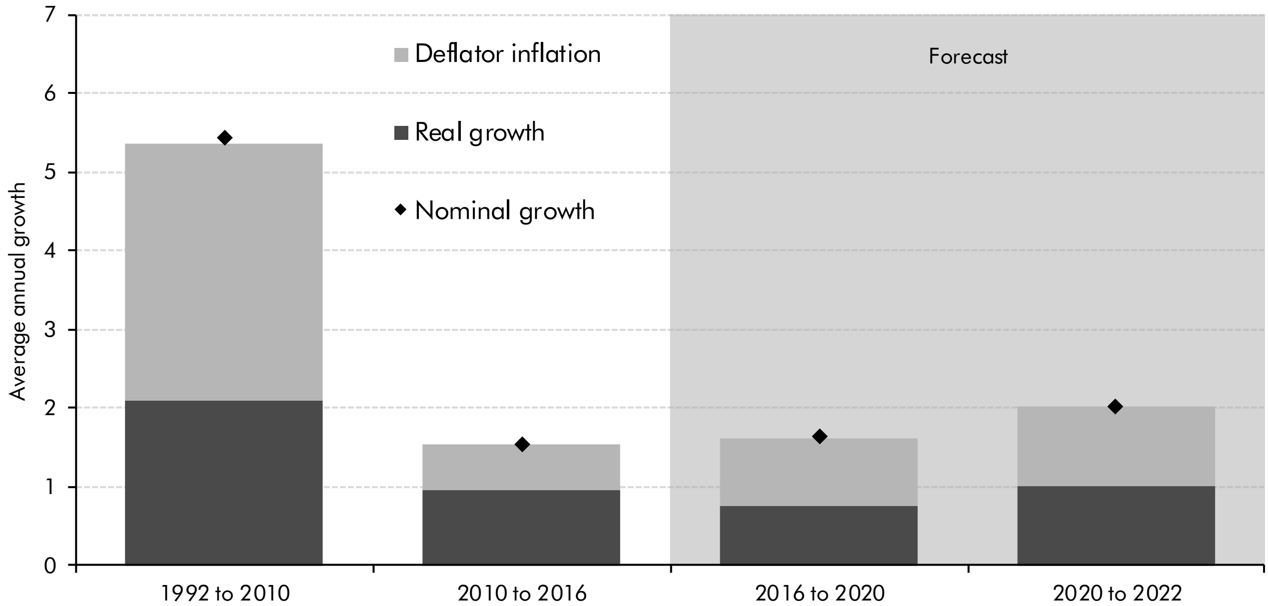
3.98 Nominal government consumption grew by 1.5 per cent in 2017, down from 2.1 per cent in 2016. Outturn data and the Government's fiscal plans imply that it should grow by around 2.3 per cent in 2018. Growth is expected to slow in the subsequent two years, reaching just over 1 per cent in 2020, before picking up again in the last two years of the forecast to reach just over 2 per cent in 2022. This path is little changed from our November forecast and implies that nominal government consumption falls from 18.4 per cent of GDP in 2017 to 17.3 per cent of GDP in 2022 – the lowest since 2001.

3.99 Real government consumption grew by 0.3 per cent in 2017, down from 0.8 per cent in 2016. For any given forecast for nominal government consumption growth, we assume that roughly half will be reflected in real growth and half in the implicit deflator (Chart 3.26). On

[10] Total managed expenditure (TME).

this basis, real government consumption growth is expected to be just over 1 per cent in 2018, dipping to a bit more than ½ per cent in 2020, and then rising back over 1 per cent in 2022.

Chart 3.26: General government consumption



Note: Deflator inflation and real growth do not sum to nominal growth due to compounding.
Source: ONS, OBR

Government investment

3.100 Nominal government investment grew by 4.8 per cent in 2017, down from 2.8 per cent in 2016. Outturn data and the Government's fiscal plans imply that it should grow by around 2 per cent in 2018 before accelerating sharply to over 12 per cent in 2020. The fiscal plans then imply a sharp slowdown to around 2 per cent in both 2021 and 2022. As with government consumption, we assume that, for any given forecast for nominal government investment growth, roughly half will be reflected in real growth and half in the implicit deflator.

General government employment

3.101 In the absence of specific workforce plans, we project general government employment based on some simple assumptions. We begin by assuming that the total paybill will grow in line with a relevant measure of current government spending. We then forecast government sector wage growth separately, taking account of recent data, stated government policy and whole economy earnings growth. We then combine the two to derive an implied projection for general government employment.

3.102 Following the Government's announcement in September 2017 that the 1 per cent cap on public sector pay rises would be lifted in 2018-19, we assume that general government earnings growth will rise gradually from its lower starting point towards the private sector average over the next three years. These are the same assumptions as in November, but we will update them once the pay review bodies have reported and information on actual pay growth becomes available later this year.

3.103 On this basis, the fall in general government employment implied in our current forecast is little changed from our previous forecast – a cumulative 220,000 between the final quarter of 2017 and the first quarter of 2023, down slightly from 250,000 in November. This implies a total fall in government employment from early 2011 of just over half a million, substantially less than the expected rise in market sector employment.[11]

The external sector

3.104 The external sector contributes to the expenditure measure of GDP through net trade. Other income flows into and out of the UK also have fiscal implications. For example, the UK's contribution to the EU budget is partly based on gross national income, which includes an adjustment for the net income earned by the UK on overseas assets. These income flows are captured as part of the current account.

The impact of the EU referendum result on trade flows

3.105 Our broad-brush assumptions regarding the ways in which the EU referendum result and its subsequent implementation affect trade flows are unchanged from our recent forecasts. We expected the sharp depreciation of sterling to support net trade in the near term. But we still believe that the boost will prove to be relatively modest by historical standards and outturn data suggest this has been the case so far.

3.106 We also assume that leaving the EU will result in a lower trade intensity of UK economic activity. We have not made any assumptions in respect of the specific arrangements in place after the UK leaves the EU, since there is still no meaningful basis on which to predict the eventual outcome of the negotiations and the trading arrangements with other countries. Instead, we calibrated the trade effect of leaving the EU by averaging the results of three major external studies.[12] We assume that the full effect will take a decade to be felt and that it will reduce exports and imports symmetrically so that the effect on net trade will be broadly neutral. But we do not incorporate any effect from lower trade intensity on productivity growth owing to the uncertainty surrounding this link and its application to the assumed post-Brexit decline in trade intensity (as discussed in Box 3.3). At this stage, we have not assumed a transition period. If we did, this would delay the hit to trade intensity but it would have little effect on net trade or GDP growth.

[11] 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 public sector wages and employment can be found in the supplementary economy tables available on our website.

[12] Specifically, we have taken the average estimated effect from studies by NIESR (*The long-term economic impact of leaving the EU*, National Institute Economic Review no. 236, May 2016), the OECD (*The economic consequences of Brexit: A taxing decision*, OECD policy paper no. 16, April 2016) and LSE/CEP (*The consequences of Brexit for UK trade and living standards*, March 2016). These represent a subset of the many studies that were presented before the referendum.

Box 3.3: The effect of trade intensity on productivity

In Box 3.1 of our November 2016 *EFO*, we discussed several channels through which the UK's departure from the EU could affect potential output that were not explicitly incorporated into our forecast. This included moving to a less open economy – in terms of both trade and foreign direct investment – which could result in lower 'total factor productivity' (the amount of output an economy can produce from a given level of labour and capital inputs) than would otherwise be the case. For example, less openness to trade may reduce the competitive pressures on UK firms to adopt the most productive ways of operating and impede the process of specialisation. And reduced attractiveness to foreign investors could reduce the extent to which UK businesses can benefit from techniques and processes developed by foreign companies ('technology transfer').

There is a degree of consensus that leaving the EU will result in greater trade frictions in aggregate and that increasing trade frictions will reduce openness.[a] But there is much less agreement on whether, and by how much, reducing openness will affect productivity directly – for example, this channel was an important factor in the Treasury's pre-referendum analysis, but NIESR chose not to include it. The Dutch fiscal council argued in its pre-referendum analysis that "*Quantifying these dynamic effects has proven difficult, for two reasons. In the first place, it is difficult to capture the link between trade, knowledge transfer and innovation as one specific mechanism; the relationship is much more complex. Therefore, it is not easy to include in trade models. In the second place, empirical studies quantifying the effect are proven to be faced with a number of econometric problems.*"[b]

The empirical evidence regarding the impact of openness on productivity is mostly drawn from cross-country growth regressions, where much of the information in the data derives from increasing trade intensity in developing countries. That experience may not be relevant to an advanced economy like the UK. There are also econometric qualifications attached to many of these studies, including the possibility that the openness measures may reflect the influence of omitted factors that drive cross-country productivity growth differences.[c] Finally, there are issues as to how openness is measured and whether the estimated elasticities can be applied to countries with a very different composition of trade; for example, the UK's share of services in total exports is higher than in most countries and global trade has been liberalised less in services than goods.[d]

Moreover, much of the evidence relates to increases in openness and rather less to reductions, as would be the case with Brexit, and there may be asymmetries in the impact of changes in trade frictions. For example, one of the ways in which increased openness is thought to increase productivity is through knowledge spillovers, but reducing openness by introducing trade frictions should not lead businesses to forget what they already know. Finally, it is plausible that the productivity consequences of changes in openness will only become manifest over quite a long time horizon, certainly beyond our current five-year forecast limit.

For these reasons, we have chosen not to incorporate an explicit link from lower trade intensity after Brexit to lower productivity growth within our forecast horizon.

[a] For example, see: NIESR (*The long-term economic impact of leaving the EU*, National Institute Economic Review No. 236, 2016), the IMF (*Macroeconomic implications of the United Kingdom leaving the European Union*, 2016), the OECD (*The economic consequences of Brexit: A taxing decision*, OECD policy paper No. 16, 2016) and HM Treasury (*The long-term economic impact of EU membership and the alternatives*, 2016). These studies all showed broadly similar effects on trade from leaving the EU.
[b] *Brexit Costs for the Netherlands Arise from Reduced Trade*, CPB Netherlands Bureau for Economic Policy Analysis (2017).
[c] For more information of the problems with these studies see *Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence,* Rodriguez & Rodrick (2001).
[d] For more information see *Mind the (current account) gap,* Bank of England Financial Stability Paper No. 43 (2018).

Net trade

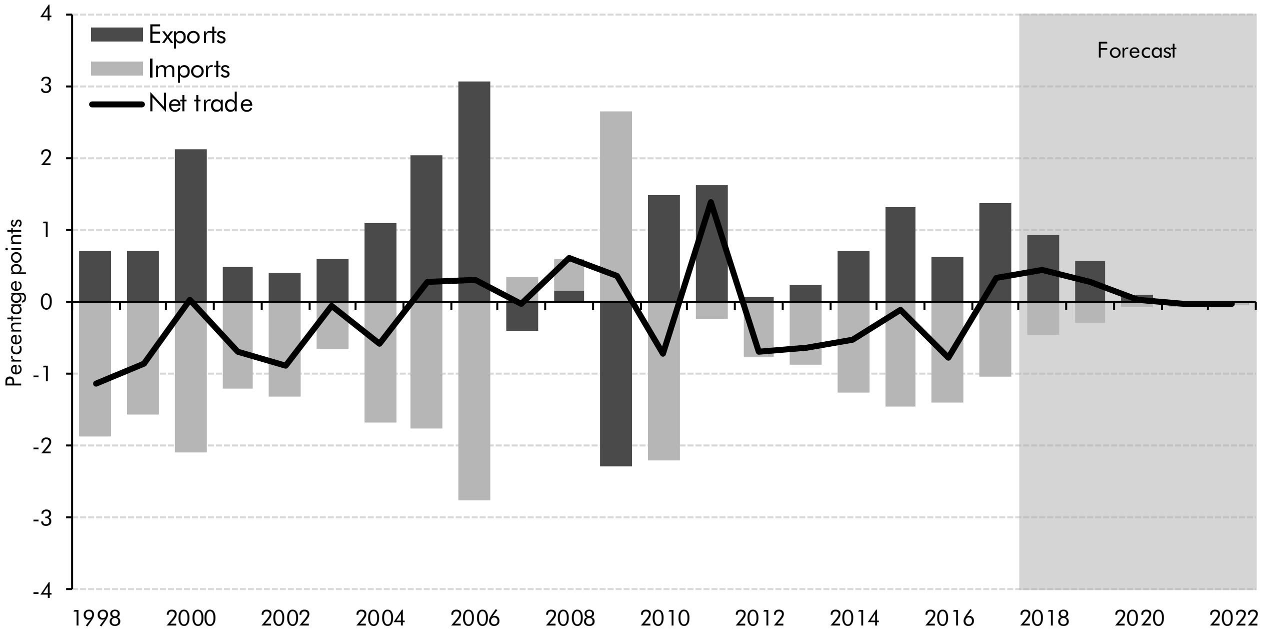
3.107 Export volumes grew by 5.0 per cent in 2017, significantly more than the 2.3 per cent growth seen the previous year. The rise in export growth was mainly due to faster growth in the UK's main trading partners. Import volumes increased by 3.5 per cent in 2017, down from 4.8 per cent in 2016. The fall in import growth came despite stronger growth in import-weighted domestic demand, perhaps because of the weaker pound. Net trade is estimated to have increased GDP growth by 0.3 percentage points in 2017, having reduced it by 0.8 percentage points in 2016. It is worth noting that the trade data is extremely volatile, prone to large revisions and currently not accorded National Statistic status, so it is unwise to place too much weight on any particular vintage of data.

3.108 We expect export growth to slow to almost 3 per cent in 2018, as the effect of the depreciation in sterling starts to fade, and exports to then flatten off altogether between 2020 and 2022 as growth in UK export markets eases and Brexit weighs on the UK's export market share. We expect import growth to slow to around 1½ per cent in 2018, reflecting easing growth in import-weighted domestic demand. Import growth then slows further to close to zero between 2020 and 2022 as Brexit leads to a lower trade intensity of UK economic activity. With export growth slowing less sharply than import growth, we expect the net trade contribution to GDP growth to rise to 0.5 percentage points in 2018, before falling to 0.3 percentage points in 2019 and to be negligible thereafter (Chart 3.27).

3.109 Our combined 2019 and 2020 export growth forecasts are around 1 percentage point higher than November due to stronger near-term growth in UK export markets. Our forecasts for 2021 and 2022 are slightly lower as we assume that some of the short-term strength in the UK's export markets will prove to be cyclical. We have revised down our imports forecast in 2021 and 2022 due to downward revisions to private consumption and exports in those years.

3.110 The contribution of net trade to GDP growth in 2017 was close to our November forecast. Our forecast for the net trade contribution is a combined 0.5 percentage points higher in 2018, 2019 and 2020 than in November, reflecting stronger growth in the UK's trading partners. Our forecasts for net trade are little changed from November thereafter.

Chart 3.27: Net trade contributions to real GDP



Source: ONS, OBR

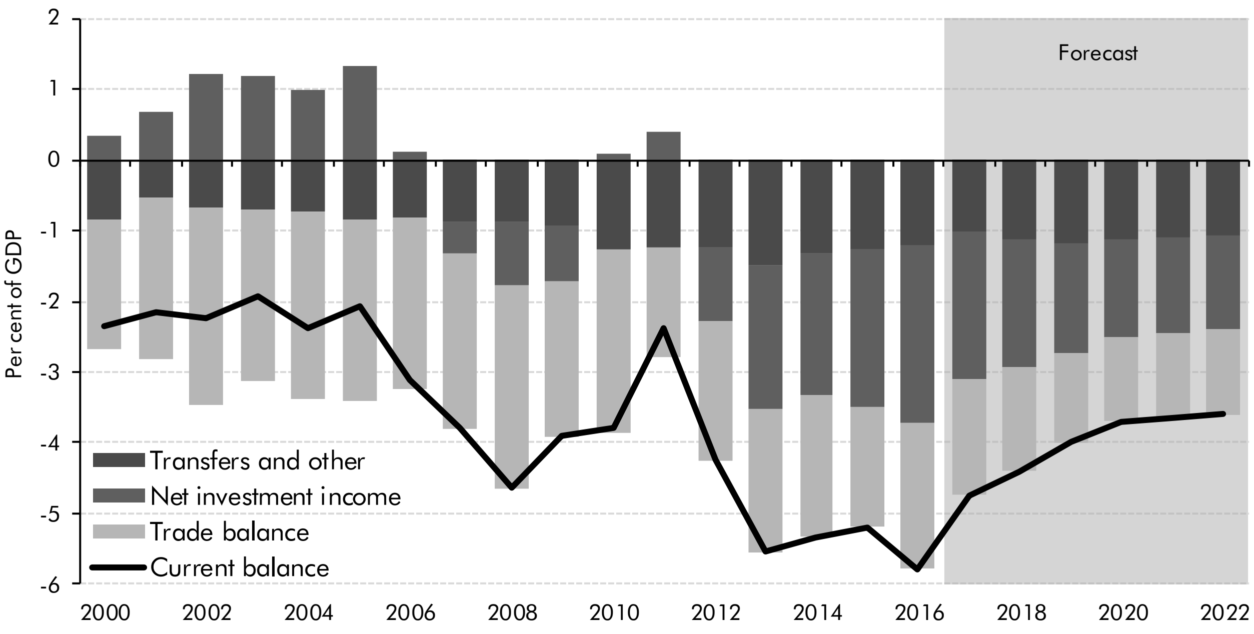
The current account

3.111 The current account deficit has widened significantly in recent years, largely due to a worsening net investment income balance. Having been in surplus in 2010 and 2011, the net investment income balance moved into deficit in 2012 and has become increasingly negative in subsequent years, peaking at 2.5 per cent of GDP in 2016.

3.112 Recent data indicate that the current account deficit narrowed somewhat in 2017, although it remains large by historical standards. The deficit averaged 4.6 per cent of GDP in the first three quarters of the year, compared to 5.8 per cent of GDP in 2016. The modest narrowing is partly a consequence of sterling's depreciation, as a weaker pound automatically increases the sterling value of income earned on the UK's foreign-currency assets. Consistent with this, the quarterly income deficit narrowed from just under 3 per cent of GDP in the second quarter of 2016 to 1.6 per cent of GDP in the first quarter of 2017, although the latest data show it widening in subsequent quarters. The latest data also suggest that the trade deficit narrowed slightly following the depreciation, to 1.7 per cent of GDP in the 2017 calendar year – compared to 2.1 per cent of GDP in 2016.

3.113 We expect some further improvement in the investment income balance over the forecast period (Chart 3.28), consistent with the continued recovery in GDP growth in the rest of the world relative to the UK. Some of the factors behind the recent deterioration in the balance should prove temporary – for example, the effects of weak euro area growth on foreign earnings and the effect of large cross-border fines and compensation recently paid by UK firms abroad. The trade balance is also expected to narrow in the near term, as net trade is supported by relatively strong global growth and the lagged effects of a weaker pound. The trade balance is expected to stabilise from 2020.

Chart 3.28: Current account balance



Source: ONS, OBR

3.114 Modest expected improvements in the trade and income balances mean that we expect the current account deficit to narrow slightly, reaching just over 3½ per cent of GDP by the end of the forecast period. A continued current account deficit of this size could pose a risk to the outlook (see paragraph 3.118). Relative to our November forecast, we expect a somewhat smaller deficit, consistent with upward revisions to our net trade forecast. Our forecast of the income and transfers deficits are little changed from November (Table 3.7).[13]

Table 3.7: Change to the current account since November

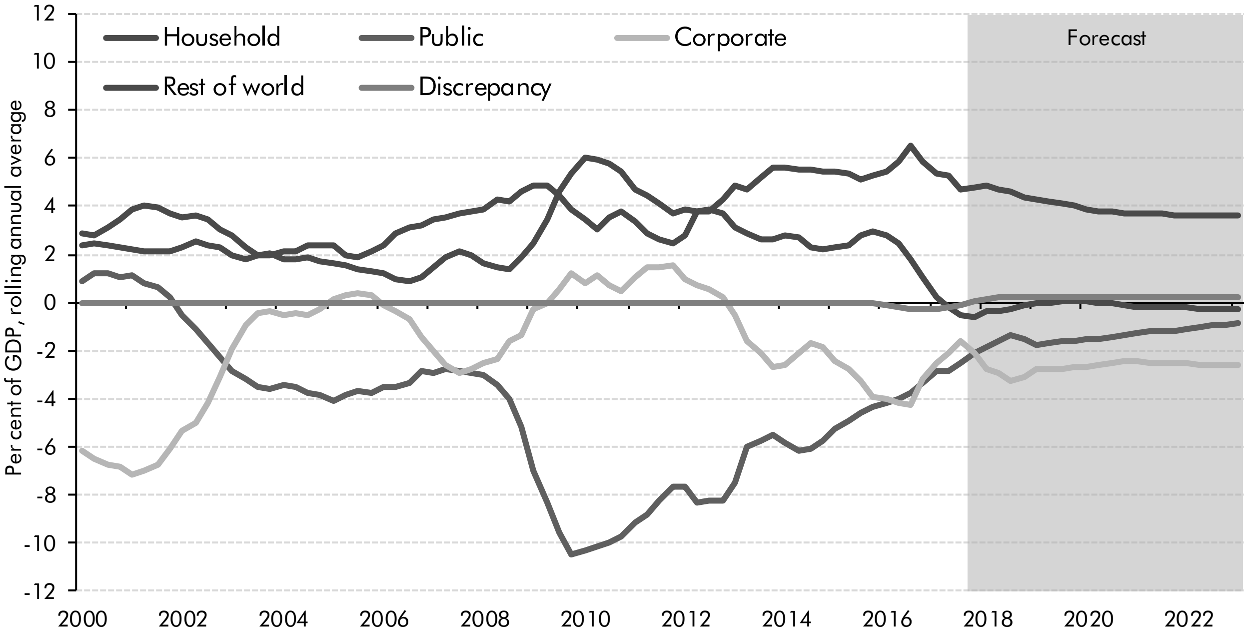
	£ billion						
	Outturn	Forecast					
	2016	2017	2018	2019	2020	2021	2022
November forecast	-115.5	-93.5	-98.4	-99.5	-100.4	-101.4	-102.9
March forecast	-113.6	-96.8	-92.5	-86.2	-82.2	-83.7	-85.2
Change	**1.9**	**-3.2**	**6.0**	**13.3**	**18.2**	**17.7**	**17.8**
of which:							
Trade balance	2.3	0.7	7.1	14.6	17.9	17.0	17.1
Volumes	3.5	1.5	6.6	12.0	13.7	13.1	13.4
Prices	-1.2	-0.8	0.5	2.7	4.2	3.9	3.7
Investment income balance	0.0	-5.2	-0.8	-0.1	0.6	0.7	0.6
Transfers and other	-0.5	1.2	-0.4	-1.2	-0.3	0.0	0.1

[13] Our forecast of the transfers balance does not incorporate any future changes in transfer flows between the UK and the EU associated with Brexit. These will be incorporated once a clearer idea of their likely magnitude is available. Annex B looks at the flows that would be associated with a financial settlement – 'divorce bill' – on the terms set out in the joint report by the UK Government and the EU on progress in the first stage of the Article 50 negotiations, which was published in December.

Sectoral net lending

3.115 In the National Accounts framework that underpins our economy forecast, the income and expenditure of the different sectors imply a path for each sector's net lending to, or borrowing from, the others. In principle, these sum to zero – for each pound borrowed, there must be a pound lent. In practice, ONS estimates of sector net lending do not sum precisely to zero, reflecting differences between the income and expenditure measures of GDP (the 'statistical discrepancy'). Our standard practice is to assume that this difference remains broadly flat over the forecast period.

Chart 3.29: Sectoral net lending



Source: ONS, OBR

3.116 In the first three quarters of 2017, the rest of the world sector was reported to be in surplus (i.e. lending to the UK) and the public, household and corporate sectors were reported to be in deficit (Chart 3.29). On current government policy, including planned further public spending cuts, we expect the public sector deficit to narrow, offset by a small narrowing in the rest of the world surplus (i.e. a narrowing current account deficit) and a widening of the corporate sector deficit. We expect household net lending to remain close to balance, consistent with a broadly stable saving ratio and modest growth in housing investment. We have not made significant changes to these forecasts since November.

Risks and uncertainties

3.117 As always, we emphasise the uncertainties that surround our central forecast. Some risks and uncertainties are common to all forecasts: conditioning assumptions may prove inaccurate; the economy may be subject to unexpected shocks; and behavioural relationships may change.

3.118 Specific risks at the present juncture include:

- The outlook for **productivity growth** remains hugely uncertain. Over the next few years, we still expect some recovery from the weak rates seen since the financial crisis. But that recovery may not arrive, or may take longer to materialise, so productivity could surprise on the downside. Alternatively, productivity could surprise on the upside if, for example, business investment grew more strongly than we expect. We explored the consequences of either of these risks crystallising in Chapter 5 of the November *EFO*.

- Before and after the UK's exit from the EU, **policies and regimes will evolve to supersede those presently associated with EU membership**. These changes, and the response of households and businesses to them, are subject to great uncertainty and there is little by way of precedent on which to base any forecast assumptions.

- The **current account deficit** remains large by historical standards and only a modest narrowing is expected over the forecast period. Overseas investors are consequently acting as significant net lenders to the UK, which could pose risks if their confidence in the UK economy were to be damaged by uncertainty regarding the economic and political outlook – including if there were a disorderly Brexit. That could lead to a sharp fall in sterling, bringing about a more abrupt demand-led narrowing of the current account deficit and a subsequent spike in inflation. It is worth noting that, while the current account deficit remains large, the UK's net international investment liabilities are only modest as a share of GDP, mitigating this risk somewhat.

- **Private consumption growth has outpaced income growth** in recent years. We expect this to continue, although at a more gradual pace, over the next couple of years. Over the medium term, we expect consumption to grow in line with incomes. This could pose a risk to our forecast, either because consumption continues to grow faster than incomes, reducing the saving ratio further, or because households cut back their spending growth by more than we expect to maintain saving.

- The IMF believes the medium-term risks to the **global economy** are skewed to the downside. It cites: the build-up of financial vulnerabilities due to a long period of low interest rates; geopolitical tensions; and a tightening of global financial conditions.[14] We explore the potential impact of stronger global growth and a faster tightening of global monetary policy in Chapter 5. There is also risk of a retreat from cross-border economic integration, highlighted by US President Donald Trump's decision to impose tariffs on imports of steel and aluminium into the United States.

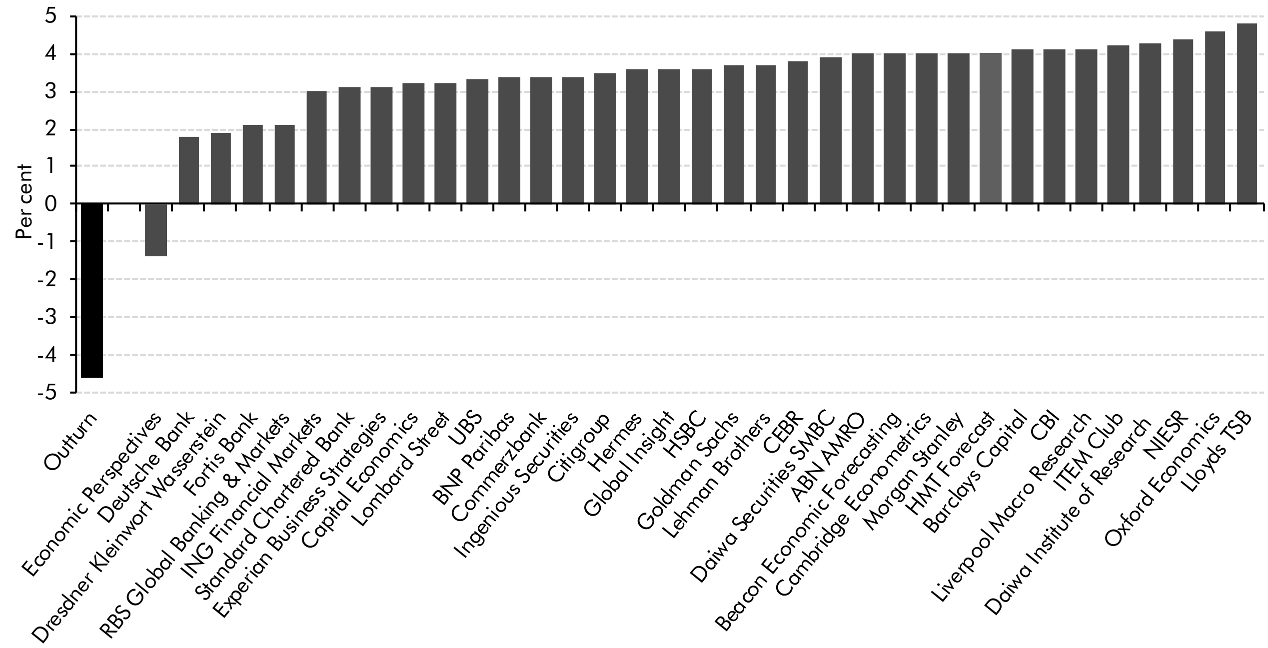
- In the 61 years for which the ONS has published consistent quarterly real GDP data, there have been seven recessions – suggesting that the chance of a **recession** in any five-year period is around one in two.[15] So the probability of a cyclical shock occurring sometime over our forecast horizon is fairly high. Despite the first rise in Bank Rate in

[14] IMF, *World Economic Outlook Update*, January 2018.
[15] See Chapter 3 our 2017 *Fiscal risks report* for more details.

over a decade on 2 November, interest rates remain near their **effective lower bound**. So if the UK were to be subject to a large negative demand shock, monetary policy would have to rely on unconventional monetary policies such as asset purchases, the impact of which remains somewhat uncertain.

3.119 As regards this final risk of an unexpected recession, it is salutary to remember that exactly 10 years ago – at the spring Budget of March 2008 – the Treasury forecast that the economy would grow by a cumulative 4 per cent in calendar years 2008 and 2009, whereas the latest outturn data show a drop of 4.6 per cent. As Chart 3.30 shows, only one of the 34 outside forecasters reporting their forecasts to the Treasury at the time predicted that real GDP would decline in either 2008 or 2009. In the Treasury's latest survey, none of the 40 respondents expect real GDP to decline in either 2018 or 2019.[16]

Chart 3.30: Forecasts for cumulative GDP growth in 2008 and 2009 in March 2008



Source: HM Treasury, ONS

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 2018 *Inflation Report*, the Bank of England published additional information about its forecast that can be compared against our own (Table 3.8). This

[16] *Forecasts for the UK economy: February 2018*, HM Treasury.

included the Bank staff's forecasts for the expenditure composition of GDP, consistent with the MPC's central forecasts for GDP, CPI inflation and the unemployment rate.

Table 3.8: Comparison with the Bank of England's forecast and projections

	Per cent			
	2017[2]	2018	2019	2020
Bank of England February *Inflation Report* forecast[1]				
Household consumption	1½	1¼	1¼	1¼
Business investment	2¼	3	3¾	4¼
Housing investment[3,4]	5½	¼	½	¾
Exports	6¼	3¼	1¼	½
Imports	3	1¼	¼	0
Employment[5]	1¼	½	½	½
Unemployment rate[6]	4.3	4.2	4.1	4.1
Productivity[7]	½	1¼	1¼	1
Average weekly earnings[4,5]	2½	3	3¼	3½
Difference from OBR forecast				
Household consumption	-0.2	0.4	0.4	0.1
Business investment	0.0	1.3	1.8	2.0
Exports	1.2	0.0	-0.8	0.2
Imports	-0.5	-0.3	-0.7	-0.2
Employment[5]	0.2	0.0	0.1	0.2
Unemployment rate[6]	-0.1	-0.3	-0.4	-0.5
Productivity[7]	-0.1	0.5	0.3	0.0

[1] Percentage change, year on year, unless otherwise stated.
[2] 2017 estimates contain a combination of data and projections.
[3] Whole economy measure. Includes transfer costs of non-produced assets.
[4] We have not shown a comparison for housing investment and average weekly earnings as the particular measures we use are not directly comparable.
[5] Four-quarter growth rate in Q4.
[6] LFS unemployment rate in Q4.
[7] Output per hour.

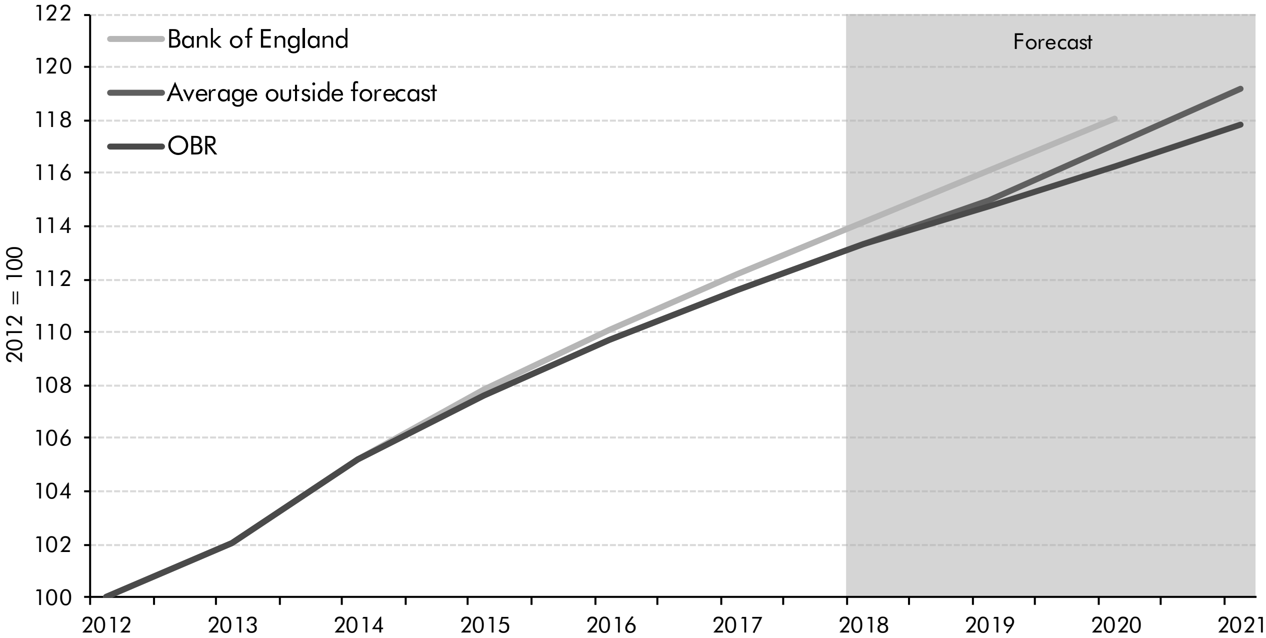
3.122 Broadly speaking, the Bank is more optimistic regarding the UK's near-term economic prospects, in terms of both supply and demand. The MPC's modal forecast for GDP growth is 1.8 per cent in 2018, then 1.7 per cent in 2019 and 2020, an average of 0.4 percentage points a year higher than our central forecast. This is largely driven by the Bank's stronger profile for output per hour growth. The Bank are also somewhat more optimistic regarding the labour market; predicting lower unemployment and stronger growth in average earnings – both in absolute terms and relative to productivity. This implies more upward pressure on unit labour costs and domestic inflation.

3.123 In terms of the expenditure composition of GDP, the Bank expects slightly higher growth in private consumption and notably stronger business investment. It also expects a slightly larger contribution from net trade to GDP growth, mainly due to weaker import growth.

Comparison with other external forecasters

3.124 Chart 3.31 compares our forecast for the level of GDP with other forecasters. The Bank's forecast for the level of GDP is somewhat higher than the average external forecast. This reflects the higher starting point implied by the Bank's 'backcast' of GDP as well as the stronger forecast. Our GDP forecast is somewhat weaker than the average external forecast over the medium term, which is likely to reflect our lower forecast for productivity growth. Table 3.9 presents a range of external forecasts.

Chart 3.31: Comparison of forecasts for the level of GDP projections



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

Table 3.9: Comparison with external forecasts

	Per cent				
	2018	2019	2020	2021	2022
OBR (March 2018)					
GDP growth	1.5	1.3	1.3	1.4	1.5
CPI inflation	2.4	1.8	1.9	2.0	2.0
Output gap	0.3	0.1	0.0	0.0	0.0
Oxford Economics (February 2018)					
GDP growth	1.8	1.6	1.9	1.9	1.8
CPI inflation[3]	1.6	1.7	1.7	1.8	1.8
Output gap	-1.2	-1.0	-0.7	-0.4	-0.3
Bank of England (February 2018)[1,2]					
GDP growth (mode)	1.8	1.7	1.7		
CPI inflation (mode)[3]	2.4	2.2	2.1		
European Commission (January 2018)					
GDP growth	1.4	1.1			
CPI inflation	2.7	2.0			
Output gap[4]	0.4	0.2			
NIESR (February 2018)[1]					
GDP growth	1.9	1.9	1.7	1.6	1.6
CPI inflation	2.7	2.1	2.0	2.0	2.1
OECD (November 2017)					
GDP growth	1.2	1.1			
CPI inflation	2.6	2.2			
Output gap	-0.1	-0.3			
IMF (October 2017)[5]					
GDP growth	1.5	1.6	1.7	1.7	1.7
CPI inflation	2.6	2.2	2.1	2.0	2.0
Output gap	-0.2	-0.2	-0.1	0.0	0.0

[1] Output gap not published.

[2] Forecast based on market interest rates and the Bank of England's 'backcast' for GDP growth.

[3] Fourth quarter year-on-year growth rate.

[4] The European Commission did not update its output gap estimates in its Winter 2018 Economic Forecast. Output gap numbers are from the Autumn 2017 Economic Forecast, published in November.

[5] The IMF has since published its January 2018 World Economic Outlook Update. For the UK, GDP growth was unrevised in 2017, but revised down to 1.5 per cent in 2019.

Table 3.10: Detailed summary of forecast

	Percentage change on a year earlier, unless otherwise stated						
	Outturn	Forecast					
	2016	2017	2018	2019	2020	2021	2022
UK economy							
Gross domestic product (GDP)	1.9	1.7	1.5	1.3	1.3	1.4	1.5
GDP per capita	1.1	1.1	0.9	0.7	0.7	0.8	0.9
GDP level (2016=100)	100.0	101.7	103.3	104.6	105.9	107.4	108.9
Nominal GDP	3.9	3.8	3.1	2.8	3.0	3.1	3.3
Output gap (per cent of potential output)	-0.1	0.1	0.3	0.1	0.0	0.0	0.0
Expenditure components of GDP							
Domestic demand	2.2	1.5	1.1	1.0	1.2	1.4	1.5
Household consumption[1]	2.9	1.7	0.9	0.9	1.1	1.4	1.5
General government consumption	0.8	0.3	1.1	0.9	0.6	0.9	1.1
Fixed investment	1.8	3.9	1.8	1.5	2.4	1.9	2.1
Business	-0.5	2.2	1.7	2.0	2.3	2.4	2.5
General government[2]	1.3	3.5	2.1	2.1	6.1	1.0	1.2
Private dwellings[2]	7.6	7.8	2.3	0.3	0.5	1.3	1.8
Change in inventories[3]	-0.2	-0.4	0.0	0.0	0.0	0.0	0.0
Exports of goods and services	2.3	5.0	3.3	2.0	0.3	-0.1	0.0
Imports of goods and services	4.8	3.5	1.5	1.0	0.2	0.0	0.1
Balance of payments current account							
Per cent of GDP	-5.8	-4.7	-4.4	-4.0	-3.7	-3.6	-3.6
Inflation							
CPI	0.7	2.7	2.4	1.8	1.9	2.0	2.0
RPI	1.7	3.6	3.7	3.0	2.9	2.9	3.0
GDP deflator at market prices	2.0	2.1	1.5	1.6	1.6	1.7	1.8
Labour market							
Employment (millions)	31.7	32.1	32.2	32.4	32.5	32.6	32.7
Productivity per hour	0.3	0.6	0.8	0.9	1.0	1.1	1.2
Wages and salaries	3.7	3.8	3.4	2.7	2.7	2.9	3.1
Average earnings[4]	2.7	2.6	2.7	2.4	2.5	2.8	3.0
LFS unemployment (% rate)	4.9	4.4	4.4	4.5	4.6	4.6	4.6
Household sector							
Real household disposable income	0.2	0.2	1.2	0.5	0.5	1.3	1.4
Saving ratio (level, per cent)	7.1	5.2	5.8	5.8	5.5	5.4	5.3
House prices	7.0	4.8	3.7	2.7	2.2	2.4	2.9
World economy							
World GDP at purchasing power parity	3.2	3.7	3.9	3.9	3.7	3.7	3.7
Euro area GDP	1.8	2.5	2.2	2.0	1.6	1.4	1.4
World trade in goods and services	2.7	4.9	4.6	4.4	3.9	3.7	3.8
UK export markets[5]	2.5	4.2	4.6	4.6	4.0	3.7	3.8

[1] Includes households and non-profit institutions serving households.

[2] Includes transfer costs of non-produced assets.

[3] Contribution to GDP growth, percentage points.

[4] Wages and salaries divided by employees.

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

Table 3.11: Detailed summary of changes to the forecast

	Percentage change on a year earlier, unless otherwise stated						
	Outturn	Forecast					
	2016	2017	2018	2019	2020	2021	2022
UK economy							
Gross domestic product (GDP)	0.1	0.2	0.1	0.0	0.0	-0.1	-0.1
GDP per capita	0.1	0.2	0.1	0.0	0.0	-0.1	-0.1
GDP level (2016=100)[1]	0.0	0.2	0.3	0.3	0.3	0.1	0.0
Nominal GDP	0.1	0.4	0.2	0.1	0.0	-0.2	-0.1
Output gap (per cent of potential output)	0.1	0.3	0.3	0.3	0.2	0.1	0.0
Expenditure components of GDP							
Domestic demand	0.1	0.6	-0.1	-0.3	-0.1	-0.1	-0.1
Household consumption[2]	0.2	0.2	0.1	-0.3	-0.1	-0.1	-0.2
General government consumption	-0.2	0.0	0.2	0.2	0.1	-0.1	0.1
Fixed investment	0.4	1.2	-0.2	-0.5	-0.3	0.0	0.1
Business	-0.1	-0.3	-0.6	-0.3	-0.2	0.0	0.1
General government[3]	-0.2	1.1	0.7	-0.2	-0.2	0.0	0.3
Private dwellings[3]	2.1	4.7	0.4	-1.0	-0.7	-0.2	0.2
Change in inventories[4]	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
Exports of goods and services	1.2	-0.2	-0.1	0.8	0.2	-0.2	-0.1
Imports of goods and services	0.6	0.2	-0.9	0.0	0.0	-0.1	-0.2
Balance of payments current account							
Per cent of GDP	0.1	-0.1	0.3	0.7	0.9	0.8	0.8
Inflation							
CPI	0.0	0.0	0.1	0.0	0.0	0.0	0.0
RPI	0.0	0.0	0.4	0.2	0.1	0.0	0.0
GDP deflator at market prices	0.0	0.2	0.1	0.1	0.0	-0.1	0.0
Labour market							
Employment (millions)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Productivity per hour	0.2	0.6	-0.1	-0.1	-0.1	-0.1	-0.1
Wages and salaries	-0.1	0.3	0.5	0.1	0.0	-0.3	-0.1
Average earnings[5]	-0.1	0.3	0.4	0.1	-0.1	-0.3	-0.1
LFS unemployment (% rate)	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Household sector							
Real household disposable income	-0.1	0.4	0.5	0.2	0.0	-0.1	-0.1
Saving ratio (level, per cent)	0.0	-0.4	-0.4	0.0	0.0	0.0	0.0
House prices	0.0	0.4	0.8	-0.3	-0.7	-0.9	-0.7
World economy							
World GDP at purchasing power parity	0.0	0.2	0.2	0.2	0.0	-0.1	-0.1
Euro area GDP	0.0	0.3	0.3	0.3	0.0	-0.1	-0.1
World trade in goods and services	0.0	-0.1	0.6	0.5	0.1	-0.2	-0.2
UK export markets[6]	-0.2	-0.1	0.4	0.5	0.1	-0.2	-0.2

[1] Per cent change since November.
[2] Includes households and non-profit institutions serving households.
[3] Includes transfer costs of non-produced assets.
[4] Contribution to GDP growth, percentage points.
[5] Wages and salaries divided by employees.
[6] Other countries' imports of goods and services weighted according to the importance of those countries in the UK's total exports.

4 Fiscal outlook

Introduction

4.1 This chapter:

- describes the assumptions that we have made in respect of **the UK's forthcoming exit from the EU** (from paragraph 4.4);
- sets out the key **economic and market determinants** that drive the fiscal forecast (from paragraph 4.8);
- explains the **effects of new policies** announced since November by the UK, Scottish and Welsh Governments on the fiscal forecast (from paragraph 4.10);
- describes the **outlook for public sector receipts**, including a tax-by-tax analysis explaining how the forecasts have changed since November (from paragraph 4.29);
- 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 'welfare cap' (from paragraph 4.90);
- describes **the outlook for government lending to the private sector and other financial transactions**, including asset sales (from paragraph 4.149);
- describes the **outlook for the key fiscal aggregates**, including headline and structural measures of the budget deficit, and public sector net debt (from paragraph 4.175);
- summarises **risks and uncertainties** (paragraph 4.206); and
- compares our forecasts to those of **international organisations** (from paragraph 4.208).

4.2 Further breakdowns of receipts and expenditure and other details of our forecast are provided in supplementary tables on our website. The forecasts in this chapter start from the version of 2016-17 outturn data published by the Office for National Statistics (ONS) in February. We then present an in-year estimate for 2017-18 that makes use of ONS outturn data for April 2017 to January 2018 and some administrative tax data for February. Finally, we present forecasts for 2018-19 to 2022-23.

4.3 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, including some broad-brush assumptions that we have needed to make about the future policy settings in respect of the UK's forthcoming exit from the EU. On that basis, we believe that, in the absence of future policy or classification changes, the outturns would be 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 central costings for the small number of new policies announced by the UK, Scottish and Welsh Governments since our previous forecast in November. As the Chancellor indicated when moving the annual budget timetable to the autumn, he did not announce any significant tax or spending policy changes in the Spring Statement itself.

- **Focuses on official 'headline' fiscal aggregates** that exclude public sector banks.

Assumptions regarding the UK's exit from the EU

4.4 The OBR is required by legislation to produce its forecasts based on current government policy (but not necessarily assuming that particular objectives will be met). With negotiations over the UK's exit from the EU still taking place, this is not straightforward. We asked the Government if it wished to provide any additional information on its current policies in respect of Brexit that would be relevant to our forecasts. As set out in the Foreword, it directed us to the Prime Minister's Florence speech from September.

4.5 The position laid out in that speech was reinforced and expanded upon in the Prime Minister's Mansion House speech on 2 March, which was delivered after our forecast had been closed. We did not have advance access to any of the content, but it would not have altered our assumptions relating to Brexit. As with previous speeches and Government publications, achieving the outcomes the Government seeks will depend on further policy development by the UK authorities as well as the continuing negotiations with the EU.

4.6 Since our previous forecast, the UK Government and the European Union have published a joint report on progress during phase one of the Article 50 negotiations. This sets out the terms of the financial settlement – the 'divorce bill' – the UK will pay after Brexit. This provides sufficient information for us to estimate the prospective cost of a financial settlement on those terms and incorporate it into our central forecast.

4.7 Given the uncertainty as to how the Government will respond to the choices and trade-offs facing it during the negotiations, we still have no meaningful basis for predicting a precise outcome upon which we could then condition our forecast. Moreover, even if the outcome of the negotiations were predictable, its impact on the economy and the public finances would still be uncertain. We have therefore made only one change to the broad-brush assumptions regarding Brexit that underpinned our previous post-referendum forecasts – to factor in the financial settlement. Specifically, as regards the fiscal forecast, we assume that:

- **The UK leaves the EU in April 2019** – two years after Article 50 was invoked.
- Any reduction in **expenditure transfers to EU institutions** – after factoring in the cost of the financial settlement – would be recycled fully into extra spending. This assumption is fiscally neutral.
- There are no changes to the structure or membership of **tax systems for which there are common EU rules** (such as VAT and the EU emissions trading scheme or the customs duties that are deemed to be collected on behalf of the EU).

Economic determinants of the fiscal forecast

4.8 Our fiscal forecasts are based on the economy forecast presented in Chapter 3. Most economic forecasts focus on the outlook for real GDP, but it is nominal GDP – affected by prices as well as volumes – that matters most when forecasting the public finances. Forecasts of tax receipts are sensitive to 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 taxes while business investment attracts capital allowances that reduce corporation tax receipts in the short term. And while around half of public sector spending is set out in multi-year cash plans, large elements (such as social security and debt interest payments) are linked to developments in the economy – notably inflation, interest rates and the labour market.

4.9 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:

- Cumulative **nominal GDP growth** between 2016-17 and 2022-23 is up by 0.3 percentage points compared to our November forecast. Real GDP growth has been revised up in the near term, given a stronger outlook in the global economy, but is weaker in later years. GDP deflator growth is also expected to be higher in the near term, reflecting changes in our forecast for the terms of trade.
- On the income side of GDP, **wages and salaries** are forecast to grow by 3.1 per cent a year on average between 2017-18 and 2022-23, up by 0.1 percentage points from November. This largely reflects the pick-up in near-term wage growth suggested in both HMRC's recent PAYE 'real-time information' experimental statistics and the Bank of England regional agents' annual pay survey. Non-oil, non-financial **profits** have also been revised up in light of strong outturns since our November forecast.

- On the expenditure side, **nominal consumer spending** is forecast to grow by 3.3 a year on average between 2017 and 2022, down 0.1 percentage points on November. This reflects our judgement that the household saving ratio will level off earlier in the forecast period than we assumed in November.

- We have revised up our forecast for the CPI measure of **inflation** slightly in the near term, reflecting higher-than-expected oil and food commodity prices at the start of 2018. RPI inflation has also been revised up, reflecting higher near-term house price inflation, a higher forecast of mortgage interest payments and larger expected council tax rises following announcements in the local government finance settlement.

- **House price inflation** has been revised up in the near term compared to our November forecast, reflecting stronger outturns and the upward revision to our near-term labour income growth forecast. But it is expected to be weaker from 2019 onwards, as mortgage rates increase faster than previously anticipated and the near-term strength in income growth reverses. It is now expected to average 3.1 per cent a year between 2017-18 and 2022-23, down 0.3 percentage points on our November forecast. **Residential property transactions** are lower in the near term compared to November, reflecting the latest outturn data.

- **Commercial property prices** are expected to rebound in 2017-18, after a fall in 2016-17. Prices rise a little more in the near term than assumed in our November forecast, but still remain weak overall in line with the consensus outlook from the IPF.[1] Our **commercial property transactions** forecast is stronger in 2017-18 compared to November, reflecting the latest HMRC information.

- Market-derived assumptions for **equity prices, interest rates** and **oil and gas prices** reflect average prices in the 10 days to 16 February. Equity prices have been revised down in the near term, largely due to the recent market correction. Sterling oil prices have been revised up in the short term in line with recent outturns, but are down from 2019-20 onwards due to the downward sloping oil price futures curve and revisions to the pound-dollar exchange rate. Market expectations of interest rates have risen since November, with Bank Rate expected to increase slightly faster in the near term.

- Our **oil and gas production** forecasts are informed by the central projections published by the Oil and Gas Authority (OGA). Production has been revised up across the forecast since November, reflecting the latest survey data from companies operating in the UK's oil and gas sector. Our UK oil and gas expenditure forecasts are also informed by the central projections published by the OGA. We have revised overall expenditure down, partly reflecting weaker expenditure than expected in 2017.

[1] *Investment property forum UK consensus forecast*, Autumn 2017. Since we closed our forecast the IPF have released a subsequent consensus forecast which shows slightly more pessimistic commercial property growth.

- Our forecast for **financial company profit growth** is higher in 2017, reflecting the strong performance of financial sector corporation tax receipts so far this year. This is supported by City analysts' expectations of strong pre-tax profit growth at major UK financial institutions. Full HMRC outturn data on taxable profits are only available with a long lag – the 2017 data will only become available in the summer of 2019. Given the recent strong results reported by major UK financial institutions, we now assume that financial company profits will grow faster than the rest of the economy in 2018-19, but that this growth will slow progressively over the next two years. From 2020-21 onwards, we assume it will grow more slowly than the rest of the economy, reflecting our assumption that financial and business services are likely to be more adversely affected than other sectors by the UK leaving the EU in March 2019.

- The **output gap** – which we use to estimate the structural health of the public finances – is now judged to be slightly positive in 2017-18 and to close by the end of 2020-21. In November, we judged that the gap was slightly negative in 2017-18. This change implies slightly less scope for actual GDP to grow relative to the economy's potential.

Table 4.1: Determinants of the fiscal forecast

	Percentage change on previous year, unless otherwise specified						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
GDP and its components							
Real GDP	2.0	1.6	1.5	1.2	1.3	1.4	1.5
Nominal GDP[1]	4.4	3.4	3.0	2.9	3.0	3.2	3.3
Nominal GDP (£ billion)[1,2]	1987	2054	2116	2177	2241	2312	2389
Nominal GDP (centred end-March £bn)[1,3]	2024	2084	2146	2209	2275	2350	2428
Wages and salaries[4]	4.0	3.6	3.2	2.7	2.8	3.0	3.2
Non-oil PNFC profits[4,5]	7.7	2.1	2.1	3.0	3.6	3.4	3.3
Consumer spending[4,5]	4.4	3.7	3.0	2.8	3.1	3.4	3.5
Prices and earnings							
GDP deflator	2.2	1.9	1.5	1.6	1.7	1.7	1.8
RPI	2.1	3.8	3.4	3.0	2.9	2.9	3.0
CPI	1.1	2.9	2.2	1.8	2.0	2.0	2.0
Average earnings[6]	2.9	2.5	2.7	2.4	2.6	2.8	3.0
'Triple-lock' guarantee (September)	2.5	3.0	2.8	2.5	2.5	2.7	3.0
Key fiscal determinants							
Employment (millions)	31.8	32.1	32.3	32.4	32.5	32.6	32.7
Implied VAT gap (per cent)[7]	9.0	9.6	9.3	8.9	8.6	8.5	8.4
Output gap (per cent of potential output)	-0.1	0.2	0.2	0.1	0.0	0.0	0.0
Financial and property sectors							
Equity prices (FTSE All-Share index)	3700	4061	4036	4151	4275	4409	4556
HMRC financial sector profits[1,5,8]	4.2	10.0	5.0	2.8	1.5	1.6	1.7
Residential property prices[9]	6.1	4.8	3.3	2.5	2.2	2.5	3.0
Residential property transactions (000s)[10]	1156	1223	1236	1260	1285	1312	1344
Commercial property prices[10]	-12.3	2.3	-0.7	1.6	1.7	1.7	1.8
Commercial property transactions[10]	7.0	0.2	1.5	1.2	1.3	1.4	1.5
Oil and gas							
Oil prices ($ per barrel)[5]	44.0	54.6	64.0	60.1	59.6	60.6	61.8
Oil prices (£ per barrel)[5]	32.5	42.4	44.9	41.3	40.4	40.6	40.9
Gas prices (p/therm)[5]	34.6	44.9	45.5	43.8	44.6	45.4	46.3
Oil production (million tonnes)[5]	47.4	46.6	48.9	48.9	48.5	46.0	43.7
Gas production (billion therms)[5]	14.1	14.2	14.2	13.5	12.8	12.2	11.6
Interest rates and exchange rates							
Market short-term interest rates (%)[11]	0.4	0.4	0.9	1.3	1.5	1.7	1.7
Market gilt rates (%)[12]	1.2	1.3	1.7	1.8	1.9	2.0	2.1
Euro/Sterling exchange rate (€/£)	1.19	1.13	1.14	1.12	1.11	1.10	1.10

[1] Non-seasonally adjusted.
[2] Denominator for receipts, spending and deficit forecasts as a per cent of GDP.
[3] Denominator for net debt as a per cent of GDP.
[4] Nominal. [5] Calendar year.
[6] Wages and salaries divided by employees.
[7] Adjusted for timing effects.
[8] HMRC Gross Case 1 trading profits.
[9] Outturn data from ONS House Price Index.
[10] Outturn data from HMRC information on stamp duty land tax.
[11] 3-month sterling interbank rate (LIBOR).
[12] 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					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
GDP and its components						
Real GDP	0.2	0.1	0.0	0.0	-0.1	-0.1
Nominal GDP[1]	0.3	0.2	0.1	-0.1	-0.2	0.0
Nominal GDP (£ billion)[1,2]	11	16	19	17	13	13
Nominal GDP (centred end-March £bn)[1,3]	12	17	20	15	13	13
Wages and salaries[4]	0.3	0.5	0.0	-0.1	-0.3	-0.1
Non-oil PNFC profits[4,5]	1.8	0.9	0.1	0.0	-0.2	-0.1
Consumer spending[4,5]	-0.1	0.0	-0.4	-0.1	-0.1	-0.2
Prices and earnings						
GDP deflator	0.3	0.0	0.2	0.0	-0.1	0.1
RPI	0.0	0.4	0.2	0.0	0.0	0.0
CPI	0.0	0.1	0.0	0.0	0.0	0.0
Average earnings[6]	0.3	0.5	0.0	-0.1	-0.3	-0.1
'Triple-lock' guarantee (September)	0.0	0.2	0.0	0.0	-0.3	-0.1
Key fiscal determinants						
Employment (millions)	0.0	-0.1	0.0	0.0	0.0	0.0
Implied VAT gap (per cent)[7]	0.4	0.3	0.2	0.1	0.1	0.0
Output gap (per cent of potential output)	0.3	0.3	0.3	0.2	0.1	0.0
Financial and property sectors						
Equity prices (FTSE All-Share index)	-29	-188	-188	-197	-213	-221
HMRC financial sector profits[1,5,8]	4.0	2.3	1.5	-0.1	-0.1	0.0
Residential property prices[9]	0.7	0.6	-0.5	-0.7	-0.9	-0.6
Residential property transactions (000s)[10]	-7	-27	-28	-25	-16	-5
Commercial property prices[10]	1.2	0.0	0.2	-0.1	-0.1	0.0
Commercial property transactions[10]	1.1	0.0	0.0	-0.2	-0.2	-0.1
Oil and gas						
Oil prices ($ per barrel)[5]	0.9	6.3	3.9	2.8	2.8	2.8
Oil prices (£ per barrel)[5]	0.6	1.4	-0.5	-1.5	-1.6	-1.7
Gas prices (p/therm)[5]	1.0	-0.6	-1.1	-1.1	-1.2	-1.2
Oil production (million tonnes)[5]	-0.8	0.1	0.1	2.0	1.9	1.8
Gas production (billion therms)[5]	-0.2	0.6	0.5	0.5	0.5	0.4
Interest rates and exchange rates						
Market short-term interest rates[11]	0.0	0.1	0.3	0.3	0.3	0.3
Market gilt rates[12]	0.0	0.2	0.1	0.1	0.0	0.1
Euro/Sterling exchange rate (€/£)	0.00	0.02	0.02	0.02	0.02	0.02

[1] Non-seasonally adjusted.
[2] Denominator for receipts, spending and deficit forecasts as a per cent of GDP.
[3] Denominator for net debt as a per cent of GDP.
[4] Nominal. [5] Calendar year.
[6] Wages and salaries divided by employees.
[7] Adjusted for timing effects.
[8] HMRC Gross Case 1 trading profits.
[9] Outturn data from ONS House Price Index.
[10] Outturn data from HMRC information on stamp duty land tax.
[11] 3-month sterling interbank rate (LIBOR) (percentage points).
[12] Weighted average interest rate on conventional gilts (ppts).

Policy announcements, risks and classification changes

4.10 The Chancellor did not announce any new tax or spending policy measures in the Spring Statement, consistent with his plan to shift the UK's budget timetable onto one of a single fiscal event each year. But there have still been new policy announcements since our November forecast that need to be reflected in our updated fiscal forecast. These include announcements made in the 2018-19 local government finance settlement and by the Scottish and Welsh Governments in their respective budget processes. We have carried out the usual process of discussing costings for each measure in detail with officials before incorporating estimates in our forecast.[2] We note as risks any material policy commitments that are not quantifiable, as well as any potential statistical classification changes.

The effect of new policy announcements on the public finances

4.11 We consider the effects of all policy announcements that affect the public finances, so long as they can be quantified with reasonable accuracy and assigned to specific years.

4.12 There have been relatively few such announcements since November. Their effects are summarised in Table 4.3, which follows the Treasury's convention of showing costs that raise borrowing as negative and savings that reduce it as positive.

4.13 Policy measures announced by the UK Government include:

- **Local government finance settlement 2018-19**: the final settlement in February included several announcements affecting council tax, business rates and local authority spending. The most significant was the decision to allow authorities to raise council tax by up to 3 per cent next year without recourse to a local referendum, which adds £0.8 billion a year to council tax receipts and the spending they finance.

- **Other announcements**: these include switching payment for temporary accommodation from universal credit to housing benefit; not going ahead with the Dilnot reforms to adult social care that were planned for 2020; and delaying the start of Help to Save. The effects of these announcements have generally been small.

4.14 Raising council tax by more than previously assumed has increased our RPI inflation forecast modestly in 2018-19 and 2019-20, with knock-on effects for the cost of servicing index-linked gilts. RPI inflation also affects our forecasts for excise duties and accrued interest on student loans, but the knock-on effects to these lines of our forecast are very small. We discuss the effects of policy decisions in more detail in Annex A, which also provides an update on various previous measures.

[2] 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*.

4.15 In addition to UK Government policy announcements, our forecast reflects several announcements made by the Scottish and Welsh Governments in their respective budget processes. These are detailed in Annex A and include significant changes to the Scottish income tax schedule, changes to property transactions taxes in Scotland and Wales (following the introduction of a first-time buyers' relief by the UK Government in the Autumn Budget) and the introduction of minimum unit pricing for alcoholic drinks in Scotland.

4.16 The changes relating to devolved taxes boost devolved spending in our forecast until 2019-20 via the fiscal framework agreements and their automatic effects on departmental spending totals. Overall departmental spending beyond the Spending Review from 2020-21 onwards was set by the Treasury in the Autumn Budget and has not been changed as part of the Spring Statement process, so any effects on spending from the measures will not be reflected in our forecast until the next Autumn Budget.

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

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Direct effect of UK Government decisions	**0.0**	**0.0**	**-0.1**	**0.1**	**-0.2**	**-0.5**
of which:						
Receipts	0.0	0.3	0.8	0.8	0.8	0.8
Current AME	0.0	-0.8	-0.9	-0.9	-1.0	-1.0
Capital AME	0.0	-0.2	-0.1	0.2	0.0	-0.3
RDEL	0.9	0.5	0.0	0.0	0.0	0.0
CDEL	-0.9	0.2	0.0	0.0	0.0	0.0
Indirect effect of UK Government decisions	**0.0**	**-0.1**	**-0.2**	**0.0**	**0.0**	**0.0**
Effect of devolved administration decisions	**0.0**	**-0.1**	**0.0**	**0.2**	**0.2**	**0.2**
of which:						
Receipts	0.0	0.1	0.1	0.1	0.1	0.1
RDEL	0.0	-0.2	-0.2	0.0	0.0	0.0
Current AME	0.0	0.1	0.1	0.1	0.1	0.1

Note: The full breakdown of this table 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.

Policy risks

4.17 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. We use that information to determine what 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. Abstracting from the wider policy uncertainty associated with the negotiations on leaving the EU, for this forecast we note:

- Commitments on **income tax allowances**: the Government is committed to increasing the personal allowance to £12,500 and the higher rate threshold to £50,000 by 2020. These objectives are specified in terms of the levels being targeted and by when, but the Government has not set out how it would get there from the current levels. As such, we are not able to quantify the effect in each year of doing so. The Government's policy assumption is that these thresholds are uprated in line with CPI inflation in years for which it has not set specific parameters, so in our forecast the personal allowance rises to £12,360 in 2020-21. Modestly higher inflation than expected could therefore close the gap to the £12,500 ambition without requiring further policy intervention. On the same basis, the higher rate threshold is expected to reach £48,460 in 2020-21, a larger gap from the commitment. We estimate that closing the remaining gaps relative to both in 2020-21 would cost around £1.4 billion.

- The intention to **localise all business rates** and to provide some additional discretion to local authorities in setting them, while also shifting some new spending responsibilities to local authorities. In October 2015 the Government pledged that *"by the end of the Parliament, local government should retain all taxes raised locally, including 100% of locally collected business rates"*. This ambition was restated in the 2018-19 local government finance settlement, but the precise timetable remains unclear. The Government has been running pilot schemes in selected authorities since 2017, with more announced since our November forecast (see Annex A). The effects of these pilots are allowed for in our forecast. It has also announced an intention to remove more grant funding from local authorities and increase the local share of business rates to compensate, noting that this would result in 75 per cent retention in 2020-21. There are elements of both the 75 and 100 per cent packages that could be quantified now, but it would be misleading to include only part of them 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 we do indeed expect it to be fiscally neutral.

- The **intention to expand right-to-buy to tenants of housing associations**. An initial pilot scheme ran from January 2016 to July 2017 and an expanded pilot is due to begin in July 2018. The Housing and Planning Act was passed in May 2016, but the Treasury has again informed us that the secondary legislation detailing how the full right-to-buy policy will work remains ongoing. Until these details are specified and the implementation timetable is sufficiently clear, we cannot estimate the effects of this policy on a year-by-year basis.

- The **intention to ban additional fees charged by private letting agents**, announced in Autumn Statement 2016. A Bill was published in November and is currently undergoing parliamentary scrutiny, but we have been told that the policy design is not yet complete. Neither the implementation date nor the types of fees to be included have yet been established and the Government is awaiting the findings of an inquiry by the Communities and Local Government Select Committee. Without clarity on the legislative timetable we have not adjusted our forecast. Nevertheless, it is possible that a ban on fees would be passed through to higher private rents. If this was the case, it could affect our housing benefit spending forecast.

- The **incentives for landlords that offer tenancies of at least 12 months**. Autumn Budget 2017 announced that the Government "*will consult on the barriers to landlords offering longer, more secure tenancies to those tenants who want them*". We have been told the consultation is due to run this summer and that this remains a policy intention.

- Changes to the **Help to Buy equity loan scheme**. In December the Government announced that it had "*written to all developers to ask them to stop using Help to Buy equity loans for the purchase of leasehold houses*". The Government has told us that it will be considering legislative options for delivering this in the months ahead. Once this has been settled, we can include the effects in our forecast. The latest outturn data show that 12 per cent of all equity loans have related to purchases of leasehold houses. Leasehold flats will not be affected.

- In October, the Government issued a consultation on reducing maximum stakes for **'fixed-odds betting terminals' (FOBTs)** from £100 to between £50 and £2. The consultation has now closed. At the time that we closed the forecast, the Government had not finalised its policy response. Machine games duty raised £707 million in 2016-17, of which FOBTs accounted for around £470 million (see Box 4.2). The precise effect on receipts of a lower maximum stake will depend on the ceiling chosen.

- The introduction of a **higher duty band for white cider**. At Autumn Budget 2017 the Government said it would introduce a new duty band for 'white ciders' with an alcohol-by-volume content between 6.9 and 7.5 per cent. It has not yet set the duty rates that will apply, so we cannot estimate the effect on receipts of this new band.

- A **cap on energy prices** for certain households in Great Britain. The Government has introduced the Domestic Gas & Electricity (Tariff Cap) Bill that will "*put in place a requirement on the independent regulator, Ofgem, to cap domestic energy tariffs until at least 2020*". The Government intends "*Ofgem to be able to set the temporary price cap by the end of this year*". Beyond 2020 "*Ofgem will recommend to Government whether it should be extended on an annual basis up to 2023*". We will include the effects of this policy once the level of the cap is established and we have been able to scrutinise an associated five-year policy costing.

- DWP's December 2017 **review of automatic enrolment into workplace pensions** made several new proposals including reducing the age threshold from 22 to 18 and calculating pension contributions from the first pound earned rather than from the lower earnings limit. The Government has told us these remain policy ambitions so we have not included their effects in our economy or fiscal forecasts. Auto-enrolment in its present form is factored into our economy forecast as a wedge between total employee compensation and wages, while tax relief on the employee pension contributions features in our income tax forecast. These proposals would increase both adjustments.

- The **new budgeting arrangement between the Treasury and the Scottish Government**. Public services spending in Scotland is currently treated as DEL. The Treasury has informed us that an agreement has been reached with the Scottish Government to manage this via AME from 2018-19 onwards, which it expects to be neutral for spending overall. We will only reflect this switch in our forecast when have sufficient information to judge whether we too expect it to be fiscally neutral.

- The **devolution of corporation tax to Northern Ireland**. The Corporation Tax (Northern Ireland) Act received Royal Assent in March 2015, with devolution originally due to begin in April 2018. The Northern Ireland Executive has previously announced its intention to set a 12.5 per cent rate, to match that in the Republic of Ireland. While legislation has been passed, final devolution is subject to agreement between the UK Government and the Northern Ireland Executive. This has not yet been reached, so we have not included the effect of the proposed tax cut in our central forecast.

- The **devolution of air passenger duty to the Scottish Government**. The Scotland Act 2016 included provisions for the devolution of air passenger duty (APD) and the Scottish Government initially announced this would be replaced by an air departure tax (ADT) from April 2018. In November we were told that the devolution of APD had been delayed pending clarity over the Highlands and Islands exemption. Both Governments have confirmed that this remains the case. The Scottish Government has previously said it intends to reduce ADT rates to half those of APD. As the precise timing of the devolution of APD has not yet been finalised we have not included it, or the effect of the proposed rate cut, in our central forecast.

Contingent liabilities

4.18 We have asked the Treasury to identify any changes to future contingent liabilities as a result of policy announcements since November. A number have been reported to Parliament, but we do not consider any to be fiscally significant. The largest (£0.4 billion) related to the Asian Infrastructure Investment Bank (AIIB), where the UK raised its paid-in capital contribution (a financial transaction reflected in public sector net debt) and so increased the maximum 'callable' capital available to the AIIB if it chooses to call on it. No multilateral development bank has called on such additional capital contributions in the past.

4.19 The financial settlement between the UK and the EU detailed in the December 'joint report' on the Article 50 Brexit negotiations (discussed in detail in Annex B) states that the UK will "*remain liable for its share of the Union's contingent liabilities as established at the date of withdrawal.*" The UK will also remain liable for its share of any contingent liabilities related to legal cases as a result of participation in the budget programme and policies to the end of the current EU budget period in December 2020. The Treasury's 2016-17 departmental accounts disclose an unquantifiable remote contingent liability in respect of the Article 50 process. The Treasury told us that any contingent liabilities arising from the financial settlement that currently do not fall to other departments are covered by this blanket disclosure, and that the position would be reassessed in its 2017-18 accounts.

4.20 The failure of Carillion and its knock-on effects for the public sector have been considered in different parts of our fiscal forecast. In an accounting sense, this generates some contingent and actual liabilities through the Government's response. It also crystallises a contingent liability for the Pension Protection Fund (PPF), which will take over Carillion's funded pension schemes. In a broader fiscal sense, what matters is how these costs are met and whether the additional contingent liabilities are called. In our assessment:

- **New contingent and actual liabilities**: we asked Treasury what contingent liabilities had arisen from Carillion entering receivership. It pointed us to the contingent liability disclosed to Parliament on 15 January regarding an indemnity provided to the Official Receiver to cover legal claims against it while the company is in receivership and that fall outside the Official Receiver's own commercial insurance. While there is no theoretical limit to this, the Insolvency Service has advised that the most likely cost of any claims incurred though this indemnity would be nil. In terms of actual liabilities, the Treasury has provided £150 million to the Cabinet Office to meet the Official Receiver's costs of keeping contracts running. Much of this is expected to be recovered from contracts, while some, including some tax, will not be recovered. There will also be some higher costs to departments in delivering services than was the case when they were provided by Carillion.

- **Wider fiscal impact**: in the short term, the net effect on public spending of the liabilities described above are judged sufficiently small that they can be absorbed within 2017-18 budgets. Consequently, although we have revised our 2017-18 departmental underspend assumptions, this was not a factor (see paragraph 4.97). In the longer term, the Treasury told us that departments are enacting contingency plans for contracts that were held with Carillion and that these are likely to be associated with some additional small costs, while there were greater challenges associated with some larger construction projects. The Treasury's aim is to ensure that all costs are met within existing budgets. We did not adjust our underspend assumptions in later years for these factors, but will continue to monitor developments in future forecasts.

- **Transfer of pension liabilities to the PPF**: Carillion companies operated 14 different funded pension schemes, with a combined deficit estimated at £990 million.[3] Those schemes whose sponsoring employers have become insolvent have moved into PPF assessment, a process that determines whether they should enter the PPF. Should they do so, the financial assets and liabilities of these schemes will be passed to the PPF, with scheme members receiving future pension payments on PPF terms. As set out in Box 4.1, the PPF is classified as a public sector pension scheme, so this transfer – and any decisions the PPF were to make about the levy it charges pension providers – would affect the public finances. But these effects are not currently captured in the public finances data and uncertainty over how they will be treated means that we cannot anticipate those effects in this forecast.

[3] Letter from Carillion (DB) Pension Trustee Limited to the Chair of the Works and Pension Committee, 26 January 2018.

Classification changes

4.21 There have been no significant classification changes since our November forecast. However, the ONS has reaffirmed the classification of the Pension Protection Fund as a public financial corporation and is launching a consultation on the treatment of pension funds in the public finances, which represents a significant risk to our forecast (see Box 4.1).

Box 4.1: The Pension Protection Fund

The Pension Protection Fund (PPF) was established in 2005 under the Pensions Act 2004 to pay compensation to members of eligible defined benefit pension schemes when the employer goes bust and there are insufficient assets in the scheme to cover PPF levels of compensation to its members. It imposes a levy on eligible schemes with the aim of having sufficient funds to pay compensation to members of schemes that have transferred to it.

At the end of March 2017, the PPF had net assets of £28.7 billion (of which £17.0 billion were government bonds) and actuarial pension liabilities of £22.0 billion, plus a further £0.7 billion provision relating to schemes under assessment for entry to the PPF.

The PPF has been classified to the public sector since its inception, but the Office for National Statistics (ONS) has never included it in outturn public finance statistics. We have not included it in our forecasts in the absence of guidance from the ONS on its treatment.

In January the ONS reconfirmed that the PPF is in the public sector, but changed its specific classification from an insurance corporation to a pension fund. Before including the PPF in the public finances statistics on this basis, the ONS plans to review the recording of public sector pension funds in general (including the PPF). It is currently considering options for the review, with the aim of consulting later this year. The scope of the review could be broad, covering the potential inclusion or exclusion of specific transactions, assets and liabilities of the pensions funds, as well as treatment of the Government's net pension liabilities as an employer.

In the light of the continuing uncertainty, in this *EFO* we continue to forecast on the same basis as the current public finances statistics rather than attempting to anticipate the findings of the review. This means that our forecast includes all public sector pension schemes except the PPF.

Funded pension schemes therefore represent a risk, quite possibly a significant one, to our forecasts of both PSNB and PSND. However, in the absence of more information on the scope of the ONS review we cannot quantify this with any accuracy.

When the review is completed, the PPF is likely to present a continuing risk to the forecast as schemes enter liquidation and are absorbed by the fund. It is not known, for example, what effect the collapse of Carillion, whose defined benefit pension scheme had a large deficit, would have on PSNB or PSND if the PPF were included in these aggregates.

4.22 Legislation relinquishing government controls over Welsh and Scottish housing associations has progressed, but not yet sufficiently for the ONS to reclassify them to the private sector. Were all remaining housing associations moved out of the public sector, PSNB would be reduced by around £0.4 billion a year and PSND by £6.5 billion to £8.5 billion.

4.23 As a result of the collapse of Carillion, the ONS is also investigating whether the debt relating to Carillion's public-private partnerships should be brought onto the public sector balance sheet. This would lead to small increases in the level of PSND.

Financial sector interventions

4.24 The Government undertook several interventions in the financial sector in response to the financial crisis and the subsequent recession of the late 2000s. In each *EFO* we update the estimated net direct effect of them on the public finances. Table 4.4 summarises the position as at the end of January 2018.[4] This is an estimate of the direct effect of these interventions and the financing associated with them. It is not an attempt to quantify their overall effect on the public finances relative to a counterfactual where the Government had not intervened to support the banking system as the crisis unfolded. The economic and fiscal costs of the crisis would almost certainly have been much greater in the absence of direct interventions to restore the financial system to stability.[5]

4.25 In total, £136.6 billion was disbursed by the Treasury during and following the crisis. By end-January 2018, principal repayments on loans, proceeds from share sales and redemptions of preference shares amounted to £84.1 billion. That is up slightly from the £83.2 billion we reported in November, reflecting ongoing mortgage repayments collected by UKAR. This has fed through to a slightly smaller net cash shortfall of £31.3 billion.

4.26 As of the end of January, the Treasury was still owed £10.4 billion from loans (almost entirely by UKAR, since the remaining £4.7 billion FSCS loan also relates to UKAR). The value of shares retained in RBS had fallen to £23.4 billion, from £23.7 billion in November. The Treasury's holdings in UKAR had an equity book value of around £8.2 billion.

4.27 If the Treasury were to receive all loan payments in full, and sold its remaining shares at their end-January values, it would realise an overall cash surplus of £10.7 billion, down £0.6 billion from our November estimate. This change mostly reflects a slightly lower RBS share price.

4.28 But the cash surplus estimate excludes the costs to the Treasury of financing these interventions. If all interventions are assumed to have been financed through gilts, at the market rates that prevailed at the time, the Treasury estimates that the additional debt interest costs would have amounted to £33.9 billion by the end of January, mainly due to the costs associated with RBS and UKAR. This is up £0.8 billion from the November estimate, reflecting three more months servicing debt on the £42.0 billion worth of interventions that have yet to be repaid or sold, and the difference between the generally higher gilt yields when the interventions were financed and the lower gilt yields at repayment. Together this implies an overall cost of £23.2 billion to the Government, £1.4 billion higher than we estimated in November.

[4] The RBS share price is based on the average price for the 10 days to 16 February, meaning it is consistent with the market-derived assumptions used in the rest of our fiscal forecast.
[5] We discussed the fiscal implications of financial crises, and steps taken to reduce the risk of such costs, in Chapter 4 of our 2017 *Fiscal risks report*.

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

	£ billion								
	Lloyds	RBS	UKAR[1]	FSCS[2]	CGS[3]	SLS[4]	Other	**Total**	Change since November *EFO*[5]
Cash outlays	-20.5	-45.8	-44.1	-20.9	0.0	0.0	-5.3	**-136.6**	0.0
Principal repayments	21.1	3.8	37.7	16.2	0.0	0.0	5.3	**84.1**	0.9
Other fees received[6]	3.2	4.2	4.4	2.7	4.3	2.3	0.3	**21.3**	0.0
Net cash position	3.8	-37.8	-2.0	-1.9	4.3	2.3	0.2	**-31.3**	0.9
Outstanding payments	0.0	0.0	5.7	4.7	0.0	0.0	0.1	**10.4**	-1.2
Market value[7]	0.0	23.4	8.2	0.0	0.0	0.0	0.0	**31.6**	-0.3
Implied balance	3.8	-14.5	11.8	2.7	4.3	2.3	0.3	**10.7**	-0.6
Exchequer financing	-3.8	-12.5	-11.2	-7.1	1.0	0.2	-0.5	**-33.9**	-0.8
Overall balance	**0.0**	**-26.9**	**0.6**	**-4.4**	**5.3**	**2.5**	**-0.2**	**-23.2**	**-1.4**
Memo: change in overall balance since November[5]	0.0	-0.7	-0.5	-0.2	0.0	0.0	0.0	**-1.4**	

[1] Holdings in Bradford & Bingley and Northern Rock Asset Management plc are managed by UK Asset Resolution.
[2] Financial services compensation scheme.
[3] Credit Guarantee Scheme.
[4] Special Liquidity Scheme.
[5] November *EFO* figures were consistent with 31 October 2017 data.
[6] Fees relating to the asset protection scheme and contingent capital facility are included within the RBS figures.
[7] UKAR is book value of equity derived from its accounts published 20 November 2017 (value up to date to 30 Sept 2017).

Public sector receipts

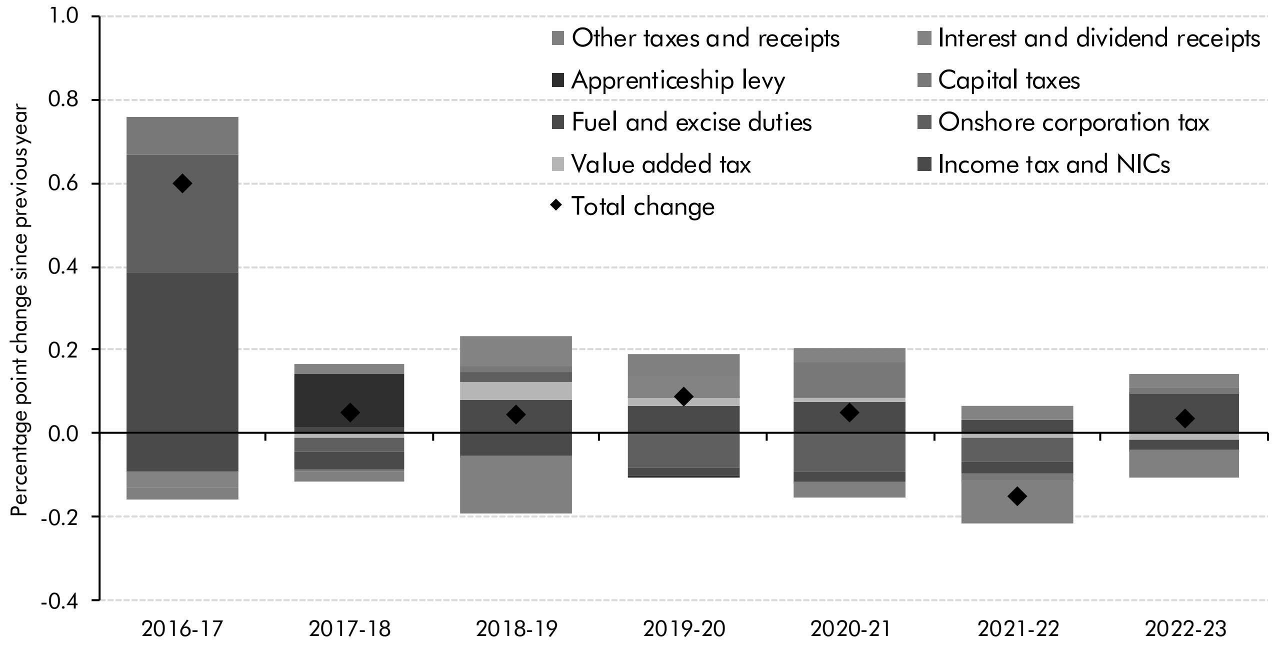
4.29 Table 4.5 summarises our receipts forecast as a share of GDP. As shown in Chart 4.1, the receipts-to-GDP ratio rose by 0.6 per cent of GDP in 2016-17, reflecting strong growth in onshore corporation tax, SA income tax and NICs. Box 3.2 of our 2017 *Forecast evaluation report (FER)* set out the drivers of this increase in more detail, which included the boost from dividend income being brought forward before the April 2016 rise in dividend tax took effect. The unwinding of this timing effect is one reason why the receipts-to-GDP ratio is flat this year. The ratio rises again in 2018-19 and 2019-20, but drops back in 2021-22. That drop partly reflects a £0.8 billion fall in bank levy receipts, as the main rate is cut and its scope narrowed to cover only UK (rather than global) liabilities. Capital tax receipts are also boosted in 2020-21 by a policy measure that changes the timing of CGT payments.

Table 4.5: Major receipts as a share of GDP

	Per cent of GDP						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Income tax	8.9	8.8	8.9	9.0	9.0	9.1	9.1
NICs	6.3	6.4	6.5	6.5	6.5	6.5	6.5
Value added tax	6.1	6.1	6.2	6.2	6.2	6.2	6.2
Onshore corporation tax	2.6	2.6	2.6	2.5	2.4	2.4	2.4
Fuel duties	1.4	1.4	1.3	1.3	1.3	1.3	1.3
Business rates	1.5	1.4	1.5	1.5	1.4	1.4	1.4
Council tax	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Alcohol and tobacco duties	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Capital taxes[1]	1.5	1.5	1.5	1.5	1.6	1.6	1.6
UK oil and gas receipts	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Other taxes	2.9	3.2	3.2	3.2	3.2	3.1	3.1
National Accounts taxes	**33.8**	**34.0**	**34.3**	**34.3**	**34.3**	**34.1**	**34.1**
Interest and dividend receipts	0.3	0.4	0.4	0.5	0.5	0.5	0.6
Other receipts	2.4	2.2	2.0	2.0	2.0	2.0	2.0
Current receipts	**36.6**	**36.6**	**36.7**	**36.8**	**36.8**	**36.7**	**36.7**

[1] Includes: Capital gains tax, inheritance tax, property transaction taxes and stamp taxes on shares.

Chart 4.1: Year-on-year changes in the receipts-to-GDP ratio



Source: ONS, OBR

Sources of changes in the tax-to-GDP ratio

4.30 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.

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

4.31 Chart 4.2 shows that the main positive contributions to the overall 0.1 percentage point rise between 2017-18 and 2022-23 are:

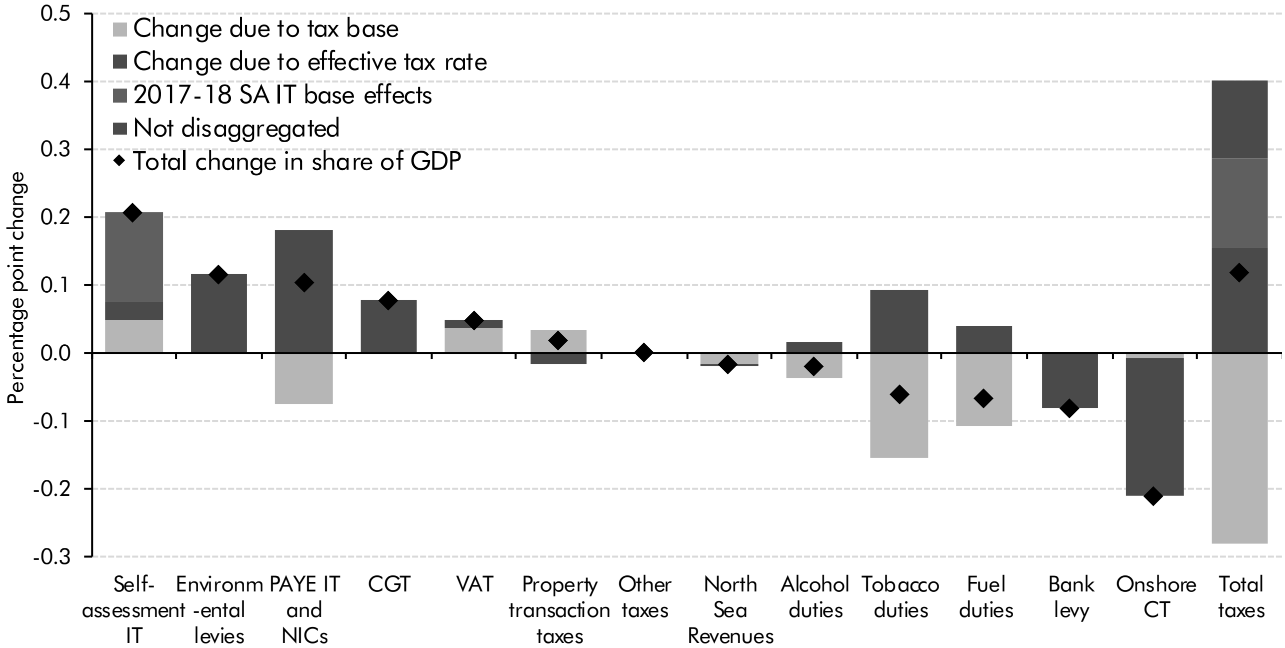
- A 0.2 per cent of GDP rise in **self-assessment (SA) income tax**. This reflects a rebound from a 2017-18 base depressed by the unwinding of dividend income shifting effects. It also reflects growth in the tax base (with the share of self-employment assumed to rise over the forecast period) and a rise in the effective tax rate. The latter reflects previously announced policy measures and an effect from 'fiscal drag' as productivity and real earnings growth pick up (to still historically subdued rates), dragging more income into higher tax brackets.
- A 0.1 per cent of GDP rise in **environmental levies**. The biggest driver is from those within the 'levy control framework' that are scored as both tax and spending and are therefore neutral for borrowing overall. The rise over the forecast is driven primarily by growth in renewable electricity generation.
- A 0.1 per cent of GDP rise in **capital gains tax (CGT)**. CGT receipts are geared to changes in asset prices as the tax is paid on the gain rather than the value of the asset when sold. Despite CGT receipts being weaker than expected in January, we still expect CGT receipts to grow faster than the economy as a whole due to these gearing effects. Based on the past 15 years' data, our forecasting model assumes that a 1 per cent rise in equity prices will result in a 2.8 per cent rise in CGT receipts from shares.
- A 0.1 per cent of GDP rise in **PAYE income tax and NICs** receipts. This is more than explained by a rise in the effective tax rate in the final three years of the forecast. As with SA, this is due to 'fiscal drag' as productivity and real earnings growth pick up.

4.32 Partly offsetting these rises are:

- A 0.2 per cent of GDP fall in **onshore corporation tax** receipts. This is dominated by a falling effective tax rate – as the main rate will be cut to 17 per cent in April 2020.
- A 0.1 per cent of GDP fall in **bank levy** receipts. While this cannot be disaggregated precisely, it reflects both the tax base falling relative to GDP, for both forecast and policy reasons, and the effective tax rate falling as the main rate continues to be cut.

- A 0.1 per cent of GDP fall in **excise duties**. This is explained by declining tax bases, due to trends in alcohol and tobacco consumption and rising fuel efficiency. These are only partly offset by rises in duty rates based on the Government's stated policy assumptions, which raise the effective tax rate.

Chart 4.2: Sources of changes in the tax-to-GDP ratio (2017-18 to 2022-23)



Source: OBR

Detailed current receipts forecasts

4.33 Our detailed receipts forecasts and changes since November are presented in Tables 4.6 and 4.7. Further detailed breakdowns are available in supplementary fiscal tables on our website. Our forecasts for Scottish and Welsh devolved taxes are discussed in our separate *Devolved taxes and spending forecast* publication.

Table 4.6: Current receipts

	£ billion						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Income tax[1]	177.3	181.6	188.5	195.2	202.5	209.5	218.5
of which: Pay as you earn	149.7	154.9	159.1	163.2	168.9	174.7	181.6
Self assessment	28.5	28.4	30.3	32.8	34.4	35.8	38.0
National insurance contributions	125.9	132.3	136.5	140.6	145.0	149.7	154.9
Value added tax	121.8	125.7	130.4	134.6	138.7	142.9	147.4
Corporation tax[2]	53.0	55.1	56.9	56.7	56.4	56.6	58.4
of which: Onshore	52.4	53.4	55.5	55.3	54.9	55.2	57.1
Offshore	0.6	1.6	1.4	1.4	1.5	1.3	1.3
Petroleum revenue tax	-0.7	-0.5	-0.5	-0.6	-0.5	-0.5	-0.4
Fuel duties	27.9	28.1	28.2	28.9	29.6	30.3	31.0
Business rates	29.4	29.6	30.8	31.6	32.0	32.4	33.8
Council tax	30.4	32.0	34.1	35.8	36.9	38.0	39.1
VAT refunds	13.8	14.0	14.3	14.5	14.8	15.1	15.4
Capital gains tax	8.4	7.8	8.8	9.0	10.9	10.7	11.0
Inheritance tax	4.8	5.3	5.4	5.6	5.9	6.1	6.4
Stamp duty land tax[3]	11.9	13.1	12.9	13.4	13.9	14.5	15.2
Stamp taxes on shares	3.7	3.5	3.5	3.6	3.7	3.8	3.9
Tobacco duties	8.7	8.8	9.1	9.0	8.9	8.9	8.8
Spirits duties	3.3	3.5	3.5	3.6	3.8	3.9	4.0
Wine duties	4.2	4.3	4.3	4.4	4.6	4.8	4.9
Beer and cider duties	3.6	3.7	3.7	3.8	3.9	4.0	4.0
Air passenger duty	3.2	3.4	3.5	3.7	3.8	3.9	4.1
Insurance premium tax	4.9	5.9	6.0	6.1	6.1	6.1	6.1
Climate change levy	1.9	1.8	1.9	2.2	2.2	2.2	2.2
Other HMRC taxes[4]	7.4	7.4	7.4	7.5	7.5	7.7	7.8
Vehicle excise duties	5.8	6.1	6.2	6.3	6.4	6.7	7.0
Bank levy	3.0	2.4	2.3	2.1	1.7	0.9	0.9
Bank surcharge	1.7	1.8	1.8	1.8	1.9	1.9	1.9
Apprenticeship levy	0.0	2.6	2.6	2.7	2.8	2.9	3.0
Licence fee receipts	3.2	3.2	3.3	3.3	3.4	3.5	3.5
Environmental levies	5.2	8.6	10.4	11.7	12.2	12.5	12.8
EU ETS auction receipts	0.4	0.4	0.6	0.7	0.5	0.5	0.6
Scottish and Welsh taxes[5]	0.6	0.7	1.0	1.0	1.1	1.1	1.2
Diverted profits tax	0.1	0.2	0.3	0.3	0.2	0.1	0.0
Soft drinks industry levy	0.0	0.0	0.2	0.2	0.2	0.2	0.2
Other taxes	7.3	7.1	6.7	6.9	7.1	7.3	7.5
National Accounts taxes	**672.1**	**699.2**	**724.9**	**746.2**	**768.1**	**788.1**	**815.4**
Less own resources contribution to EU	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4
Interest and dividends	6.4	7.2	9.0	10.3	11.4	12.6	13.9
Gross operating surplus	47.7	45.8	42.2	43.7	45.5	47.2	48.5
Other receipts	3.6	3.4	3.1	3.2	3.2	3.0	2.3
Current receipts	**726.5**	**752.2**	**775.8**	**800.1**	**824.9**	**847.5**	**876.6**
Memo: UK oil and gas revenues [6]	*0.0*	*1.1*	*0.9*	*0.8*	*1.0*	*0.8*	*0.9*

[1] Includes PAYE, self assessment, tax on savings income and other minor components, such as income tax repayments.

[2] National Accounts measure, gross of reduced liability tax credits.

[3] Includes SDLT for England, Wales (up to 2017-18) and Northern Ireland.

[4] Consists of landfill tax (excluding Scotland and Wales, from 2018-19), aggregates levy, betting and gaming duties and customs duties.

[5] Consists of devolved property transaction taxes and landfill taxes but not the Scottish rate of income tax or aggregates levy.

[6] Consists of offshore corporation tax and petroleum revenue tax.

Table 4.7: Changes to current receipts since November

	£ billion						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Income tax[1]	0.1	4.4	3.8	4.0	3.6	3.5	4.2
of which: Pay as you earn	0.0	0.4	1.1	0.8	0.5	-0.1	0.9
Self assessment	0.0	2.9	0.5	1.0	0.9	1.3	1.1
National insurance contributions	0.0	1.3	2.1	2.3	2.2	1.7	1.7
Value added tax	0.2	-0.1	0.1	0.3	-0.1	-0.3	-0.4
Corporation tax[2]	-1.1	2.3	1.5	2.3	1.8	1.5	1.3
of which: Onshore	-1.1	1.9	1.1	1.9	1.3	1.2	1.1
Offshore	0.0	0.4	0.4	0.4	0.5	0.3	0.1
Petroleum revenue tax	0.0	0.1	0.0	-0.1	0.0	0.0	0.1
Fuel duties	0.0	0.2	0.2	0.4	0.4	0.4	0.4
Business rates	0.3	0.2	0.4	0.3	0.3	0.3	0.3
Council tax	0.0	-0.2	0.2	0.7	0.7	0.8	0.8
VAT refunds	0.0	-0.1	-0.2	-0.1	0.0	0.0	0.1
Capital gains tax	0.0	-1.0	-1.1	-1.9	-1.7	-1.9	-2.3
Inheritance tax	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
Stamp duty land tax[3]	0.0	-0.1	-0.3	-0.4	-0.4	-0.6	-0.6
Stamp taxes on shares	0.0	0.1	0.0	0.0	0.0	-0.1	-0.1
Tobacco duties	0.0	-0.5	-0.2	-0.2	-0.2	-0.2	-0.2
Spirits duties	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Wine duties	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1
Beer and cider duties	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Air passenger duty	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Insurance premium tax	0.0	0.1	0.0	0.1	0.1	0.1	0.1
Climate change levy	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
Other HMRC taxes[4]	0.0	0.1	0.1	0.0	0.0	0.0	0.1
Vehicle excise duties	0.0	0.1	0.1	0.1	0.1	0.2	0.2
Bank levy	0.0	-0.2	-0.2	-0.3	-0.4	-0.3	-0.4
Bank surcharge	0.0	-0.1	0.1	0.1	0.1	0.1	0.1
Apprenticeship levy	0.0	-0.1	-0.1	-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	0.0	-0.1	-0.4	-0.5
EU ETS auction receipts	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Scottish and Welsh taxes[5]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diverted profits tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Soft drinks industry levy	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other taxes	0.1	0.1	-0.1	-0.3	-0.4	-0.4	-0.3
National Accounts taxes	**-0.5**	**6.5**	**6.3**	**7.2**	**6.2**	**4.4**	**4.4**
Less own resources contribution to EU	0.0	0.1	0.0	0.1	0.1	0.1	0.1
Interest and dividends	-0.1	0.1	0.8	1.2	1.6	1.6	1.5
Gross operating surplus	0.5	0.3	-0.9	-0.2	0.1	0.1	-0.2
Other receipts	-0.1	-0.2	-0.3	-0.3	-0.3	-0.3	-0.4
Current receipts	**-0.2**	**6.8**	**6.0**	**8.1**	**7.7**	**5.8**	**5.4**
Memo: UK oil and gas revenues [6]	*0.0*	*0.5*	*0.4*	*0.3*	*0.5*	*0.3*	*0.2*

[1] Includes PAYE, self assessment, tax on savings income and other minor components, such as income tax repayments.

[2] National Accounts measure, gross of reduced liability tax credits.

[3] Includes SDLT for England, Wales (up to 2017-18) and Northern Ireland.

[4] Consists of landfill tax (excluding Scotland and Wales, from 2018-19), aggregates levy, betting and gaming duties and customs duties.

[5] Consists of devolved property transaction taxes and landfill taxes but not the Scottish rate of income tax or aggregates levy.

[6] Consists of offshore corporation tax and petroleum revenue tax.

Changes in the receipts forecast since November

4.34 We have revised receipts up in every year of the forecast. This largely reflects the profile and composition of changes to our economy forecast – growth in nominal GDP and average earnings is a little stronger in the near term, but a little weaker in the second half of the forecast. Chart 4.3 illustrates the relative importance of revisions due to our economy forecast and other factors and the boost to the 2017-18 starting point beyond what would be expected from slightly stronger economic growth.

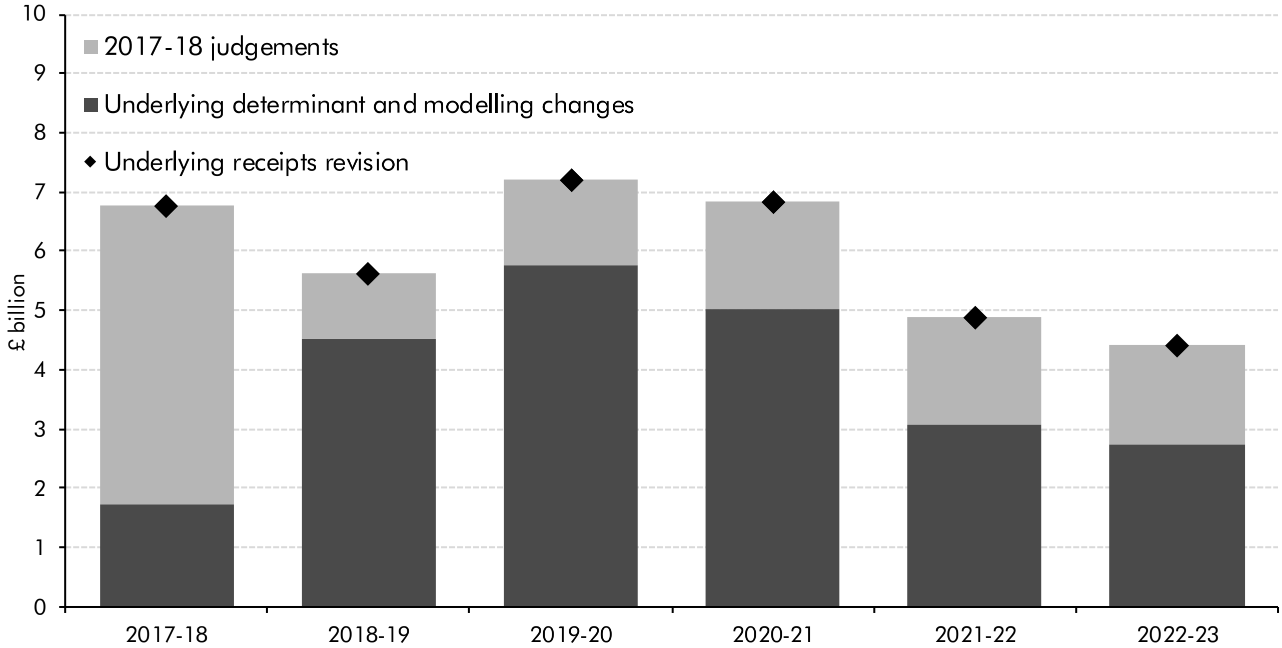
4.35 Since much of the additional 2017-18 surplus appears to reflect timing differences, only around a quarter has been pushed through to future years of the forecast. The main changes to 2017-18 receipts are:

- A £2.9 billion upward revision to **self-assessment (SA) income tax** receipts. Based on provisional analysis from HMRC, around a third reflects slower-than-expected unwinding of dividend forestalling, which boosts 2017-18 at the expense of future years. Much of the rest reflects payments on account for 2017-18 liabilities, which are boosted mechanically by higher-than-expected payments on 2016-17 liabilities. This boosts 2017-18 receipts at the expense of those in 2018-19, when balancing payments on 2017-18 liabilities will be due. Taken together, this means that only a small part of the upward revision since November boosts receipts in future years.

- A £2.8 billion upward revision to **other income tax and NICs** receipts. Modest upward revisions to labour income growth will have contributed to this strength, but the recent growth in PAYE cash receipts has been stronger than these changes alone would predict. Receipts growth has been particularly rapid in the business services sector. Repayments have also been lower than expected, boosting receipts.

- **Onshore corporation tax** receipts have again exceeded our expectations. We have raised our forecast for receipts this year by £1.9 billion, reflecting strong growth in January cash payments by large companies. Financial sector companies have reported rapid profit growth over the past year, contributing to strength in receipts. But much of this overall receipts strength relates to liabilities from previous accounting periods, so does not form part of the base from which we project receipts in future years.

Chart 4.3: Underlying receipts forecast revisions: in-year estimate versus subsequent growth



Source: OBR

4.36 Table 4.8 details the changes that are summarised in Chart 4.3. It shows that:

- A modest **cyclical boost to GDP growth** and slightly stronger earnings growth in the near-term feeds through to growth in most tax bases. This effect unwinds by the end of the forecast as the positive output gap closes. The short-term boost via average earnings growth is the largest positive determinant change, reflecting the latest indications that pay settlements growth may pick up in 2018.

- Higher **interest rates** boost interest and dividend receipts across the forecast. (This only partly offsets the increase in debt interest spending due to higher interest rates.)

- The combined effect of lower **equity prices** and the **shortfall in 2017-18 capital gains tax receipts** has reduced receipts by £2.5 billion. That reflects the gearing of capital gains to equity price rises, which means that both factors generate progressively larger negative effects over the forecast.

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

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	745.4	769.8	792.0	817.2	841.6	871.3
March forecast	752.2	775.8	800.1	824.9	847.5	876.6
Change	**6.8**	**6.0**	**8.1**	**7.7**	**5.8**	**5.4**
	Underlying forecast changes					
Total	**6.8**	**5.6**	**7.2**	**6.8**	**4.9**	**4.4**
of which:						
Income and expenditure	**1.3**	**4.4**	**3.9**	**3.5**	**1.8**	**1.1**
Average earnings	0.3	2.1	2.0	1.5	0.3	0.0
Employee numbers	0.6	0.9	1.1	1.3	1.4	1.5
Non-financial company profits	0.3	0.5	0.5	0.5	0.5	0.5
Consumer expenditure	-0.1	0.2	-0.2	-0.4	-0.7	-1.1
Self-assessment income streams	0.0	0.3	0.2	0.4	0.4	0.3
Other	0.3	0.4	0.2	0.1	-0.1	0.0
North Sea	**0.3**	**0.4**	**0.2**	**0.3**	**0.3**	**0.3**
Oil and gas prices	0.1	0.1	0.0	-0.1	-0.2	-0.2
Production and expenditure	0.2	0.3	0.2	0.5	0.5	0.5
Property markets	**0.1**	**0.1**	**-0.1**	**-0.2**	**-0.3**	**-0.4**
Market-derived assumptions	**0.0**	**0.3**	**0.3**	**0.6**	**0.7**	**0.6**
Equity prices	0.0	-0.2	-0.8	-0.9	-0.9	-1.1
Interest rates	0.0	0.4	0.9	1.2	1.4	1.4
Exchange rates	0.0	0.1	0.2	0.2	0.2	0.2
Prices	**0.0**	**0.1**	**0.0**	**0.0**	**0.1**	**0.1**
Other economic determinants	**0.0**	**0.0**	**0.2**	**0.3**	**0.3**	**0.3**
Other assumptions	**5.0**	**0.4**	**2.7**	**2.3**	**2.1**	**2.4**
IT and NICs receipts and modelling	1.8	2.1	2.4	2.2	2.5	3.4
Latest dividend income shifting estimates	0.9	-0.3	-0.2	-0.3	-0.2	-0.1
January and February receipts SA IT surplus	2.1	0.4	0.7	0.7	0.7	0.7
January and February CGT shortfall	-1.0	-1.1	-1.2	-1.0	-1.1	-1.4
Corporation tax receipts and modelling	1.5	0.2	0.9	0.3	0.3	0.3
Interest and dividend outturn and modelling	0.1	0.6	0.6	0.7	0.6	0.5
Business rates modelling	0.2	0.4	0.2	0.3	0.2	0.2
Gross operating surplus	0.3	-0.9	-0.2	0.1	0.1	-0.2
Rail franchise premia	-0.2	-0.5	-0.6	-0.6	-0.6	-0.6
Other judgements and modelling	-0.7	-0.5	0.0	0.0	-0.5	-0.4
	Changes due to Government decisions					
Effect of UK Government decisions	0.0	0.3	0.8	0.8	0.8	0.8
Effect of devolved administration decisions	0.0	0.1	0.1	0.1	0.1	0.1
Memo: March pre-measures forecast	*752.2*	*775.4*	*799.2*	*824.0*	*846.5*	*875.7*

Tax-by-tax analysis

PAYE income tax and NICs

4.37 Receipts of income tax and NICs are expected to be £5.7 billion higher in 2017-18 than we assumed in November. SA income tax explains £2.9 billion of the higher receipts, PAYE and NICs on employee salaries £1.5 billion, lower repayments £0.9 billion and higher NICs on the self-employed £0.6 billion.

4.38 The upward revision to PAYE and NICs receipts on employee salaries reflects the pick-up in earnings growth over recent months and a higher effective tax rate on those salaries. Receipts growth has been particularly strong in the business services sector. But with bonuses in both the financial and non-financial sectors concentrated in the final months of the financial year, receipts for 2017-18 as a whole remain uncertain. We have assumed that bonuses rise in line with earnings, but at this stage there is very little evidence available to inform this judgement. Receipts from the financial sector have shown only modest growth so far in 2017-18, but profit growth in the sector has been rapid.

4.39 Stronger earnings growth is expected to persist into 2018-19, with growth revised up by 0.5 percentage points relative to November. Thereafter, we assume that earnings growth will ease back to similar or slightly lower rates than forecast in November. Despite the stronger 2018-19 earnings growth, receipts grow more slowly than wages and salaries in 2018-19 as average earnings rise by less than the 3 per cent inflation-linked rise in tax thresholds in April 2018. This means that a higher proportion of earnings will be taxed at lower rates. In its draft Budget in December, the Scottish Government announced several changes to the rates and bands for Scottish non-savings, non-dividend income tax to take effect from 2018-19. These changes increase receipts by £0.2 billion a year from 2018-19 onwards and are discussed in more detail in Annex A.

4.40 With real earnings growth resuming in the later years of the forecast, PAYE and NICs growth picks up as more income is pushed into higher tax bands. But several factors are expected to restrain growth in PAYE and NICs receipts: earnings growth is likely to be skewed to the bottom end of the income distribution given the commitments to raise the National Living Wage; high-paying sectors such as financial and business services are assumed to be more adversely affected than other sectors by the UK leaving the EU; and the upward trend in incorporations is expected to reduce PAYE and NICs receipts as more employees are assumed to shift to being company owner-managers.

4.41 HMRC has introduced an operational scheme – 'PAYE refresh' – to implement more in-year coding changes when PAYE taxpayers' circumstances change. This was introduced in July 2017 and will in effect bring forward the collection of underpayments and reduce overpayments. For 2017-18, we have assumed that this has boosted PAYE receipts by £0.4 billion (since underpayments collected earlier more than offset reduced overpayments). In future years, the effect on overall income tax should be broadly neutral. With more overpayments resolved within the PAYE system, both PAYE paid and repayments made will be around £0.8 billion a year lower than in the absence of the scheme. Income tax repayments (excluding self-assessment) have been around £0.9 billion lower than expected in 2017-18. This is pushed through to future years. With 'PAYE refresh' reducing repayments from 2018-19 onwards, income tax repayments are expected to be around £2 billion lower in the latter years of the forecast, compared with November.

Table 4.9: Key changes to the non-SA income tax and NICs forecast since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	282.7	289.3	297.7	308.2	319.6	330.7
March forecast	285.4	294.7	303.0	313.1	323.4	335.5
Change	**2.8**	**5.4**	**5.3**	**4.9**	**3.8**	**4.8**
	Underlying forecast changes					
Total	**2.8**	**5.2**	**5.1**	**4.7**	**3.6**	**4.5**
of which:						
Economic determinants						
Average earnings	0.3	2.1	2.0	1.5	0.3	0.0
Employee numbers	0.6	0.9	1.1	1.3	1.4	1.5
Inflation	0.0	0.0	-0.2	-0.2	-0.1	-0.1
Other economic determinants	0.0	0.1	0.0	-0.1	-0.1	-0.1
Other						
Outturn PAYE and NIC1 receipts	0.4	0.5	0.7	0.9	0.9	0.9
Outturn NICs on self-employed	0.5	0.5	0.5	0.5	0.5	0.5
Outturn Non-SA repayments	0.9	1.3	1.2	1.2	1.2	1.2
PAYE refresh	0.4	0.1	0.0	0.0	0.0	0.0
Other modelling and receipts changes	-0.3	-0.3	-0.3	-0.5	-0.4	0.7
	Effect of devolved administration decisions					
Scottish draft Budget measures	0.0	0.2	0.2	0.2	0.2	0.2

Self-assessment (SA) income tax

4.42 SA income tax receipts in 2017-18 have been revised up £2.9 billion relative to our November forecast. We now expect only a £0.2 billion drop in 2017-18 from the previous year. The balancing payments in respect of 2016-17 liabilities were higher than expected, reflecting a combination of less unwinding of the income shifting ahead of the April 2016 dividend tax rise and stronger underlying growth in SA income streams. As explained below, this also led to higher initial 2017-18 payments on account.

4.43 In Box 4.3 in our March 2017 *EFO* we set out our estimate that taxpayers shifted £10.7 billion of dividend income into 2015-16 liabilities, in order for it to be taxed at a lower rate before the dividend tax rise took effect in April 2016. This estimate was revised up to £13.2 billion in our November forecast. We have left this estimate unchanged, but have slowed the pace at which it is assumed to unwind in light of HMRC analysis of 2016-17 SA returns. Dividend income shifting was most evident among additional rate taxpayers (£10.5 billion of the £13.2 billion total). These taxpayers' 2016-17 dividend income fell by around 60 per cent from its inflated level a year earlier. But HMRC analysis of SA returns suggests that only around 60 per cent of the income shifting to 2015-16 was unwound in 2016-17, rather than the 80 per cent assumed in November. This explains around £0.9 billion of the higher 2017-18 SA income tax receipts compared with November.

4.44 Many taxpayers pay SA income tax through the payment on account (POA) mechanism. For 2017-18 liabilities, the first POA is made in January 2018, the second in July 2018 and the balancing payment in January 2019. These POAs are based on 2016-17 liabilities, with the balancing payment ensuring that overall payments are consistent with 2017-18 liabilities. Stronger-than-expected liabilities for 2016-17 has meant higher first POA receipts for 2017-18 liabilities in January 2018. A higher first POA also means a higher second POA due in July 2018, but, based on our forecast for 2017-18 liabilities, these higher POAs will translate into much lower balancing payment receipts in January. With SA income tax scored in the National Accounts when the cash payments are received, this means that less of the 2017-18 liabilities will be received by HMRC in 2018-19. Abstracting from dividend income shifting, this is the key reason why only a small element of the higher SA income tax in 2017-18 has raised our forecast for receipts in future years.

4.45 SA income tax is expected to grow strongly over the next two years (by 6.8 per cent in 2018-19 and 8.2 per cent in 2019-20). Unwinding of dividend income shifting is expected to have a much smaller effect in 2018-19 than it did in 2017-18. For additional rate taxpayers, we assume a further 15 per cent will have been unwound in 2017-18 dividend income, with the remaining 25 per cent unwound over the rest of the forecast period. This helps offset the POA timing effect related to 2017-18 liabilities. Measures also boost SA income tax. The income shifting has masked the fact that the dividend tax rises boost receipts by around £2.5 billion a year in 2018-19 and 2019-20. In addition, the restrictions on residential landlords' deductions from taxable income will start to boost SA receipts from 2018-19, while the April 2018 reduction in the dividend allowance to £2,000 will boost SA receipts from 2019-20.

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

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	25.5	29.9	31.8	33.5	34.4	36.8
March forecast	28.4	30.3	32.8	34.4	35.8	38.0
Change	**2.9**	**0.5**	**1.0**	**0.9**	**1.3**	**1.1**
	Underlying forecast changes					
Total	**2.9**	**0.5**	**1.0**	**0.9**	**1.3**	**1.1**
of which:						
Self employment income	0.0	0.0	-0.1	-0.1	-0.1	-0.2
Dividend income	0.0	0.2	0.2	0.3	0.3	0.2
Savings income	0.0	0.0	0.1	0.2	0.2	0.2
Other economic determinants	0.0	0.0	-0.1	0.0	0.0	0.0
Latest dividend income shifting estimates	0.9	-0.3	-0.2	-0.3	-0.2	-0.1
January and February receipts surplus	2.1	0.4	0.7	0.7	0.7	0.7
Other modelling and receipts changes	-0.1	0.1	0.3	0.1	0.4	0.1

VAT

4.46 Revisions to our VAT receipts forecast since November are uneven across years: down in 2017-18, up in 2018-19 and 2019-20, then down again thereafter. Table 4.11 breaks down the key drivers of the change. It shows that:

- The revisions to our **household spending** forecast reflect two key economy judgements, described in Chapter 3. First, we have assumed a cyclical boost to overall GDP growth in the near term, which unwinds by 2020-21. Second, we have revised down the contribution of private consumption to overall GDP growth as the saving ratio is now assumed to stabilise earlier. This reduces VAT receipts over the forecast.

- The **composition of overall household spending** provides a partial offset, as we have assumed that consumption of durables will be affected somewhat less (in part because outturns have been stronger than expected).

- Revisions to **other components of nominal GDP** boost VAT receipts over the forecast. This reflects near-term cyclical factors affecting non-household elements of the VAT base.

- We have revised down our **forecast for 2017-18**. This reflects the slightly weaker-than-expected performance of cash receipts since our November forecast.

4.47 The 'implied VAT gap' in Table 4.1 at the start of this chapter is the difference between the theoretical total VAT receipts produced by the HMRC forecast model that we use and actual VAT receipts. It is adjusted for timing factors where they can be estimated. The implied VAT gap in 2017-18 rises by 0.6 percentage points relative to the 2016-17 estimate. This may reflect real-world changes in non-compliance or measurement errors in estimating the theoretical total. The fall in the VAT gap over the rest of the forecast reflects the expected impact of HMRC operational and compliance measures.

4.48 As set out at the start of this chapter, our current fiscal forecast does not assume any changes to the structure or membership of tax systems for which there are common EU rules, which includes our VAT forecast. There is significant uncertainty regarding the continuing Brexit negotiations. In respect of VAT, we have noted the uncertainty surrounding the implications of any changes to import VAT rules, which provide a cashflow benefit to UK companies importing goods from the EU. Any changes to these rules could alter the timing of VAT payments reaching the Exchequer, while any cashflow effects on importing businesses could have wider implications.

Table 4.11: Key changes to the VAT forecast since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	125.8	130.3	134.3	138.8	143.2	147.8
March forecast	125.7	130.4	134.6	138.7	142.9	147.4
Change	**-0.1**	**0.1**	**0.3**	**-0.1**	**-0.3**	**-0.4**
	Underlying forecast changes					
Total	**-0.1**	**0.1**	**0.3**	**-0.1**	**-0.3**	**-0.4**
of which:						
Household spending	-0.1	-0.1	-0.4	-0.5	-0.7	-0.8
Standard rated share	0.0	0.3	0.4	0.3	0.2	0.2
Other economic determinants	0.3	0.2	0.2	0.2	0.1	0.2
Outturn receipts and modelling	-0.3	-0.3	0.1	0.0	0.1	0.1

Onshore corporation tax

4.49 Onshore corporation tax (CT) receipts for 2017-18 have been revised up by £1.9 billion since our November forecast. Payments by medium and large companies relating to both current and past years' liabilities have been stronger than expected. Growth in receipts in 2017-18 is expected to be around 2 per cent, despite the cut in the CT rate from 20 to 19 per cent in April 2017.

4.50 Higher instalment payments from industrial and commercial companies are the main explanation for the upward revision since November. Receipts relating to 2017-18 liabilities have benefited from slightly stronger profit growth. Policy measures restricting the use of trading losses and the deductibility of corporate interest expenses have partly offset the effect of the cut in the CT rate. With some of the higher-than-expected receipts related to liabilities from earlier years, only some of the surplus in 2017-18 raises our forecast for receipts in future years.

4.51 Cash CT receipts from the financial sector have been strong over 2017-18, although, as recorded in the public finances, some of this accrues back to 2016-17. Profit results from the banks are up strongly from a year earlier and we have revised up our near-term forecast for taxable profits in the sector. From 2020-21 onwards, we have maintained our assumption that financial sector profit growth will be weaker than the whole economy average, given that the sector is likely to be disproportionately affected by the UK's exit from the EU. CT receipts from the sector are expected to peak in 2018-19.

4.52 We expect onshore CT receipts to fall from 2.6 per cent of GDP in 2017-18 to 2.4 per cent by the end of the forecast period. The further cut in the CT rate to 17 per cent in April 2020 is expected to take around £2.5 billion a year off receipts by 2022-23.

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

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	51.5	54.4	53.4	53.6	54.0	56.0
March forecast	53.4	55.5	55.3	54.9	55.2	57.1
Change	**1.9**	**1.1**	**1.9**	**1.3**	**1.2**	**1.1**
	Underlying forecast changes					
Total	**1.9**	**1.1**	**1.9**	**1.3**	**1.2**	**1.1**
of which:						
Industrial and commercial company profits	0.3	0.5	0.5	0.5	0.5	0.5
Financial company profits	0.1	0.2	0.3	0.3	0.3	0.3
Other economic determinants	0.1	0.2	0.2	0.2	0.1	0.1
Outturn receipts and modelling	1.5	0.2	0.9	0.3	0.3	0.3

UK oil and gas revenues

4.53 We have revised up UK oil and gas revenues in every year of the forecast, by an average of £0.4 billion a year. Table 4.13 breaks down the sources of this revision:

- Higher **sterling oil and gas prices** in the near term (reflecting significantly higher dollar oil prices, partly offset by a stronger pound-dollar exchange rate). This increases receipts by £0.1 billion a year in 2017-18 and 2018-19. Prices are lower from 2020-21 onwards, reducing receipts by £0.2 billion a year by 2022-23.

- Higher **oil and gas production**, based on the latest projections published by the Oil and Gas Authority (OGA). This boosts revenues by increasing amounts across the forecast, rising to £0.3 billion in 2022-23.

- Despite higher oil and gas prices (and the effect this may have on North Sea unit costs), we have revised down **expenditure**, again reflecting the latest projections published by the OGA. This partly reflects lower-than-expected expenditure in 2017 and increases revenues by £0.2 billion a year on average.

- **2017-18 receipts** have been revised up by a further £0.2 billion on top of the effects of changes described above, reflecting changes in individual company tax positions. This is despite the temporary closure of the Forties pipeline in late 2017, which is estimated to have reduced receipts in 2017-18 by around £60 million.

Table 4.13: Key changes to the oil and gas revenues forecast since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	0.7	0.5	0.5	0.4	0.5	0.7
March forecast	1.1	0.9	0.8	1.0	0.8	0.9
Change	**0.5**	**0.4**	**0.3**	**0.5**	**0.3**	**0.2**
	Underlying forecast changes					
Total	**0.5**	**0.4**	**0.3**	**0.5**	**0.3**	**0.2**
of which:						
Oil and gas prices	0.1	0.1	0.0	-0.1	-0.2	-0.2
Production	-0.1	0.0	0.1	0.2	0.2	0.3
Expenditure	0.3	0.2	0.1	0.3	0.3	0.2
Outturn receipts and modelling	0.2	0.0	0.1	0.2	0.0	0.0

4.54 Despite the 5.9 per cent rise in the sterling oil price assumed in 2018, UK oil and gas revenues are forecast to fall by £0.2 billion (21.5 per cent) in 2018-19. That reflects the trading losses accumulated within the industry in recent years, which can be offset against future profits. With the petroleum revenue tax (PRT) rate now set to zero, we expect PRT repayments to average £0.5 billion a year over the forecast period. For future years, this primarily reflects repayments associated with decommissioning costs.

Property transaction taxes

4.55 The UK Government has devolved powers over property transactions taxes to Scotland and Wales. In Scotland, stamp duty land tax was replaced by the land and buildings transaction tax (LBTT) in April 2015. In Wales, it will be replaced by a new land transaction tax (LTT) from April 2018. As these taxes are similar in design to stamp duty land tax, we combine them in this section. More information on our LBTT and LTT forecasts is included in our *Devolved taxes and spending forecast* publication on our website.

4.56 Relative to November, we have revised our forecast for property transactions taxes down by £0.4 billion a year on average. This reflects several factors:

- **Outturn receipts** in recent months have been weaker than expected. This may reflect the composition of the tax base, as more expensive properties pay a proportionately higher effective tax rate. We have assumed that this weakness will persist.

- Compared to November, we have revised up the expected cost of the **first-time buyer's (FTB) relief**. This reflects outturn data since November, which point to a slightly higher average property price on which the relief is being claimed. While there is uncertainty around this early evidence, we have assumed that the effect is not temporary, so have lowered receipts by £0.1 billion a year from 2018-19 onwards.

- We have revised up **house price inflation** in the near term, adding around £0.2 billion to receipts in 2018-19, but revised it down in later forecast years, lowering receipts by £0.3 billion in 2022-23.

- **Property transactions** have also been revised down, with the largest effects in the near term. This lowers receipts by £0.2 billion a year from 2018-19 to 2020-21.

Table 4.14: Key changes to the property transactions taxes forecast since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	13.8	14.0	14.6	15.3	16.1	16.9
March forecast	13.7	13.8	14.3	14.9	15.5	16.3
Change	**-0.1**	**-0.3**	**-0.3**	**-0.4**	**-0.6**	**-0.6**
	Underlying forecast changes					
Total	**-0.1**	**-0.3**	**-0.3**	**-0.4**	**-0.6**	**-0.6**
of which:						
House prices	0.1	0.2	0.1	0.0	-0.1	-0.3
Residential property transactions	0.0	-0.2	-0.2	-0.2	-0.1	0.0
Commercial property market	0.1	0.1	0.1	0.1	0.1	0.1
First time buyer's relief	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Outturn receipts and modelling	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3

Note: Includes SDLT for England and Northern Ireland, Scottish LBTT, Welsh LTT and ATED. More detail on LBTT and LTT can be found in the *Devolved taxes and spending forecast* publication on our website.

Taxes on capital

4.57 We have revised our forecast for **capital gains tax (CGT)** down significantly since November, primarily due to much weaker January SA receipts than we expected. CGT is one of the most volatile sources of tax receipts. Information on the true tax base is limited, since liabilities primarily depend on how long assets have been owned and thus the extent to which their value has changed since they were purchased, rather than simply the price at which they are sold. A change to the 2016-17 SA tax form has exacerbated the forecasting challenge, since it has led to a far higher proportion of gains being reported as 'other property, assets and gains' and a far smaller one as 'unlisted shares and securities'. This makes analysis of the underlying strength of capital gains even more uncertain than usual.

4.58 Based on preliminary HMRC analysis of SA returns, there is little to suggest that the shortfall in CGT receipts was due to one-off factors. We have therefore pushed this year's weakness through the forecast, removing £1.2 billion a year on average compared to November. Lower equity prices have reduced receipts by progressively larger amounts across the forecast period, leaving our overall CGT forecast down £2.3 billion in 2022-23.

4.59 We have revised down **inheritance tax** receipts marginally relative to November. This is largely explained by lower equity prices, with receipts in 2017-18 unchanged.

4.60 Our forecast for **stamp duty on shares** receipts is little changed since November. That reflects an upward revision to our forecast for 2017-18 (reflecting strength in receipts in recent months) offset by the effect of lower equity prices across the forecast.

Excise duties

4.61 Relative to our November forecast, **fuel duty** receipts are higher by £0.3 billion a year on average. That partly reflects stronger-than-expected growth in clearances in recent months, which we assume will persist over the forecast. Higher sterling oil prices put upward pressure on pump prices in the near term, but the negative effect on fuel consumption is broadly offset by the upward revision to GDP growth in the near term. Lower sterling oil prices from 2019-20 onwards increase clearances marginally.

4.62 We have revised up **alcohol duties** by £0.1 billion this year, which largely reflects stronger-than-expected spirits clearances in recent months. Gin sales have been particularly strong, with domestic sales rising by around 18 per cent in the year to September 2017.[6] Overall, spirits clearances increased by 4.2 per cent in 2017, despite a 3.9 per cent increase in the duty rate in March 2017. The strength in spirits clearances is partly offset by the end of the forecast, reflecting our weaker forecast for overall household consumption growth.

4.63 In February, the Scottish Government announced it would introduce a 50 pence minimum unit price for alcohol sales in Scotland from May 2018. This will increase the price of alcohol at the lower end of the market, which we expect to reduce overall alcohol consumption and lower receipts by around £40 million in 2018-19, before dropping slightly in future years. Annex A discusses the costing of this measure in more detail.

4.64 We have revised down **tobacco duties** by £0.2 billion a year on average relative to our November forecast, reflecting weaker clearances in recent months. Monthly receipts this year have been more volatile than usual, reflecting the introduction of regulatory changes such as plain packaging and restrictions on minimum pack sizes as well as changes to the timing of duty uprating in the Autumn Budget. These changes still generate significant uncertainty around our forecast. The impact of a stronger pound relative to our November forecast (which we assume increases the incentive for cross-border shopping) is broadly offset by the impact of our higher RPI inflation forecast, which boosts the assumed duty rate.

Business rates

4.65 Business rates are calculated by multiplying the rateable value of non-domestic property by the multiplier, which is uprated by inflation. Since November, we have revised our forecast up by an average of £0.3 billion a year. The forecast reflects the latest provisional information from local authorities about expected yield in 2018-19.

4.66 Our business rates forecast remains subject to considerable uncertainty in relation to the ultimate effect of the 2017 revaluation. The Government is obliged to design the revaluation and the transitional relief scheme to be fiscally neutral. At revaluation, the multiplier is set to include headroom for future changes to the rating list (e.g. from successful appeals) so that the yield remains constant in real terms after the estimated loss of rateable value from these changes. Our forecast allows for the erosion of yield from this source.

[6] *British Gin breaks £500m export barrier*, The Wine and Spirit Trade Association, February 2018.

4.67 On transitional relief, our forecast now assumes that the 2017 scheme will generate a £230 million surplus, having assumed that it would be fiscally neutral in November. This reflects the 2018-19 projections from local authorities, which indicate that after a net cost from the scheme in 2017-18, there will be a net yield in 2018-19. This comparison is based on forecast data from local authorities as we do not yet have actual outturn data. It will be many years before the true surplus or deficit from the revaluation will be known, so this assessment is likely to change in future forecasts as new information becomes available.

4.68 We have also included several measures announced by the Scottish Government in its 2018-19 draft Budget. Although these are offset in spending and therefore neutral for borrowing, these measures collectively reduce receipts by £0.1 billion a year. The largest introduces a one-year delay before a newly built property becomes liable to business rates.

Other taxes

4.69 Our forecast for **bank surcharge** receipts has been revised up by an average of £0.1 billion a year from 2018-19 onwards reflecting stronger financial sector profit growth (see paragraph 4.51, where strength in financial sector corporation tax receipts is discussed).

4.70 **VAT refunds** received by central and local government are neutral for borrowing, as they are offset within spending. Our VAT refunds forecast largely reflects the path of government procurement and investment. Relative to November, our forecast is lower in the near term, reflecting weak outturn data for 2017-18, but higher in later years due to a modest upward revision to government procurement spending.

4.71 We have revised down **rail franchise premia** receipts by £0.5 billion in 2018-19 and by £0.6 billion in 2019-20. These changes are neutral for borrowing because they also reduce the Department for Transport (DfT) spending financed from this income. This represents a pressure on DfT's budget, which is considered alongside other factors when setting our DEL underspend assumptions. The weaker forecast relative to November reflects several factors, largely growth in passenger numbers, which has been weaker than the Government assumed when setting its Spending Review plans and which played a part in the recently announced early termination of the east coast mainline franchise agreement. Detailed departmental spending plans do not exist for 2020-21 onwards, so we assume premia receipts grow in line with RDEL spending from this point, consistent with their borrowing-neutral effect in the real world. This means DfT's projections of franchise premia receipts from 2020-21 onwards will differ from those used in our forecast. Our approach means receipts have been revised down by £0.6 billion a year from 2020-21 onwards too.

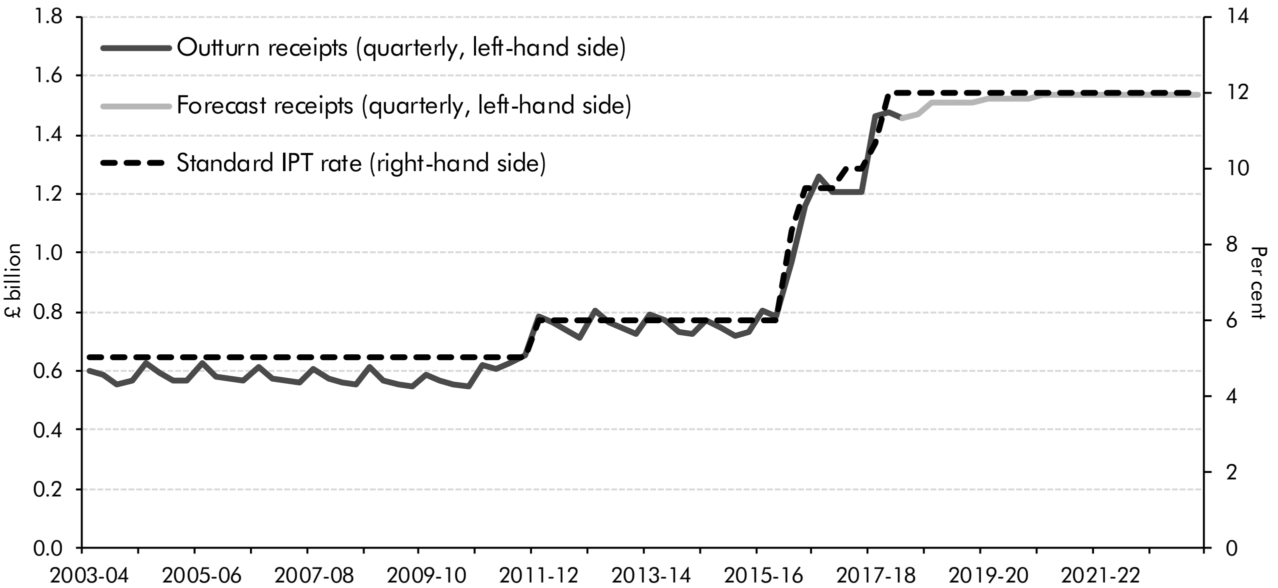
4.72 **Council tax** receipts have been revised down by £0.2 billion in 2017-18, but revised up by £0.7 billion a year on average from 2018-19 onwards. Upward revisions mostly reflect changes announced in the 2018-19 local government finance settlement (discussed in more detail in the local authority expenditure section of this chapter). We assume that council tax receipts are spent by local government, so they are neutral for borrowing in our forecast.

4.73 **Environmental levies** include levy-funded spending policies such as the renewables obligation (RO), contracts for difference (CfD), feed-in tariffs, the capacity market scheme and the warm homes discount. We also include receipts from the 'CRC energy efficiency scheme' (formerly known as the carbon reduction commitment) until its abolition from the 2018-19 compliance year. Receipts rise from £8.6 billion in 2017-18 to £12.8 billion in 2022-23. This relates mainly to the CfD scheme, which is designed to boost renewable energy, and the capacity market scheme that focuses on the security of electricity supply. Other schemes remain broadly flat in real terms.

4.74 Our forecast for environmental levies is very similar to November until the final two years of the forecast. Levy-funded spending in 2021-22 and 2022-23 is around £½ billion a year lower, largely due to the capacity markets scheme. The capacity market (T-4) auction to provide electricity from 2021-22 cleared at a lower price than expected, well below those achieved in previous years. Our assumption for the clearing price for the auction to provide electricity supply from 2022-23 onwards is based on an average of the past four T-4 auction clearing prices. The lower clearing price in the most recent auction suggests a downside risk, but future auctions could depend more on supply from 'new build' which is likely to be an upside risk. Since these risks apply equally to receipts and spending, they do not pose a risk to our forecast for net borrowing.

4.75 Our forecast for **insurance premium tax** (IPT) receipts is £5.9 billion this year, roughly twice the level of receipts three years ago. This reflects the doubling of the standard rate from 6 per cent in October 2015 to 12 per cent in June 2017, following three rate rises in relatively quick succession. Our forecast is little changed since November. As Chart 4.4 shows, before the rate rises IPT receipts had been broadly flat in cash terms since 2003-04. We assume that receipts will remain relatively flat across the forecast period.

Chart 4.4: Insurance premium tax receipts



Note: Annual forecast is spread evenly over four quarters.
Source: ONS, OBR

4.76 **Air passenger duty** (APD) receipts are expected to rise slightly as a share of GDP over the forecast, reflecting continued growth in passenger numbers and RPI-linked duty rate rises. Our forecast is £60 million higher in 2017-18, reflecting recent strength in passenger number growth. This effect is assumed to persist over the rest of the forecast, but is partly offset from 2018-19 onwards by a correction to the forecast model.

4.77 **Vehicle excise duty** (VED) is levied annually on road vehicles and is expected to rise from £5.8 billion in 2016-17 to £7.0 billion in 2022-23. Relative to November, our forecast is higher by £0.2 billion by 2022-23, because of an upward revision to the taxable vehicle stock, where outturns have surprised on the upside. This appears more to do with lower-than-expected scrappage rates than the strength in new car sales, which went into reverse last year. We will review these issues ahead of our next forecast.

4.78 We have also factored in an effect from the new 'worldwide harmonised light vehicle test', which will replace the previous 'new European driving cycle' test for VED banding from 2020-21. The new test is more rigorous and likely to result in higher emission scores for vehicles, moving some into higher VED bands. The magnitude of this increase is very uncertain. We have assumed that it will boost VED receipts by less than £0.1 billion a year from 2020-21 onwards, but will keep this estimate under review.

4.79 Receipts from the **climate change levy** (CCL) and the **carbon price floor** (CPF) are little changed from November. The rise of electricity generation from renewables and gas at the expense of coal continues to put downward pressure on CPF receipts over the forecast period. Higher CCL rates from 2019-20 boost receipts in the final years of the forecast.

4.80 Our forecast for **bank levy** receipts in 2017-18 is £2.4 billion, down by £0.2 billion since November. This reflects weaker-than-expected cash receipts in January. Over the past two years, receipts have now fallen by £0.8 billion, faster than would be implied by the static effect of the cut in the headline rate on short-term chargeable liabilities from 0.21 to 0.17 per cent over that period. The recent fall in the tax base could reflect several factors, including changes in the overall size of bank balance sheets as well as changes in the share of liabilities subject to the levy. Given these trends, we now expect the tax base to fall in cash terms over the forecast (although at a slower rate than implied by recent receipts data). Combined with the announced cuts in the headline rate to 0.10 per cent by January 2021, and the narrowing of its scope to exclude non-UK liabilities from UK banks' returns from 2021 onwards, we expect receipts to fall to £0.9 billion by 2022-23.

4.81 **Customs duties** comprise the majority of 'traditional own resources' or TOR-based UK contributions to the EU. Box 4.4 of our March 2017 *EFO* set out the treatment of customs duties in the public finances and the approach we have taken in our forecast in the absence of firm details about policy in this area after the UK leaves the EU. We have revised our forecast down by less than £0.1 billion a year on average, which is more than explained by the downward revision to our overall imports forecast.

4.82 The **EU emissions trading scheme** (EU ETS) is an EU wide 'cap-and-trade' scheme for carbon emissions. Our EU-ETS forecast multiplies the expected number of carbon permits being auctioned in each year by the carbon price. The carbon price is forecast using a 10-day average of the carbon futures curve. Our forecast for receipts is higher by £0.1 billion a year on average over the forecast, reflecting the recent rise in expected carbon prices. As set out at the start of this chapter, we have not assumed any change to the UK's membership of the EU ETS scheme after the UK leaves the EU.

4.83 As detailed in Annex A, we have once again revised down receipts from the **soft drinks industry levy**, which comes into effect in April. The latest revision averages £30 million a year and reflects the latest information on reformulation rates. We now expect the levy to raise around £240 million a year on average from 2018-19 onwards, less than half the Government's target of £500 million in 2019-20 when it announced it in March 2016.

4.84 We have revised down receipts from the **apprenticeship levy** by £0.1 billion a year relative to November. Having only been introduced in April last year, the profile of monthly receipts is still uncertain. However, with ten months of revenues received by HMRC, it seems likely that full-year receipts will be lower than expected when the measure was first costed.

4.85 We have revised up **betting and gaming** receipts by £0.1 billion a year relative to our November forecast. That reflects an upward revision to growth in machine games duty (MGD) receipts, as well as stronger-than-expected receipts in recent months. Box 4.2 sets out our MGD forecast in more detail and the drivers of the relative strength in receipts in recent years. This forecast is subject to policy-related risk, with the Government having announced that it will reduce maximum stakes in certain machines liable to the duty.

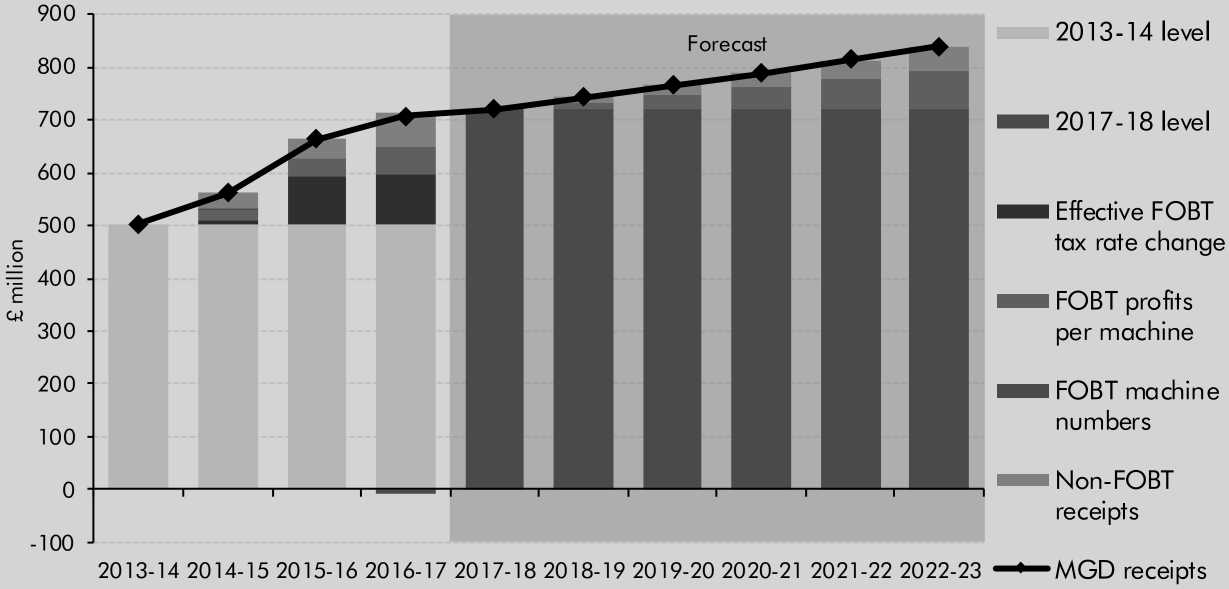
Box 4.2: Machine games duty and fixed-odds betting terminals

Machine games duty (MGD) was introduced in 2013 and is one of six duties levied on gross betting profits (total stakes received less prizes paid out). It is charged on games played on a machine where customers hope to win a cash prize greater than their original stake. Fixed-odds betting terminals (FOBTs) in betting shops are one of several types of machines liable to MGD. These accept up to a pre-set maximum stake and pay out prizes according to fixed odds. MGD receipts from FOBTs are subject to downside policy risk as the Government plans to reduce maximum permitted stakes, but has not yet decided by how much. Its consultation on the issue stated that the maximum would be reduced from £100 to between £50 and £2.

While still relatively small, MGD cash receipts have been growing rapidly, rising from £502 million in 2013-14 to £707 million in 2016-17. Growth slowed in 2016-17, perhaps reflecting the duty rate rise from 20 to 25 per cent that took effect in March 2015. Year-to-date MGD receipts growth has slowed further and we expect it to raise £720 million in 2017-18.

Chart A shows contributions to growth in MGD cash receipts since its introduction and what we assume about these factors over the forecast period. The £205 million rise in the three years to 2016-17 was dominated by increases in the average profit per FOBT and the rise in the effective tax rate, with the number of FOBT machines actually falling slightly. Receipts from other types of machine liable to MGD also increased, but much less rapidly. Based on current policy in relation to FOBTs, our forecast assumes that machine numbers will remain stable, but profits per machine will continue to rise. This profits assumption accounts for £74 million of the £119 million increase in MGD receipts in the five years to 2022-23. It is the key assumption that will change when the Government sets the new maximum for FOBT stakes. Given the wide range of options under consideration, the effect of the new limit on receipts could be in the tens or hundreds of millions of pounds.

Chart A: Machine games duty cash receipts growth



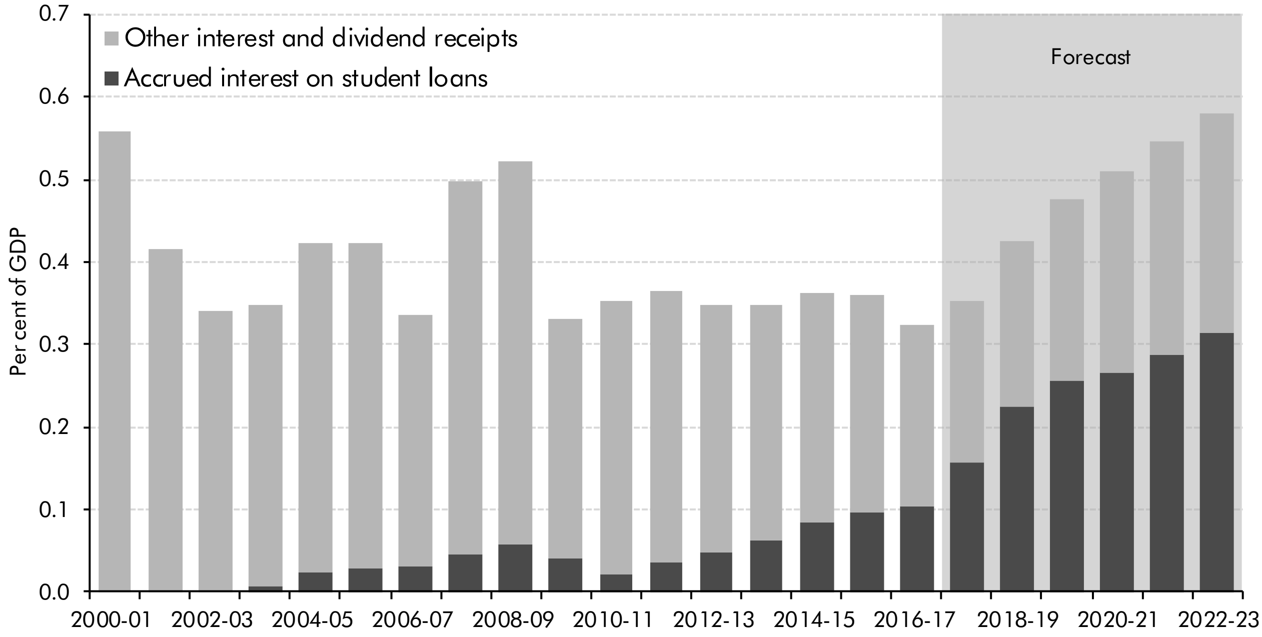
Note: The 2013-14 year contains transitional provisions as traders were migrated from AMLD to MGD. The split of receipts between FOBTs and non-FOBTs is estimated using Gambling Commission data.
Source: Gambling Commission, HMRC, OBR

Other receipts

4.86 **Interest and dividend receipts** include interest income on the government's financial assets, which include student loans and mortgages related to the financial crisis interventions. We have revised receipts up in each year of the forecast, leaving them around £1½ billion a year higher from 2020-21 onwards. A higher path for interest rates has raised expected returns on financial assets. Market expectations of short-term interest rates are around 0.3 percentage points higher towards the end of the forecast compared with November.

4.87 Interest and dividend receipts rise sharply over the forecast, from £6.4 billion in 2016-17 to £13.9 billion in 2022-23. Around £5.5 billion of this reflects the rise in accrued interest on the fast-growing stock of student loans. Chart 4.5 shows how the accrued interest on student loans has increased from 10 per cent of all interest and dividend receipts in 2011-12, before the first cohort of loans to students paying £9,000 a year tuition fees were issued, to 32 per cent in 2016-17. We expect that share to rise further to 54 per cent – £7.5 billion – in 2022-23. Much of this interest will eventually be written off rather than repaid, so the National Accounts methodology for measuring interest does not reflect fiscal reality.

Chart 4.5: Interest and dividend receipts: student loans versus other sources



Source: ONS, OBR

4.88 Our forecast for **Ofcom spectrum fee** receipts is lower by £0.1 billion a year on average over the forecast, reflecting a November 2017 court ruling that quashed the 2015 rise in annual licence fees. This change is not expected to affect our overall spending forecast, as Ofcom only retains a proportion of these fees to finance its own expenditure.

4.89 We have revised down our public sector **gross operating surplus (GOS)** forecast by £0.9 billion in 2018-19. This largely reflects the uneven profile of revisions relating to Transport for London (TfL), as a result of incorporating its latest business plan. Over the rest of the forecast, the changes are smaller and largely offsetting. General government depreciation (which offset in the spending forecast and therefore neutral for borrowing) is lower in every year, reflecting recent outturn data. The expenditure section provides more information.

Public sector expenditure

Definitions and approach

4.90 This section explains our 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)**[7] – 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.

- **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

4.91 Table 4.15 summarises our latest forecast for public spending. TME is expressed as a percentage of GDP, but not all public spending contributes directly to GDP – benefit payments, debt interest and other cash transfers merely transfer income from some individuals to others. TME is expected to fall by 1.2 per cent of GDP over the forecast period. This largely reflects departmental resource spending (which falls by 1.1 per cent of GDP) and welfare spending (by 0.3 per cent of GDP). These falls are only partly offset by the increase in departmental capital spending (by 0.5 per cent of GDP).

Table 4.15: TME split between DEL and AME

	Per cent of GDP						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
TME	**38.9**	**38.8**	**38.4**	**38.3**	**38.1**	**37.8**	**37.6**
of which:							
TME in DEL	**18.1**	**17.8**	**17.7**	**17.8**	**17.8**	**17.5**	**17.3**
of which:							
PSCE in RDEL	15.7	15.4	15.2	15.0	14.7	14.5	14.3
PSGI in CDEL	2.3	2.4	2.5	2.7	3.0	2.9	3.0
TME in AME	**20.8**	**21.0**	**20.7**	**20.6**	**20.3**	**20.3**	**20.3**
of which:							
Welfare spending	10.9	10.7	10.6	10.5	10.3	10.3	10.3
Debt interest net of APF	1.8	2.0	2.0	1.9	1.9	1.9	2.0
Locally financed current expenditure	2.3	2.4	2.5	2.4	2.3	2.3	2.3
Net public service pension payments	0.6	0.6	0.6	0.6	0.6	0.7	0.7
Other PSCE in AME	3.6	3.7	3.7	3.8	3.8	3.7	3.7
PSGI in AME	1.7	1.7	1.3	1.3	1.3	1.3	1.3

4.92 Tables 4.16 and 4.17 detail our latest spending forecast and the changes since November.

[7] 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 4.16: Total managed expenditure

	£ billion						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Public sector current expenditure (PSCE)							
PSCE in RDEL	312.5	316.6	322.5	326.9	330.3	336.2	342.2
PSCE in AME	380.2	396.3	410.5	418.4	425.7	439.0	453.9
of which:							
Welfare spending	216.9	219.3	224.5	228.4	231.6	238.8	247.1
of which:							
Inside welfare cap	118.6	118.6	120.7	121.9	123.1	125.6	128.5
Outside welfare cap	98.3	100.7	103.8	106.5	108.5	113.2	118.6
Locally financed current expenditure	45.1	48.9	52.5	51.6	52.3	53.6	55.2
Central government debt interest, net of APF[1]	35.5	40.7	41.6	42.2	43.0	44.9	46.7
Expenditure transfers to EU institutions[2]	8.8	9.4	12.5	14.4	10.5	10.1	7.5
Assumed spending in lieu of EU transfers[2]	-	-	-	-	3.0	3.3	5.8
Net public service pension payments	11.2	11.8	13.3	12.6	13.8	15.1	16.6
Company and other tax credits	3.0	3.7	3.8	3.9	4.1	4.2	4.3
BBC current expenditure	3.7	4.0	3.8	3.8	3.8	3.7	3.8
National lottery current grants	1.4	1.3	1.3	1.3	1.2	1.2	1.2
General government imputed pensions	1.4	1.3	1.3	1.3	1.3	1.3	1.3
Public corporations' debt interest	3.8	2.8	0.7	0.7	0.7	0.8	0.8
Network Rail other current expenditure[3]	0.5	0.6	0.3	0.6	0.7	0.7	0.9
General government depreciation	29.8	30.2	31.2	32.3	33.5	34.7	36.0
Current VAT refunds	12.0	12.1	12.4	12.6	12.8	13.0	13.2
Environmental levies	5.2	8.7	10.8	12.2	13.3	13.6	13.9
Other PSCE items in departmental AME	0.8	1.1	0.7	0.7	0.6	0.6	0.6
Other National Accounts adjustments	1.1	0.4	-0.4	-0.3	-0.6	-0.8	-1.2
Total public sector current expenditure	**692.7**	**713.0**	**733.0**	**745.3**	**755.9**	**775.2**	**796.1**
Public sector gross investment (PSGI)							
PSGI in CDEL	46.4	49.6	52.4	59.7	68.3	68.2	70.6
PSGI in AME	33.1	34.8	27.4	29.0	29.4	30.1	31.3
of which:							
Locally financed capital expenditure	9.0	11.0	10.8	9.3	9.6	9.4	9.9
Public corporations' capital expenditure	17.2	16.6	10.5	10.7	10.3	10.4	10.7
Network Rail capital expenditure	6.6	6.2	6.0	6.5	6.4	6.7	7.1
Tax litigation	0.0	0.0	0.1	2.1	2.1	2.1	2.1
Other PSGI items in departmental AME	1.2	1.1	1.2	1.3	1.5	1.7	1.7
Other National Accounts adjustments	-0.7	-0.1	-1.0	-0.7	-0.4	-0.1	-0.3
Total public sector gross investment	**79.5**	**84.4**	**79.8**	**88.7**	**97.7**	**98.3**	**101.9**
Less public sector depreciation	-40.8	-40.9	-40.9	-42.2	-43.5	-44.9	-46.4
Public sector net investment	38.8	43.5	39.0	46.6	54.2	53.3	55.6
Total managed expenditure	**772.2**	**797.4**	**812.9**	**834.0**	**853.6**	**873.4**	**898.0**

[1] Includes reductions in debt interest payments due to the APF. For further detail, see Table 4.32.

[2] From 2019-20 onwards, the expenditure transfers to EU institutions reflect the estimated cost of the financial settlement that the UK will pay the EU after Brexit. See Annex B for further details. Overall, post-Brexit, we have still retained our fiscally neutral assumption that total spending will be unchanged from the 'no-referendum' counterfactual, but we now split our post-Brexit forecast between financial settlement payments to the EU and other spending in lieu of transfers to EU institutions. For further detail, see Table 4.27.

[3] Other than debt interest and depreciation, which are included in totals shown separately in this table.

Table 4.17: Change to total managed expenditure since November

	£ billion						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Public sector current expenditure (PSCE)							
PSCE in RDEL	0.0	-0.1	-0.8	-0.3	0.0	0.0	0.0
PSCE in AME	-0.3	0.6	3.6	5.4	3.6	2.3	1.0
of which:							
Welfare spending	0.0	-0.4	-0.1	0.4	-0.2	-0.8	-1.4
of which:							
Inside welfare cap	0.0	-0.7	-0.2	-0.2	-0.7	-1.3	-1.5
Outside welfare cap	0.0	0.3	0.2	0.6	0.5	0.5	0.2
Locally financed current expenditure	-0.2	1.1	2.3	2.2	1.8	1.6	1.5
Central government debt interest, net of APF[1]	0.0	-0.2	1.9	2.3	2.6	2.7	2.4
Expenditure transfers to EU institutions[2]	0.0	-0.5	-0.1	0.6	-0.4	-0.2	-0.3
Assumed spending in lieu of EU transfers[2]	-	-	-				
Net public service pension payments	0.0	-0.1	0.1	0.1	0.1	0.0	0.0
Company and other tax credits	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
BBC current expenditure	0.0	-0.1	0.0	0.0	0.2	0.1	0.1
National lottery current grants	0.0	0.2	0.1	0.0	-0.1	-0.1	-0.1
General government imputed pensions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public corporations' debt interest	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Network Rail other current expenditure[3]	0.0	0.0	-0.3	-0.1	-0.1	-0.1	0.1
General government depreciation	-0.1	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6
Current VAT refunds	0.0	-0.2	-0.3	-0.2	-0.2	-0.2	-0.1
Environmental levies	0.0	0.0	0.0	0.0	-0.1	-0.4	-0.5
Other PSCE items in departmental AME	0.3	0.4	0.0	-0.1	-0.1	-0.1	-0.1
Other National Accounts adjustments	-0.3	0.8	0.5	0.8	0.6	0.5	0.1
Total public sector current expenditure	**-0.3**	**0.5**	**2.8**	**5.1**	**3.6**	**2.3**	**1.0**
Public sector gross investment (PSGI)							
PSGI in CDEL	0.3	1.3	-0.2	0.0	0.0	0.0	0.0
PSGI in AME	-0.1	0.2	0.9	2.1	0.1	-0.5	0.2
of which:							
Locally financed capital expenditure	-0.1	-0.1	0.5	-0.1	0.6	-0.1	0.4
Public corporations' capital expenditure	-0.3	0.8	0.0	0.4	-0.2	-0.3	0.0
Network Rail capital expenditure	0.0	-0.3	0.5	0.1	-0.1	0.1	0.3
Tax litigation	0.0	0.0	-0.1	1.1	-0.6	-0.8	-0.8
Other PSGI items in departmental AME	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2
Other National Accounts adjustments	0.3	-0.1	0.0	0.7	0.5	0.7	0.5
Total public sector gross investment	**0.2**	**1.6**	**0.7**	**2.1**	**0.1**	**-0.5**	**0.2**
Less public sector depreciation	-0.1	0.2	0.3	0.3	0.4	0.4	0.4
Public sector net investment	0.1	1.8	1.0	2.4	0.5	-0.2	0.6
Total managed expenditure	**-0.2**	**2.0**	**3.6**	**7.3**	**3.7**	**1.7**	**1.2**

[1] Includes reductions in debt interest payments due to the APF. For further detail, see Table 4.32.
[2] From 2019-20 onwards, the expenditure transfers to EU institutions reflect the estimated cost of the financial settlement that the UK will pay the EU after Brexit. See Annex B for further details. Overall, post-Brexit, we have still retained our fiscally neutral assumption that total spending will be unchanged from the 'no-referendum' counterfactual, but we now split our post-Brexit forecast between financial settlement payments to the EU and other spending in lieu of transfers to EU institutions. For further detail, see Table 4.27.
[3] Other than debt interest and depreciation, which are included in totals shown separately in this table.

4.93 Table 4.18 summarises the sources of changes to our forecast since November:

- **Economy forecast changes** increase spending in most years. Higher RPI inflation increases accrued spending on index-linked gilts by an average of £1.1 billion a year in 2018-19 and 2019-20. Higher interest rates have increased spending by around £3 billion a year from 2020-21.

- **Local authority self-financed current expenditure** has been revised up by £1.2 billion a year on average. This reflects higher council tax receipts and greater drawdowns from reserves, among other factors. Much of this is borrowing neutral, being offset in either receipts or local authority capital spending.

- We have reduced our assumption of how much central government departments are going to **underspend** in 2017-18, but increased it in the following two years.

- **Welfare spending** – particularly on tax credits – has been revised down, with a progressively larger effect over the forecast. Tax credits spending has repeatedly fallen short of our forecasts. This suggests that relative income growth in the tax credits population has been stronger than had previously been the case. Our new assumptions on this have reduced spending by nearly £2 billion in 2022-23.

- Changes to the profile of **net transfers to the EU** (on a no-referendum counterfactual basis) largely reflect changes to the timing of payments within calendar years that shift spending between financial years. We have also revised the projected profile for tax litigation payments, reflecting the timing of when these count as capital expenditure.

- The main **Government decisions** affecting this forecast relate to a change in the debt financing remit (which raises debt interest spending), the local government finance settlement (which raises local authority spending) and decisions taken by the Scottish and Welsh Governments since November. Taken together, these changes directly increase spending by an average of £0.8 billion a year from 2018-19 onwards. Council tax changes are expected to raise RPI inflation in the short term, which increases the cost of servicing index-linked gilts a little in 2018-19 and 2019-20.

Table 4.18: Sources of changes to the spending forecast since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	795.3	809.3	826.7	849.9	871.7	896.8
March forecast	797.4	812.9	834.0	853.6	873.4	898.0
Change	**2.0**	**3.6**	**7.3**	**3.7**	**1.7**	**1.2**
Forecast changes since November	**2.0**	**3.0**	**6.0**	**3.1**	**0.8**	**-0.1**
of which:						
Economic determinants	**-0.2**	**1.7**	**0.9**	**0.3**	**0.1**	**-0.1**
Inflation changes	-0.2	1.5	0.9	0.5	0.2	0.2
Average earnings	0.0	-0.1	-0.1	-0.1	0.0	0.0
Unemployment	0.0	0.2	0.1	0.0	0.0	0.0
Exchange rate	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Other	0.0	0.1	0.1	0.1	0.1	-0.1
Market assumptions: interest rates	**-0.1**	**0.4**	**1.8**	**2.8**	**3.1**	**3.0**
Other assumptions and changes	**2.4**	**0.9**	**3.3**	**0.0**	**-2.4**	**-3.0**
DEL forecast changes	1.2	-0.5	-0.5	-	-	-
Other changes to central government debt interest, net of APF	0.1	-0.1	-0.6	-0.7	-0.9	-1.2
Other welfare changes	-0.4	-0.1	0.2	-0.2	-0.8	-1.2
Locally financed current expenditure	1.1	1.6	1.6	1.2	1.0	1.0
Other changes to the profile of expenditure transfers to the EU[1], and tax litigation	-0.5	-0.3	1.8	-0.9	-0.8	-0.9
Other	0.9	0.4	0.8	0.6	-0.8	-0.7
	Effect of Government decisions					
Effect of UK Government decisions	**0.0**	**0.5**	**1.1**	**0.7**	**1.0**	**1.3**
AME non-scorecard measures	0.0	1.0	0.9	0.6	1.0	1.3
RDEL changes[2]	-0.9	-0.5	-	-	-	-
CDEL changes[2]	0.9	-0.2	0.0	-	-	-
Indirect effects of Government decisions	0.0	0.1	0.2	0.0	0.0	0.0
Effect of devolved administration decisions	**0.0**	**0.1**	**0.1**	**-0.1**	**-0.1**	**-0.1**
AME non-scorecard measures	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
RDEL changes	-	0.2	0.2	-	-	-

[1] This shows changes in our forecast on a 'no referendum' basis, which has been produced as a baseline forecast. We have then made the fiscally neutral assumption that any reduction in these transfers after the UK leaves the EU will be recycled into higher domestic spending. As a result, only changes to the baseline forecast contribute to the revision to our spending forecast since November, even though the split between settlement payments to the EU and other spending in lieu of transfers to EU institutions has changed in this forecast. See Annex B for further discussion.

[2] Excludes changes to DELs that are forecast or classification changes.

Spending within departmental expenditure limits

DEL spending and changes since November

4.94 In this section, we use 'RDEL spending' and 'CDEL spending' to refer to PSCE in RDEL and PSGI in CDEL. The basis of our latest forecasts includes:

- **Departments' latest 'forecast outturns' for 2017-18** that were sent to the Treasury in February, plus our assumptions regarding any further underspending relative to them.
- **Departments' final plans for 2018-19 to 2019-20 as published in *Public expenditure statistical analyses* (PESA) 2017**, plus policy changes announced in the Autumn Budget, the local government finance settlement and the Supplementary Estimates, plus our assumptions regarding likely underspending against the new plans.
- **The Government's latest provisional total DELs for 2020-21, 2021-22 and 2022-23**, which are unchanged from those set in the Autumn Budget. The departmental allocation of these DELs will not be finalised until the 2019 Spending Review, with the exception of capital DELs and RDELs for the NHS, Ministry of Defence and the Security Intelligence Agencies in 2020-21, which were set in Spending Review 2015.

4.95 Table 4.19 shows our forecasts for resource (RDEL) and capital (CDEL) spending and overall changes relative to our November forecast. (These changes are decomposed in Table 4.21, and the paths of the forecasts are discussed in the next section.) Table 4.19 shows that:

- Actual **resource spending** has been revised down by £0.1 billion in 2017-18. This is the net effect of two larger but almost offsetting changes. The Ministry of Defence (MoD) switched £0.9 billion of spending out of RDEL into CDEL in its Supplementary Estimates, lowering RDEL spending. But we have reduced our assumption for underspending, raising RDEL spending. RDEL spending is then lower in 2018-19 and 2019-20, mainly reflecting greater underspending in those years, as explained below. The additional pilots announced for business rates retention in 2018-19 have also switched spending from RDEL to current LASFE in that year.
- Actual **capital spending** has been revised up by £1.3 billion in 2017-18 and revised down by £0.2 billion in 2018-19. Most of the increase in 2017-18 is explained by the above MoD switch from RDEL into CDEL. The remaining £0.4 billion increase reflects a change to the outturn profiles for capital grants to English housing associations in the period up to November 2017, before those housing associations were reclassified to the private sector. We have not changed our underspend assumptions for CDEL spending, but our forecast for underspending in 2017-18 now matches departments' aggregate assumptions in their February forecast outturns.

4.96 In Table 4.19 we present plans, underspends and actual spending in every year. For the Spending Review years, plans have been set by the Treasury and our forecasts for actual spending are generated by subtracting underspends from plans. For years beyond the current Spending Review horizon, the Treasury states how much it intends to spend in total. We then show the implied plans and underspends that we think would be consistent with that level of actual spending. The Treasury will carry out the next Spending Review in 2019.

Table 4.19: RDEL and CDEL spending and total changes since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
PSCE in RDEL				Implied, post-Spending Review		
November forecast						
Limits	319.5	324.6	328.4	331.5	337.5	343.4
Assumed underspend[1]	-2.8	-1.3	-1.3	-1.3	-1.3	-1.3
Actual spending	316.8	323.3	327.1	330.3	336.2	342.2
March forecast						
Limits	318.6	324.3	328.6	332.0	338.0	343.9
Assumed underspend[1]	-2.0	-1.8	-1.8	-1.8	-1.8	-1.8
Actual spending	316.6	322.5	326.9	330.3	336.2	342.2
Changes						
Limits	-0.9	-0.3	0.2	0.5	0.5	0.5
Assumed underspend[1]	0.8	-0.5	-0.5	-0.5	-0.5	-0.5
Actual spending	-0.1	-0.8	-0.3	0.0	0.0	0.0
PSGI in CDEL					Implied, post-Spending Review	
November forecast						
Limits	50.1	54.3	62.1	73.8	72.2	74.6
Assumed underspend[1]	-1.9	-1.8	-2.3	-5.4	-4.0	-4.0
Actual spending	48.2	52.6	59.7	68.3	68.2	70.6
March forecast						
Limits	51.5	54.2	62.0	73.8	72.2	74.6
Assumed underspend[1]	-1.9	-1.8	-2.3	-5.4	-4.0	-4.0
Actual spending	49.6	52.4	59.7	68.3	68.2	70.6
Changes						
Limits	1.3	-0.2	0.0	0.0	0.0	0.0
Assumed underspend[1]	0.0	0.0	0.0	0.0	0.0	0.0
Actual spending	1.3	-0.2	0.0	0.0	0.0	0.0
	Per cent of GDP					
PSCE in RDEL (actual spending)						
November forecast	15.5	15.4	15.2	14.8	14.6	14.4
March forecast	15.4	15.2	15.0	14.7	14.5	14.3
Change	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1
PSGI in CDEL (actual spending)						
November forecast	2.4	2.5	2.8	3.1	3.0	3.0
March forecast	2.4	2.5	2.7	3.0	2.9	3.0
Change	0.1	0.0	0.0	0.0	0.0	0.0

[1] Underspends are measured against the plans set out in PESA 2017, adjusted for policy measures announced at the Autumn Statement, and for MoD's switch of £0.9 billion from RDEL to CDEL in the Supplementary Estimates. Underspends are measured net of amounts carried forward from previous years under Budget Exchange.

4.97 Table 4.20 provides the latest information on departments' underspends for 2017-18. This includes departments' final DEL spending plans from the Supplementary Estimates, which incorporate underspends against earlier PESA plans; departments' own forecasts relative to final plans, as submitted to the Treasury in February; and our assumptions relative to them:

- **Supplementary Estimates**: these reduced RDEL spending by £1.2 billion and CDEL spending by £0.1 billion. These underspends included £1.6 billion that departments have been allowed to transfer to 2018-19 and 2019-20 under Budget Exchange.[8] These are larger transfers into future years than we have seen in recent years and the amounts transferred will add to the spending pressures in 2018-19 and 2019-20.

- **February forecast outturns**: departments' latest forecasts include further underspends against the final plans in Supplementary Estimates of £0.6 billion on RDEL and £1.7 billion on CDEL. The large underspend against the final CDEL plans includes £420 million from the Foreign and Commonwealth Office's (FCO) sale of the British embassy in Thailand, where the sale had not been finalised in time to be included in final plans. While the FCO will not hold onto the cash raised, the Treasury has confirmed that it will in effect be able to draw down on the sale proceeds in future years, which all else equal adds to spending pressures within existing plans.

4.98 Relative to departments' own February forecasts, we assume some further overall shortfall for RDEL spending, but that some departments will spend a little more CDEL than they forecast, balancing further shortfalls elsewhere. This reflects the pattern seen in previous years, and the Treasury's views of departments' underlying positions.

Table 4.20: DEL underspends against PESA plans for 2017-18

	£ billion					
	PSCE in RDEL		PSGI in CDEL		TME in DEL	
	Outturn 2016-17	Forecast 2017-18	Outturn 2016-17	Forecast 2017-18	Outturn 2016-17	Forecast 2017-18
Net underspends measured against PESA plans[1]						
Underspends included in Supplementary estimates (final plans)[2]	-3.1	-1.2	-0.7	-0.1	-3.8	-1.3
Further underspends against final plans included in departments' forecast outturn in February	-0.1	-0.6	0.0	-1.7	-0.1	-2.3
OBR estimate of further shortfall	-0.4	-0.2	-0.2	0.0	-0.6	-0.2
Net underspend	**-3.6**	**-2.0**	**-0.9**	**-1.9**	**-4.5**	**-3.9**

[1] Underspends are measured against the plans set out in PESA 2017, adjusted for policy measures announced at the Autumn Statement, and for MoD's switch of £0.9 billion from RDEL to CDEL in the Supplementary Estimates. Underspends are also measured net of amounts carried forward from previous years under Budget Exchange.
[2] Provisional estimates.

[8] Budget Exchange is the Treasury's system for controlling the transfer of a limited amount of departmental underspending into future years' DEL plans. The supplementary fiscal tables on our website include tables that show the levels of Budget Exchange carried forward in the past and into future years. The tables also show historical series for underspends, measured net and gross of Budget Exchange, and the amounts of underspends included in Supplementary Estimates.

4.99 Table 4.21 details the changes in our latest forecast, broken down into our underlying forecast judgements (mainly our underspend assumptions for RDEL) and Government policy decisions (which relate to the Supplementary Estimates and the final local government finance settlement, both of which were submitted to Parliament in February).

4.100 For 2018-19 and 2019-20, we have made relatively few changes to our forecast. The largest relates to the £0.5 billion a year reduction in rail franchise premia income in our receipts forecast (see paragraph 4.71 above). On the spending side, this feeds through as 'non-fiscal' receipts (negative spending), which fund 'fiscal' spending, or PSCE in RDEL, in the DEL control total, so the lower income should translate into lower spending. The actual effects will depend on final DEL plans, but in the meantime we have increased assumed underspends on PSCE in RDEL by £0.5 billion in 2018-19 and 2019-20, consistent with the effect on our receipts forecast. We will review this assumption after departmental plans have been set out in more detail in this summer's PESA publication.

4.101 For 2018-19 and 2019-20 we also reviewed our underspend assumptions to reflect the Treasury's latest information on changes in spending pressures. These included pressures from additional spending carried forward from higher Budget Exchange and £0.2 billion of additional spending in 2018-19.[9] This was set against lower-than-expected pressure from the lower personal injury discount rate announced in February 2017, for which the Treasury set aside around £1.2 billion a year in additional reserve. We judged that overall pressures were balanced, so we have not adjusted our underspend assumptions for RDEL or CDEL other than the £0.5 billion a year increase for rail franchise premia.

4.102 Table 4.21 shows the effect of two UK Government policy changes affecting DEL plans in 2018-19. The local government finance settlement included further pilots for full business rates retention in 2018-19. These reduce RDEL by £0.5 billion, with an offsetting increase in local authorities self-financed current spending in AME. The Government's announcement of an additional £0.2 billion in capital grants for the Post Office, offset by a £0.2 billion reduction in other spending within CDEL for the Department for Business, Energy and Industrial Strategy. Since the Post Office is classified as a public corporation, this policy change increases our forecast for public corporations' capital spending in AME and reduces PSGI in CDEL.[10] Table 4.21 also shows the effect of changes relating to devolved taxes, which boost devolved spending in our forecast until 2019-20 via the fiscal framework agreements and their automatic effects on departmental spending totals.

4.103 The Chancellor has not announced new spending measures in the Spring Statement, so the path of RDEL and CDEL spending from 2020-21 onwards is unchanged from November.

[9] This additional spending will be funded from existing DELs, but this will add to spending pressures (see Annex A).
[10] The Government's capital grants to the Post Office are also contained within BEIS CDEL, but in order to be consistent with treatment in the National Accounts we remove the payment and receipt of central government capital grants to public corporations in PSGI in CDEL and PSGI in AME. Instead we include gross public corporations' capital spending financed by these grants as part of PSGI in AME.

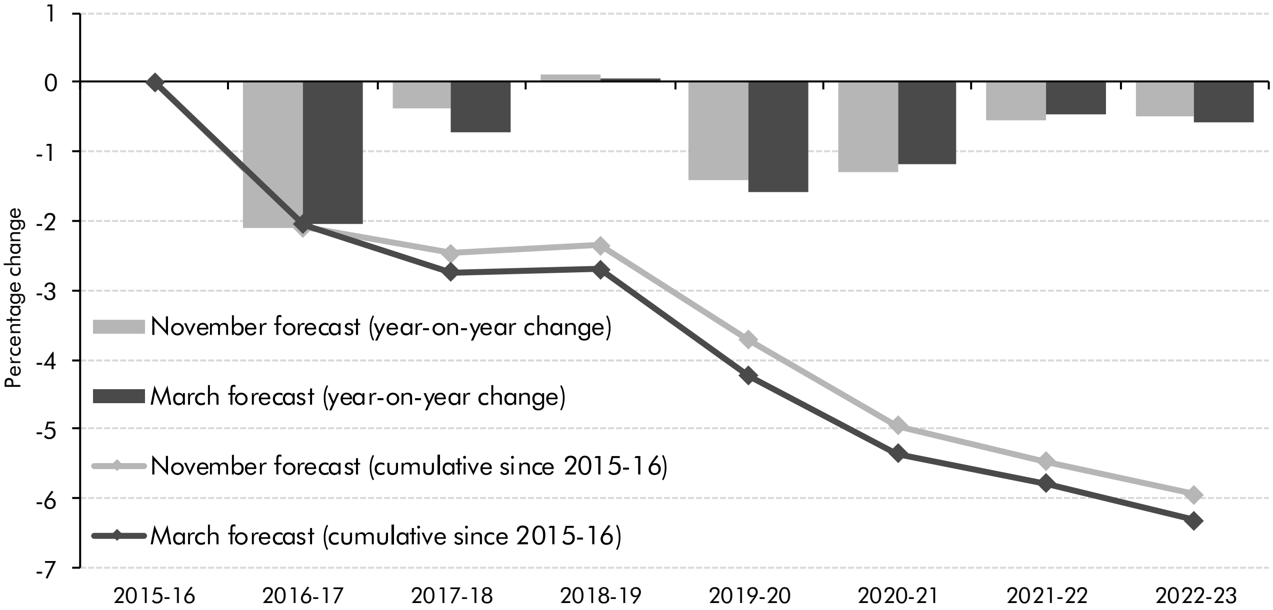
Table 4.21: Sources of changes to DELs since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
PSCE in RDEL						
November forecast	316.8	323.3	327.1	330.3	336.2	342.2
March forecast	316.6	322.5	326.9	330.3	336.2	342.2
Change	**-0.1**	**-0.8**	**-0.3**	**-**	**-**	**-**
of which:						
Forecast changes	**0.8**	**-0.5**	**-0.5**	**-**	**-**	**-**
Assumed underspend	0.8	-0.5	-0.5	-	-	-
Effect of UK Government decisions	**-0.9**	**-0.5**	**-**	**-**	**-**	**-**
MOD current/capital switch	-0.9	-	-	-	-	-
Business rates retention additional pilots	-	-0.5	-	-	-	-
Effect of devolved administration decisions	**-**	**0.2**	**0.2**	**-**	**-**	**-**
PSGI in CDEL						
November forecast	48.2	52.6	59.7	68.3	68.2	70.6
March forecast	49.6	52.4	59.7	68.3	68.2	70.6
Change	**1.3**	**-0.2**	**0.0**	**-**	**-**	**-**
of which:						
Forecast changes	**0.4**	**-**	**-**	**-**	**-**	**-**
Assumed underspend	0.0	-	-	-	-	-
Reprofiling of grants to housing associations	0.4	-	-	-	-	-
Effect of UK Government decisions	**0.9**	**-0.2**	**0.0**	**-**	**-**	**-**
MOD current/capital switch	0.9	-	-	-	-	-
Post Office investment funding	-	-0.2	0.0	-	-	-

The path of resource and capital DEL spending over the forecast period

4.104 Chart 4.6 shows the real terms path of resource spending by central government departments on a per person basis. In the absence of major policy announcements, the profile is little changed from November. It continues to show that, after the relatively sharp cuts in 2016-17, spending falls only modestly on this basis in 2017-18 and 2018-19, before the pace of cuts picks up again in the subsequent two years.

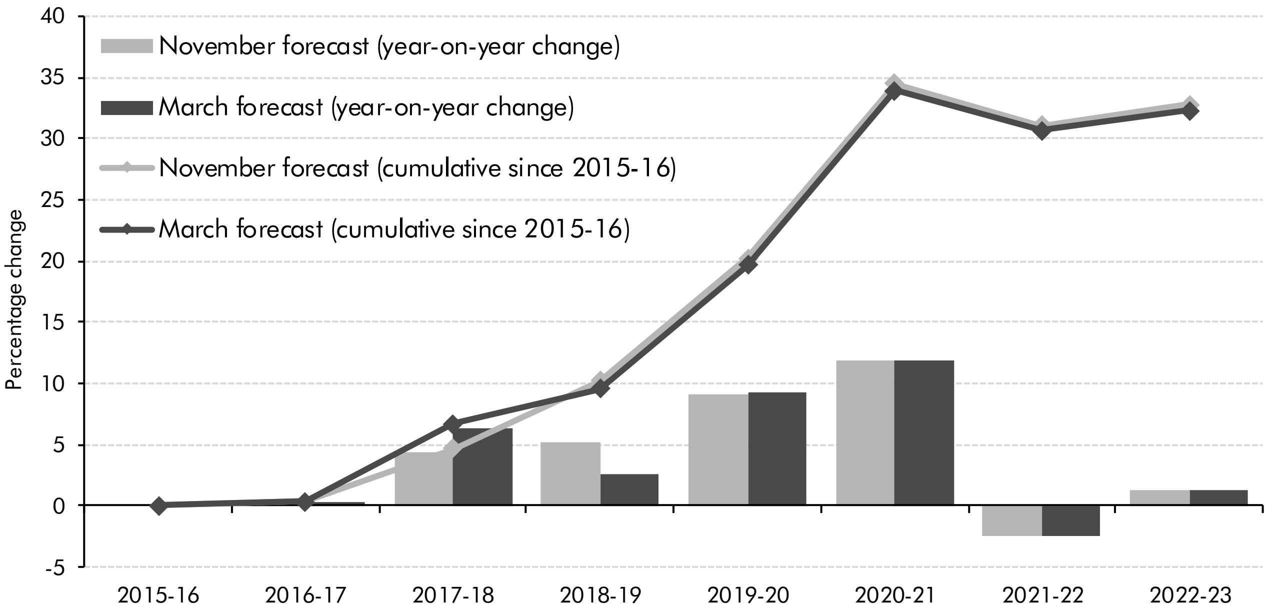
Chart 4.6: Change in real RDEL spending per capita from 2015-16



Note: 2017-18 and 2018-19 exclude the effects of business rates pilots. All other figures adjusted as far as possible for consistency with the latest forecast. See source table in OBR supplementary fiscal tables: expenditure.

4.105 Chart 4.7 presents the same metric for departmental capital spending, which is again little changed from our November forecast. It shows that real capital spending per person is forecast to rise significantly over the forecast period – and particularly sharply in 2019-20 and 2020-21. While capital spending plans for 2020-21 were set in Spending Review 2015, not all the jump in that year was allocated to individual departments.

Chart 4.7: Change in real CDEL spending per capita from 2015-16



Note: 2017-18 and 2018-19 exclude the effects of business rates pilots. All other figures adjusted as far as possible for consistency with the latest forecast. See source table in OBR supplementary fiscal tables: expenditure.

Annually managed expenditure

Welfare spending

4.106 Total welfare spending in our forecast refers to AME spending on social security and tax credits. Just over half of this expenditure is subject to the Government's 'welfare cap', which excludes the state pension and payments that are sensitive to the economic cycle. We provide an update on performance against the cap in Chapter 5.

4.107 Table 4.22 shows that welfare spending is forecast to increase by 12.7 per cent between 2017-18 and 2022-23, reaching £247 billion. Spending on items subject to the cap is expected to rise by 8.4 per cent, a fall of 2.1 per cent in real terms (relative to CPI inflation). By contrast, spending on items outside of the cap – which is dominated by state pensions – is projected to increase by 17.8 per cent, or 7.4 per cent in real terms.

4.108 Relative to the size of the economy, welfare spending is forecast to fall by 0.3 per cent of GDP between 2017-18 and 2022-23. Spending on items inside the cap falls by 0.4 per cent of GDP, as working-age benefit freezes and CPI inflation uprating reduce the value of benefits relative to earnings. Spending on items outside the cap rises by 0.1 per cent of GDP, thanks largely to the ageing population, the effects of which are concentrated in the final years of the forecast once the rise in the State Pension age to 66 has been completed.

Table 4.22: Welfare spending forecast overview

	£ billion						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Total welfare spending	**216.9**	**219.3**	**224.5**	**228.4**	**231.6**	**238.8**	**247.1**
of which:							
Inside welfare cap	118.6	118.6	120.7	121.9	123.1	125.6	128.5
Outside welfare cap	98.3	100.7	103.8	106.5	108.5	113.2	118.6
	Per cent of GDP						
Total welfare spending	**10.9**	**10.7**	**10.6**	**10.5**	**10.3**	**10.3**	**10.3**
of which:							
Inside welfare cap	6.0	5.8	5.7	5.6	5.5	5.4	5.4
Outside welfare cap	4.9	4.9	4.9	4.9	4.8	4.9	5.0

4.109 Table 4.23 sets out our detailed welfare spending forecasts and Table 4.24 sets out the changes since November. Spending in 2017-18 has been revised down by £0.4 billion, largely driven by another downward adjustment – this time of £0.3 billion – to our tax credits forecast. From 2018-19 onwards we have revised spending down by increasing amounts, reaching £1.4 billion in 2022-23, with spending subject to the cap down £1.5 billion and spending outside the cap up £0.2 billion.

4.110 The largest revisions to our welfare cap spending forecast relate to tax credits. This is dominated by two partly offsetting changes:

- First, a large downward revision from assuming that **income growth in the tax credits population** will be higher relative to whole economy average earnings growth than had previously been assumed. This reduces spending by progressively larger amounts across the forecast, reaching £1.7 billion in 2022-23. The new assumption and the analysis the underpins it are described in Box 4.3.

- Second, a **correction to how rises in the disability benefits caseload affect the cost of disability premia** in tax credits. This increases spending by progressively larger amounts, reaching £0.7 billion in 2022-23. These premia do not exist in universal credit (UC), so make up part of the saving from UC relative to the legacy system. Our UC forecast already factored in this saving, but the tax credits forecast had factored in the cost on an actual-cost basis rather than a 'no-UC' counterfactual basis, so in effect the UC saving was being double-counted.

4.111 We have revised up disability benefits spending by £0.2 billion a year on average between 2018-19 and 2022-23. The main change relates to the recent High Court ruling that March 2017 changes to the PIP regulations on how mental health conditions should be treated in relation to 'Mobility Activity 1' in calculating PIP awards were unlawful. The Secretary of State for Work and Pensions informed Parliament that the Government will not challenge the ruling and will instead review the cases of all affected claimants.

4.112 The latest estimate of the effect on spending of complying with the ruling is around £0.4 billion a year on average, with £0.6 billion higher spending in 2019-20 as DWP reviews the stock of previous cases. These are provisional estimates based on samples of affected cases and preliminary views on how to implement the court ruling. They imply around 25,000 claimants in 2022-23 receiving a PIP award who would not have done so otherwise and around 165,000 receiving a higher award than would otherwise have been the case. DWP is working with relevant parties to develop final PIP guidance consistent with the ruling, so these estimates can be expected to change.

4.113 Other forecast revisions have been relatively small:

- **State pensions** spending is up £0.1 billion in 2022-23, but by around £½ billion on average between 2019-20 and 2021-22. This reflects higher-than-expected spending this year feeding through to later years, plus changes in our average earnings growth forecast first boosting uprating via the triple lock then reducing it.

- **Jobseeker's allowance** spending is up £0.2 billion in 2022-23. Based on trends in recent data, we have assumed that our unemployment forecast would be consistent with a slightly higher jobseeker's allowance caseload. This forecast is difficult to calibrate at present because the real-world caseload is split roughly 60/40 between jobseeker's allowance and universal credit.

Table 4.23: Welfare spending

	£ billion						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Welfare cap							
DWP social security	76.5	77.6	79.1	80.6	81.3	83.1	85.3
of which:							
Housing benefit (not on JSA)[1]	21.3	20.4	21.2	21.1	20.7	21.1	21.5
Disability living allowance and personal independence payments	16.7	17.5	19.1	20.8	21.3	22.3	23.3
Incapacity benefits[2]	15.2	15.0	16.0	15.9	16.3	16.6	17.0
Attendance allowance	5.5	5.5	5.8	6.0	6.2	6.4	6.6
Pension credit	5.7	5.4	5.0	4.8	4.6	4.6	4.6
Carer's allowance	2.7	2.9	3.2	3.5	3.6	3.8	4.0
Statutory maternity pay	2.4	2.4	2.5	2.6	2.7	2.7	2.8
Income support (non-incapacity)	2.3	2.2	2.2	2.1	2.1	2.1	2.2
Winter fuel payments	2.0	2.0	2.0	2.0	1.9	2.0	2.0
Universal credit[3]	0.5	1.9	-0.2	-0.5	-0.5	-0.7	-1.0
Other DWP in welfare cap	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Personal tax credits	27.4	25.8	26.0	25.3	25.4	25.6	25.9
Child benefit	11.6	11.6	11.5	11.6	11.8	12.0	12.2
Tax free childcare	0.0	0.0	0.2	0.5	0.7	0.8	0.9
NI social security in welfare cap	3.4	3.5	3.6	3.8	3.9	4.0	4.0
Paternity pay	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total welfare cap[4]	**118.6**	**118.6**	**120.7**	**121.9**	**123.1**	**125.6**	**128.5**
Welfare spending outside the welfare cap							
DWP social security	96.1	98.3	101.3	103.9	105.9	110.5	115.8
of which:							
State pension	91.6	93.8	96.6	98.9	100.8	105.2	110.3
Jobseeker's allowance	1.9	1.7	2.5	2.7	2.9	3.0	3.0
Housing benefit (on JSA)	1.6	1.5	2.2	2.3	2.3	2.4	2.5
Universal credit[3]	1.1	1.3					
NI social security outside welfare cap	2.3	2.4	2.5	2.5	2.6	2.7	2.8
Total welfare outside the welfare cap[4]	**98.3**	**100.7**	**103.8**	**106.5**	**108.5**	**113.2**	**118.6**
Total welfare	**216.9**	**219.3**	**224.5**	**228.4**	**231.6**	**238.8**	**247.1**
Memo: spending inside the welfare cap as a proportion of total welfare spending	*54.7*	*54.1*	*53.8*	*53.4*	*53.1*	*52.6*	*52.0*

[1] Housing benefit (not on jobseeker's allowance) is made up of a number of claimant groups. The main claimant groups are pensioners, those on incapacity benefits, lone parents, and housing benefit only claimants.

[2] Incapacity benefits includes incapacity benefit, employment and support allowance, severe disablement allowance and income support (incapacity part).

[3] Universal credit actual spending for 2016-17 and 2017-18. Spending from 2018-19 onwards represents universal credit additional costs not already included against other benefits (i.e. UC payments that do not exist under current benefit structure).

[4] Total welfare outturn inside and outside of the welfare cap in 2016-17 is sourced from OSCAR, consistent with PESA 2017. For 2016-17 only, the components reflect departments' own outturns, which may not be on a consistent basis to OSCAR. For this year the components may not sum to the total for this reason.

Table 4.24: Sources of changes in welfare spending since November

	£ billion						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Total welfare spending							
November forecast	216.9	219.8	224.5	228.0	231.8	239.6	248.5
March forecast	216.9	219.3	224.5	228.4	231.6	238.8	247.1
Change	**0.0**	**-0.4**	**-0.1**	**0.4**	**-0.2**	**-0.8**	**-1.4**
Welfare spending inside the welfare cap							
November forecast	118.7	119.3	120.9	122.1	123.8	126.9	130.1
March forecast	118.6	118.6	120.7	121.9	123.1	125.6	128.5
Change	**0.0**	**-0.7**	**-0.2**	**-0.2**	**-0.7**	**-1.3**	**-1.5**
of which:							
Economic determinants	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0
Estimating/modelling changes	-0.1	-0.6	-0.1	-0.1	-0.5	-1.1	-1.4
of which:							
Personal tax credits	0.0	-0.3	-0.6	-0.8	-1.1	-1.3	-1.3
Income support	0.0	0.0	0.2	0.1	0.0	-0.1	-0.2
Universal credit	0.0	0.0	0.0	0.0	0.3	0.0	-0.1
Housing benefit	0.0	0.0	0.3	0.2	0.1	0.0	-0.1
Incapacity benefits[1]	0.0	-0.1	-0.1	0.0	0.1	0.1	0.1
Disability benefits[2]	0.0	-0.2	0.1	0.5	0.1	0.1	0.1
Other	-0.1	-0.2	0.0	-0.1	0.1	0.0	0.0
Non-scorecard policy measures	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2
Welfare spending outside the welfare cap							
November forecast	98.3	100.4	103.6	105.9	108.0	112.7	118.4
March forecast	98.3	100.7	103.8	106.5	108.5	113.2	118.6
Change	**0.0**	**0.3**	**0.2**	**0.6**	**0.5**	**0.5**	**0.2**
of which:							
Economic determinants	0.0	0.0	0.2	0.3	0.2	0.2	-0.1
of which:							
CPI inflation	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Claimant count unemployment	0.0	0.0	0.2	0.1	0.0	0.0	0.0
Triple lock	0.0	0.0	0.0	0.1	0.2	0.2	-0.1
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Estimating/modelling changes	0.0	0.2	0.0	0.3	0.3	0.3	0.2
Non-scorecard policy measures	0.0	0.0	0.0	0.0	0.0	0.0	0.0

[1] Incapacity benefits includes incapacity benefit, employment and support allowance, severe disablement allowance and income support (incapacity part).

[2] Disability benefits refers to disability living allowance and personal independence payment.

Box 4.3: Tax credits income growth assumption

Recent outturns for spending on tax credits have consistently come in lower than forecast, partly due to lower-than-expected caseloads. The latest HMRC analysis suggests that we have also been under-forecasting income growth among tax credits families. This is a function of the number of hours worked, hourly pay rates, and the number of earners in the household. A high degree of churn in claimants complicates analysis of these effects – between 2013-14 and 2015-16, flows on and off tax credits averaged around 2 million a year relative to an average caseload of around 4½ million. In our forecast we approximate these effects with a simplified, top-down assumption to capture both average income growth for continuing claims and the fact that those joining the caseload will have lower incomes on average than those that leave.

Under this methodology HMRC analysis in 2007, 2010, 2012 and 2014 (the latter covering finalised tax credits awards to 2012-13) suggested that tax credits income growth was at least 2 percentage points lower than headline earnings growth. In November 2017 updated HMRC analysis suggested that tax credits income growth had strengthened relative to headline earnings growth, so we changed the income assumption to lag earnings growth by 1 percentage point.

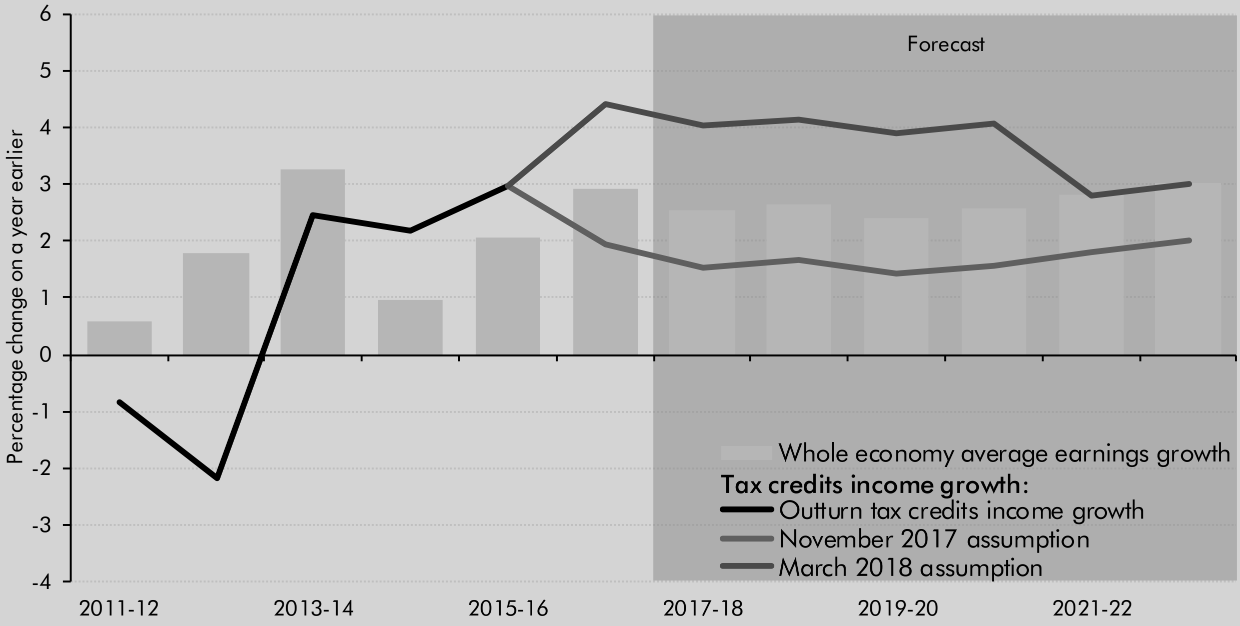
For this forecast, HMRC has updated this analysis again, adding adjustments to abstract from policy changes and accounting for trends in churn in the caseload. The results suggest that tax credits income growth was only slightly lower than headline earnings growth in 2013-14, but then exceeded it in 2014-15 and 2015-16 (by around 1 percentage point) as shown in Chart B. At the same time churn in the caseload fell markedly. This step change from 2014-15 onwards coincides with the period in which we started over-forecasting tax credits spending.

The precise causes of these changes are hard to isolate. Over this period, tax credits were subject to large-scale policy reform while the economy was picking up relatively strongly. Policy changes removed eligibility from large numbers of higher-earners, while changes in hours worked and the number of people working in households may have contributed to higher growth in the income of tax credits claimants. More recently, the National Minimum Wage has been increased faster than average earnings. The rollout of universal credit (UC) has complicated analysis further, as those migrating to UC, or claiming UC instead of tax credits, are not identifiable in DWP data.

Given this new evidence, we have revised up our tax credits income growth assumption. We have assumed that the recent strength will continue while the National Living Wage (NLW) rises faster than earnings growth (until reaching the Government's target level of 60 per cent of median earnings in April 2020), before easing. Specifically, we assume tax credits income growth will exceed average earnings growth by 1.5 percentage points a year until 2020-21, then rise in line with average earnings thereafter. This means more awards will be subject to the income taper, reducing spending by progressively larger amounts and reaching £1.7 billion in 2022-23.

One test of the appropriateness of this assumption is how it performs when projecting spending forward from the base year of full tax credits outturn data (2015-16) to the current year. Using our November assumption would overestimate spending relative to our latest in-year forecast by £1.6 billion. Using this new assumption reduces that by around half to £0.7 billion. This implies there is still further analysis to be done to understand recent trends in tax credits spending.

Chart B: Tax credits claimants' income growth



Source: HMRC, OBR

Universal credit

4.114 As detailed in our 2018 *Welfare trends report (WTR)*, our welfare spending forecast is constructed by estimating a counterfactual in which the 'legacy' benefits system continues as though universal credit (UC) did not exist, and then subtracting from it an estimate of the marginal saving associated with rolling UC out.[11] This allows us to base the forecast on as much administrative data as possible, but it does not directly reflect the real world fall in spending on legacy benefits as spending on UC rises. As the UC rollout proceeds, the real world and marginal savings approaches will diverge further. For the year in progress, we forecast on an 'actual cost' basis, since the counterfactual and marginal effects cannot be observed in the monthly flow of administrative data. As soon as is practical, we will switch to forecasting UC on this actual cost basis in all years rather than a marginal cost basis.

4.115 Table 4.25 compares the latest actual and marginal cost presentations of spending on UC and its legacy equivalents in 2017-18 and 2018-19. This is the first time we have set out 2018-19 on both bases, while changes since November have been relatively small for the 2017-18 estimates. These estimates are subject to considerable uncertainty, particularly over the pace at which UC is rolled out across jobcentres and the subsequent speed with which cases migrate from the old system to the new. Our central forecast points to:

- **Modest changes to UC spending in 2017-18**: we have revised UC actual spending down by £0.2 billion, reflecting a slower-than-expected build-up of the UC caseload and lower caseloads for tax credits and housing benefit in the legacy benefit forecasts.

[11] A breakdown of the gross costs and savings that make up this net saving is available in a supplementary fiscal table on our website.

- **Rapid growth in UC spending in 2018-19**: our forecast implies that spending on UC will more than double between 2017-18 and 2018-19, while spending on the legacy equivalents will fall 7.8 per cent. Actual spending on the legacy benefits is expected to be at least 10 per cent lower in the real world than in the no-UC counterfactual world that forms the basis of our forecast. Given the uncertainties around the marginal cost approach to forecasting that were detailed in our *WTR*, this divergence points to significant risks to spending – upside or downside – over the coming year.

Table 4.25: Universal credit and the legacy benefits in 2017-18 and 2018-19

	£ billion (2017-18)		Per cent difference
	Marginal cost presentation[1,3]	Actual costs presentation[2,3]	
Legacy benefits			
Jobseeker's allowance	2.4	1.5	-36
Employment and support allowance	10.7	10.3	-4
Income support (non-incapacity)	2.3	2.2	-5
Tax credits	26.6	25.8	-3
Housing benefit	17.6	16.4	-7
Universal credit	-0.1	3.2	
Total	**59.4**	**59.4**	
	£ billion (2018-19)		
Legacy benefits			
Jobseeker's allowance	2.2	1.2	-45
Employment and support allowance	11.4	10.1	-12
Income support (non-incapacity)	2.2	1.8	-20
Tax credits	26.0	23.5	-10
Housing benefit	18.2	15.3	-16
Universal credit	-0.2	8.0	
Total	**59.9**	**59.9**	

[1] November forecast presentation: legacy benefits on a counterfactual basis with the marginal saving from UC subtracted.
[2] Current presentation: actual payments on each welfare item.
[3] Estimates here are on a gross accounting basis rather than a national accounts basis and so may not align with our main forecast tables. This is due to the accounting treatment for legacy spending 'lost' to UC.

Public service pensions

4.116 Our public service pensions forecast covers net expenditure on benefits paid less employer and employee contributions received. (The corresponding spending on employer contributions is included within our departmental spending forecast.) It includes central government pay-as-you-go schemes and locally administered police and firefighters' schemes.[12] A breakdown of spending and income for the major schemes we cover is included in the supplementary fiscal tables on our website.

4.117 Table 4.26 details the changes to our forecast since November. Net spending is little changed, with higher gross spending broadly offset by higher contributions income in most years. Revisions since November reflect:

[12] The police and firefighters' pension schemes are administered at a local level, but pensions in payment are funded from AME, along with other public service pension schemes. They are therefore included in our pensions forecast.

- Progressively **higher gross expenditure**, reaching £0.3 billion a year from 2020-21 onwards. Higher CPI inflation accounts for part of that increase, but most relates to the armed forces pension scheme. The number of personnel drawing from their pension immediately after completing service was higher than previously assumed, increasing expenditure on both lump sums and pensions in payment. Revisions to other schemes are small and largely offsetting.

- Progressively **higher contributions income**, reflecting several smaller and partly offsetting changes. The main increase comes from the higher pensionable paybill forecast in the NHS pension scheme, where workforce growth again exceeded our forecast. In November, we separately factored in the effect on pensions income of higher RDEL spending. The Department of Health element of this has now been shifted to the NHS pension scheme, explaining around a quarter of the total revision. By contrast, we have revised down income in the armed forces and civil service schemes. The first reflects higher-than-expected Ministry of Defence personnel vacancies, prompting us to revise down our paybill growth assumption. The second reflects lower outturns in 2017-18, which feed through to future years. Other changes were small.

4.118 We have not revised our assumptions about the impact of public sector pay policy relative to those underpinning our November forecast, with the exception of moving the NHS element from the general top-down adjustment to the NHS scheme itself. As we noted in November, the precise effects will depend on the recommendations by the public sector Pay Review Bodies (which are due later this year) and how employers respond.

Table 4.26: Key changes to public service pensions since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Net public service pensions						
November forecast	11.9	13.2	12.5	13.6	15.0	16.6
March forecast	11.8	13.3	12.6	13.8	15.1	16.6
Change	**-0.1**	**0.1**	**0.1**	**0.1**	**0.0**	**0.0**
Expenditure						
November forecast	41.1	43.2	45.0	46.7	48.7	50.8
March forecast	41.1	43.3	45.2	47.0	49.0	51.1
Change	**0.0**	**0.1**	**0.2**	**0.3**	**0.3**	**0.3**
of which:						
CPI inflation	0.0	0.0	0.1	0.1	0.1	0.1
Armed forces pension scheme	0.0	0.1	0.1	0.2	0.3	0.3
Other	-0.1	0.0	0.0	0.0	-0.1	-0.1
Income						
November forecast	-29.2	-30.0	-32.5	-33.0	-33.6	-34.2
March forecast	-29.3	-29.9	-32.6	-33.2	-33.9	-34.5
Change	**-0.1**	**0.0**	**-0.1**	**-0.2**	**-0.3**	**-0.3**
of which:						
NHS paybill growth	-0.2	-0.3	-0.4	-0.4	-0.4	-0.4
Armed forces paybill growth	0.0	0.1	0.1	0.1	0.1	0.1
CSPS paybill growth	0.1	0.1	0.1	0.1	0.1	0.1
Other	0.0	0.1	0.1	0.0	-0.1	-0.1

Net expenditure transfers to EU institutions and possible substitute spending

4.119 In Annex B of our November 2017 *EFO* we provided greater detail on the UK's contributions to the EU's finances and how we forecast them, including for our 'no referendum' counterfactual. It also described the fiscally neutral post-Brexit approach we have taken in our post-referendum forecasts, including this one. We assume that, when the UK leaves the EU, any reductions in the UK's net expenditure transfers to the EU would be fully recycled into extra spending. For the first time we have included an estimate of one item of this other spending: the financial settlement the UK will pay the EU after Brexit. Our estimate is detailed in Annex B of this *EFO*. We have retained our fiscally neutral assumption overall, but now split our post-Brexit forecast between financial settlement payments to the EU and other assumed spending in lieu of transfers to EU institutions.

Table 4.27: Expenditure transfers to EU institutions and possible substitute spending

	£ billion						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
'No-referendum' counterfactual	**8.8**	**9.4**	**12.5**	**14.4**	**13.6**	**13.4**	**13.3**
Which is reflected in our forecast as:							
Expenditure transfers to EU institutions	8.8	9.4	12.5	-	-	-	-
Financial settlement transfers	-	-	-	14.4	10.5	10.1	7.5
Assumed spending in lieu of EU transfers	-	-	-	-	3.0	3.3	5.8

4.120 Table 4.28 summarises the main changes to our forecast since November, which include:

- A **stronger sterling-euro exchange rate** reduces the sterling value of euro-denominated contributions by more than it increases the UK's share in the euro-denominated bases used to calculate those contributions, thereby reducing spending a little each year.

- **EU expenditure reprofiling** has an uneven effect. A significant rise in EU budget implementation in late 2017 has reduced our estimate of the surplus that will be distributed to Member States in 2018. With higher spending in 2017 we have reduced our assumption for the rest of the EU budget, as there will be less need for spending to rise to make up for shortfalls in 2017. This has increased expected UK contributions in 2018-19 but reduced them in subsequent years.

- **Draw-forward in 2018** – the amount the Commission requests from Member States in the first quarter of the calendar year – was confirmed as 3.7 months of contributions, slightly lower than the 4 months we had assumed. This shifts £0.3 billion of spending from 2017-18 to 2018-19 relative to our November forecast.

- **Assumed draw-forward in 2019**. Given the 2018 outturn, we have revised down our forecast for 2019 from the maximum 5 months to 4.35 months (halfway to returning to the maximum). This shifts £0.8 billion of spending from 2018-19 to 2019-20.

- **Other factors**, including other outturn updates and changes related to growth in the UK and other Member States, reduced our forecast in 2017-18 but increased it slightly across the later years.

Table 4.28: Key changes to expenditure transfers to EU institutions on a 'no referendum' counterfactual basis

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	9.9	12.5	13.8	14.0	13.6	13.6
March forecast	9.4	12.5	14.4	13.6	13.4	13.3
Change	**-0.5**	**-0.1**	**0.6**	**-0.4**	**-0.2**	**-0.3**
of which:						
Sterling-euro exchange rate	0.0	0.0	-0.1	-0.1	-0.1	-0.1
EU expenditure reprofiling	0.0	0.4	-0.2	-0.3	0.0	-0.1
2018 draw-forward outturn	-0.3	0.3	0.0	0.0	0.0	0.0
2019 draw-forward assumption	0.0	-0.8	0.8	0.0	0.0	0.0
Other factors	-0.2	0.0	0.1	0.0	0.0	0.0

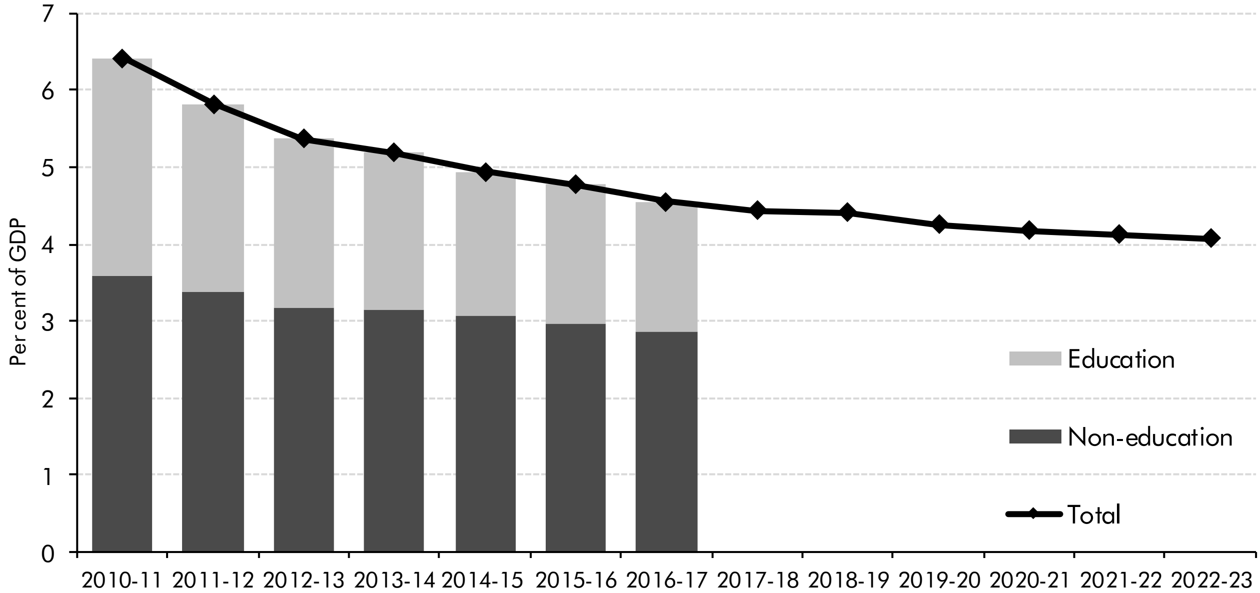
Note: Annex B and the supplementary fiscal tables on our website show details of our latest forecasts for our GNI and VAT payments and the rebate, and the various annual adjustments to those transactions that are assumed within our forecast. They also include a table that shows our assumptions about the EU annual budgets, and the adjustments to budget ceilings under the various flexibilities allowed in the 2014-2020 Multiannual Financial Framework, and our assumptions about implementation rates against the adjusted ceilings.

Locally financed current expenditure

4.121 We forecast local authority spending by forecasting the sources of income that finance it – including grants from central government and local sources of finance – and the extent to which authorities will spend more or less than that income through changes to their reserves or borrowing. Our forecast therefore encompasses spending financed by grants, which are mostly in DELs, and local authority self-financed expenditure (LASFE), which is in AME. Tables 4.29 and 4.31 focus on LASFE, the current spending element of which has been the second largest source of upward revision to our public spending forecast since November. Further detail is available in supplementary tables on our website.

4.122 Local authority spending has been cut significantly since 2010. Chart 4.8 shows the downward trend in local authorities' total service expenditure (i.e. financed by grants and local income sources) as a share of GDP. Some of the decline reflects the 'academisation' of schools, but non-education spending has been on a declining path too.

Chart 4.8: Local authority total current spending in England



Note: Responsibility for spending on public health was transferred to local authorities from 2013-14, so numbers in previous years are not directly comparable. Figures exclude housing benefit, as the rollout of universal credit creates a discontinuity in the series.
Source: MHCLG, OBR

4.123 Table 4.29 summarises the main changes to our current LASFE forecast since November. When looking at these changes, it is important to distinguish between those related to council tax and business rates – which have offsetting effects on our receipts forecast and are therefore neutral for borrowing – and those related to the net use of current reserves or changes in the amounts set aside to repay debt, which do affect our borrowing forecast.

4.124 In November we assumed that English local authorities would underspend against their current budgets by £1.8 billion in 2017-18 and that they would draw £1.0 billion from their reserves to finance higher spending. We now assume that local authorities will underspend by a smaller £1.1 billion and draw down a larger £1.5 billion. Net use of reserves by Scottish and Welsh authorities has also been revised up by £0.3 billion to £0.4 billion.

4.125 From 2018-19 onwards, revisions to the net use of reserves are uneven across years. This largely reflects Transport for London's (TfL) updated business plan.[13] Abstracting from changes related to TfL and in light of the higher expected use of reserves in 2017-18, we have assumed larger drawdowns from reserves in 2018-19 and 2019-20, and that drawdowns will continue into 2020-21. The net effect of these changes – including 2017-18 – has been to increase spending (and borrowing) by £1.7 billion over the forecast.

4.126 This assumed profile of reserves drawdowns would leave local authorities in England with £20.2 billion of reserves at the end of 2020-21. This is £3.8 billion (23.5 per cent) more than they held at the end of 2010-11. The extent to which reserves are used over the forecast period is an important source of uncertainty. We considered recent trends across upper and lower-tier authorities in Box 4.4 of our November 2017 *EFO*, noting that drawdowns were greatest among those with social care responsibilities.

[13] TFL, *Transport for London Business plan*, December 2017.

4.127 Other than use of reserves, the main non-policy changes to our forecast include:

- A higher baseline forecast for **council tax** receipts, mostly related to the council tax base and upward revisions to total Scottish council tax receipts. Larger changes to council tax receipts are policy-related (explained below).
- Upward revisions to the **locally retained share of business rates** forecast, reflecting similar revisions to our business rates forecast, discussed in the receipts section above.
- Small upward revisions to our forecast of spending financed by **interest receipts**.
- Increases in current income and spending due to less use of **capital expenditure from revenue account (CERA)** in 2018-19 – that is, current income used to finance capital spending projects. This change reduces capital spending and increases current spending by a directly offsetting amount (and is therefore neutral for spending and borrowing overall). These changes mostly relate to TfL's new business plan.

4.128 Our forecast has also incorporated the effects of five policy changes which, taken together, have increased our current LASFE forecast. The first three were announced in February's final local government finance settlement:

- **Council tax referendum limit**: the main change is to increase the maximum by which English local authorities can raise council tax without triggering a local referendum from 2 to 3 per cent in 2018-19 and 2019-20.[14] This raises our council tax forecast by £0.3 billion in 2018-19 and £0.8 billion a year from 2019-20 onwards.
- **New 100 per cent business rates retention pilots for 2018-19**: this is the third round of pilots. The policy is neutral for spending and borrowing, but by switching the source of financing from grants to business rates it increases current LASFE and reduces RDEL.
- **Capital receipts flexibility extension**: this policy permits authorities to use the receipts from the sale of certain capital assets to finance current spending on efficiency projects. The policy was due to end in 2018-19, but has been extended to 2021-22. This has increased current LASFE by an average of £0.1 billion a year over the period of extension.
- **Scottish business rates**: the Scottish Government announced changes to business rates, including uprating policy and additional reliefs, which have together reduced both receipts and spending by £0.1 billion a year from 2018-19 onwards.
- **Temporary accommodation**: this reverts to using housing benefit rather than universal credit to recover the cost of temporary accommodation for eligible homeless claimants. This means costs are met directly through housing benefit rather than being

[14] Detailed referenda limit changes for different types of authority are listed in Ministry of Housing, Communities and Local Government, *Council tax referendum principles report 2018 to 2019*, February 2018.

clawed back from claimants after they receive their universal credit award, removing the costs to local authority landlords where costs cannot be recovered. These costs had not previously been factored into our baseline LASFE forecast, so we have now reflected both the pre-measures costs and the effect of removing them through the latest policy change in our local authority spending forecast (as shown in Table 4.29).

Table 4.29: Key changes to locally financed current expenditure since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	47.8	50.2	49.3	50.4	52.0	53.7
March forecast	48.9	52.5	51.6	52.3	53.6	55.2
Change	**1.1**	**2.3**	**2.2**	**1.8**	**1.6**	**1.5**
of which, changes in sources of local finance:						
Forecast changes	**1.1**	**1.6**	**1.6**	**1.2**	**1.0**	**1.0**
of which:						
Council tax	0.1	0.2	0.2	0.2	0.3	0.3
Retained business rates	0.0	0.3	0.2	0.2	0.2	0.2
Net use of current reserves	0.8	0.0	0.8	0.2	0.0	0.0
Interest receipts	0.1	0.1	0.1	0.2	0.2	0.2
CERA	-0.1	0.9	0.0	0.0	0.0	0.0
Temporary accommodation	0.0	0.1	0.1	0.1	0.1	0.2
Other	0.2	0.2	0.2	0.2	0.2	0.2
Effect of Government decisions	**0.0**	**0.7**	**0.7**	**0.6**	**0.6**	**0.6**
of which:						
Council tax uprating policy	0.0	0.3	0.8	0.8	0.8	0.8
Business rates pilots extension	0.0	0.5	0.0	0.0	0.0	0.0
Capital receipts flexibility extension	0.0	0.0	0.1	0.1	0.0	0.0
Scottish NNDR changes	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Temporary accommodation	0.0	0.0	-0.1	-0.1	-0.1	-0.2

4.129 There are several sources of uncertainty around our local authority spending forecast:

- **Budget pressures**: when looked at in aggregate, local authorities have a healthy stock of reserves that could cushion the squeeze on other sources of income (if temporarily). But this may mask financial difficulties at the individual local authority level – as illustrated by Northamptonshire County Council recently issuing a section 114 notice, stopping all new, non-statutory expenditure for the rest of 2017-18. In light of this, Box 4.4 discusses indicators of the distribution of financial pressures across local authorities, and the implications of such pressures in terms of risks to our forecast.

- **Converting schools into academies**: this switches grant-financed local authority spending on schools into central government spending on academies. It affects all years of our forecast, but the speed and magnitude are uncertain. These uncertainties will affect local authorities' own budgeting, which we draw on in our forecasts.

- **The rollout of universal credit**: this switches grant-financed local authority spending on housing benefit into central government spending, and is also uncertain in speed and magnitude. In our forecast presentation, this only affects 2017-18, because of the way universal credit is treated in our welfare spending forecast. But in reality it will affect all years.

- **Business rates retention**: our forecast reflects 50 per cent retention of business rates across all local authorities, plus the 100 per cent retention pilots. The full 100 per cent business rates retention policy, which would raise LASFE and reduce central government spending, is subject to considerable uncertainty. The legislation through which it was to be implemented has not been laid in Parliament and the Government has not said when it will be. But the Government did announce in the local government finance settlement that it aims to achieve 75 per cent business rates retention by 2020-21 by cutting central government grants and replacing them with business rates income. Although this change would not require primary legislation, we have not included its effect in our forecast as the precise policy parameters and timing of implementation are not yet sufficiently certain. It is not clear how local authorities' behaviour has been affected by the many announcements in this area and the uncertainty over when and how these policy aims will be implemented.

4.130 Table 4.30 summarises the effects of the three rounds of business rates pilots that have taken place since our March 2017 forecast. These pilots only involve additional retention of business rates to the extent of the agreed reduction in funding from central government. The policy as it stands is therefore fiscally neutral by definition, as the local authorities retain an amount raised from business rates that is directly equal to the RDEL and CDEL grants from central government foregone.

Table 4.30: Business rates pilots policy changes since March 2017

	£ billion	
	2017-18	2018-19
Further business rates retention pilots		
Spring Budget 2017	2.5	2.2
Autumn Budget 2017	-	0.8
Spring Statement 2018	-	0.5
Total additional business rates retained	**2.5**	**3.5**
of which:		
Current LASFE effect (a)	1.4	2.5
Capital LASFE effect (b)[1]	1.0	1.1
Offset by:		
Reduction in RDEL (c)	-1.4	-2.5
Reduction in CDEL (d)	-1.0	-1.1
PSNB effect (a+b+c+d)	**0.0**	**0.0**

[1] Additional business rates affect current LASFE initially, but then local authorities can switch spending to capital LASFE via capital expenditure financed from revenue account (CERA). This table shows the levels of capital LASFE financed by CERA that were assumed in the initial policy costings, which matched the reduction in CDEL. But our latest forecasts in this March 2018 *EFO* suggest that local authorities are transferring lower amounts of spending from current to capital via CERA.

Box 4.4: Local authority budget pressures and reserves

The extent to which local authorities will spend more than they receive in income is a key assumption in our forecast as it directly affects borrowing. We have considered the pressures on local authorities' budgets from different perspectives in recent *EFO*s, looking at trends in the use of reserves use for different types of authority – in particular those with and without social care responsibilities – and reviewing the types of spending where outturn spending has exceeded or fallen short of budgets – again where spending on adult and children's social care stand out.

Chart C shows a scatter plot of two metrics that can help to give a sense of the financial health of English local authorities:

- **Budget pressures**: the horizontal axis shows a measure of inflexible spending (specifically, debt servicing and social care, where authorities have contractual or demand-led statutory obligations) as a proportion of three income sources for local authorities (council tax, retained business rates (redistributed business rates prior to 2013-14) and the revenue support grant from central government). These income sources were selected as they are broadly comparable across time. The further it lies to the right, the less income an authority will have left to spend on more discretionary forms of spending and the less scope it will have to reduce spending on more discretionary areas should its income fall short of expectations. Local authorities have several other income sources, such as other grants and income from trading accounts, which are not included in the definition of income used in this analysis. The analysis can therefore only be used to compare how budget pressures have changed over time, as opposed to providing an absolute measure of budget pressure.
- **Reserves cover**: the vertical axis shows non-ringfenced revenue reserves (i.e. those that are not ringfenced for schools or public health purposes) as a proportion of the same measure of inflexible spending. Non-ringfenced revenue reserves are held as a mixture of earmarked and unallocated reserves, and the proportion of non-ringfenced reserves available to fund spending will vary by local authority. The lower down the axis, the shorter the period that inflexible spending (or any other spending) could be met from total non-ringfenced revenue reserves in the event of a shortfall in income or an increase in the demand for, or cost of, services.

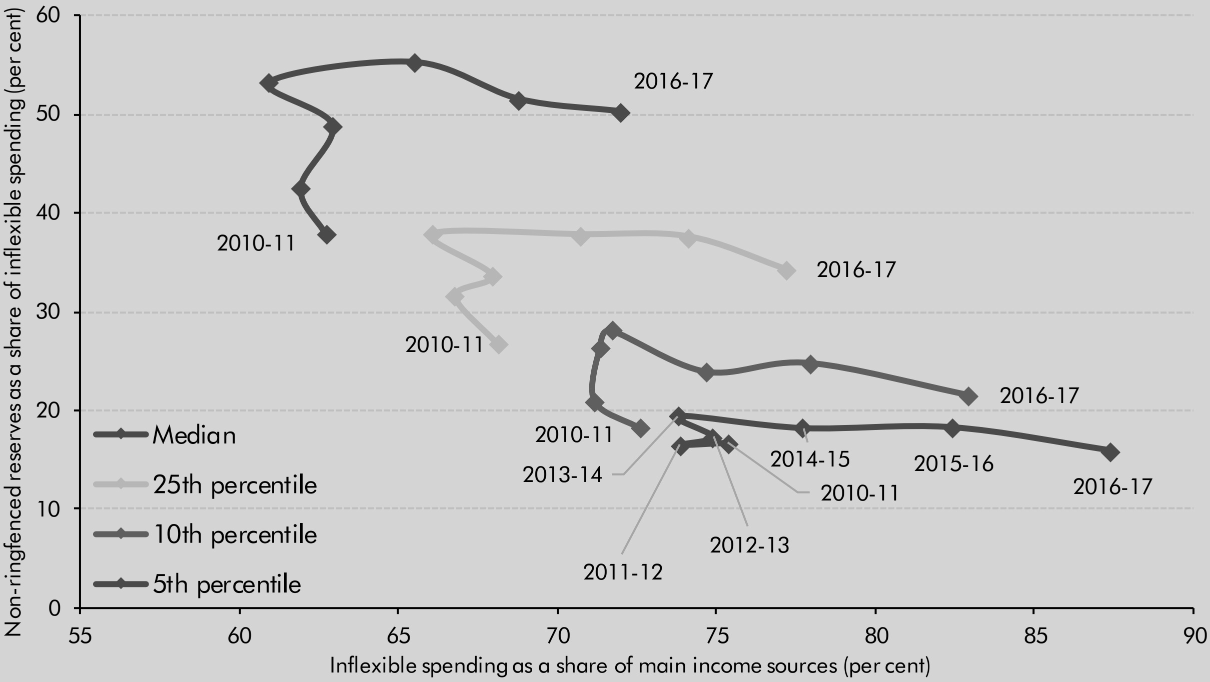
Our interest is in how trends in these metrics might influence the use of reserves at an aggregate level. The chart shows the movements from 2010-11 to 2016-17 of the authorities at four points in the distribution of all 152 upper-tier and single-tier local authorities against the two metrics.[a] The further towards the bottom-right, the worse the financial health on this measure.

The evolution of each point in the distribution over the past seven years has been very similar. As central government spending cuts started, local authorities built up their reserves cover. This metric then began to deteriorate from 2014-15. This is consistent with authorities adding significantly to their stock of reserves over the period 2010-11 to 2013-14, before adding a smaller amount in 2014-15 and then drawing down in the last two years. The more striking trend however is the shift to the right on the budget pressures metric, where inflexible spending as a share of income at the median authority increased from 61 to 72 per cent between 2013-

14 and 2016-17, while for the authority at the bottom fifth percentile it had increased from 74 to 87 per cent over those three years.

Looking at the same metrics for lower-tier authorities (i.e. those without education and social care responsibilities) indicates different trends: reserves cover is far higher (consistent with the conclusions from Box 4.4 of our November *EFO*), although the concentration of income spent on (a different definition of) essential areas has also risen.

Chart C: Financial health indicators: upper-tier English authorities



Note: Inflexible spending is defined as debt servicing and spending on adult and children's social care. The main income sources are council tax receipts (excluding the parish precept), retained business rates and the revenue support grant from central government. In 2014-15, several spending items were reclassified from education services spending to children's services spending. The figures presented in the charts have not been adjusted for this. Non-ringfenced revenue reserves figures are not adjusted to account for amounts not available to spend by local authorities.
Source: OBR, MHCLG

These trends corroborate our recent analyses. These are likely to remain key issues for our forecast judgements on net use of reserves. We take these judgements top-down by considering in-year spending and the continuing pressures on local authorities, but, given recent experience, we will work with MHCLG to consider whether bottom-up analysis of budget pressures and reserves at the individual local authority level can also inform our overall forecast judgements.

[a] The data point for the 5th percentile, for example, is the point where the authority that is ranked in the 95th percentile (a higher ratio is worse) on the horizontal metric intersects with the authority ranked in the 5th percentile on the vertical metric (a lower ratio is worse). It is therefore likely that the data point represents two different authorities on the combined metric. This presentation of the data therefore shows the general financial health of authorities, rather than identifying specific authorities.

Locally financed and public corporations' capital expenditure

4.131 Our latest forecasts for locally financed capital expenditure (capital LASFE) and public corporations' capital spending are shown in Table 4.31. These are net of asset sales, forecasts for which are shown in the supplementary tables on our website. Capital LASFE is measured net of capital spending by local authorities' Housing Revenue Accounts (HRAs) and the Transport for London (TfL) subsidiaries that are treated as public corporations in the National Accounts.[15] We switch these items from capital LASFE to public corporations' capital expenditure in our forecast to ensure it is consistent with the National Accounts.

4.132 We present changes to capital LASFE and public corporations' capital spending together so that any changes to the switches net out and do not obscure those that affect TME. Spending has been revised up by an average of £0.3 billion a year, although the profile of changes is uneven. The main changes include:

- Upward revisions to non-TfL capital spending financed by **prudential borrowing** that average £0.7 billion a year from 2018-19 onwards. We expect English authorities' use of prudential borrowing to persist at higher levels than we assumed in November, adding £0.5 billion a year from 2018-19 onwards. We assume most of this additional spending will take place on standard capital projects, rather than on commercial ventures that aim to generate revenue. This is in line with recent updates to the *Prudential Code* and to MHCLG guidance on local authority investments, both of which are expected to curb commercial activity by authorities. Scottish and Welsh authorities' use of prudential borrowing has been increased by a total of £0.2 billion a year from 2018-19 onwards, reflecting higher 2016-17 outturns and greater use of borrowing being factored into Scottish and Welsh authority budgets for 2017-18.

- Reprofiling **TfL capital spending** to reflect TfL's latest business plan from December. This increases spending in the first half of the forecast period, when we assume additional capital spending on Crossrail, financed from the capital reserves that were built up when spending was delayed in the earlier stages of construction. Spending is reduced in the second half of the forecast period, reflecting TfL reprioritisation and reprofiling of other capital projects. The changes to the TfL forecast also account for most of the change to CERA in 2018-19, as discussed above.

- A variety of **other factors** have uneven effects over the forecast period. The largest effects come in 2017-18 and 2019-20. In 2017-18, we have lined up our in-year estimate of English housing associations' capital spending with the ONS post-reclassification data.[16] In 2019-20, changes relate to movements in our adjustments that remove capital grants to TfL's public corporation subsidiaries (where our forecast includes the capital spending by the subsidiaries themselves) and revisions to our forecast of asset sales (which is partly offset by changes to National Accounts adjustments, where the changes affect financial transactions).

[15] These TfL transport subsidiaries trade under the company name 'Transport Trading Ltd' (TTL). The ONS currently classifies all the large TTL subsidiaries as public corporations apart from Crossrail, which is classified as part of the local authority sector.
[16] The ONS reclassified English housing associations to the private sector from November 2017.

4.133 Our forecast also incorporates the effects of two policy changes: the capital spending effects of the extension of capital receipts flexibility by three years to 2021-22 (discussed in the current LASFE section above) and additional Post Office investment funding from BEIS's CDEL budget. The former has increased asset sales and therefore decreased capital LASFE by £0.1 billion a year over the period of extension. The latter increases public corporations' capital spending by an average of £0.1 billion a year across 2018-19 and 2019-20.

Table 4.31: Key changes to locally financed capital expenditure and public corporations' capital expenditure since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	26.9	20.7	19.6	19.5	20.2	20.3
March forecast	27.6	21.2	19.9	19.8	19.8	20.6
Change	**0.6**	**0.5**	**0.3**	**0.4**	**-0.4**	**0.4**
of which:						
Forecast changes	**0.6**	**0.3**	**0.3**	**0.5**	**-0.3**	**0.4**
of which:						
Prudential borrowing (non-TfL)	0.0	0.7	0.6	0.7	0.6	0.6
Reprofiling of TfL capital spending	0.1	0.4	0.2	-0.2	-0.7	-0.1
CERA	0.1	-0.9	0.0	0.0	0.0	0.0
Other	0.5	0.1	-0.5	0.1	-0.2	-0.2
Effect of Government decisions	**0.0**	**0.2**	**0.0**	**-0.1**	**-0.1**	**0.0**
of which:						
Capital receipts flexibility extension	0.0	0.0	-0.1	-0.1	-0.1	0.0
Post Office investment funding	0.0	0.2	0.0	0.0	0.0	0.0

Public sector debt interest

4.134 Debt interest payments are forecast by applying appropriate interest rates to the corresponding stocks of conventional and index-linked gilts outstanding at different maturities and other debt, such as NS&I products and Treasury bills. Financial market expectations are used to derive relevant interest rates (for example, coupons on newly issued conventional gilts), while our inflation forecast is used for index-linked gilts and other index-linked debt.[17] Flows associated with the Bank of England's Asset Purchase Facility (APF) similarly apply appropriate market-derived interest rates to the stocks of the APF's loan liability and to its gilt, corporate bond and loan assets.

4.135 In previous *EFOs* we have focused on central government debt interest net of the APF, with other public sector interest flows incorporated elsewhere in our spending forecast. Following feedback from users of our forecasts, we are presenting all interest paid by the public sector in this section – that is including that paid by local authorities, public corporations and the non-APF parts of the Bank of England. These bodies account for less than 5 per cent of total public sector debt interest spending over our forecast, but they do complete the picture.

[17] Our forecasting approach was explained in Box 4.4 of our March 2015 *EFO* and is discussed in the 'in depth' section of our website. We publish a supplementary fiscal table on our website that presents the different stocks, flows and effective interest rates that make up our debt interest forecast.

4.136 Public sector debt interest payments are forecast to rise sharply in 2017-18 as a result of higher RPI inflation affecting accrued payments on index-linked gilts, then to fall in 2018-19 as inflation recedes. Thereafter, higher Bank Rate – payable on the Bank's reserves created to finance the Asset Purchase Facility – are the main driver of increasing payments.

4.137 Table 4.32 shows how we have revised our forecast since November:

- **Market interest rate expectations** have risen for Bank Rate, but changed little for gilt rates. The net effect adds to spending, largely via the cost of financing the APF loan.
- Higher **RPI inflation** in the near-term increases spending in 2018-19 by £1.5 billion, but inflation has little effect on spending thereafter.
- Lower borrowing has reduced the **financing requirement**, which reduces spending from 2018-19 onwards, and by £0.9 billion by the end of the forecast.

4.138 The Government has decided to reduce the proportion of index-linked gilts issued in its 2018-19 financing relative to our November forecast. We assume this new composition continues across the forecast. The recorded interest on index-linked gilts is typically lower than on conventional gilts in the early years after issuance, so this change increases debt interest by progressively larger amounts over the forecast period, reaching £0.5 billion in 2022-23. The cost of servicing index-linked gilts has also been affected by the higher council tax rises that flow from this year's local government finance settlement, which are expected to raise RPI inflation in the near term.

4.139 In our 2017 *Fiscal risks report* we discussed the risks to the public finances emanating from the burgeoning stock of index-linked gilts. This was a factor in considerations underlying the 2018-19 financing decision. Reducing index-linked gilt issuance will reduce the extent to which the risks that we highlighted will build in the coming years. Our forecast points to the stock of index-linked gilts rising from 18.5 per cent of GDP in 2017-18 to 20.7 per cent of GDP in 2022-23, rising from 16.5 to 20.4 per cent of total gross public sector debt but 0.4 per cent of GDP lower than would have been the case absent the change.

Table 4.32: Key changes to debt interest since November

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Public sector debt interest						
November forecast	44.5	41.3	41.5	42.1	44.0	46.1
March forecast	44.4	43.2	43.8	44.7	46.6	48.5
Change	**-0.1**	**1.9**	**2.3**	**2.7**	**2.7**	**2.4**
Central government debt interest						
November forecast	54.7	51.5	50.6	50.1	51.3	52.1
March forecast	54.4	53.3	52.0	51.4	52.4	53.2
Change	**-0.3**	**1.7**	**1.4**	**1.2**	**1.1**	**1.1**
of which:						
Interest rates	0.0	0.3	1.0	1.5	1.6	1.7
Inflation	-0.2	1.5	0.7	0.2	0.1	0.0
Financing	0.0	-0.1	-0.3	-0.5	-0.7	-0.9
Other factors (including outturn)	0.0	-0.1	-0.3	-0.3	-0.3	-0.3
New Government financing remit	0.0	0.0	0.1	0.3	0.4	0.5
Indirect effects via RPI inflation	0.0	0.1	0.2	0.0	0.0	0.0
Asset Purchase Facility						
November forecast	-13.7	-11.8	-10.7	-9.7	-9.1	-7.8
March forecast	-13.7	-11.6	-9.8	-8.3	-7.5	-6.5
Change	**0.1**	**0.2**	**0.9**	**1.4**	**1.6**	**1.3**
of which:						
Interest rates	-0.1	0.1	0.9	1.4	1.5	1.3
Other changes	0.2	0.1	0.1	0.0	0.1	0.0
LAs and PCs debt interest						
November forecast	3.5	1.6	1.6	1.7	1.7	1.8
March forecast	3.7	1.6	1.6	1.7	1.7	1.8
Change	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Other AME

4.140 Spending on **company tax credits** has been revised down by an average of £0.2 billion a year over the forecast. The largest of these relates to R&D spending, which we now link to our forecast for business investment rather than total GDP. This modelling change explains the downward revision to spending.

4.141 Our forecast for **BBC licence fee income** has been revised down slightly since November, reflecting lower outturn receipts in 2017-18. It includes the effect of the recently announced licence fee of £150.50, set by the Government for 2018-19. Our **BBC current spending** forecast incorporates the latest BBC budget planning round and recent outturn data. It is slightly lower in 2017-18, little changed in the next two years and slightly higher from 2020-21 onwards.

4.142 Our forecast for **Network Rail** current spending is down by an average of £0.1 billion a year relative to November. This mostly reflects upward revisions to the forecast for Network Rail income from track access charges, which net off current spending. The main changes to Network Rail capital spending in 2017-18 and 2018-19 reflect the latest information provided to us by the Treasury on planned asset sales, in addition to reprofiling across years and switches between current and capital spending. Compared to the classification advice we were given in November, fewer asset sales are now expected to score as negative capital spending (reducing both debt and borrowing) rather than financial transactions (reducing debt but not borrowing). This has increased capital spending by £0.7 billion in 2018-19. Capital spending changes from 2019-20 onwards reflect the Government's latest policy assumption for capital spending in the next control period.

4.143 We have reprofiled our forecast for **National Lottery** current grants in a way that they are no longer fully offset by ticket sales income available for good causes and are therefore no longer neutral for net borrowing. The drawdown from the National Lottery Distribution Fund has recently exceeded income, so we have increased our spending forecast in the short term. We assume that in the longer term the fund will start returning to balance. This has increased current spending by £0.1 billion on average in 2017-18 and 2018-19 but reduced it by around £0.1 billion from 2020-21 onwards. Our forecast for National Lottery capital grants is little changed.

4.144 We have revised **general government depreciation** down by progressively larger amounts, reducing current spending but increasing net investment spending. This reflects a fall in the measured depreciation rate in ONS outturn data, mostly driven by R&D. As lower R&D depreciation has been a consistent feature in the data for recent quarters, we have assumed that it will persist. Depreciation affects the current budget deficit but is neutral for net borrowing, so this change does not have implications for the Government's fiscal targets.

4.145 Spending on **other PSCE items in AME** is £0.4 billion higher in 2017-18 but around £0.1 billon lower in most other years. Higher spending this year mainly reflects a correction to our forecast of central government spending on training grants to the construction industry, but also the expected cost of redundancy payments to Carillion employees. **Other PSGI in AME** is lower in most years, mainly reflecting lower Help to Buy ISA claims in recent months, which are assumed to persist.

4.146 We have revised the profile of **tax litigation** spending since November. These payments only affect spending once a 'final settlement' has been reached, with any interim payments to the claimant in effect treated as a loan (which therefore affects debt but not spending). In November we assumed that spending would rise steadily. In this forecast, we expect few final payments to be made in 2018-19, but for spending to rise to just over £2 billion a year from 2019-20 onwards.

4.147 Some elements of our spending forecast are mostly neutral for borrowing, because they are directly offset in receipts. Changes since November for these forecasts are explained in the corresponding receipts sections. These include **environmental levies** and **VAT refunds** to central and local government.

4.148 Our AME forecast includes several **National Accounts adjustments** that are included in the definitions of PSCE and PSGI.[18] Table 4.17 shows that we have revised up the PSCE-related adjustments by £0.5 billion a year on average across the forecast period and the PSGI-related adjustments by £0.6 billion a year on average from 2019-20 onwards:

- The main changes to **adjustments affecting PSCE** include revisions to our forecast for the imputed subsidy for equity injection into the Housing Revenue Account (HRA), which is up by an average of £0.4 billion a year due to changes in HRA outturn data for 2016-17. This adjustment increases our forecast of local authority current spending, but is offset in our public corporations' gross operating surplus forecast (part of our receipts forecast) so is neutral for borrowing.

- The largest changes to **adjustments affecting PSGI** include those relating to updated TfL forecasts, which affect two main accounting adjustments. The first removes net lending and other financial transactions that are included within local authority self-financed capital spending (capital LASFE). These financial transactions have been revised up in the near term, so more needs to be removed from spending via the adjustment (an average of £0.6 billion in 2017-18 and 2018-19), but down from 2019-20 onwards (reducing the adjustment and increasing spending by £0.2 billion a year on average). The second adjustment relates to Crossrail capital spending, where our forecast has been revised up in 2017-18 and 2018-19, the final two years of construction. This offsets much of the reduction in the first adjustment in those years.

Loans and other financial transactions

4.149 Public sector net borrowing (PSNB) is the difference between total public sector receipts and expenditure each year, measured on an accrued basis. But the public sector's fiscal position also depends on the flow of financial transactions, such as loans and repayments between government and the private sector, and the sale of financial assets to the private sector. These do not affect PSNB directly, but they do affect the Government's cash position and its stock of debt and assets. This affects interest paid and received, which do affect PSNB.

4.150 The public sector net cash requirement (PSNCR) is the most complete measure of the public sector's cash flow position in each year.[19] It drives our forecast of public sector net debt (PSND), which is also largely a cash measure. From our estimate of the PSNCR we derive an estimate of the central government net cash requirement (CGNCR), which in turn largely determines the Government's financing requirement – the amount it needs to raise from debt instruments including Treasury bills, gilt issues and NS&I products.

[18] Further details of our forecasts for all our National Accounts adjustments are included in the supplementary spending tables on our website. Explanations and the background to National Accounts adjustments are given in Annex D to PESA 2017.
[19] Consistent with the measures of debt and deficit used in this forecast, PSNCR excludes the public sector banks.

4.151 Differences between the PSNCR and PSNB can be split into the following categories:

- **Loans and repayments**: loans that the public sector makes to the private sector do not directly affect PSNB, but the cash flows affect the PSNCR.
- **Transactions in other financial assets**: the public sector may acquire or sell financial assets such as loans, equity or corporate bonds. When it sells an asset for cash, the initial transaction does not affect PSNB, whereas the cash received will reduce the PSNCR. But both PSNB and the PSNCR will be higher in future years if the Government foregoes an income stream that flowed from the asset sold.
- **Monetary policy operations**: Bank of England policies that affect the PSNCR, such as lending under the Term Funding Scheme.
- **UK Asset Resolution**: we separately identify transactions relating to UKAR holdings, including asset sales and the natural rundown of loan books that the Government acquired during the financial crisis.
- **Accruals adjustments**: PSNB is an accruals measure of borrowing in which, where possible, spending and receipts are attributed to the year of the activity to which they relate. In contrast, PSNCR is a cash measure in which spending and receipts are attributed to the year in which the cash flow takes place. These timing differences need to be adjusted for.
- An **alignment adjustment** between PSNB and PSNCR is used if there are other factors that are expected to persist.

Table 4.33: Reconciliation of PSNB and PSNCR

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Public sector net borrowing	**45.2**	**37.1**	**33.9**	**28.7**	**26.0**	**21.4**
Loans and repayments	**21.2**	**24.1**	**23.3**	**24.0**	**25.4**	**25.8**
of which:						
Student loans[1,2]	13.9	15.6	17.1	18.2	18.7	19.1
DFID[3]	0.9	0.7	1.0	1.2	-	-
Business Bank/Partnership	0.3	0.2	0.0	0.0	-	-
Help to Buy	2.6	3.2	3.3	3.3	-	-
UK Export Finance	0.4	0.5	0.6	0.5	-	-
Ireland	0.0	0.0	-1.6	-1.6	-	-
Other lending[4]	3.4	4.6	3.8	3.3	7.6	7.5
Allowance for shortfall	-0.3	-0.9	-0.9	-0.9	-0.9	-0.9
Transactions in financial assets	**-4.6**	**-5.6**	**-5.6**	**-5.7**	**-5.7**	**-3.0**
of which:						
Student loan book	-1.7	-2.4	-2.5	-2.6	-2.7	0.0
Lloyds Banking Group share sales	-1.0	0.0	0.0	0.0	0.0	0.0
RBS share sales	0.0	-3.0	-3.0	-3.0	-3.0	-3.0
Green Investment Bank	-1.8	0.0	0.0	0.0	0.0	0.0
Other	-0.2	-0.2	-0.1	-0.1	0.0	0.0
Bank of England schemes	**72.7**	**0.0**	**0.0**	**-53.5**	**-71.5**	**0.0**
UKAR asset sales and rundown	**-14.0**	**-11.9**	**-2.7**	**-1.8**	**0.0**	**0.0**
Accruals adjustments	**-0.1**	**-0.6**	**-4.9**	**5.4**	**0.2**	**9.5**
of which:						
Student loan interest[1,2]	3.2	4.7	5.6	5.9	6.7	7.5
PAYE income tax and NICs	1.6	0.7	0.6	1.1	1.2	1.4
Indirect taxes	-0.3	1.0	0.9	0.8	0.8	0.9
Corporation tax and bank surcharge	0.4	2.7	-6.2	-4.2	0.8	1.4
Other receipts	2.4	2.6	3.2	2.6	2.5	2.0
Index-linked gilts[5]	-10.7	-14.4	-11.8	-3.0	-14.3	-7.6
All gilts	5.1	4.5	4.4	4.4	4.2	4.8
Network Rail	-0.9	-0.8	-0.1	-0.6	-0.7	-0.7
Other expenditure	-0.9	-1.5	-1.5	-1.5	-1.0	-0.1
Other factors	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**
of which:						
Alignment adjustment	0.0	0.0	0.0	0.0	0.0	0.0
Public sector net cash requirement	**120.6**	**43.4**	**44.4**	**-2.5**	**-25.3**	**54.0**

[1] The table shows the net flow of student loans and repayments. This can be split out as follows:

Cash spending on new loans	16.7	18.2	19.6	20.7	21.4	22.0
Cash repayments	2.7	2.6	2.5	2.5	2.7	2.9

[2] Cash payments of interest on student loans are included within 'Loans and repayments' as we cannot easily separate them from repayments of principal. To prevent double counting the 'Student loan interest' timing effect therefore simply removes accrued interest.

[3] DFID figures include loan disbursements, loan repayments and equity investments.

[4] Other lending in 2021-22 and 2022-23 include an estimate of aggregate lending by a range of government schemes.

[5] This reconciliation to the net cash requirement does not affect public sector net debt.

Table 4.34: Changes in the reconciliation of PSNB and PSNCR

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Public sector net borrowing	**-4.7**	**-2.4**	**-0.8**	**-4.0**	**-4.1**	**-4.2**
Loans and repayments	**-0.4**	**-0.3**	**-2.0**	**-1.3**	**-0.9**	**-0.7**
of which:						
Student loans[1,2]	0.0	0.0	0.2	0.3	0.5	0.5
DFID[3]	0.0	0.0	0.0	0.0		
Business Bank/Partnership	0.1	0.4	-0.2	0.2		
Help to Buy	-1.0	-1.4	-1.9	-2.3		
UK Export Finance	-0.3	0.0	-0.4	0.0		
Ireland	0.0	0.0	0.0	0.0		
Other lending[4]	0.6	1.2	0.5	0.8	-1.1	-0.9
Allowance for shortfall	0.3	-0.5	-0.3	-0.3	-0.3	-0.3
Transactions in financial assets	**0.7**	**0.0**	**-0.1**	**-0.3**	**-0.4**	**0.0**
of which:						
Student loan book	0.7	0.0	-0.1	-0.3	-0.4	0.0
Lloyds Banking Group share sales	0.0	0.0	0.0	0.0	0.0	0.0
RBS share sales	0.0	0.0	0.0	0.0	0.0	0.0
Green Investment Bank	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
Bank of England schemes	**-5.0**	**0.0**	**0.0**	**0.0**	**5.0**	**0.0**
UKAR asset sales and rundown	**-0.1**	**-0.2**	**0.0**	**0.0**	**0.0**	**0.0**
Accruals adjustments	**-2.0**	**-1.4**	**-0.5**	**-6.1**	**-1.9**	**-1.4**
of which:						
Student loan interest[1,2]	0.0	0.1	0.3	0.4	0.3	0.2
PAYE income tax and NICs	0.5	0.3	0.7	0.1	0.2	0.5
Indirect taxes	-0.1	0.0	0.3	0.2	0.2	0.3
Corporation tax and bank surcharge	0.4	1.0	0.0	-0.2	-0.1	-0.1
Other receipts	-0.4	-0.4	-0.2	-0.3	-0.3	-0.3
Index-linked gilts[5]	-0.3	-1.7	-0.9	-4.8	0.1	-0.5
All gilts	-0.2	-0.1	-0.2	-0.3	-0.9	0.0
Network Rail	-2.0	-0.6	-0.6	-1.3	-1.5	-1.5
Other expenditure	0.1	0.1	0.1	0.1	0.1	0.1
Other factors	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**
of which:						
Alignment adjustment	1.1	1.1	1.1	1.1	1.1	1.1
Public sector net cash requirement	**-10.4**	**-3.2**	**-2.3**	**-10.5**	**-1.2**	**-5.1**

[1] The table shows the net flow of student loans and repayments. This can be split out as follows:

Cash spending on new loans	0.0	0.0	0.1	0.2	0.3	0.3
Cash repayments	0.0	0.1	-0.1	-0.1	-0.2	-0.2

[2] Cash payments of interest on student loans are included within 'Loans and repayments' as we cannot easily separate them from repayments of principal. To prevent double counting the 'Student loan interest' timing effect therefore simply removes accrued interest.

[3] DFID figures include loan disbursements, loan repayments and equity investments.

[4] Other lending in 2021-22 includes an estimate of aggregate lending by a range of government schemes.

[5] This reconciliation to the net cash requirement does not affect public sector net debt.

Loans and repayments

Student loans

4.152 Net lending by the public sector to the private sector, in particular for student loans, raises the net cash requirement relative to net borrowing in each year of our forecast. Student loan reforms since 2010 have increased the size of the loans, with future repayments being made over a longer period. In our 2017 *Fiscal sustainability report (FSR)*, on the prevailing policy settings, we estimated that student loans would increase PSND by 11.1 per cent of GDP in the late-2030s before falling to 9.3 per cent of GDP by 2066-67.

4.153 Our November forecast of UK-domiciled student numbers in England assumed a 2.0 per cent fall in the 2017-18 academic year.[20] The latest data suggest that numbers fell by a more modest 1.0 per cent, as institutions chose to accept a higher proportion of applicants. Against a backdrop of falling numbers of 18 to 19-year olds in the population, we continue to expect student numbers to fall on average over the next five years, but have assumed that acceptance rates will continue to rise as providers do what they can to maintain numbers. We expect UK-domiciled student numbers to fall by 0.6 per cent a year on average over the five years to 2022-23, slightly less than the 0.7 per cent a year fall we assumed in November. Taken together with the slightly higher 2017-18 figure, that implies 5,000 more students in 2022-23, which adds around £0.3 billion to our loan outlays forecast in that year. Our forecast for EU-domiciled student numbers is unchanged from November. It is subject to significant uncertainty as the UK exits the EU, including policy uncertainty. Revisions to our previous student numbers forecasts are discussed in Box 4.5.

4.154 Compared to November, we have revised up our net student loan outlays forecast by £0.2 billion in 2019-20, rising to £0.5 billion in 2021-22 and 2022-23. This is due to slightly higher gross lending over the period from increased student numbers and reduced cash repayments due to our revised forecasts for average earnings growth and interest rates.

4.155 At Autumn Budget 2017 the Government introduced two changes to the post-2012 student loans regime that had a modest effect on our medium-term forecast (described in our November *EFO*), but will have more significant long-term fiscal implications. Modelling of these long-term effects was not available in November but is now. These policies were:

- **Raising the repayment threshold** beyond which former students must start to repay their loans from £21,000 in 2017-18 to £25,000 in 2018-19 (and in line with average earnings thereafter), combined with equivalent changes to the thresholds that determine the amount of interest charged on an individual's loan balance.

- **Freezing the maximum tuition fee cap** in 2018-19 (rather than raising it 3.2 per cent in line with RPIX inflation). The effect of this policy is small relative to the effect of raising the repayment threshold.

[20] Our overall student numbers forecast covers UK- and EU-domiciled HEFCE fundable full-time undergraduate entrants to English higher education institutions and further education colleges. Details are available in a supplementary fiscal table on our website.

4.156 The combined long-term effect of these policies is expected to reduce total repayments by around 17 per cent (0.1 per cent of GDP) in 2045-46. This in turn is expected to increase the cost of writing off outstanding balances at the 30-year term of the loans by around 15 per cent (0.02 per cent of GDP) in the same year.

4.157 In February 2018, the Government announced a review of post-18 education and funding to be concluded in early 2019.[21] Among other things, it will cover "*the level, terms and duration*" of students' financial contribution to their post-18 education. Any changes that follow this review represent policy risks to our current student loans forecasts.

Box 4.5: Forecasting student numbers for our student loans forecast

Student loans are the largest component of our financial transactions forecast: England-funded full-time undergraduate loans awarded in academic year 2016-17 were £13.2 billion, reflecting average annual maintenance and tuition fee loan amounts of £4,730 and £8,120 respectively.[a] Interest accrued on the stock of England-funded student loans was £1.7 billion in financial year 2016-17 and is the largest component of public sector interest receipts.[b]

We forecast student numbers – specifically, the growth of UK- and EU-domiciled HEFCE[c] fundable full-time undergraduate entrants to English higher education institutions and further education colleges – as the key input into our student loan outlays and repayments forecasts. An increase or decrease of 10,000 students in any given year (around 3 per cent) changes outlays by around £0.15 billion a year £0.4 billion for around three years, the average length of undergraduate courses. This means that even small changes to information about student numbers can have a significant impact on our public sector net debt forecast.

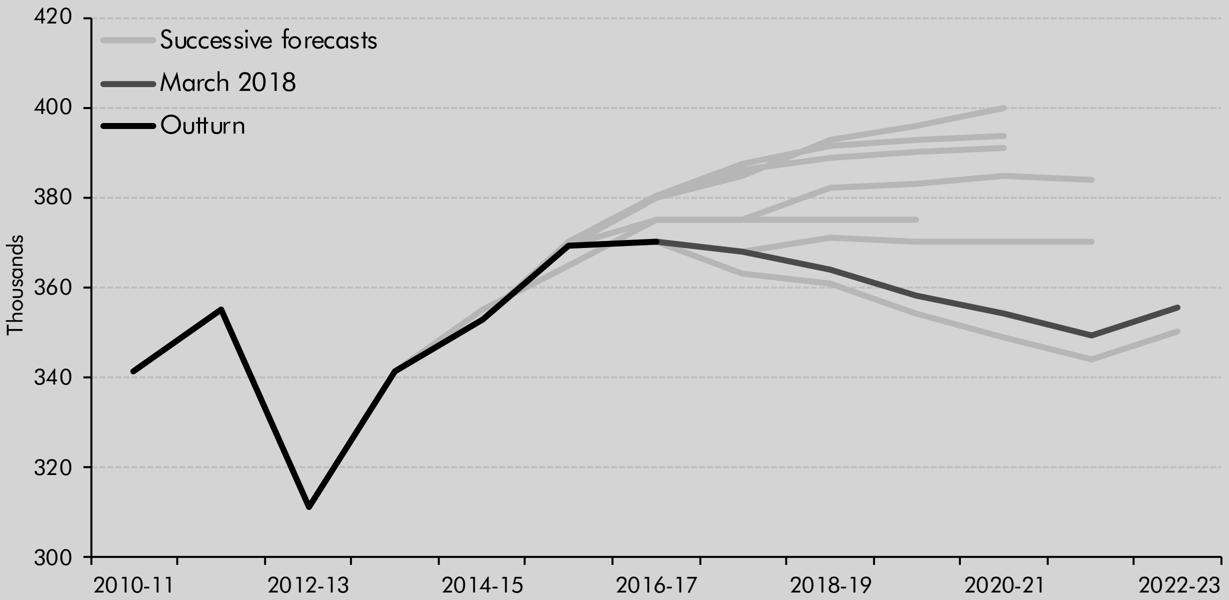
Our forecasting approach is similar to those used in many parts of our fiscal forecast: we start with an in-year estimate for the current year, then use a forecast model to project how numbers will grow from there. The model incorporates demographic assumptions drawn from ONS population projections and assumptions about expected changes in entry rates. These are determined by trends in application and acceptance rates, as well as judgements about the behavioural response of institutions to a declining population of young people.

Chart D shows successive OBR forecasts for student numbers since March 2015. The Coalition Government lifted restrictions on student numbers in March 2013. At the time, the Government estimated that unmet demand for undergraduate places was around 60,000 a year. That expected rise did not materialise as quickly as expected – and indeed has not done so yet.

More recently, we have made a series of smaller revisions as new data on student applications and acceptance rates becomes available. In our November 2016 forecast there were lower acceptance rates than expected for the 2016-17 academic year. In our March and November 2017 forecasts there were fewer student entrants and lower application rates than expected for the 2016-17 and 2017-18 academic years respectively. In our current forecast, there have been higher-than-expected acceptance rates, lifting numbers slightly.

[21] *Review of Post-18 Education and Funding Terms of Reference,* Department for Education, February 2018.

Chart D: Successive OBR student numbers forecasts



Note: Forecast student numbers are provided in academic years to reflect the time period that these students are entering higher education institutions and further education colleges.
Source: HEFCE, OBR

Our current forecast assumes that student numbers fall from 370,000 in 2016-17 to 355,000 in 2022-23. The main drivers of this 4.2 per cent fall include:

- **Unfavourable demographics**: based on ONS projections, the number of 18 and 19-year olds assumed in our modelling falls by 8.4 per cent between mid-2016 and mid-2022 from 1.59 to 1.46 million.[d] If student numbers moved in line with the 18 and 19-year old population alone, they would fall to around 340,000 in 2022-23.
- **Rising application rates**: the proportion of 18 and 19-year olds applying for undergraduate courses has risen by 7.2 per cent between 2013 and 2016. We expect it to rise by a further 1.7 per cent by 2022.[e]
- **Rising acceptance rates**: we expect institutions to increase the proportion of applications that are accepted to fill their capacity and secure funding. Among 18 to 19-year olds, we assume acceptance rates rise by 4.7 per cent from 2016 to 2022.

These assumptions are all subject to uncertainty. We review them with officials from the Department for Education ahead of each forecast and will continue to refine them as necessary in light of the flow of information since our previous forecast.

[a] *Student Support for Higher Education in England 2017*, Student Loans Company, November 2017.
[b] *Student Loans in England Financial Year 2016-17*, Student Loans Company, June 2017.
[c] Higher Education Funding Council for England.
[d] Our model uses a cohort methodology of lagged 18 year olds and in-year 19 year olds from the ONS' 2016-based principal population projection.
[e] A small proportion of total students will not apply via the main scheme UCAS routes which are not presently captured within this rate.

Other lending

4.158 Other lending covers a range of Government schemes. We produce this forecast using information from the Treasury on planned lending by each institution or scheme, to which we apply a top-down adjustment for expected under-lending relative to those plans (or over-lending if we thought that appropriate). Relative to our November forecast, lending has been revised down across all years and by a total of £7.0 billion over the forecast.

4.159 The largest fall is in the Help to Buy equity loan scheme – £6.5 billion over the Spending Review period up to 2020-21. Partly this reflects a neutral switch of £1.8 billion of lending, which is now recorded as being from devolved administrations rather than Help to Buy (in Table 4.34 this offset shows up as an increase in 'other lending'). The largest element – £3.7 billion – comes from correcting an error, where previous forecasts had captured the gross rather than net lending under Help to Buy. The remaining £1.0 billion is a genuine reduction in expected lending under the scheme.

4.160 Other planned lending is little changed in total, but there have been movements in plans for various schemes. Among the broadly offsetting changes are lower planned lending by UK Export Finance and higher planned lending by the Business Bank.

4.161 The overall reductions in the forecast for planned lending up to 2020-21 feed through to a downward revision of £2.0 billion in projected lending in 2021-22 and 2022-23, where the Government has yet to set plans and lending is assumed to rise from the 2020-21 base.

4.162 We continue to forecast an 'allowance for shortfall' against plans to reflect historical experience. In this forecast we have increased our estimate by a total of £1.4 billion following a series of downward revisions to expected outlays in 2017-18.

Transactions in other financial assets

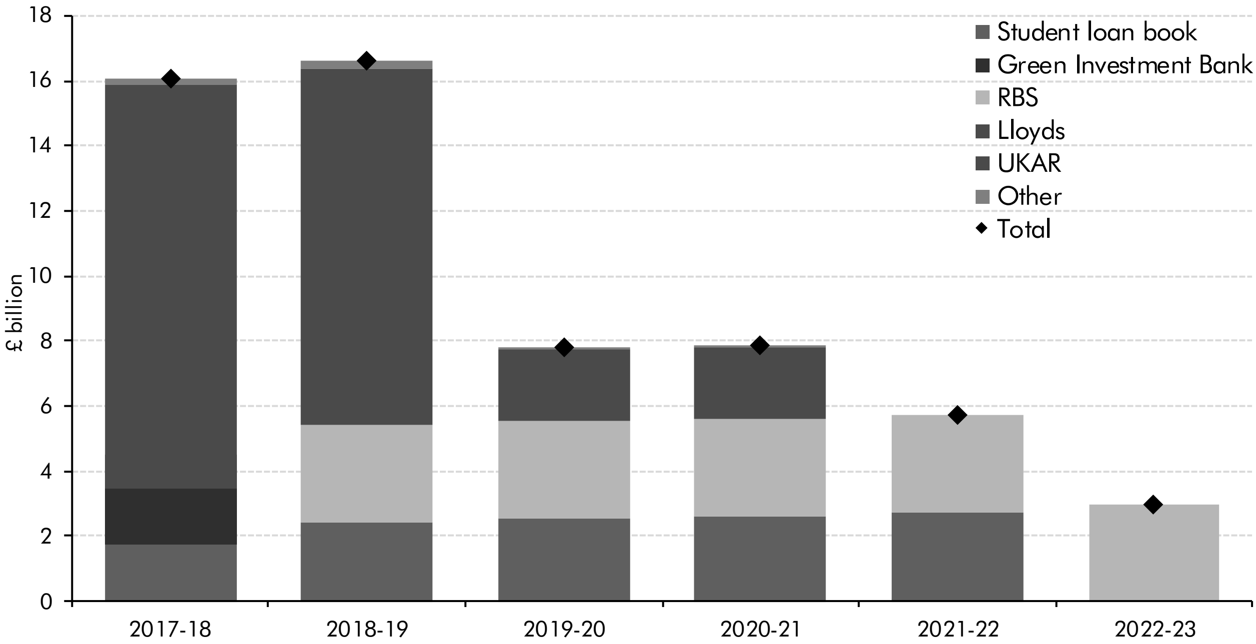
4.163 We only include financial asset sales and purchases in our forecasts when firm details are available that allow the effects to be quantified with reasonable accuracy and allocated to a specific year. There are several planned sales that currently meet these criteria. Chart 4.9 shows our latest forecast of major financial asset sales. All such sales are subject to uncertainty. We have assumed that there will be sufficient private-sector demand for the sales to take place and at a sufficiently attractive price for the transaction to go ahead. The sale of most financial assets produces an upfront benefit to PSND (and to PSNB via lower interest payments) but reduces future income, lowering interest and dividend receipts (affecting both PSNB and PSND). Their effect on the broader balance sheet measure PSNFL, which includes all financial assets not just 'liquid' ones, tends to be close to neutral, since the sales in effect swap one asset for another (e.g. shares for cash).[22]

[22] We discussed the effects of asset sales on different balance sheet measures, and the incentives this can create, in the 'fiscal illusions' section of Chapter 7 of our 2017 *Fiscal risks report*.

4.164 Our latest forecast reflects changes to the profile of receipts from the sales of student loans. The first tranche of pre-2012 student loans was sold in December for £1.7 billion, at a discount to the face value of 51 per cent. (The discount to the book value in DfE's accounts will have been lower, since they already take into account expected future write-offs.) The sale raised £0.7 billion less than we had assumed in November, where, pending information on sale prices, we assumed that the £12 billion of sales planned would be split evenly over five years. This initial tranche was an older vintage of loans than would be typical of the loan book as a whole. As each vintage of loans matures, the higher quality loans are repaid and so average quality diminishes over time. The price may also have reflected the novel nature of the sale. The Government remains committed to raising £12 billion from student loans sales over the period to 2021-22 but has not released plans about the timing or sizes of future sales. Given the outcome of the initial sale and the fact that it contained older loans, we now assume a modestly rising profile of sales proceeds over time, starting from an unchanged £2.4 billion in 2018-19.

4.165 We have not changed our forecasts for RBS or other asset sales programmes.

Chart 4.9: Proceeds from asset sales



Source: HM Treasury, OBR

Monetary policy interventions

4.166 Since March 2009, the Bank of England's Monetary Policy Committee (MPC) has deployed unconventional forms of monetary policy to support the economy. The purchase of gilts by the Asset Purchase Facility (APF) affects public sector net debt, but does not affect the flow measures of borrowing or the cash requirement. The interest payments and receipts associated with those gilts have a relatively large effect on borrowing.

4.167 In August 2016, the MPC announced a package of measures that included further gilt purchases and two new measures implemented through the APF: the 'Term Funding Scheme' (TFS) and the 'Corporate Bond Purchase Scheme' (CBPS). The MPC confirmed on 3 August 2017 that the drawdown period for the TFS would close on 28 February 2018. The overall usage of the TFS is determined by demand for the scheme and the Treasury provides an indemnity to cover TFS drawings. Our November forecast assumed £130 billion of TFS lending by the end of February 2018. We closed this forecast shortly before the drawdown period closed, at which point we judged that the likely take-up would be somewhat lower at £125 billion. We continue to assume that all loans will have a term of four years and then be repaid. The TFS therefore adds £125 billion to the PSNCR cumulatively over 2017-18 and 2018-19 and then reduces it by that amount in 2020-21 and 2021-22. With the drawdown period now closed, actual take-up was £127 billion, £2 billion higher than forecast. This would not have a material effect on our PSND forecast.

UK Asset Resolution (UKAR) asset sales and rundown

4.168 The Government has announced its intention to sell all remaining UKAR assets by 2020-21. UKAR has historically met most of its sales plans, so our forecast reflects this being realised. This assumption in unchanged from our November forecast.

Accruals adjustments

4.169 To move from PSNB to PSNCR, it is necessary to adjust for the expected impact of timing differences between cash flows and accruals. For example, as taxes are generally paid in arrears, and if receipts are forecast to rise over time, the cash received each year will generally be lower than the accrued receipts. The timing difference is large for smaller firms' corporation tax.

4.170 A large component of the receipts timing adjustment relates to interest on student loans. This is included in the accrued measure of public sector current receipts from the point at which the loan is issued, but cash repayments do not begin until the former students' income rises above a specific threshold. Much of the accrued interest will eventually be written off rather than received as cash payments, making this something of a 'fiscal illusion' within the public sector net borrowing calculation. We have revised up our forecast of this part of the receipts accruals adjustment relative to November.

4.171 Similar timing adjustments are made for expenditure. The largest is for the timing of payments on index-linked gilts. This is very sensitive to RPI inflation, as well as to the uneven profile of redemptions from year to year. Positive RPI inflation raises the amount that governments will have to pay on index-linked gilts when they are redeemed. This commitment is recognised in PSNB as accrued debt interest spending each year, but the actual cash payments do not occur until redemption, which may be decades from now. This adjustment has been revised down slightly in most years, and more so in 2020-21 where we have corrected the estimated effect of a gilt due to be redeemed in April 2020.

4.172 Following the receipt of more detailed information on Network Rail's cash outlays, we have reduced our expectations of its accruals adjustments significantly, removing several adjustments that had previously been necessary. Much of the remaining adjustment relates to the difference between cash and accrued interest on its index-linked debt, in a manner similar to that described for gilts above. Based on this more detailed Network Rail information, we believe we have now identified the cause of the remaining mismatch between our forecasts and outturn cash movements. Previously we had adjusted for this using an 'alignment adjustment' of £1.1 billion. We have now removed it.

Central government net cash requirement

4.173 The central government net cash requirement (CGNCR) is the main determinant of government's net financing requirement. Table 4.35 reconciles CGNCR with PSNCR and Table 4.36 sets out the changes in this reconciliation since November. The reconciliation removes transactions associated with local authorities and public corporations from the PSNCR. Relative to November, the biggest change in this reconciliation relates to our revised assumptions regarding the Bank of England's monetary policy operations, which affect public corporations' net cash requirement at the start and end of the forecast period.

4.174 The classification of B&B and NRAM plc and Network Rail in the central government sector means that the CGNCR is no longer simply a measure of the cash required by the Exchequer to fund its operations, which forms the basis for the Government's net financing requirement.[23] This has three effects:

- The **banks' own cash requirements are included in the headline CGNCR**. Running down the banks' loan books (including through asset sales) reduces the CGNCR by £14.0 billion in 2017-18, falling to zero by 2021-22, but this does not directly affect the Exchequer (this forecast is shown in Table 4.35).

- **Interactions between the Exchequer and these bodies net off** within the headline measure. The B&B and NRAM adjustment shows the difference between net cash received by UKAR and that transferred to central government.

- The Treasury now finances **Network Rail**'s new and maturing debt for a fee. Refinancing needs are projected at £1.5 billion in 2017-18, but decline over time.

[23] The Government is publishing a revised financing remit for 2018-19 alongside the Spring Statement. The OBR provides the Government with the forecast of the CGNCR for this purpose, but plays no further role in the derivation of the net financing requirement.

Table 4.35: Reconciliation of PSNCR and CGNCR

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Public sector net cash requirement (NCR)	**120.6**	**43.4**	**44.4**	**-2.5**	**-25.3**	**54.0**
of which:						
Local authorities and public corporations NCR	83.8	8.6	5.5	-51.5	-73.1	4.1
Central government (CG) NCR own account	36.8	34.8	38.8	49.0	47.7	49.9
CGNCR own account	36.8	34.8	38.8	49.0	47.7	49.9
Net lending within the public sector	3.3	2.8	2.4	1.9	1.9	1.9
CG net cash requirement	**40.1**	**37.6**	**41.2**	**50.9**	**49.6**	**51.7**
B&B and NRAM adjustment	-0.6	2.2	2.2	1.9	0.1	0.1
Network Rail adjustment	0.7	0.8	-1.1	-0.2	-1.0	-1.4
CGNCR ex. B&B, NRAM and Network Rail	**40.3**	**40.6**	**42.3**	**52.5**	**48.6**	**50.4**

Table 4.36: Changes in the reconciliation of PSNCR and CGNCR

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Public sector net cash requirement (NCR)	**-10.4**	**-3.2**	**-2.3**	**-10.5**	**-1.2**	**-5.1**
of which:						
Local authorities and public corporations NCR	-5.4	3.5	3.5	0.4	5.6	1.3
Central government (CG) NCR own account	-5.1	-6.8	-5.8	-10.9	-6.8	-6.4
CGNCR own account	-5.1	-6.8	-5.8	-10.9	-6.8	-6.4
Net lending within the public sector	2.5	2.0	1.6	1.1	1.1	1.1
CG net cash requirement	**-2.6**	**-4.7**	**-4.3**	**-9.8**	**-5.7**	**-5.3**
B&B and NRAM adjustment	-0.3	0.2	0.3	0.0	0.0	0.0
Network Rail adjustment	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2
CGNCR ex. B&B, NRAM and Network Rail	**-3.1**	**-4.8**	**-4.2**	**-10.1**	**-5.9**	**-5.6**

Key fiscal aggregates

4.175 Our central forecast for borrowing, debt and other fiscal aggregates incorporates the forecast for receipts, expenditure and financial transactions set out earlier in this chapter. In this section we explain the changes in several fiscal aggregates:

- Public sector net borrowing: the difference between total public sector receipts and expenditure on an accrued basis each year. As the widest measure of borrowing, PSNB is a key indicator of the fiscal position. It was the fiscal mandate measure early in the last Parliament. We focus on it when explaining changes since our previous forecast.

- Cyclically adjusted net borrowing: public sector net borrowing adjusted to reflect the estimated impact of the economic cycle. It is an estimate of underlying or 'structural' net borrowing, in other words the borrowing we would expect to see if the output gap was zero. It is the target measure for the Government's fiscal mandate.

- The **current budget deficit**: the difference between receipts and public sector current expenditure each year. In effect, this is public sector net borrowing excluding borrowing to finance net investment.
- The **cyclically adjusted current budget deficit**: the current budget adjusted to reflect the estimated impact of the economic cycle. It was the target measure for the Coalition Government's fiscal mandate between 2010 and 2015.
- **Public sector net debt**: a stock measure of the public sector's net liability position defined as its gross liabilities minus its liquid assets. In broad terms, it is the stock equivalent of public sector net borrowing, measured on a cash basis rather than an accrued basis. It is used for the Government's supplementary fiscal target.
- **Public sector net debt excluding the Bank of England**: by removing the Bank's balance sheet from the headline measure, this abstracts from the uneven effect across years of the Bank's August 2016 monetary policy stimulus measures.
- **Public sector net financial liabilities**: a broader balance sheet measure that includes all financial assets and liabilities recorded in the National Accounts.

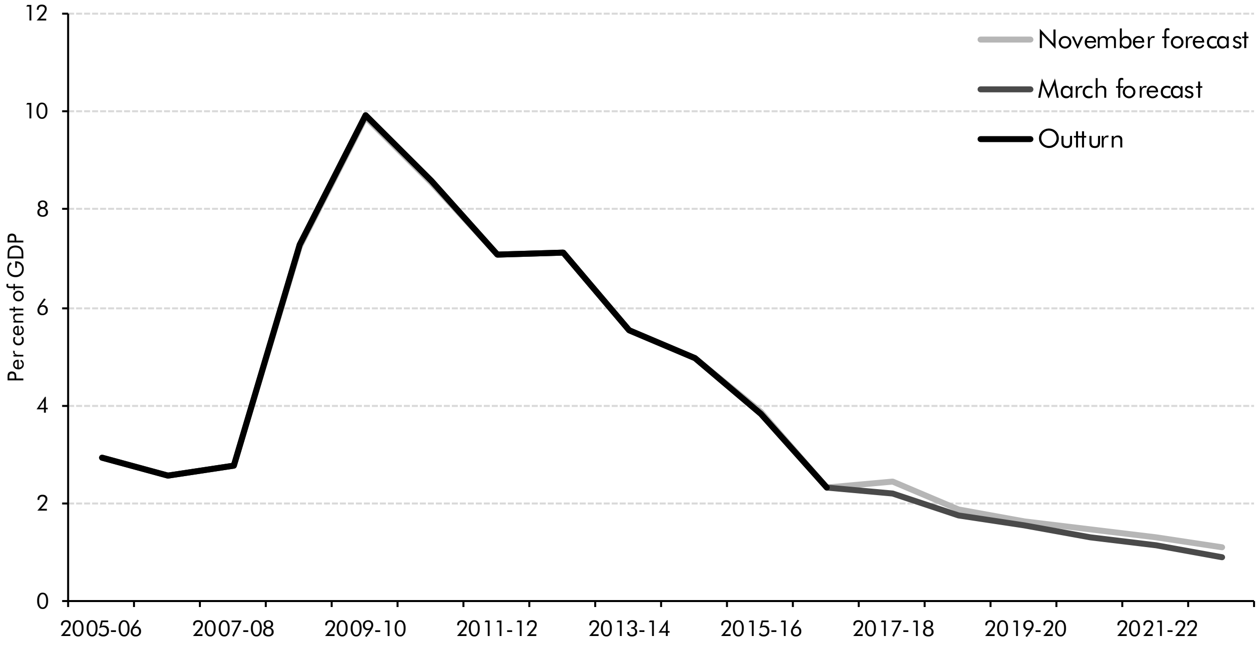
Public sector net borrowing

4.176 We expect borrowing in 2017-18 to be £4.7 billion lower than we forecast in November – and £10.3 billion lower than we forecast in March 2017 (on a like-for-like basis). The revision since November reflects the better-than-expected performance of tax receipts in recent months, most notably self-assessment income tax receipts received in January.

4.177 The downward revision to PSNB in 2017-18 now means that borrowing falls fractionally on a year earlier, by 0.1 per cent of GDP (£0.6 billion). The deficit falls more quickly in 2018-19, by 0.4 per cent of GDP (£8.1 billion), as total spending rises by only 1.9 per cent in cash terms.

4.178 As Chart 4.10 shows, net borrowing then falls steadily by 0.2 per cent of GDP a year on average from 2019-20 onwards to reach 0.9 per cent of GDP in 2022-23.

Chart 4.10: Public sector net borrowing



Source: ONS, OBR

4.179 Table 4.37 breaks down changes in our borrowing forecast since November. First, it breaks down our underlying forecast revisions into drivers from key tax and spending streams. Second, it summarises the effect of Government decisions on borrowing – including those taken by the Scottish and Welsh Governments since November.

Expected borrowing in 2017-18

4.180 Our forecast for PSNB in 2017-18 is down by £4.7 billion, reflecting a £6.8 billion upward revision to receipts partly offset by a £2.0 billion upward revision to spending.

4.181 The unexpected strength in tax receipts since November partly reflects stronger nominal GDP growth in 2017-18, revised up from 3.1 to 3.4 per cent. This boosts growth in the major tax bases. For example, growth in wages and salaries has been revised up from 3.3 to 3.6 per cent. Reflecting this and other factors, the main receipts revisions are:

- A £2.9 billion upward revision to **self-assessment (SA) income tax** receipts. Based on provisional analysis from HMRC, around a third reflects slower-than-expected unwinding of dividend forestalling, which boosts 2017-18 at the expense of future years. Much of the rest reflects payments on account for 2017-18 liabilities, which are boosted mechanically by higher-than-expected payments on 2016-17 liabilities. This boosts 2017-18 receipts at the expense of those in 2018-19, when balancing payments on 2017-18 liabilities will be due. Taken together, this means that only a small part of the upward revision since November boosts receipts in future years.

- A £2.8 billion upward revision to **other income tax and NICs** receipts. Modest upward revisions to labour income growth will have contributed to this strength, but the recent growth in PAYE cash receipts has been stronger than these changes alone would predict. Receipts growth has been particularly rapid in the business services sector. Repayments have also been lower than expected, boosting receipts.

- **Onshore corporation tax** receipts have again exceeded our expectations. We have raised our forecast for receipts this year by £1.9 billion, reflecting strong growth in January cash payments by large companies. Financial sector companies have reported rapid profit growth over the past year, contributing to strength in receipts. But much of this overall receipts strength relates to liabilities from previous accounting periods, so does not form part of the base from which we project receipts in future years.

4.182 Higher spending and weaker CGT receipts partly offset the broad-based receipts strength. CGT receipts in 2017-18 were down 7 per cent on a year earlier, but are still nearly twice their level of four years ago. Preliminary analysis of CGT returns did not suggest any one-off explanations for the weakness, so it has been pushed through the forecast. The largest contributor to higher spending than we assumed in November is local authorities, where we expect greater drawdowns from reserves than previously assumed.

4.183 The latest data released in February shows that PSNB fell by £7.2 billion (16.0 per cent) over the first ten months of 2017-18, relative to the same period a year earlier. Extrapolating the percentage change forward over the final two months would imply a full-year deficit of £38.4 billion, down £7.3 billion on 2016-17. But our bottom-up forecast shows PSNB in 2017-18 falling by only £0.6 billion (1.3 per cent) on a year earlier.

4.184 The £6.7 billion difference between our forecast and a simple extrapolation reflects both specific items expected to affect the final two months of the year and differences of view about the full year for areas where the ONS does not yet have full outturn data:

- More than half of the difference relates to **borrowing by local authorities**, where outturn data are only available with a considerable lag. Local authority borrowing in the final quarter of the year can be large and is volatile from year to year. At this stage, ONS outturn data reflect its own view of local authorities' underspending against budgets this year, which is smoothed across those months for which actual outturn data are unavailable. Part of the difference between our full-year forecast and the latest year-to-date outturns therefore reflects the fact that we believe local authorities are underspending their budgets by less than the ONS is currently assuming. There is greater uncertainty than usual around such judgements this year, given the large rise in borrowing in 2016-17. This reflected the largest net drawdown of reserves since comparable data were first recorded in the mid-2000s, as well as the greater use of 'prudential' borrowing to finance wider capital investments. Full outturn data for 2017-18 will not be available before September 2018.

- We expect **non-PAYE income tax** receipts to fall by £2.1 billion on a year earlier in February and March combined. That reflects both a timing effect, which we expect to unwind, as well as a year-on-year fall in February SA IT receipts, following on from the (smaller than expected) £0.5 billion fall in January.

- We expect **UK transfers to EU institutions** to rise by £0.8 billion on a year earlier in February and March combined. This is mainly a timing effect across fiscal years that is neutral within calendar year 2018. In the first quarter of 2017, the Commission requested payment of three months' worth of calendar year 2017 contributions. This year it has requested 3.7 months' worth, which was transferred on 1 March.

Forecasts for borrowing from 2018-19 onwards

4.185 The underlying downward revision to PSNB from 2018-19 onwards averages £3.2 billion a year. This reflects an upward revision to receipts that averages £5.8 billion (0.7 per cent), partly offset by an upward revision to spending that averages £2.6 billion (0.3 per cent).

4.186 On the receipts side, relatively little of the higher 2017-18 starting point is assumed to persist, as most of the unexpected strength in SA income tax and onshore corporation tax appears to reflect timing changes rather than genuinely higher underlying liabilities. But we have also assumed slightly higher receipts growth in the near term, which means that receipts have still been revised up significantly in 2018-19. We have then revised receipts growth down toward the end of the forecast. These changes reflect:

- A modest **cyclical boost to GDP growth** and slightly stronger earnings growth in the near-term feeds through to growth in most tax bases. This effect unwinds by the end of the forecast as the positive output gap closes. The short-term boost via average earnings growth is the largest positive determinant change, reflecting the latest indications that pay settlements growth may pick up in 2018.

- Higher **interest rates** boost interest and dividend receipts across the forecast. (This only partly offsets the increase in debt interest spending due to higher interest rates.)

- The combined effect of lower **equity prices** and the **shortfall in 2017-18 capital gains tax receipts** has reduced receipts by £2.5 billion. That reflects the gearing of capital gains to equity price rises, which means that both factors generate progressively larger negative effects over the forecast.

4.187 On the spending side, the upward revision peaks in 2019-20 at £6.0 billion, but then falls to a £0.1 billion downward revision by 2022-23. The main drivers of that profile reflect:

- **Local authority self-financed current expenditure** has been revised up in every year. This mostly reflects a higher council tax forecast (which boosts receipts too), as well as an increase in – and a different profile for – the assumed use of reserves.

- **Debt interest spending** has been revised up in most years, with the upward revision peaking in 2020-21. Higher RPI inflation increases accrued spending on index-linked gilts in the near term, while higher interest rates increase spending later in the forecast. But lower borrowing and debt offsets some of the effect from higher interest rates.

- Growth in **welfare spending** – particularly on tax credits – has been revised down. This has a progressively larger effect over the forecast. Tax credits spending has repeatedly fallen short of our forecasts. This suggests that relative income growth in the tax credits population has been stronger than had previously been the case. Adjusting for this across the forecast reduces spending by nearly £2 billion in 2022-23.

4.188 The relatively large upward revision to 'other spending' in 2019-20 in part reflects reprofiling of the expected cost of **tax litigation losses** on the basis of updated HMRC information. Assuming a flat profile from 2019-20 rather than a steadily rising one raises spending in 2019-20 by £1.1 billion, but reduces it by £0.7 billion a year on average in subsequent years. Other spending has also risen in 2019-20 because payments to the EU in calendar year 2019 are expected to be less front-loaded than looked likely in November.

Government decisions

4.189 The Chancellor has kept to his word in announcing no new fiscal policy measures in the Spring Statement. The main Government decisions affecting this forecast are his decision to reduce the proportion of debt that will be issued as index-linked gilts, February's local government finance settlement and decisions taken by the Scottish and Welsh Governments since the Chancellor's Autumn Budget in November. The modest fiscal implications of these policy changes are summarised from paragraph 4.13 above and detailed in Annex A.

Table 4.37: Public sector net borrowing

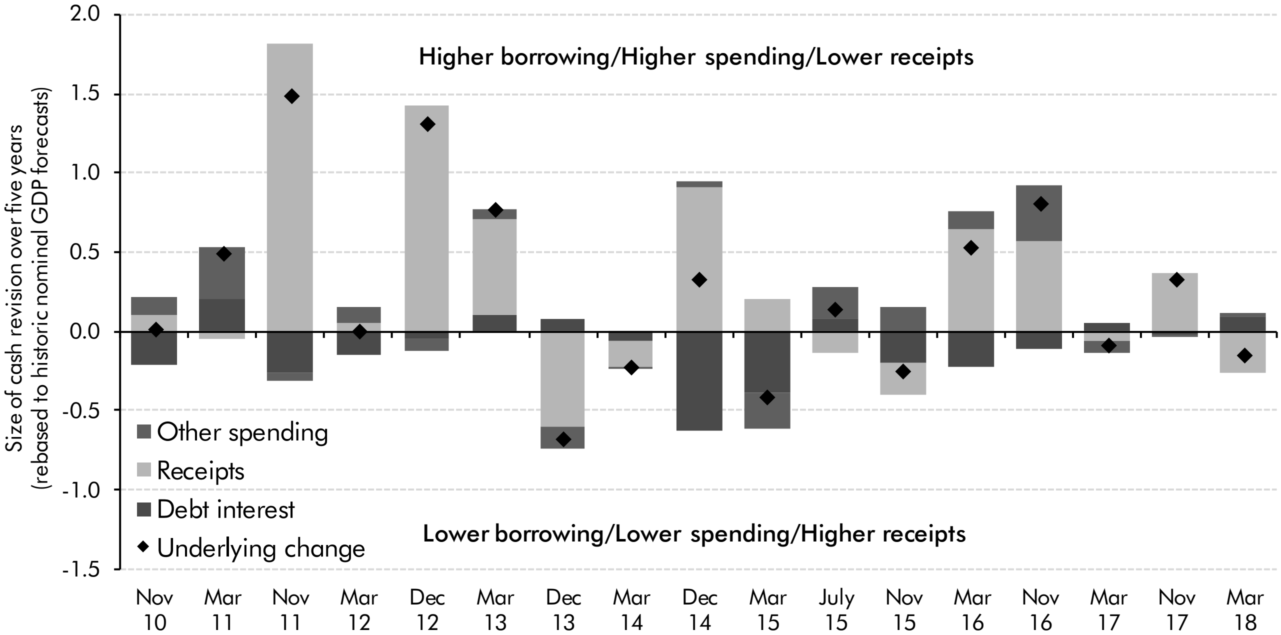
	£ billion						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	45.7	49.9	39.5	34.7	32.8	30.1	25.6
March forecast	45.8	45.2	37.1	33.9	28.7	26.0	21.4
Change	**0.1**	**-4.7**	**-2.4**	**-0.8**	**-4.0**	**-4.1**	**-4.2**
Underlying revisions to receipts	**0.2**	**-6.8**	**-5.6**	**-7.2**	**-6.8**	**-4.9**	**-4.4**
of which:							
Self-assessment IT receipts	0.0	-2.9	-0.5	-1.0	-0.9	-1.3	-1.1
Other IT and NICs receipts	-0.1	-2.8	-5.2	-5.1	-4.7	-3.6	-4.5
Onshore CT receipts	1.1	-1.9	-1.1	-1.9	-1.3	-1.2	-1.1
CGT receipts	0.0	1.0	1.1	1.9	1.7	1.9	2.3
Other receipts	-0.8	-0.2	0.0	-1.1	-1.7	-0.7	0.0
Underlying revisions to spending	**-0.2**	**2.0**	**3.0**	**6.0**	**3.1**	**0.8**	**-0.1**
of which:							
Debt interest spending	0.0	-0.1	1.7	1.9	2.4	2.3	1.9
Local authority current spending[1]	-0.2	1.1	1.6	1.6	1.2	1.0	1.0
Departmental spending (DEL)	0.3	1.2	-0.5	-0.5	0.0	0.0	0.0
Welfare spending	0.0	-0.4	-0.1	0.4	-0.1	-0.6	-1.2
Other spending	-0.2	0.3	0.2	2.6	-0.3	-1.8	-1.7
Effect of UK Government decisions		0.0	0.2	0.4	-0.1	0.2	0.5
Effect of devolved administration decisions		0.0	0.1	0.0	-0.2	-0.2	-0.2
Memo: March pre-measures forecast	*45.8*	*45.2*	*36.9*	*33.5*	*29.1*	*26.0*	*21.1*

[1] Self-financed local authority current expenditure (LASFE).
Note: This table uses the convention that a negative figure means a reduction in PSNB, i.e. an increase in receipts or a reduction in spending will have a negative effect on PSNB.

Forecast revision in context

4.190 Chart 4.11 shows that the underlying downward revision to cash net borrowing in this forecast averages 0.14 per cent of GDP over the final five years of the forecast, reversing nearly half of the upward revision we made in November.[24] In absolute terms, this is smaller than the average revision to our March forecasts in previous years (0.36 per cent of GDP). The changes follow the familiar pattern across previous forecasts whereby revisions to receipts are partly offset by revisions to debt interest spending, which one would expect if a better (or worse) economic outlook boosted (or restrained) receipts and market expectations of interest rate rises. We have revised down our forecast for cash borrowing in 2017-18 by 0.24 per cent of GDP. In absolute terms, that revision is in line with the average in-year PSNB revision across our previous March forecasts (0.25 per cent of GDP).

Chart 4.11: Sources of revision to previous forecasts

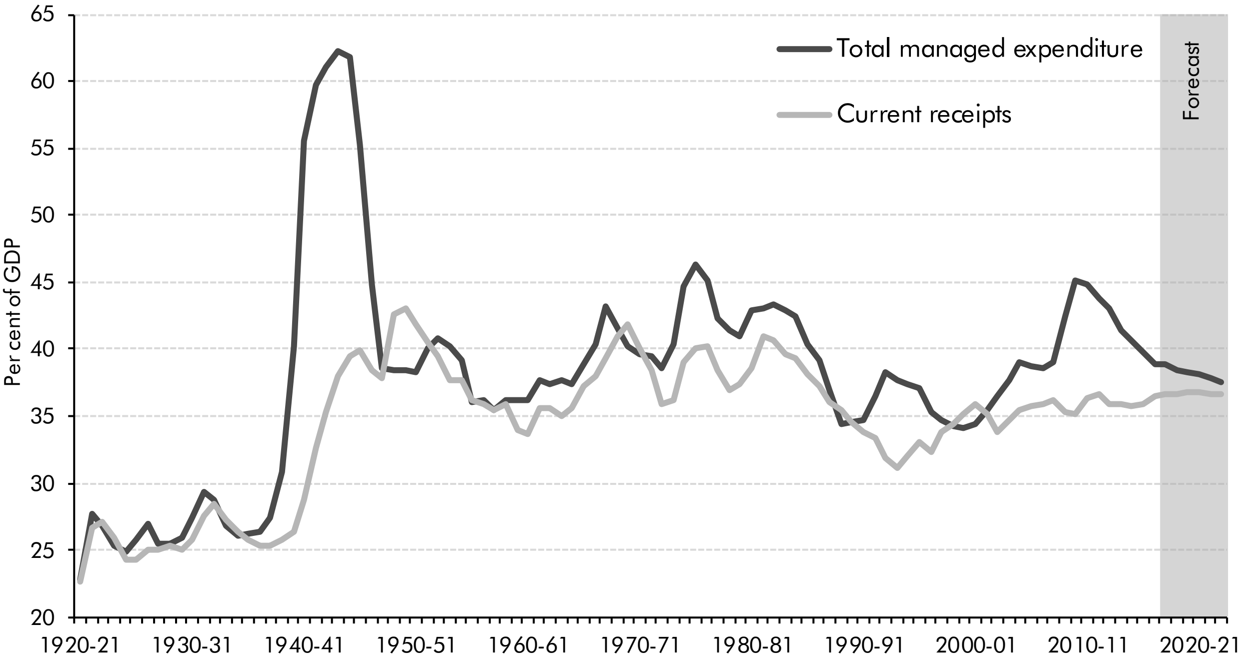


Source: OBR

4.191 Chart 4.12 shows current receipts and total managed expenditure as a share of GDP since 1920-21, combining Bank of England and ONS data. Total spending reaches 37.6 per cent of GDP in 2022-23, while current receipts peak at 36.8 per cent of GDP in 2020-21. This would be at its highest level since 1986-87. Box 3.2 of our 2017 *Forecast evaluation report* set out the key drivers in the receipts-to-GDP ratio since 1986-87.

[24] To abstract from changes in nominal GDP between forecasts – and the fact that the receipts forecast tends to move with GDP – the figures in this chart are calculated by summing total cash changes and then expressing that total as a percentage of total GDP produced over the forecast period. It is not equivalent to averaging the changes in receipts and spending as a share of GDP.

Chart 4.12: Total public sector spending and receipts



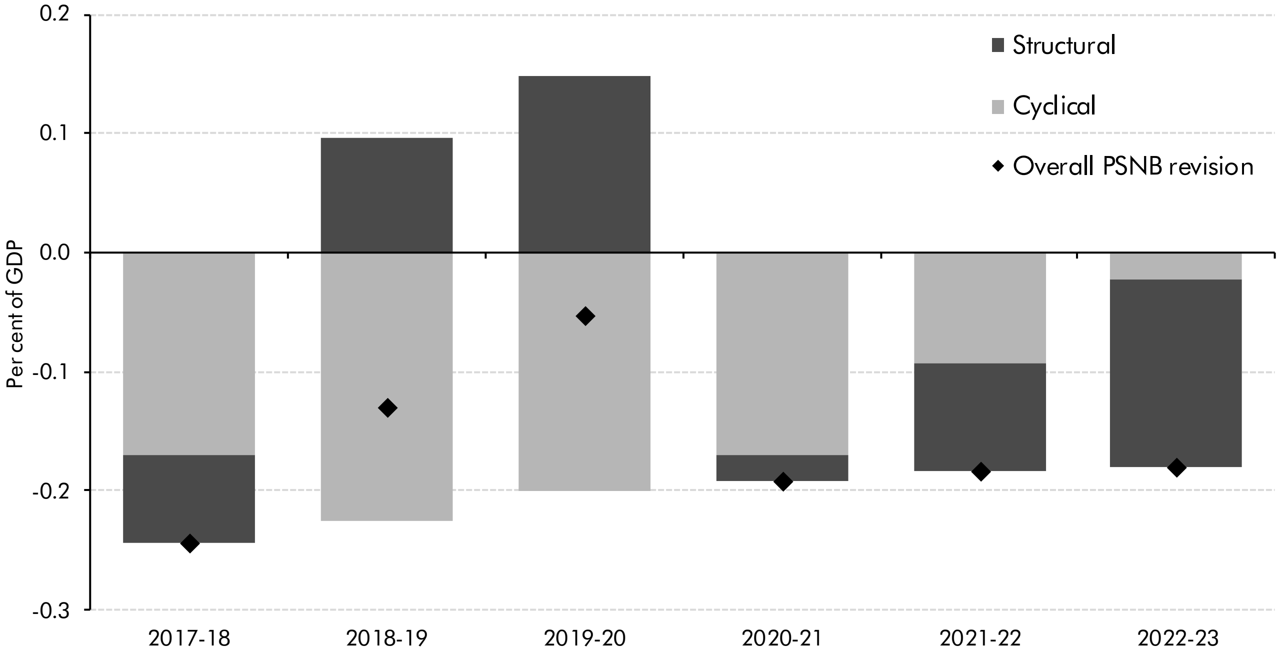
Source: Bank of England, ONS, OBR

Cyclically adjusted net borrowing

4.192 Our current forecast assumes that the economy was operating slightly above potential in the second half of 2017, in contrast to our November assumption that there was still a little spare capacity at that point. Applying the top-down approach we use to cyclically adjust borrowing, this means that more than two-thirds of the downward revision to headline borrowing in 2017-18 is judged to be cyclical. Cyclically adjusted net borrowing has been revised down by less than 0.1 per cent of GDP in 2017-18. The Government's deficit target is set in terms of this measure, so its profile is discussed in more detail in Chapter 5.

4.193 Chart 4.13 shows the breakdown of changes in headline borrowing since November into cyclical and structural components. It shows that the near-term improvement in the deficit is mainly cyclical, but that by the end of the forecast the improvement is largely structural. Lower structural spending explains the bulk of the revision, with unchanged cash departmental spending in the final years of the forecast lower as a share of upwardly revised nominal GDP.

Chart 4.13: Structural and cyclical elements of the revision to borrowing



Source: OBR

Current budget

4.194 We estimate that the current budget deficit, which excludes borrowing to finance net investment spending, will be just £1.6 billion in 2017-18, down from a peak of £100.4 billion in 2009-10 and £6.5 billion lower than we were expecting in November. Over the past 12 months, the current budget has recorded a small surplus, but our expectations for local authority current spending this year mean that we expect it to show a small deficit once full outturn local authority data become available. Beyond 2017-18, our latest forecast shows the current budget moving into surplus in 2018-19 (a year earlier than in November) and the surplus reaching £34.2 billion in 2022-23.

Cyclically adjusted current budget

4.195 We expect the cyclically adjusted current budget to move from a deficit of 0.2 per cent of GDP in 2017-18 to a surplus of 0.5 per cent in 2019-20. The surplus rises to 1.4 per cent of GDP in 2022-23. This measure was targeted by the Coalition Government during the 2010 to 2015 Parliament.

Balance sheet measures

Public sector net debt

4.196 In November we expected PSND to peak at 86.5 per cent of GDP in 2017-18. We continue to expect it to peak this year, but at a lower 85.6 per cent of GDP. This reflects the £4.7 billion downward revision to PSNB in 2017-18 and a £5 billion reduction in the forecast size of the Bank of England's Term Funding Scheme (TFS).

4.197 We expect the debt-to-GDP ratio to fall by 0.1 percentage points between 2017-18 and 2018-19 – only 0.05 per cent on an unrounded basis. Thereafter debt continues to fall as a share of GDP, with the largest falls in 2020-21and 2021-22 due to the repayment of TFS loans at their 4-year term and the associated drop in Bank of England liabilities.

4.198 In addition to the changes to the TFS discussed above, the changes in our PSND forecast reflect changes to the path of GDP and to our fiscal forecast. These are decomposed in Table 4.38, which shows that:

- **Nominal GDP** is higher in all years, reflecting stronger near-term real GDP growth and a revised profile for the terms of trade (with the size of the revision diminishing as the small positive output gap closes). This reduces the debt-to-GDP ratio in all years.
- Downward revisions to our **borrowing forecast** reduce debt in all years, and by increasing amounts as the cumulative effect builds up.
- The effect of **gilt premia** has been revised down due to a slightly higher yield curve, lower issuance and the Chancellor's decision to reduce the proportion of index-linked gilts. These all reduce expected premia in future index-linked gilt auctions.
- A **variety of smaller changes** have increased PSND up to 2020-21 and reduced it thereafter. Lower foreign exchange reserves from stronger sterling pushes up debt but by the end of the forecast this is more than offset by decreased forecasts for loans.

Table 4.38: Changes to public sector net debt since November

	Per cent of GDP						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	85.8	86.5	86.4	86.1	83.1	79.3	79.1
March forecast	85.3	85.6	85.5	85.1	82.1	78.3	77.9
Change	**-0.5**	**-0.9**	**-0.9**	**-1.0**	**-1.0**	**-1.0**	**-1.1**
of which:							
Change in nominal GDP[1]	-0.5	-0.5	-0.7	-0.8	-0.5	-0.4	-0.4
Change in cash level of net debt	0.0	-0.4	-0.2	-0.2	-0.5	-0.5	-0.7
	£ billion						
Total underlying forecast revisions		**-7.8**	**-4.7**	**-5.3**	**-11.2**	**-12.4**	**-16.9**
of which:							
Borrowing		-4.7	-7.2	-8.0	-12.0	-16.1	-20.3
Bank of England schemes		-5.0	-5.0	-5.0	-5.0	0.0	0.0
Gilt premia		1.1	4.6	5.8	5.7	5.7	5.6
Lending to the private sector		-0.4	-0.7	-2.7	-4.0	-4.9	-5.6
Foreign exchange reserves		2.1	3.4	3.5	3.6	3.7	3.8
Other factors		-0.9	0.0	1.1	0.5	-0.7	-0.4

[1] Non-seasonally adjusted GDP centred end-March.

Alternative balance sheet measures and the underlying position

4.199 In our 2017 *Fiscal risks report* we discussed various ways in which PSND is not a reliable metric for assessing the underlying health of the public finances. It includes only a limited range of liabilities and an even smaller range of assets. This makes it susceptible to what the IMF terms 'fiscal illusions'. These occur when movements in a fiscal aggregate like PSND do not reflect true changes in the underlying health of the public finances.

4.200 The path of PSND is strongly influenced by several transactions that could fall under this heading. The reclassification of English housing associations and asset sales serve to reduce PSND while TFS loans increase debt at the start of the forecast but reduce it at the end. None materially change the underlying fiscal position. Issuing student loans does affect the underlying fiscal position but – as some of the principal extended will be repaid – the impact on PSND is larger than the change in the underlying fiscal position.

4.201 Asset sales do not generally improve the sustainability of the fiscal position as they simply exchange one asset for another: a long-term flow of receipts for an upfront lump sum. But this lump sum reduces PSND straight away and the loss of receipts only increases it gradually over time. By contrast, TFS lending raises PSND when issued and reduces it when it is repaid. This is because the loans are deemed to be illiquid and therefore do not net off PSND, but they are backed by collateral and are highly likely to be repaid.

4.202 Alternative metrics often do a better job than PSND of reflecting the underlying picture:

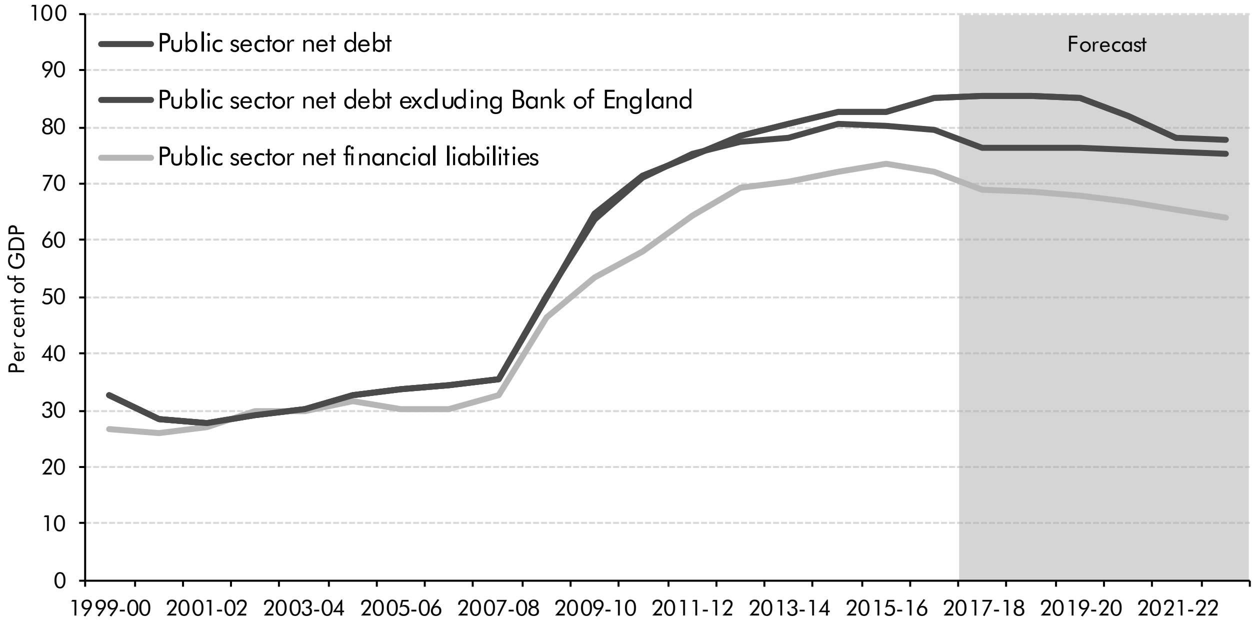
- **PSND excluding Bank of England** removes the distortions from the TFS. This provides a more informative underlying picture during the build-up (in 2016-17 and 2017-18) and run down (2020-21 and 2021-22) of the scheme.

- **Public sector net financial liabilities** (PSNFL) includes all financial assets and liabilities. As well as being unaffected by the TFS, this provides a more realistic picture of the effect of most asset sales. The main drawback of PSNFL is that the Government's stock of student loan assets is valued at face value whereas the actual value is considerably lower because the loans are not expected to be repaid in full.

4.203 PSND and these alternative debt metrics are all distorted by the November 2017 reclassification of English housing associations from the public to the private sector, since they all use the same distinction between the public and private sectors. It is hard to argue that the change in statistical treatment reduces the *de facto* exposure of the Government to these organisations were they to fall into financial difficulty, nor does it alter their use as vehicles to deliver the Government's social housing policies.

4.204 Chart 4.14 shows that the paths of both PSND excluding the Bank of England and PSNFL are much smoother than PSND, although both fall in 2017-18 due to the reclassification of housing associations. PSND declines very slowly when the Bank of England is excluded, falling just 1.1 per cent of GDP between 2017-18 and 2022-23 – and rises year-on-year in 2018-19, in contrast to PSND. PSNFL falls more steadily but still gently across the forecast.

Chart 4.14: Public sector balance sheet measures



Source: ONS, OBR

Reconciliation of PSNCR and changes in PSND

4.205 Table 4.39 reconciles the PSNCR, a cash measure of borrowing, with the changes in PSND. PSND is for the most part, but not entirely, the stock equivalent of the PSNCR. The two differ in our forecast for the following reasons:

- The large **gilt premia** associated with low gilt yields (including negative real yields). As PSND rises by the nominal value of gilts issued, rather than their market value, selling at a premium reduces the recorded impact on debt.

- **Index-linked gilts** are recorded at their uplifted nominal value in PSND, so positive RPI inflation adds to PSND each year but does not affect the PSNCR.

- Differences between the nominal and market value of **gilts held by the APF** add to net debt. This changes little in most years except 2021-22 where several gilts that it holds redeem, which we assume will be rolled over for gilts of higher nominal value.

- Movements in sterling affect the value of the unhedged component of the **international reserves** that are netted off PSND.

- The **reclassification of English housing associations** causes a step change in 2017-18. In later years the reclassification affects PSNCR and PSND equally.

Table 4.39: Reconciliation of PSNCR and changes in PSND

	£ billion					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Public sector net cash requirement	**120.6**	**43.4**	**44.4**	**-2.5**	**-25.3**	**54.0**
Gilt premia	-10.8	-7.1	-12.3	-12.5	-11.0	-10.6
Index-linked gilts	10.7	14.4	11.8	3.0	14.3	7.6
APF	-1.5	-0.2	0.0	0.4	-5.7	0.7
International reserves	3.2	1.5	0.2	0.2	0.2	0.2
Reclassification of English Housing Associations	-65.5	0.0	0.0	0.0	0.0	0.0
Change in public sector net debt	**56.7**	**52.0**	**44.1**	**-11.5**	**-27.5**	**51.9**

Table 4.40: Fiscal aggregates

	Per cent of GDP						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Receipts and expenditure							
Public sector current receipts (a)	36.6	36.6	36.7	36.8	36.8	36.7	36.7
Total managed expenditure (b)	38.9	38.8	38.4	38.3	38.1	37.8	37.6
of which:							
Public sector current expenditure (c)	34.9	34.7	34.6	34.2	33.7	33.5	33.3
Public sector net investment (d)	2.0	2.1	1.8	2.1	2.4	2.3	2.3
Depreciation (e)	2.1	2.0	1.9	1.9	1.9	1.9	1.9
Fiscal mandate and supplementary target							
Cyclically adjusted net borrowing	2.3	2.3	1.9	1.6	1.3	1.1	0.9
Public sector net debt[1]	85.3	85.6	85.5	85.1	82.1	78.3	77.9
Deficit							
Public sector net borrowing (b-a)	2.3	2.2	1.8	1.6	1.3	1.1	0.9
Current budget deficit (c+e-a)	0.4	0.1	-0.1	-0.6	-1.1	-1.2	-1.4
Cyclically adjusted current budget deficit	0.3	0.2	0.1	-0.5	-1.1	-1.2	-1.4
Primary deficit	0.6	0.4	0.1	0.0	-0.2	-0.3	-0.6
Cyclically adjusted primary deficit	0.6	0.5	0.3	0.1	-0.2	-0.3	-0.6
Financing							
Central government net cash requirement	3.4	2.0	1.8	1.9	2.3	2.1	2.2
Public sector net cash requirement	5.1	5.9	2.0	2.0	-0.1	-1.1	2.3
Alternative balance sheet metrics							
Public sector net debt ex. Bank of England	79.4	76.4	76.6	76.4	76.1	75.6	75.3
Public sector net financial liabilities	72.3	69.2	68.8	68.0	66.9	65.4	63.9
Stability and Growth Pact							
Treaty deficit[2]	2.4	2.2	1.8	1.7	1.5	1.4	1.0
Cyclically adjusted Treaty deficit	2.3	2.3	1.9	1.8	1.5	1.4	1.0
Treaty debt ratio[3]	86.6	85.5	85.4	85.3	84.9	84.8	84.2
	£ billion						
Public sector net borrowing	45.8	45.2	37.1	33.9	28.7	26.0	21.4
Current budget deficit	7.0	1.6	-1.9	-12.7	-25.4	-27.3	-34.2
Cyclically adjusted net borrowing	45.0	46.7	40.2	35.8	29.5	26.1	21.4
Cyclically adjusted current budget deficit	6.2	3.2	1.3	-10.7	-24.7	-27.2	-34.2
Public sector net debt	1727	1783	1835	1880	1868	1841	1893
Memo: Output gap (per cent of GDP)	*-0.1*	*0.2*	*0.2*	*0.1*	*0.0*	*0.0*	*0.0*

[1] Debt at end March; GDP centred on end March.
[2] General government net borrowing on a Maastricht basis.
[3] General government gross debt on a Maastricht basis.

Risks and uncertainties

4.206 As always, we emphasise the uncertainties that lie around our central fiscal forecast. The uncertainties around the UK's exit from the EU remain significant while the negotiations continue. We expose our judgements to different sensitivities and scenarios in Chapter 5. In July 2017, we published our first full *Fiscal risks report (FRR)*, in which we drew together and expanded on our analysis of fiscal risks. Several key risks we highlighted there remain important sources of uncertainty around our central forecast:

- Macroeconomic risks: for example, risks to potential output growth from productivity and migratory flows and the cyclical risk that the economy falls into recession at some point in the next five years. And the risks from shocks, such as the pound falling sharply given the large current account deficit or as a result of a disorderly Brexit.

- Financial sector risks: the UK remains home to one of the world's largest financial sectors, both in absolute terms and relative to the size the economy. The fiscal risks that can be associated with this have been illustrated clearly over the past decade.

- Revenue-specific risks: our *FRR* highlighted potential pressures on the sustainability of various tax bases. In recent forecasts, we have seen several upside surprises, particularly as regards corporation tax receipts, which could be repeated. And there is huge uncertainty as to the true strength of self-assessment income tax receipts, given the degree of income shifting that took place ahead of recent tax changes.

- Primary spending risks (i.e. spending on everything other than debt interest): We noted how pressures can build and the risk of higher borrowing if they are accommodated. In this forecast we have included an estimate of the Brexit financial settlement in our central forecast, but as described in Annex B, significant uncertainties remain around post-Brexit spending policy in respect of substitute spending in areas such as farm support, regional investment, science and overseas aid.

- Balance sheet risks: these can relate to real-world events or statistical changes. In this forecast we have highlighted the ONS review of the recording of public sector pension funds as one potential source of risk to the measured balance sheet aggregates.

- Debt interest risks: in this forecast we have seen the Government move to address one of the key risks we identified in the *FRR*. We highlighted the increase in the issuance of index-linked gilts in recent years and the increased sensitivity of debt interest spending to inflation that resulted. The Government has reduced the proportion of index-linked gilts in the 2018-19 financing remit. This aims to start to address this risk.

4.207 On 8 March, the European Commission sent the UK a 'formal notice' – the first step in a legal process – in respect of customs duties it considers to have been lost thanks to the UK failing to take action to prevent customs fraud. The Commission estimates that the loss amounts to around €2 billion, after deducting notional collection costs. The Government has two months to respond to the formal notice, after which, if the Commission is not satisfied with the response, it may send a further formal request to comply with EU law. Following this, the issue can be referred to the European Court of Justice. The possibility of the UK paying such an amount therefore represents a risk to our forecast.

International comparisons

4.208 International organisations, such as the European Commission and the International Monetary Fund (IMF), produce forecasts of deficit and debt levels of different countries on a comparable basis. These are based on the narrower general government definitions of debt and borrowing than the public sector definition that we forecast on. They are also presented on a calendar year basis. To facilitate comparisons, Tables 4.41 and 4.42 convert our UK forecasts to a basis that is comparable with that used by these international organisations. With both modelling and reporting of much tax and expenditure in the UK done primarily on a financial year basis, the calendar year forecasts are illustrative and have been derived simply by weighting our financial year forecasts.

Table 4.41: Comparison with European Commission forecasts

	Per cent of GDP					
	Treaty deficit[1]			Treaty debt[2]		
	2017	2018	2019	2017	2018	2019
UK (March *EFO*)	**1.8**	**1.9**	**1.7**	**87.6**	**85.4**	**85.4**
UK (EC)	2.1	1.9	1.5	86.6	85.3	84.2
Germany	-0.9	-1.0	-1.1	64.8	61.2	57.9
France	2.9	2.9	3.0	96.9	96.9	96.9
Italy	2.1	1.8	2.0	132.1	130.8	130.0
Spain	3.1	2.4	1.7	98.4	96.9	95.5
Euro area	1.1	0.9	0.8	89.3	87.2	85.2

[1] General government net borrowing.
[2] General government gross debt.
Source: European Commission, *European Economic Forecast Autumn 2017,* OBR.

Table 4.42: Comparison with IMF forecasts

	Per cent of GDP					
	General government net borrowing			General government gross debt		
	2017	2018	2022	2017	2018	2022
UK (March *EFO*)	**1.8**	**1.9**	**1.1**	**87.6**	**85.4**	**84.3**
UK (IMF)	2.9	2.3	1.2	89.5	89.7	85.6
Germany	-0.7	-0.8	-1.1	65.0	61.8	50.1
France	3.0	3.0	0.8	96.8	97.0	91.2
Italy	2.2	1.3	0.0	133.0	131.4	120.1
Japan	4.1	3.3	2.1	240.3	240.0	233.9
US	4.3	3.7	4.3	108.1	107.8	109.6

Source: IMF, *World Economic Outlook,* October 2017, OBR.

5 Performance against the Government's fiscal targets

Introduction

5.1 This chapter:

- sets out the Government's **medium-term fiscal targets** (from paragraph 5.2);
- examines whether the Government has a better than 50 per cent **chance of meeting them** on current policy, given our central forecast (from paragraph 5.6); and
- assesses how robust these judgements are to the **uncertainties** inherent in any fiscal forecast, by looking at past forecast errors, sensitivity to key parameters of the forecast and alternative economic scenarios (from paragraph 5.23).

The Government's fiscal targets

5.2 The *Charter for Budget Responsibility* requires the OBR to judge whether the Government has a greater than 50 per cent chance of hitting its fiscal targets under current policy. It has been updated several times in recent years as governments have revised their fiscal targets. The latest version was approved by Parliament in January 2017.[1]

5.3 The *Charter* states that the Government's objective for fiscal policy is to "*return the public finances to balance at the earliest possible date in the next Parliament*". At the time, this was expected to be the period from 2020 to 2025. Given the early General Election in 2017, it could now be interpreted as the period from 2017 to 2022. We consider it on both bases.

5.4 The *Charter* also sets out targets for borrowing, debt and welfare spending that require:

- the **structural deficit** (cyclically adjusted public sector net borrowing) to be below 2 per cent of GDP by 2020-21 – this is the 'fiscal mandate';
- **public sector net debt** to fall as a percentage of GDP in 2020-21 – this is the 'supplementary target'; and
- for welfare spending (excluding the state pension and payments closely linked to the economic cycle) to lie below a '**welfare cap**'. The cap was last set in November 2017, to apply in 2022-23. The Government set the effective cap 3 per cent above our

[1] The latest and previous versions are available on the 'legislation and related material' page of our website.

November 2017 forecast for the relevant spending in that year, with the expected level of spending to be adjusted for changes in our inflation forecast. The methodology for doing so is chosen by the Government, as required by the *Charter*.

5.5 In this chapter, we assess the Government's performance against these targets, all of which are on course to be met under our central forecast. We also summarise what the forecast implies for performance against the targets set out in previous versions of the *Charter*.

The implications of our central forecast

5.6 Table 5.1 shows our central forecasts for the fiscal aggregates relevant to the current and previous fiscal targets: cyclically adjusted public sector net borrowing (PSNB); headline PSNB; public sector net debt (PSND); spending subject to the welfare cap; and the cyclically adjusted current budget deficit. These forecasts are described in detail in Chapter 4. They should be interpreted as median forecasts, so we believe it is equally likely that outturns will come in above them as below them.

Table 5.1: Performance against the Government's fiscal targets

	Per cent of GDP, unless otherwise stated						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Fiscal mandate: Cyclically adjusted public sector net borrowing							
November forecast	2.2	2.3	1.8	1.5	1.3	1.2	1.1
March forecast	2.3	2.3	1.9	1.6	1.3	1.1	0.9
Supplementary target: Public sector net debt							
November forecast	85.8	86.5	86.4	86.1	83.1	79.3	79.1
March forecast	85.3	85.6	85.5	85.1	82.1	78.3	77.9
Spending subject to the welfare cap (£ billion)							
November forecast	118.7	119.3	120.9	122.1	123.8	126.9	130.1
March forecast	118.6	118.6	120.7	121.9	123.1	125.6	128.5
Fiscal mandate (October 2015 to January 2017): Public sector net borrowing							
November forecast	2.3	2.4	1.9	1.6	1.5	1.3	1.1
March forecast	2.3	2.2	1.8	1.6	1.3	1.1	0.9
Fiscal mandate (June 2010 to October 2015): Cyclically adjusted current budget deficit							
November forecast	0.2	0.3	0.0	-0.5	-1.1	-1.1	-1.3
March forecast	0.3	0.2	0.1	-0.5	-1.1	-1.2	-1.4

5.7 Table 5.2 summarises performance against the current three targets in the years in which they apply, and how the margins by which they are met have changed since November. The rest of this section sets out the assessments we make on the basis of these figures and the reasons for the changes in them since November.

Table 5.2: Fiscal target margins and changes since November

		Per cent of GDP		£ billion	
		Forecast	Margin	Forecast	Margin
Fiscal mandate: Cyclically adjusted public sector net borrowing in 2020-21					
November forecast	Met	1.3	0.7	29.7	14.8
March forecast	Met	1.3	0.7	29.5	15.4
Change		0.0	0.0	-0.3	0.6
Supplementary target: Year-on-year change in public sector net debt in 2020-21					
November forecast	Met	-3.0	3.0		
March forecast	Met	-3.0	3.0		
Change		0.0	0.0		
Welfare cap: Specified welfare spending in 2022-23					
November forecast	Met			130.1	3.9
March forecast	Met			128.5	5.4
Change				-1.5	1.5

The current fiscal targets

The fiscal mandate

5.8 The Government's fiscal mandate requires it to reduce the structural deficit below 2 per cent of GDP by 2020-21. We estimate that the structural deficit in 2017-18 will be 2.3 per cent of GDP, so meeting this target requires only a modest improvement in the structural balance over the next three years. Our central forecast shows that on current policies the structural deficit will have fallen to 1.3 per cent of GDP in 2020-21, so the target is on track to be achieved with a margin of 0.7 per cent of GDP or £15.4 billion. The structural deficit moves below 2 per cent of GDP in 2018-19, two years ahead of the required date.

5.9 The margin by which the fiscal mandate is met is unchanged as a share of GDP, but has increased by £0.6 billion when converted into a cash amount. Either way, the Government has broadly the same scope that it did in November to absorb unfavourable forecast changes or to finance tax or spending giveaways while meeting this target.

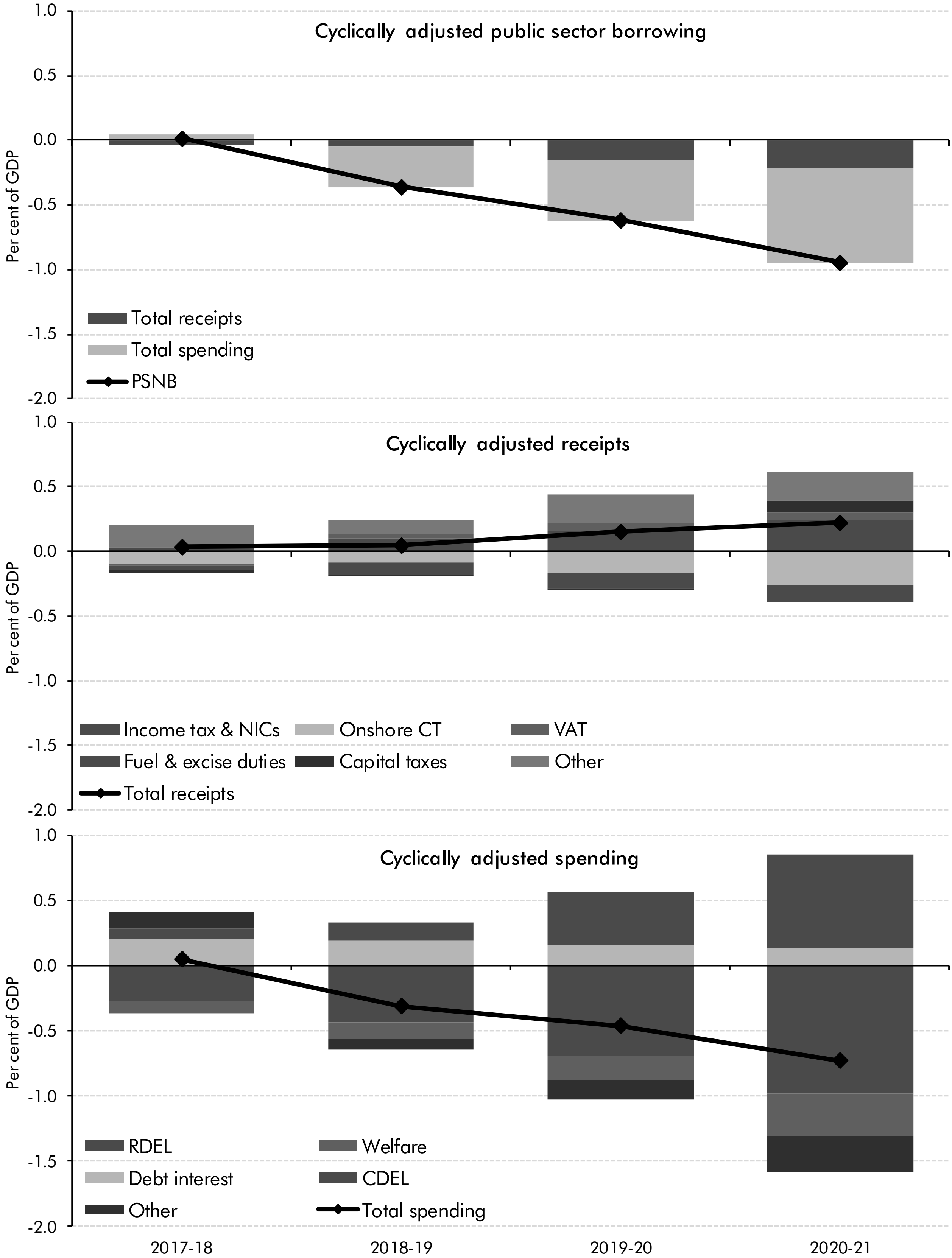
5.10 Chart 5.1 uses cyclical-adjustment coefficients for different types of receipts and spending[2] to show how the structural deficit narrows in the run-up to the target year of 2020-21:

- **Structural borrowing** is expected to decline by 0.9 per cent of GDP between 2016-17 and 2020-21, largely due to lower spending.
- **Structural receipts** are expected to rise 0.2 per cent of GDP relative to 2016-17. Rises in income tax, NICs and other taxes (e.g. the introduction of the apprenticeship levy and higher environmental levies) are partly offset by the effect of cuts in the main rate of corporation tax and excise duty tax bases growing more slowly than GDP. Receipts in the target year are boosted by the one-off effect of changing the timing of capital gains tax payments, which brings forward some payments into that year.

[2] Further details can be found in Helgadottir *et al.* (2012), *OBR Working Paper No.4: Cyclically adjusting the public finances*.

- **Structural spending** is expected to fall 0.7 per cent of GDP between 2016-17 and 2020-21, little changed from our November forecast. It falls 0.5 per cent of GDP by the end of the current Spending Review period in 2019-20 and then a little further in 2020-21. By then, the drop in spending relative to 2016-17 is more than explained by cuts to departmental resource spending (RDEL), with cuts to welfare and other spending more than offset by higher capital departmental spending (CDEL).

Chart 5.1: Cumulative changes in the structural deficit from 2016-17



Source: OBR

The supplementary debt target

5.11 The supplementary debt target requires PSND to fall as a percentage of GDP in 2020-21. (This ratio has been affected by large one-off influences in recent years – additions from monetary policy operations and a reduction from the reclassification of English housing associations last year.) It is broadly stable between 2016-17 and 2018-19, after which we expect it to fall in each year, so the Government is on course to meet this target.

5.12 Chart 5.2 decomposes year-on-year changes in the debt-to-GDP ratio over the forecast period into different drivers. It shows that:

- The **Bank's August 2016 monetary policy package** continues to have a material effect on the path of net debt, raising it by £72.7 billion (3.4 per cent of GDP) in 2017-18. This reflects lending to commercial banks under the Term Funding Scheme (TFS) and purchases of corporate bonds and of additional gilts at a premium to their nominal value. (Lending through the TFS is treated as the acquisition of an illiquid asset, and is not therefore netted off PSND. But it is secured against collateral and thus highly unlikely to generate losses for the public sector.) The repayment of TFS loans after four years reduces the debt ratio significantly in 2020-21 (accounting for 2.4 percentage points of the total 3.0 per cent of GDP decline in the target year) and 2021-22. Excluding the TFS effect, the path of the debt ratio would be smoother. Other APF-related factors, including premia paid when gilts mature and the proceeds are reinvested, add small amounts to debt in most years.

- In 2017-18, the **reclassification of English housing associations** into the private sector largely offsets the upward effect on PSND from additional TFS lending.

- The **primary balance** – a measure of the deficit excluding net debt interest spending – is in deficit until 2020-21, adding slightly to the debt-to-GDP ratio until then.

- **Financial asset sales –** including the active sale and rundown of UK Asset Resolution (UKAR) assets and the sale of student loans and RBS shares – reduce PSND by 0.9 per cent of GDP in 2017-18 and are expected to do so by smaller amounts in subsequent years. (Financial asset sales usually leave the underlying fiscal position largely unaffected, as they typically bring forward cash that would otherwise have been received in later years as revenue, in the shape of mortgage repayments or dividends. So they only reduce debt temporarily).

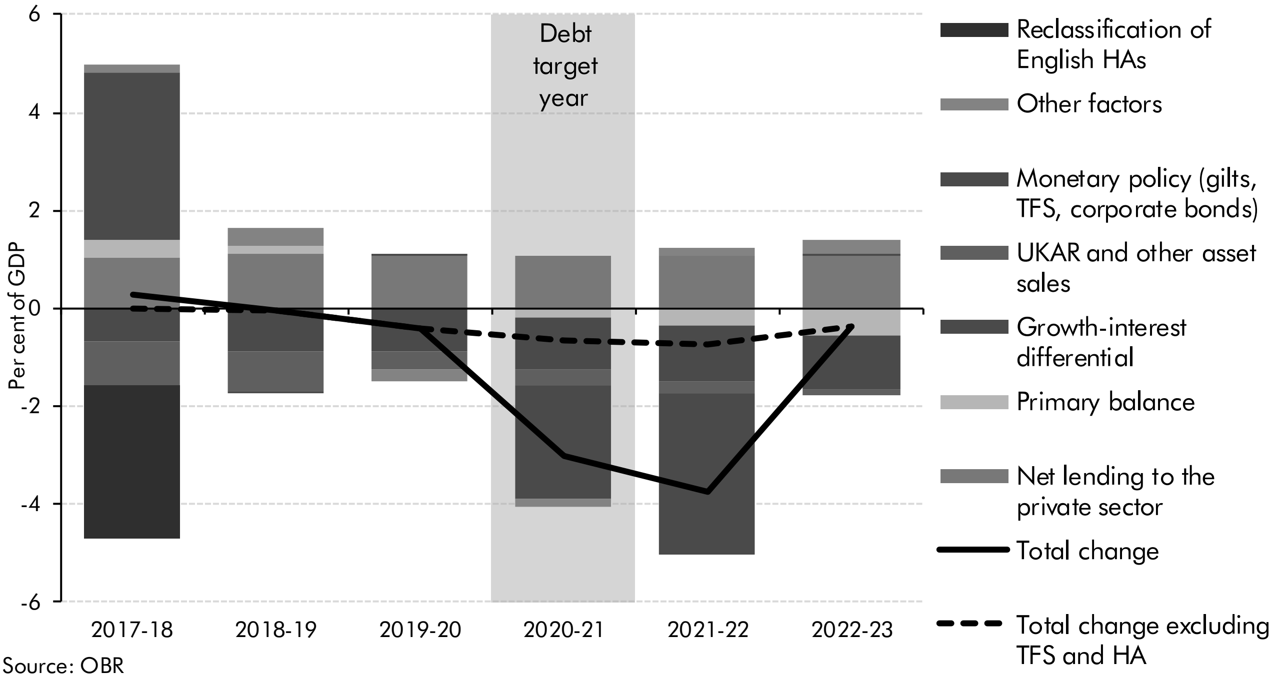
- **Nominal GDP growth is expected to exceed nominal interest rates** throughout the forecast, reducing the debt ratio by relatively large amounts each year. This differential is a key driver of public sector debt dynamics, especially over longer timeframes. We explored this issue in depth in our 2017 *Fiscal risks report*.

- **Net lending to the private sector** – mainly student loans, but also other lending schemes such as Help to Buy – increases net debt in every year. As a financial transaction, the lending itself does not affect the deficit directly but it does so indirectly via its effects on interest income, write-off expenses and debt interest costs.

- **Other factors** are largely offsetting. Issuing debt at a premium to its nominal value reduces net debt over the forecast period, but this is ultimately only temporary and will unwind over the long term. Accrued receipts exceed cash receipts over the medium term, partly because some receipts are collected with a lag (including interest on student loans, where the lag can be many years).

- **Abstracting from the effect of the TFS and the reclassification of housing associations**, net debt is on a very modest downward trajectory over the forecast period as a whole. PSND excluding the TFS declines from 79.6 per cent of GDP in 2017-18 to 77.9 per cent of GDP in 2022-23. It rises by 0.1 per cent of GDP in 2018-19.

Chart 5.2: Year-on-year changes to the debt-to-GDP ratio



Source: OBR

5.13 Table 5.3 decomposes the changes in the profile of net debt since our November forecast. The largest relate to: TFS lending, use of which has been revised down in 2017-18, leading to an equivalent downward revision to repayment of TFS loans at their 4-year term in 2021-22; and underlying forecast revisions to net borrowing and GDP growth.

Table 5.3: Changes in the profile of net debt since November

	Change in net debt as per cent of GDP on previous year					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
November forecast	0.6	0.0	-0.3	-3.0	-3.8	-0.2
March forecast	0.3	0.0	-0.4	-3.0	-3.8	-0.4
Change	**-0.4**	**0.0**	**-0.1**	**0.0**	**0.1**	**-0.2**
of which:						
Nominal GDP[1]	0.0	-0.2	-0.1	0.2	0.1	0.0
Cumulative borrowing changes	-0.2	-0.1	0.0	-0.2	-0.2	-0.2
Use of the TFS	-0.2	0.0	0.0	0.0	0.2	0.0
Gilt premia	0.1	0.1	0.0	0.0	0.0	0.0
Others	0.0	0.1	0.0	-0.1	-0.1	0.0

[1] GDP is centred end-March.

The welfare cap

5.14 The current welfare cap was set in Autumn Budget 2017. It applies in 2022-23 and is preceded by a 'pathway'. It was set in line with our November 2017 forecast plus an increasing margin for error that reached 3 per cent in the target year. When we judge performance against the cap, the *Charter* says that we should adjust our spending forecast to remove the impact of changes in inflation, according to a methodology of the Government's choosing. Its chosen method is to use simplified ready-reckoners to remove the impact of changes in our inflation forecast since November 2017 on expected uprating.[3]

5.15 The Government has made a small adjustment to the welfare cap alongside the Spring Statement – raising it by £0.1 billion. This reflects a correction to how the effects of some Autumn Budget policy measures were factored into our welfare spending forecast. These related to housing benefit, for which only some spending is subject to the cap. For example, in November all the effects of the decision not to go ahead with imposing local housing allowance caps in the social-rented sector were scored against spending subject to the cap, where some should have been scored against housing benefit outside the cap. The associated forecast revision is neutral for welfare spending overall. In accordance with paragraph 3.29 of the *Charter*, we have certified this as a neutral classification change with respect to the Treasury's decision to restate the cap.

5.16 Table 5.4 shows our latest forecast for spending subject to the welfare cap and how it compares with the restated cap, pathway and margin. It shows that we have revised down spending in all years (thanks largely to lower tax credits spending), so that it is below the cap and the pathway to it from 2017-18 onwards. On this basis the terms of the cap would be comfortably met, with or without the Treasury having adjusted it or factoring in the small adjustments for revisions to our inflation forecast affecting uprating assumptions.

[3] *'Removing the impact of changes in inflation from the welfare cap'*, HM Treasury, March 2017.

Table 5.4: Performance against the welfare cap

	£ billion, unless otherwise stated					
	Forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Welfare cap						**130.2**
Welfare cap pathway	119.3	120.9	122.0	123.9	127.0	
Margin (per cent)	0.5	1.0	1.5	2.0	2.5	3.0
Margin	0.6	1.2	1.8	2.5	3.2	3.9
Welfare cap and pathway plus margin	**119.9**	**122.1**	**123.8**	**126.4**	**130.2**	**134.1**
Inflation adjustment		0.0	+0.1	-0.0	-0.2	-0.2
Latest forecast and update on performance against cap and pathway						
March forecast	118.6	120.7	121.9	123.1	125.6	128.5
March forecast with inflation adjustment	118.6	120.7	121.8	123.1	125.8	128.7
Difference from:						
Cap and pathway	-0.7	-0.2	-0.2	-0.8	-1.3	-1.5
Cap and pathway plus margin	**-1.3**	**-1.4**	**-2.0**	**-3.3**	**-4.4**	**-5.4**

Fiscal objective for the next Parliament

5.17 According to the *Charter for Budget Responsibility*, the Government's fiscal objective is to "*return the public finances to balance at the earliest possible date in the next Parliament*". When this objective was set, the 'next Parliament' was expected to run to May 2025, so the 'earliest possible date' could have been anywhere up to 2025-26. The Conservative Party's 2017 manifesto similarly committed to "*a balanced budget by the middle of the next decade*". Our forecast horizon extends to 2022-23, so we cannot assess performance against this objective using a central forecast for 2025-26. But with our central forecast showing the budget deficit still at 0.9 per cent of GDP (£21.4 billion) by 2022-23, meeting this objective appears challenging from a variety of perspectives. For example:

- If the deficit was **extrapolated to continue falling at the average pace that it falls beyond the Spending Review period** (i.e. the three years to 2022-23), it would reach balance in 2027-28. Among other things, that would require per capita departmental spending – around 60 per cent of which in 2019-20 is planned to go on health and education – to continue to fall each year in real terms.

- Our 2017 *FSR*, produced on the basis of our November 2016 forecast, showed that if receipts and annually managed expenditure were **projected forward in line with the approach taken in our medium-term forecast**, but departmental spending was allowed to rise in line with the pressures of an ageing population and other non-demographic pressures on health spending, the deficit would remain roughly flat over the four years to 2025-26. Even holding the deficit constant in these circumstances would require the further fiscal tightening implied by linking tax thresholds and working-age benefits awards to inflation rather than earnings. This would push the receipts-to-GDP ratio up by a further 0.6 per cent of GDP in the four years to 2025-26 and reduce average working-age welfare payments by a further 10 per cent relative to earnings.

- Using **our central *FSR* projection** itself, the challenge looks even greater. Under that methodology, we assume that tax thresholds and working-age benefit awards move with earnings rather than inflation, in order to prevent receipts continually rising relative to GDP and the incomes of working-age benefit recipients continually declining relative to those of the rest of the population. Adding in the pressures on spending from an ageing population, non-demographic pressures specific to health spending and the cost of the triple lock on the uprating of state pensions, would put the deficit on a rising path. In our 2017 *FSR*, based on our November 2016 medium-term forecast, the deficit rose by 1.1 per cent of GDP in the four years to 2025-26.

5.18 If, given the early General Election last year, the fiscal objective in the *Charter* is interpreted as requiring the budget to be in balance by 2022-23 – five years from the election – as noted it would be missed on our central forecast by 0.9 per cent of GDP (£21.4 billion).

Previous fiscal targets

5.19 Since the OBR was established by the Coalition Government in 2010, we have assessed performance against three previous fiscal mandates, three previous supplementary debt targets and three previous welfare caps:

- The **fiscal mandate** has targeted different measures of the deficit at different horizons. In the 2010-2015 Parliament, it targeted a surplus on the cyclically adjusted current budget balance (i.e. PSNB excluding net investment spending) by the end of the rolling, 5-year forecast period. In December 2014, this was changed to the end of the third year of the forecast period. At the start of the 2015-2017 Parliament, it targeted a surplus on headline PSNB by the end of 2019-20.

- The **supplementary debt target** has always referred to year-on-year changes in the ratio of PSND to GDP, but the reference year has changed. In the 2010-2015 Parliament, it started by targeting a year-on-year fall in the fixed year of 2015-16. In December 2014 that was moved back to 2016-17. At the start of the last Parliament, the target was changed to year-on-year falls in every year from 2015-16 onwards.

- The **welfare cap** has always referred to the same subset of welfare spending, but its level has been changed frequently. Abstracting from movements that related only to classification changes, there have been three previous caps. In March 2014 the Coalition set the cap in line with our latest forecast at the time, then in July 2015 the current Government lowered the cap in line with our updated forecast, including the effects of the welfare cuts announced in its post-election Summer Budget. The Conservative Government set a new one in line with our November 2016 forecast.

5.20 The October 2015 version of the *Charter* stated also that "*These targets apply unless and until the Office for Budget Responsibility (OBR) assess, as part of their economic and fiscal forecast, that there is a significant negative shock to the UK. A significant negative shock is defined as real GDP growth of less than 1% on a rolling 4 quarter-on-4 quarter basis.*" On our latest forecast, that escape clause would not be triggered. The current *Charter* maintains an escape clause set in terms of a 'significant negative shock', but has shifted the responsibility for assessing that to the Treasury and no longer specifies what such a shock would look like in terms of 4-quarter-on-4-quarter real GDP growth. This aligns the escape clause with the approach that the Government took after the referendum in 2016.

5.21 The latest outturn data and our current central forecast would imply:

- Meeting the **first and second Coalition fiscal mandates** of a surplus on the cyclically adjusted current budget by a margin of £34.2 billion in 2022-23 (the end of the forecast) and £24.7 billion in 2020-21 (the third year of the forecast).
- Missing the **first Conservative fiscal mandate** of a headline surplus in 2019-20 by a margin of £33.9 billion.
- Meeting the **first Coalition supplementary debt target** by a margin of 0.3 per cent of GDP in 2015-16 and missing the **second Coalition supplementary debt target** by a margin of 2.7 per cent of GDP in 2016-17.
- Missing the **first Conservative supplementary debt target** due to debt rising as a share of GDP in 2016-17 and 2017-18.
- Meeting the **March 2014 welfare cap** due to the relevant spending being within the cap-plus-margin in all four years of the capped period (which extended to 2018-19). In part that reflects the significant cuts to working-age welfare spending that were announced in the July 2015 Budget.
- Missing the **July 2015 welfare cap** by increasing margins, with the relevant spending exceeding the cap-plus-margin in all years. In part that reflected reversing some of the July 2015 welfare spending cuts before they had been implemented.
- Meeting the **November 2016 welfare cap**, with the relevant spending below the cap-plus-margin by a margin of £3.9 billion.

5.22 During the last Parliament and up to Budget 2016, the Government had an informal objective of looking for the budget to be in surplus by £10 billion in 2019-20 (over-achieving its balanced budget target by that precise amount). On our central forecast the budget is now heading for a deficit of £33.9 billion in that year.

Recognising uncertainty

5.23 The future is uncertain and the likelihood of unexpected economic and political developments means that the distribution of possible outcomes around any particular central forecast is large. Consequently there are significant upside and downside risks to our central forecasts for the public finances. These reflect uncertainty both about the outlook for the economy and about the level of receipts and spending in any given state of the economy. The ongoing Brexit negotiations – and the limited information about the policy settings and international trading arrangements thereafter – create additional uncertainty.

5.24 Given these uncertainties, it is important to stress-test our judgements about the Government's performance against its fiscal targets. We do this in three ways:

- by looking at the distribution of **past forecast errors**;
- by seeing how our central forecast changes if we apply **different individual judgements and assumptions** to it; and
- by looking at **alternative economic scenarios**.

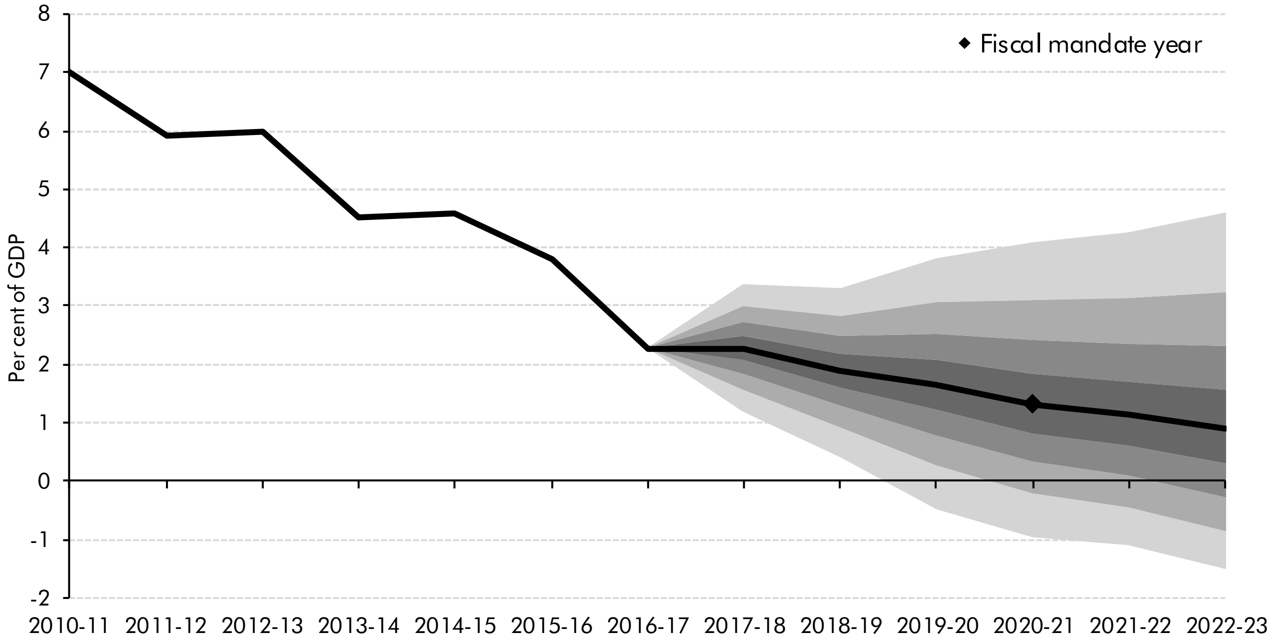
Past performance

5.25 One relatively simple way to illustrate the uncertainty around our central forecast is to consider the accuracy of previous official public finance forecasts – both our own and the Treasury's that preceded them. This can be done using fan charts like that we presented for GDP growth in Chapter 3. The fan charts do not represent our assessment of specific risks to the central forecast. Instead they show the outcomes that someone might anticipate if they believed, rightly or wrongly, that the size and distribution of forecast errors in the past offered a reasonable guide to their likely size and distribution in the future.

5.26 It is important to note that the historical forecast errors that underpin our fan charts reflect both underlying forecast errors and the effects of any subsequent policy responses. That is likely to be one reason why the probability distributions around borrowing and other measures of the budget balance do not widen significantly at longer time horizons: when underlying forecast changes push borrowing significantly away from original plans, governments tend to change policy to try to bring it back on track. This was evident in the analysis of past fiscal forecast errors and the fiscal policy response of governments presented in Annex B of our March 2016 *Economic and fiscal outlook (EFO)*.

5.27 The probability of the Government meeting its fiscal mandate can be assessed using the distribution of forecast errors that underpins a fan chart for cyclically adjusted PSNB. Chart 5.3 shows the fan chart around our central forecast. It shows that the Government is on course to meet the fiscal mandate by 2020-21. The probability of the structural deficit being below 2 per cent of GDP is around 65 per cent from 2019-20 onwards. This is little changed from November.

Chart 5.3: Cyclically adjusted public sector net borrowing fan chart



Source: ONS, OBR

5.28 Unfortunately, we cannot estimate the probability of achieving the supplementary target as we do not have the joint distribution that would allow us to apply the same technique. But our central forecast shows the debt-to-GDP ratio falling in the target year, implying a more than 50-50 chance that target will be met in 2020-21. We do not have a sufficiently long disaggregated series of past welfare spending forecasts to produce a fan chart for the welfare cap projections either.

Sensitivity analysis

5.29 It is next to impossible to produce a full unconditional probability distribution for the Government's target fiscal variables because they are affected by so many determinants – both economic and non-economic – many of which are also interrelated in complex ways. But we can go further than using evidence from past forecast errors by illustrating how sensitive the central forecast is to changes in individual parameters and judgements.

5.30 In thinking about the evolution of the public finances over the medium term, there are several parameters that have an important bearing on the forecast. Here we focus on:

- the **sensitivity of the fiscal mandate** to changes to the level of potential GDP, inflation, interest rates, the effective tax rate, and planned spending cuts;
- the **sensitivity of the supplementary debt target** to differences in the level of debt or the growth rate of the economy, which both affect how debt changes from year-to-year as a percentage of GDP; and
- some of the circumstances in which **the supplementary target could be missed while still meeting the fiscal mandate**.

The fiscal mandate

5.31 As Chart 5.3 illustrated, on the basis of past forecast errors, we estimate that there is a roughly 35 per cent chance that the structural budget deficit will exceed 2 per cent of GDP in 2020-21. There are many reasons why this might happen. For example, the evolution of potential output could be less favourable than forecast or receipts or spending could turn out differently for a given state of the economy. And while our forecasts are conditioned on current Government policy, that is also likely to change, especially in respect of the policy settings and international trading arrangements that will apply once the UK has left the EU.

5.32 On our website we publish ready-reckoners that show how elements of the public finances could be affected by changes in some of the determinants of our fiscal forecast. It is important to stress that these are stylised exercises that reflect the typical impact of changes in variables on receipts and spending as embodied in our forecast models. They are subject to significant uncertainty. But bearing those caveats in mind, we can use ready-reckoners to calibrate several possible adverse surprises relative to our central forecast that would be sufficient to push the structural deficit above 2 per cent of GDP in 2020-21.

5.33 This analysis shows that the 0.7 per cent of GDP margin relative to the 2 per cent target could fall to zero if:

- **Potential output** were 1.4 per cent lower. This would be broadly equivalent to the downward revision to potential output in 2020-21 that we made in our November forecast. But it is not large relative to the cumulative downward revisions made since the financial crisis and subsequent recession.

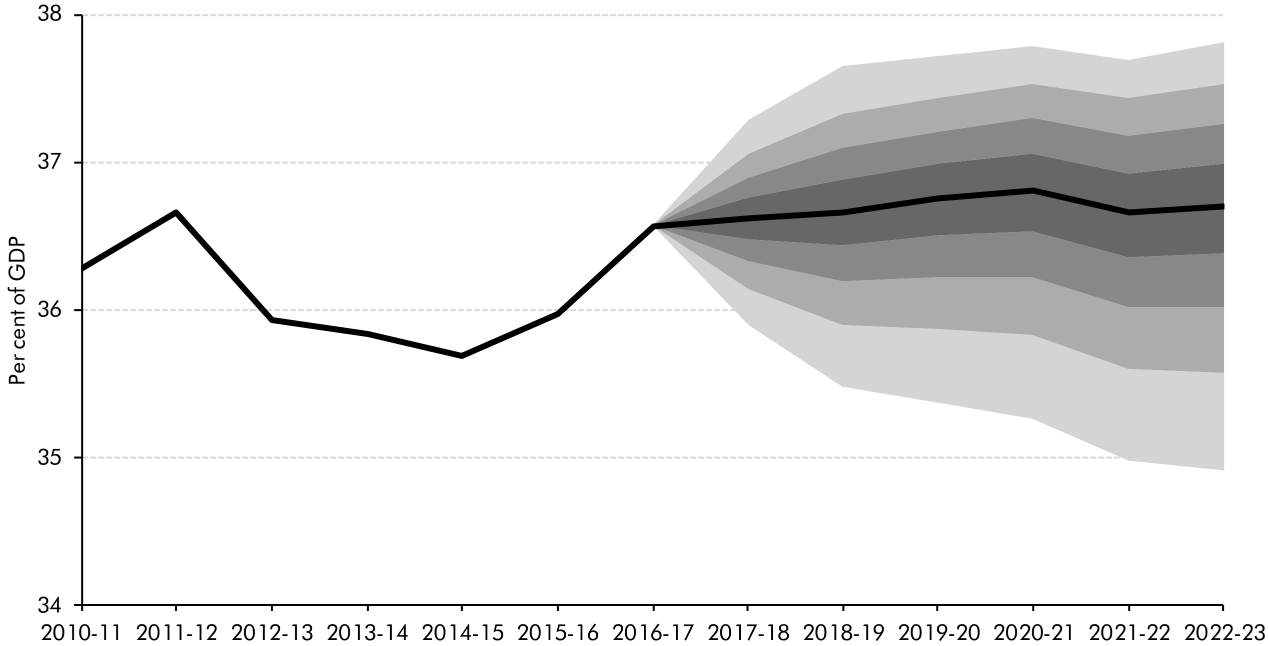
- The **effective tax rate** – as measured by the tax-to-GDP ratio – were 0.7 percentage points lower and the difference was a consequence of structural factors (recognising that unpicking the structural and cyclical elements of any changes in the tax-to-GDP ratio would be very difficult). Chart 5.4 presents a fan chart for receipts as a share of GDP, reflecting both cyclical and structural drivers of past errors. It suggests there is around a 25 per cent chance that receipts could be 0.7 per cent of GDP lower than forecast.

- **Planned spending cuts** – which reduce RDEL by 0.7 per cent of GDP between 2017-18 and 2020-21 in our forecast – were not implemented.

- **Effective interest rates** on central government gross debt were 0.8 percentage points higher (relative to our central projection of 2.3 per cent). The fact that £371 billion of conventional gilts held in the APF are currently in effect financed at Bank Rate reduces the effective interest rate by 0.4 percentage points.

- Higher **RPI inflation** could increase accrued interest on index-linked gilts. Taken in isolation, if RPI inflation were 3.3 percentage points higher than expected in 2020-21, that alone would add 0.7 per cent of GDP to debt interest costs. Based on past forecast errors, the chance of that happening is small. And of course, this sort of shock to inflation would be likely to have other material effects on the public finances.

Chart 5.4: Receipts fan chart



Source: ONS, OBR

The supplementary debt target

5.34 The supplementary debt target is focused on year-on-year changes in the debt-to-GDP ratio, with the target set for a fixed date of 2020-21. Table 5.5 shows how our central forecast for a 3.0 per cent of GDP fall in PSND in that year would be affected by two sources of sensitivity: differences in the level of debt in the preceding year and differences in growth in 2020-21. We use cyclical-adjustment coefficients to estimate the effect of GDP growth shocks on borrowing, but do not vary interest rates, so that differences in the assumed rate of GDP growth result in changes to the interest rate-growth rate differential. On that basis, the table shows that:

- In most cases, the extent to which debt falls in 2020-21 is inversely related to **the level of debt in the preceding year**. That counter-intuitive result is due to the low level of interest rates assumed in our central forecast, which means that the effect of GDP growth on the denominator in the debt-to-GDP ratio is greater than the effect of interest rates on growth in the cash level of debt (via debt interest spending). The higher the starting level of debt, the more the denominator effect outweighs the interest rate effect. It is only the larger negative growth shocks that see the growth rate fall close to the assumed interest rate. When they are similar (which would be the case if growth was around 2 percentage points lower), the two effects cancel out. If the growth rate was lower than the interest rate, the extent to which debt falls would be positively related to the level of debt in the preceding year.

- As expected, negative **shocks to GDP growth** reduce the extent by which debt falls as a share of GDP and positive shocks increase it. The year-on-year change in the debt-to-GDP ratio is more sensitive than the deficit to GDP shocks, because it is affected both by the deficit channel (which drives the accumulation of debt in that year) and by the denominator channel (which means the previous year's cash debt is divided by a different level of nominal GDP). Well over half the fall in the debt-to-GDP ratio in 2020-21 reflects the assumed repayment of TFS loans at the end of their 4-year term. Excluding that effect, meeting the proposed target would be at risk to small negative shocks to GDP growth.

Table 5.5: Illustrative debt target sensitivities in 2020-21

		Year on year change in the PSND-to-GDP ratio in 2020-21					
		Difference in GDP growth in 2020-21 (percentage points)					
		-3	**-2**	**-1**	**0**	**+1**	**+2**
	-20	1.3	-0.1	-1.4	-2.8	-4.1	-5.4
Difference in the level	**-10**	1.4	0.0	-1.5	-2.9	-4.3	-5.7
of PSND in 2019-20	**+0**	1.6	0.1	-1.5	**-3.0**	-4.5	-6.0
(per cent of GDP)	**+10**	1.8	0.1	-1.5	-3.1	-4.7	-6.3
	+20	2.0	0.2	-1.5	-3.3	-4.9	-6.6

5.35 The Government's fiscal targets only apply in the fixed year of 2020-21, but each is subject to different sensitivities. For example, holding all other elements of our central forecast constant, but assuming that structural borrowing in 2020-21 was 2 per cent of GDP, it would still be possible for the supplementary target to be missed if:

- **TFS loans** issued in 2016-17 were rolled over rather than being repaid, as their repayment reduces debt by 2.4 per cent of GDP in 2020-21 in our central forecast.
- **Cyclical borrowing** caused the primary balance to deteriorate by more than 2.3 per cent of GDP. (It is close to zero in our central forecast).
- **Financial transactions** pushed cash borrowing up relative to PSNB by 2.3 per cent of GDP more than in our central forecast. That could happen if the Bank of England decided that a monetary policy stimulus of the type that was announced in August 2016 was necessary in that year.
- **Nominal GDP growth** were lower than 1.5 per cent in the year centred on end-March 2021 that is the denominator for the debt-to-GDP ratio in 2020-21 (relative to 3.0 per cent in our central forecast).

Scenario analysis

5.36 The sensitivity analysis discussed above focuses on ready-reckoned estimates of the impact of individual factors and therefore offers only a limited assessment of potential uncertainty. In this section, we set out the fiscal implications of illustrative alternative economic scenarios, designed to test how dependent our conclusions are on key judgements that are subject to debate in the forecasting community. We stress that these scenarios are not intended to capture all possible ways in which the economy might deviate from the central forecast and we do not attempt to attach particular probabilities to them occurring.

5.37 While much attention focuses on how our departure from the EU might affect the economy, there is little that we can add while remaining within the confines of the remit that has been set for us by Parliament. Instead, we consider the fiscal implications of two alternative scenarios that generate a higher path for inflation and, consequently, tighter monetary policy. While these scenarios both deliver significantly higher inflation and interest rate paths, the mechanisms by which they do so, and hence the fiscal consequences, differ:

- Our central forecast assumes a relatively gentle pick-up in the global economy and that part of the upward revision we have made to our near-term global growth forecast since November is structural. The **global overheating** scenario assumes that global growth picks up more rapidly, providing a boost to UK growth, but that this prompts global monetary policy to be tightened more aggressively, which results in a depreciation of sterling. It also assumes that UK inflation responds to the capacity pressures from stronger global demand as well as responding to the depreciation.

- Recent surveys have shown signs of growing capacity pressures. Estimates of the output gap implied by the nine different approaches we follow ranged from -0.4 to +3.1 per cent in the fourth quarter of 2017. As set out in Chapter 3, we judge that the economy was only operating slightly above capacity. So the **domestic supply weakness** scenario assumes that the output gap in 2017 was towards the top of the range rather than the bottom. This would mean that the level of potential output is currently lower than our central estimate. The scenario assumes that the factors that would have been necessary for domestically generated inflation in the past to have been contained despite these capacity pressures begin to fade.

5.38 Both scenarios deliver higher CPI inflation. They assume that the Bank of England tightens monetary policy significantly faster in the near term to bring inflation back to target within its forecast horizon. Short-term interest rates peak at 2.8 per cent in 2019-20 compared to 1.3 per cent in that year in the central forecast. CPI inflation remains above 2 per cent until 2022-23, three years longer than in the central forecast. RPI inflation is higher still.

5.39 The main difference between the scenarios is the path for real GDP growth:

- In the **global overheating** scenario, GDP growth is initially higher, delivering a wider positive output gap. Tighter UK monetary policy and a slowdown in the world economy then brings GDP growth back below the central forecast in the medium term. With potential output unchanged over the forecast period, the level of real GDP and employment in 2022-23 is in line with the central forecast. However, due to higher inflation, the level of nominal GDP, labour income and profits are all around 1½ per cent higher than the central forecast by 2022-23. The effect of higher household incomes more than offsets the effect of higher interest rates on house prices.

- In the **domestic supply weakness** scenario, real GDP is 2 per cent lower at the end of the forecast period – split evenly between employment and productivity – as actual GDP growth is below potential growth in order to close the large positive output gap. With a partial offset from higher inflation, this means that nominal GDP, labour income and profits are almost 1 per cent lower than the central forecast by 2022-23. Lower household incomes and higher interest rates hit house prices, which are around 5 per cent lower at the forecast horizon.

5.40 On the basis of the assumptions above, Table 5.6 summarises the main fiscal implications of each scenario on the current fiscal targets:

- In the **global overheating** scenario, stronger nominal GDP growth boosts receipts while higher inflation and interest rates raise debt interest spending. While real GDP effects subside, nominal GDP is permanently higher due to the price level effects of temporarily higher inflation. So, while debt interest spending returns close to the central forecast by 2022-23, tax receipts are permanently higher. Other spending effects are relatively small – e.g. via the triple lock on state pensions. We assume that DEL spending is unchanged from current plans. Borrowing would be higher in the short term – as the effect on debt interest would ramp up quickly – but lower from 2020-21 onwards. But the fiscal mandate would be met by a smaller margin than in our central forecast (0.3 per cent of GDP) because cyclical factors more than explain the reduction in headline borrowing. The debt target would be met, with PSND falling by 2.8 per cent of GDP. Welfare cap spending would also remain below the cap-plus-margin after application of the inflation adjustment.

- In the **domestic supply** weakness scenario, the same effects from higher inflation and interest rates would raise debt interest spending, but these would not be offset by stronger receipts due to the weaker path for real GDP growth. Tax receipts would be significantly lower than the central forecast by 2022-23. And a weaker labour market would raise welfare spending. DEL spending is unchanged. Headline borrowing would be significantly higher in all years. As a result, the fiscal mandate would be missed by 0.4 per cent of GDP. The debt target would still be met, but by a smaller margin (2.2 per cent of GDP) than the flattering effect on the debt-to-GDP ratio in 2020-21 of TFS loans being repaid. Again, the terms of the welfare cap would still be met.

Table 5.6: Key economic and fiscal aggregates under alternative scenarios

	Per cent of GDP, unless otherwise stated					
	Central forecast					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Economic assumptions						
GDP growth (per cent on a year earlier)	1.6	1.5	1.2	1.3	1.4	1.5
Output gap (per cent of potential GDP)	0.2	0.2	0.1	0.0	0.0	0.0
CPI inflation (per cent on a year earlier)	2.9	2.2	1.8	2.0	2.0	2.0
3-month interest rate (per cent)	0.4	0.9	1.3	1.5	1.7	1.7
Nominal GDP (£ trillion)[1]	2.05	2.12	2.18	2.24	2.31	2.39
Fiscal aggregates						
Public sector current receipts	36.6	36.7	36.8	36.8	36.7	36.7
Total managed expenditure	38.8	38.4	38.3	38.1	37.8	37.6
Public sector net borrowing	2.2	1.8	1.6	1.3	1.1	0.9
Fiscal targets						
Cyclically adjusted public sector net borrowing	2.3	1.9	1.6	1.3	1.1	0.9
Public sector net debt	85.6	85.5	85.1	82.1	78.3	77.9
	'Global overheating' scenario					
Economic assumptions						
GDP growth (per cent on a year earlier)	1.6	2.0	1.7	1.1	0.7	1.3
Output gap (per cent of potential GDP)	0.2	0.7	1.1	0.8	0.2	0.0
CPI inflation (per cent on a year earlier)	2.9	2.9	2.6	2.5	2.2	2.0
3-month interest rate (per cent)	0.4	2.3	2.8	2.4	2.0	1.8
Nominal GDP (£ trillion)[1]	2.06	2.14	2.22	2.29	2.35	2.42
Fiscal aggregates						
Public sector current receipts	36.6	36.7	36.9	36.8	36.5	36.5
Total managed expenditure	38.8	38.9	38.6	37.9	37.5	37.3
Public sector net borrowing	2.2	2.2	1.7	1.1	1.0	0.8
Fiscal mandate measures						
Cyclically adjusted public sector net borrowing	2.3	2.6	2.3	1.7	1.2	0.9
Public sector net debt	85.2	84.7	83.9	81.1	77.6	77.3
	'Domestic supply weakness' scenario					
Economic assumptions						
GDP growth (per cent on a year earlier)	1.6	1.2	0.4	0.7	1.1	1.4
Output gap (per cent of potential GDP)	2.2	2.0	1.0	0.3	0.0	-0.1
CPI inflation (per cent on a year earlier)	2.9	2.9	2.6	2.5	2.2	2.0
3-month interest rate (per cent)	0.4	2.3	2.8	2.4	2.0	1.8
Nominal GDP (£ trillion)[1]	2.05	2.12	2.17	2.23	2.29	2.37
Fiscal aggregates						
Public sector current receipts	36.6	36.8	37.0	36.9	36.5	36.5
Total managed expenditure	38.8	39.2	39.3	38.9	38.4	38.2
Public sector net borrowing	2.2	2.4	2.3	2.0	1.9	1.8
Fiscal mandate measures						
Cyclically adjusted public sector net borrowing	2.3	3.8	3.2	2.4	2.0	1.7
Public sector net debt	85.5	86.3	86.9	84.7	81.7	82.1

[1] Not seasonally adjusted.

Executive summary

Overview

1 In the *Fiscal sustainability report* (*FSR*) we look beyond the medium-term forecast horizon of our twice-yearly *Economic and fiscal outlooks* (*EFOs*) and ask whether the UK's public finances are likely to be sustainable over the longer term.

2 In doing so our approach has been twofold:

- first, we look at the fiscal impact of ***past* government activity**, as reflected in the assets and liabilities on the public sector's balance sheet. This financial year we published this analysis in a *Fiscal sustainability analytical paper* in July 2016; and

- second, we look at the potential fiscal impact of ***future* government activity**, by making 50-year projections of all public spending, revenues and significant financial transactions, such as government loans to students.

3 Our latest projections suggest that the public finances are likely to come under significant pressure over the longer term, due to the effects of an ageing population and further upward pressure on health spending from factors such as technological advancements and the rising prevalence of chronic health conditions. Under our definition of unchanged policy, the Government would end up having to spend more as a share of national income on age-related items such as pensions and in particular health care, but the same demographic trends would leave government revenues roughly stable.

4 In the absence of offsetting tax rises or spending cuts this would widen budget deficits over time and put public sector net debt on an unsustainable upward trajectory. The fiscal challenge from an ageing population and from additional pressures on health spending is common to many developed nations.

5 Viewed on a like-for-like basis, the long-term outlook for the public finances is somewhat less favourable than at the time of our last *FSR* in July 2015. This reflects the fact that the underlying outlook for the public finances over the medium term has deteriorated – thanks largely to a weaker outlook for productivity and GDP growth, which reduces prospective tax revenues. In addition, the Government has increased planned spending on public services, including health spending that we assume will be subject to cost pressures over time. These factors more than offset the impact of the tax increases and cuts to welfare spending that have been announced since the last *FSR*.

6 Long-term projections such as these are highly uncertain and the results we present here should be seen as illustrative, not precise forecasts. We quantify some of the uncertainties through sensitivity analyses, particularly relating to demographic trends and health spending.

7 It is important to emphasise that we focus here on the additional fiscal tightening that might be necessary beyond our medium-term forecast horizon, which currently ends in 2021-22. The report should not be taken to imply that the substantial fiscal consolidation already in the pipeline for the next five years should be made even bigger. We also look at the tightening that would be necessary beyond 2025-26 if the Government were to meet its new fiscal objective to *"return the public finances to balance at the earliest possible date in the next Parliament"* – an objective that appears challenging given the demographic and health spending pressures considered in this report.

8 While not implying a need for further fiscal tightening right away, policymakers and would-be policymakers should certainly think carefully about the long-term consequences of any policies they introduce or propose in the short term. And they should give thought too to the policy choices that will confront them once the current planned consolidation is complete.

Fiscal sustainability analytical papers

9 Following the post-referendum cancellation of our planned July 2016 *FSR*, we published a series of analytical papers covering issues that would have been presented in that *FSR*. These have informed this report – in particular, our working paper on long-term trends in health spending has led us to revise the assumptions used in our new central projection, with a significant effect on our results.

10 In summary, the five *Fiscal sustainability analytical papers* concluded that:

- the 2016 **Whole of Government Accounts** (WGA) and the 2015-16 departmental accounts that will underpin the 2017 WGA report a number of significant increases in different liabilities. While some of these increases reflect actual emerging pressures, more reflected measurement issues – with changes in discount rates having material effects on a number of measured liabilities (and some assets);

- upward pressure on **health spending** – beyond the effects of population ageing – has been evident in most developed economies in recent decades and most institutions that produce long-term projections assume that it will continue. While there is agreement about the direction of this pressure, there are differing views on its extent. We have decided to factor in an assumption about these additional cost pressures in our central projections for the UK, which has had a material effect on the scale of the fiscal challenge future governments can expect over the coming decades;

- updated **population projections** illustrated how the policy link between the State Pension age and expected longevity shares the fiscal risks associated with changes in longevity between future pensioners and future taxpayers. Over the very long term, one-third of any changes – positive or negative – would be borne by future pensioners and two-thirds by future taxpayers;

- new **student loans policies** announced since the 2015 election have raised the amount by which we expect student loans to add to debt over the long term; and

- the various changes to **private pensions and savings policy** in recent years are likely to have a net cost over the long term that is greater than was apparent when they were announced and costed over a five-year horizon. Taken together, they have made pension saving less attractive – particularly for higher earners – while making non-pension saving more attractive – often in ways that can most readily be taken up by the same higher earners.

Long-term fiscal projections

11 We assess the potential fiscal impact of future government activity by making long-term projections of revenue, spending and financial transactions on an assumption of 'unchanged policy', as best we can define it. In doing so, we assume that spending and revenues initially evolve over the next five years as we forecast in our November 2016 *EFO*. This allows us to focus on long-term trends rather than making fresh revisions to the medium-term forecast. We have not made any further judgements or assumptions about the nature of the UK's departure from the European Union beyond those that underpinned our November *EFO*.

Demographic, economic and health-specific assumptions

12 Demographic change is a key long-term pressure on the public finances. Like many developed nations, the UK is projected to have an 'ageing population' over the next few decades, with the 'old-age dependency ratio' – the ratio of the elderly to those of working age – rising. This reflects increasing life expectancy (particularly among older people), relatively low fertility rates, and the retirement of the post-war 'baby boom' cohorts.

13 We base our analysis on detailed population projections produced by the Office for National Statistics (ONS). In this *FSR* we use its 2014-based population projections – released in October 2015. As in our 2015 *FSR*, we base our fiscal projections on the 'principal' ONS population projection. This assumes net inward migration falls to 185,000 a year by 2021 and remains at that level thereafter. We test the sensitivity of our conclusions to using the different ONS variants. Relative to the 2012-based projections that underpinned our 2015 *FSR*, the main differences are higher net migration and slightly higher mortality at older ages – these both mean that the old-age dependency ratio rises less rapidly than in our previous report.

14 As regards the economy, we assume in our central projection that whole economy productivity growth will average 2.0 per cent a year, weaker than we assumed in our last report following successive downward revisions to our medium-term assumptions. Partly offsetting that, we have revised up employment growth by around 0.1 percentage points a year as we have factored in more years of outturn to the long-term averages that underpin

our labour market cohort model. We assume CPI inflation of 2.0 per cent (consistent with the Bank of England's target) – unchanged from our last report. But we have made small revisions to other price assumptions, including assuming a transitional period of higher RPI inflation as interest rates are assumed to normalise, before it reverts to our long-term assumption of 3.0 per cent (unchanged from our last report).

15 In previous reports, we have presented sensitivity analysis showing how our projections would look if we assumed that productivity growth in the health sector averaged less than in the whole economy, but spending was allowed to rise to keep the volume of health services rising in line with whole economy productivity. That would more closely match past experience and suggested a significantly bigger long-term fiscal challenge.

16 In this year's report, in line with the conclusions of our working paper that reviewed the available evidence and the approaches taken by international institutions and the Congressional Budget Office (CBO) in the US, we have decided to alter our central assumptions about health spending. Specifically, we assume that non-demographic cost pressures – a different, but related, concept to weaker health sector productivity growth – add 1 percentage point a year to health spending growth in the long term, with a transitional period up to 2036-37 during which that excess cost growth falls from the latest available estimates for primary and secondary care (which are higher than 1 percentage point) back to the long-term assumption. This approach and the values that we have chosen are most similar to those used by the CBO. Its adoption has pushed up our long-term health spending projection significantly.

Defining 'unchanged' policy

17 Fiscal sustainability analysis is designed to identify whether and when changes in government policy may be necessary to move the public finances from an unsustainable to a sustainable path. To make this judgement, we must first define what we mean by 'unchanged' policy over the long term.

18 Government policy is rarely clearly defined over the long term. In many cases, simply assuming that a stated medium-term policy continues for 50 years would be unrealistic. Where policy is not clearly defined over the long term, the *Charter for Budget Responsibility* allows us to make appropriate assumptions. These are set out clearly in the report. Consistent with the *Charter*, we only include the impact of policy announcements in our central projections when they can be quantified with "*reasonable accuracy*".

19 In our central projections, our assumption for unchanged policy is that beyond 2021-22 underlying age-specific spending on public services, such as health and education, rises with per capita GDP. Changes in the starting point for our projections are often important. Relative to our 2015 *FSR*, two sources of change are worth noting:

- in the **2016 Autumn Statement**, the Government set medium-term fiscal policy in a way that is expected to leave a small deficit in 2021-22 – that contrasts with the March

2015 Budget that underpinned our last projections, where the budget was expected to be in surplus in the final year (2019-20 at that point); and

- spending on public services has been allocated up to 2019-20 – and in some cases 2020-21 – in the **2015 Spending Review**. From a long-term perspective, the most important decision was to allocate a rising share of departmental spending to health, which is subject to both demographic and non-demographic cost pressures.

20 We assume that most tax thresholds and benefits are uprated in line with earnings growth rather than inflation beyond the medium term, which provides a more neutral baseline for long-term projections. An inflation-based assumption would, other things equal, imply an ever-rising ratio of tax to national income and an ever-falling ratio of benefit payments to average earnings in the rest of the economy.

21 We have assumed in our central projection that the 'triple lock' on state pensions uprating continues to apply – and have assumed that on average it leads to the state pension being uprated by 0.34 percentage points faster than earnings growth. The Chancellor has said that the Government will review whether this commitment will continue into the next Parliament *"in light of the evolving fiscal position at the next Spending Review"* – the date for which has not yet been set. We test the sensitivity of our projections to assuming no triple lock premium.

Results of our projections

22 Having defined unchanged policy, we apply our demographic and economic assumptions to produce projections of the public finances over the next 50 years.

Expenditure

23 An ageing population and health-specific cost pressures will put upward pressure on public spending. We project total non-interest public spending to rise from 35.8 per cent of GDP at the end of our medium-term forecast in 2021-22, to 43.8 per cent of GDP by 2066-67. That would represent an overall increase of 8.0 per cent of GDP – equivalent to £156 billion in today's terms. Of that, 4.5 per cent of GDP (£88 billion) reflects our new assumption about additional non-demographic cost pressures pushing up growth of health spending.

24 The main drivers are upward pressures on key items of age-related spending:

- **health spending** rises from 6.9 per cent of GDP in 2021-22 to 12.6 per cent of GDP in 2066-67, rising smoothly as the population ages and non-demographic cost pressures push spending higher. This profile is much steeper than in our last report. Less challenging demographic trends and a change in our assumption about morbidity in later life reduce growth in spending, but a higher starting point and – most importantly – the inclusion of non-demographic cost pressures, push it up much more;

- **state pension costs** increase from 5.0 per cent of GDP in 2021-22 to 7.1 per cent of GDP in 2066-67 as the population ages. This profile is little changed from our last report given the relatively small change in the old-age dependency ratio in the latest ONS population projections and that some of the effect of that on spending is offset by the State Pension age being assumed to move with changes in longevity; and

- **long-term social care costs** rise from 1.1 per cent of GDP in 2021-22 to 2.0 per cent of GDP in 2066-67, reflecting the ageing of the population and the previous Government's announcement of a lifetime cap on certain long-term care expenses incurred by individuals. The projections are slightly lower than in our last report as the medium-term decisions that the Government has taken since then imply less spending than in our demand-led assumptions that underpinned that report. As the recent announcement of accelerated increases in council tax-financing for adult social care only affects the profile of spending over the medium term, not the end point, we have not adjusted our projections on that account.

Revenue

25 Demographic factors will have less impact on revenues than on spending. Non-interest revenues are projected to be all-but flat across the projection period as a share of GDP. In our central projections, those revenue streams that are not affected by demographics are explicitly held constant as a share of GDP – even though non-demographic factors may affect them in the future. Given the timing of this year's report, we have not undertaken further analysis of such non-demographic factors.

Financial transactions

26 In order to move from spending and revenue projections to an assessment of the outlook for public sector net debt, we need also to take public sector financial transactions into account. These affect net debt directly, without affecting accrued spending or borrowing.

27 For the majority of financial transactions, we assume that the net effect is zero. Student loans are an important exception. Lending to students adds to net debt immediately through financing the outlays. Repayments then reduce that addition, but not completely because some of the lending is expected to be written-off rather than repaid. The biggest effect on our projections since our last report comes from new policies. Some previous grant-funding has been converted into lending (e.g. for nurses), while eligibility has been broadened (e.g. for postgraduate courses). The Government has also changed repayment terms for some graduates, increasing repayments. The net effect has been to push the peak effect on net debt up to 11.1 per cent of GDP in the late-2030s. By 2066-67, the addition to net debt is projected to fall back slightly to 9.3 per cent of GDP.

28 The Government continues to reduce the assets held by UKAR through active sales and the natural rundown of mortgages. It has also reduced its shareholding in Lloyds Banking Group to the point where it is expected to have sold its entire stake by the end of 2017-18. But it retains a significant stake in RBS. The sale of financial assets is classified as a financial transaction in the public finances data. Sales reduce public sector net debt directly and indirectly via net borrowing (because interest is paid on a smaller stock of debt), but typically (and in the case of these sales) the government also loses a related income stream. Over the

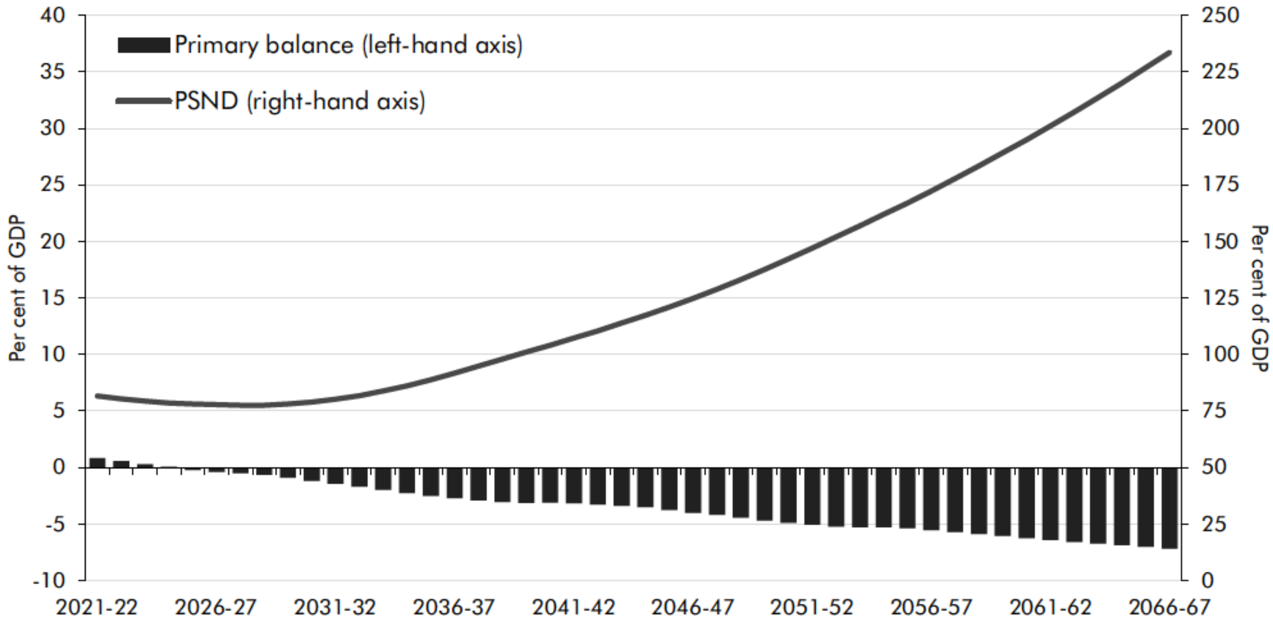
long term, therefore, the net impact of asset sales on net debt is significantly less than the sale price. The effect on broader balance sheet measures that factor in more types of asset is typically close to zero because the sales involve converting one type of asset (mortgages or shares) into another (cash).

Projections of the primary balance and public sector net debt

29 Our central projections show public spending increasing as a share of national income beyond the medium-term forecast horizon, exceeding receipts by increasing amounts over the projection period. As a result, the primary budget balance (the difference between non-interest revenues and spending that is the key to the public sector's debt dynamics) is projected to move from a surplus of 0.8 per cent of GDP in 2021-22 to a deficit by the mid-2020s, with the deficit reaching 7.2 per cent of GDP in 2066-67 – an overall deterioration of 8.0 per cent of GDP, equivalent to £156 billion in today's terms.

30 Taking this and our projection of financial transactions into account, PSND is projected to fall from its medium-term peak of just over 90 per cent of GDP in 2017-18 to below 80 per cent of GDP for most of the 2020s, before rising steadily thereafter and reaching 234 per cent of GDP in 2066-67. Beyond this point, debt would remain on a rising path.

Chart 1: Central projection of the primary balance and PSND



Source: OBR

31 The primary balance and PSND at the end of the projection period are much higher than in our 2015 *FSR* projections. As Table 1 shows, this reflects:

- **classification changes** to housing associations, which have been reclassified to the public sector, have a small effect on the primary balance but a larger effect on net debt in the short term that increases over the projection period;

- our judgement in this year's *FSR* that **health spending will rise to accommodate non-demographic cost pressures** increases the projected budget deficit and public debt since our 2015 *FSR*;

- the **changes to our projections that reflect policy measures and other developments since the 2015 *FSR* are more modest**, but on balance imply yet greater pressure on the public finances over the next 50 years. The underlying outlook for the public finances over the medium term has deteriorated and the Government has also chosen to increase planned public services spending, including on health (to which the mounting cost pressures apply). This puts upward pressure on deficits and debt, more than offsetting the impact of the net welfare cuts and tax increases announced since 2015; and

- taking all these factors into account, if left unaddressed **our latest projections suggest that the primary deficit would rise to 7.2 per cent of GDP and PSND to 234 per cent of GDP in 2066-67 and continue rising thereafter.** The big picture of upward pressure from health costs and ageing is common to many industrial countries.

Table 1: Changes in the primary balance and net debt since *FSR* 2015

	Primary balance 2021-22	Primary balance 2066-67	Net debt 2066-67
FSR 2015	2.0	-2.0	91
Housing Associations reclassification	0.0	0.0	8
Excess cost growth applied after 2021-22 to health spending assumption	0.0	-4.5	89
FSR 2015 restated post-reclassifications and excess health cost growth	1.9	-6.5	188
Weaker medium-term forecast on a pre-measures basis	-1.6	-1.6	54
Other modelling assumptions	0.0	0.6	4
Total pre-policy measures changes	**-1.6**	**-1.0**	**58**
FSR 2017 pre-policy measures	0.3	-7.5	247
Health	-0.3	-0.7	17
Receipts	0.8	0.8	-26
Welfare	0.6	0.6	-21
Other spending	-0.5	-0.4	17
Total policy-related changes	**0.5**	**0.3**	**-13**
FSR 2017	0.8	-7.2	234
Memo: Breakdown of health spending policy change effect:			
Health spending policy changes excluding excess cost growth	*-0.3*	*-0.4*	
Excess cost growth on higher health spending	*0.0*	*-0.3*	

32 We have not attempted to quantify the impact of Brexit on the change in the projections since the 2015 *FSR*, as we did in the November *EFO* for changes in our medium-term forecast since March. Qualitatively, our November judgements about Brexit explain some of the underlying deterioration in the medium-term jumping-off point since our March 2015 *EFO*, while net migration being lower than would otherwise have been the case would push debt higher. The downward revision to our long-term productivity growth assumption is not a Brexit-related judgement, although given the way our long-term projections are produced,

any changes would affect both numerator and denominator in the debt-to-GDP ratio, so would have little effect on the fiscal projections.

33 Needless to say, there are huge uncertainties around any projections that extend this far into the future. Small changes to underlying assumptions can have large effects on the projections once they have been cumulated across many decades. We therefore test these sensitivities using a number of different scenarios.

34 The eventual increase in PSND would be greater than in our central projection if long-term interest rates turned out to be higher relative to economic growth, if the age structure of the population was older, or if net inward migration (which is concentrated among people of working age) was lower than in our central projection.

35 Given the importance of health spending in the long-term challenge to fiscal sustainability, the rate of productivity growth in the sector or the pace at which non-demographic pressures push spending up are important assumptions. Faster or slower excess cost growth would see health spending rise by more or less than in our central projection – by +2.4/-2.0 per cent of GDP in the +/-0.5 percentage point sensitivity analyses we present. If, rather than assuming excess cost growth, we assume productivity growth was weaker in the health sector than in the rest of the economy, and health spending was to be increased more quickly to compensate, then in our illustrative scenario health spending would rise by 4.8 per cent of GDP between 2021-22 and 2066-67 – 1.0 per cent less than in our central projection.

Summary indicators of fiscal sustainability

36 In our central projections, and under the variants we calculate, on current policy we would expect the budget deficit to widen significantly over the long term, putting public sector net debt on a rising trajectory as a share of national income. This would not be sustainable.

37 Summary indicators of sustainability can be used to illustrate the scale of the challenge more rigorously and to quantify the tax increases and/or spending cuts necessary to return the public finances to different definitions of sustainability. We focus on a measure of sustainability that asks how big a permanent spending cut or tax increase would be necessary to move public sector net debt to a particular desired level at a particular chosen date. This is referred to as the 'fiscal gap'.

38 There is no consensus on what would be an optimal level for the public debt to GDP ratio. So for illustration, we calculate the additional fiscal tightening necessary from 2022-23 to return PSND to 20, 40 or 60 per cent of GDP at the end of our projections in 2066-67. In practice, given that expenditure pressures in our projections build up gradually over time, a phased fiscal adjustment might be considered a more realistic illustration. We also calculate what additional fiscal tightening would be necessary to hit these thresholds in 2066-67 if, to begin with, the Government meets its challenging objective of reducing the overall deficit to zero in the next Parliament (i.e. by 2025-26).

39 Under our central projections, a once-and-for-all policy tightening of 4.3 per cent of GDP in 2022-23 (£84 billion in today's terms) would see the debt ratio at 40 per cent of GDP in 2066-67. But this is less than the 7.0 per cent of GDP required to stabilise debt over the longer term and so the debt ratio would continue rising beyond the target date. Tightening policy by 1.5 per cent of GDP a decade would see the debt ratio fall more slowly to begin with, but the overall tightening would be large enough to stabilise the debt ratio at around the target level and prevent it from taking off again. These estimates are significantly bigger than in our last report due to the non-demographic cost pressures factored into our central health spending projection. Targeting debt ratios of 20 and 60 per cent of GDP would require larger and smaller adjustments respectively.

40 If the Government was to meet its objective of reducing the deficit to zero in the next Parliament, a further once-and-for-all policy tightening of 2.8 per cent of GDP in 2026-27 would see the debt ratio reach 40 per cent of GDP in 2066-67. Tightening policy by 1.1 per cent of GDP a decade would also stabilise the debt ratio at that level. But balancing the budget in the next Parliament will be challenging in the face of ageing pressures on health, social care and state pensions spending, and if non-demographic pressures on health spending continue at close to their recent pace. That would be true even if tax and benefit thresholds were uprated in line with inflation rather than earnings over the next Parliament, boosting tax receipts through fiscal drag and reducing welfare spending through the erosion of the average awards relative to average earnings.

Annex B

Fiscal impact of policy decisions

The tables in this annex show the fiscal impact of policy decisions taken at Autumn Budget 2017.

Table 2.1: Autumn Budget 2017 policy decisions (£ million)[1]

		Head	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23[2]
Housing and Homeownership								
1	Land Assembly Fund[3]	Spend	0	0	-220	-355	*-355*	*-355*
2	Housing Infrastructure Fund: extend[3]	Spend	0	0	-215	-710	*-1,070*	*-1,185*
3	Small sites: infrastructure and remediation	Spend	0	-275	-355	-120	*0*	*0*
4	Local Authority housebuilding: additional investment	Spend	0	0	-355	-265	-260	0
5	Stamp Duty Land Tax: abolish for First Time Buyers up to £300,000	Tax	-125	-560	-585	-610	-640	-670
6	Right to Buy for Housing Association tenants: pilot	Spend	0	0	-85	0	0	0
7	Council Tax: increase maximum empty home premium to 100%	Tax	0	0	0	0	+5	+5
National Health Service								
8	NHS: additional resource	Spend	-400	-1,900	-1,070	0	0	0
9	NHS: additional capital	Spend	-600	-420	-840	-1,020	-960	-360
Supporting families and working people								
10	Fuel Duty: freeze for 2018-19	Tax	0	-830	-825	-845	-865	-885
11	Alcohol Duties: freeze in 2018	Tax	-35	-225	-230	-230	-235	-240
12	Air Passenger Duty: freeze for long-haul economy flights and raise business class multiplier	Tax	0	0	+25	+25	+25	+30
13	Targeted Affordability Fund: increase	Spend	0	-40	-85	-95	-100	-110
14	Universal Credit: remove 7 day wait and extend advances to 100%	Spend	-20	-170	-205	-195	-160	-145
15	Universal Credit: run on payment for housing benefit recipients	Spend	0	-130	-125	-135	-110	-40
16	Universal Credit: in-work progression trials	Spend	*	*	*	-5	-5	0
17	Private rented sector access schemes: support for households at risk of homelessness	Spend	0	-10	-10	-	-	-
18	Disabled Facilities Grant: additional resource	Spend	-50	0	0	0	0	0
19	Relationship Support: continue programme	Spend	0	-5	-10	-	-	-
An economy fit for the future								
20	Domestic spending: preparing for EU Exit	Spend	0	-1,500	-1,500	0	0	0
21	National Productivity Investment Fund[3]	Spend	0	0	0	0	0	*-7,000*
22	Research and Development: NPIF investment[3]	Spend	0	0	0	0	*-2,300*	-
23	Research and Development: increase R&D expenditure credit to 12%	Spend	-5	-60	-170	-175	-170	-175
24	Oil and Gas: transferrable tax history	Tax	0	+5	+20	+10	+10	+25
25	Patient Capital Review: reforms to tax reliefs to support productive investment	Tax	0	0	+45	+35	-15	-20
26	Innovation: Ultra Low Emission Vehicles: plug in car grant	Spend	0	-50	-50	0	0	0
27	Innovation: tech, AI, and geo-spatial data	Spend	0	-70	-75	-	-	-

Continued

	Head	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23[2]
28 Transport: accelerate capital investment for intra-city transport (Transforming Cities Fund)	Spend	0	-10	-240	-285	+525	-
29 Transport: additional investment in local roads	Spend	-55	0	0	0	0	0
30 Public Works Loan Board: new local infrastructure rate	Spend	0	*	-5	-5	-5	-5
31 Skills: National Retraining Scheme initial investment	Spend	0	-20	-45	-	-	-
32 Skills: investment in computer science teachers and maths	Spend	0	-30	-50	-	-	-
33 Skills: teacher premium pilot	Spend	0	-10	-15	-15	-5	0
34 Business Rates: bring forward CPI uprating to 2018-19	Tax	0	-240	-530	-525	-520	-520
35 Business Rates: extend pubs discount to 2018-19	Tax	0	-30	0	0	0	0
36 Competition and Markets Authority: additional enforcement	Spend	0	-5	-5	+5	+15	+10
37 Aggregates Levy: freeze in 2018-19	Tax	0	-15	-10	-10	-10	-10
38 HGV VED and Road User Levy: freeze in 2018-19	Tax	0	-15	-10	-15	-15	-15
Avoidance, Evasion, Fraud and Error							
39 Avoidance and Evasion: additional compliance resource	Tax	-10	+10	+170	+585	+580	+740
40 Corporation Tax: tackle related party step up schemes	Tax	+15	+45	+45	+45	+45	+45
41 Corporation Tax: depreciatory transactions	Tax	+5	+10	+10	+10	+10	+10
42 Royalty payments made to low tax jurisdictions: withholding tax	Tax	0	0	+285	+225	+160	+130
43 Online VAT fraud: extend powers to combat	Tax	0	+10	+20	+40	+50	+45
44 Offshore Time Limits: extend to prevent non-compliance	Tax	0	*	*	*	+5	+10
45 Carried Interest: prevent avoidance of Capital Gains Tax	Tax	0	+20	+170	+165	+150	+145
46 Insolvency use to escape tax debt	Tax	0	-5	+70	+135	+150	+150
47 Dynamic coding-out of debt	Tax	0	0	+55	+30	+20	+20
48 Construction supply chain VAT fraud: introduce reverse charge	Tax	0	0	+90	+135	+105	+75
49 Waste crime	Tax	0	+30	+45	+45	+50	+45
50 Fraud, Error, and Debt: greater use of real-time information	Spend	0	+85	+75	+65	+40	+40
A fair and sustainable tax system							
51 Corporation Tax: freeze indexation allowance from January 2018	Tax	+30	+165	+265	+345	+440	+525
52 Capital Gains Tax: extend to all non-resident gains from April 2019	Tax	+5	+15	+35	+115	+140	+160
53 Non-resident property income: move from Income Tax to Corporation Tax	Tax	0	0	0	+690	-310	-25
54 Capital Gains Tax payment window reduction: delay to April 2020	Tax	0	0	-1,200	+950	+235	+10
55 VAT registration threshold: maintain at £85,000 for two years	Tax	0	+15	+55	+105	+145	+170

Continued

	Head	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23[2]
56 Tobacco Duty: continue escalator and index Minimum Excise Duty	Tax	+45	+35	+40	+45	+40	+35
Other public spending							
57 Adjustments to DEL spending	Spend	+1,000	0	-1,135	0	0	0
58 Official Development Assistance: meet 0.7% GNI target	Spend	0	+375	0	0	0	0
59 Scotland police and fire: VAT refunds	Tax	0	-40	-40	-40	-45	-45
Air Quality							
60 Air Quality: increase Company Car Tax diesel supplement by 1ppt from April 2018	Tax	0	+70	+35	-30	+130	+90
61 Air Quality: First Year Rate increased by one VED band for new diesel cars from April 2018	Tax	0	+125	+50	+10	*	*
62 Air Quality: funding for Air Quality Plan and Clean Air Fund	Spend	-20	-180	-215	-80	-	-
Previously announced policy decisions							
63 Tuition Fees: raise threshold to £25,000 in April 2018	Tax	0	-50	-100	-175	-235	-295
64 Tuition Fees: freeze fees in September 2018	Tax	0	-5	-15	-25	-35	-45
65 Oil and Gas: funding for UK continental shelf exploration projects	Spend	0	-5	0	0	0	0
66 NICs: maintain Class 4 NICs at 9% and delay NICs Bill by one year	Tax	-10	-125	-645	-685	-565	-525
67 Making Tax Digital: only apply above VAT threshold and for VAT	Tax	*	*	-65	-245	-515	-585
68 City Deals: Swansea and Edinburgh	Spend	0	-30	-30	-30	-	-
69 Social rented sector: maintain current rent policy without Local Housing Allowance cap	Spend	0	0	-155	-205	-255	-320
Total policy decisions[3]		**-230**	**-6,045**	**-9,915**	**-3,315**	**-2,960**	**-2,520**
Total spending policy decisions		-150	-4,460	-7,190	-3,625	-1,450	-1,105
Total tax policy decisions		-80	-1,585	-2,725	+310	-1,510	-1,415

* Negligible.

[1] Costings reflect the OBR's latest economic and fiscal determinants.

[2] At Spending Review 2015, the government set departmental spending plans for resource DEL (RDEL) for the years up to and including 2019-20, and capital DEL (CDEL) for the years up to and including 2020-21. Where specific commitments have been made beyond those periods, these have been set out on the scorecard. Where a specific commitment has not been made, adjustments have been made to the overall spending assumption beyond the period.

[3] These figures do not feed into the Total policy decisions line. In 2021-22 and 2022-23, funding for these measures has been allocated from the aggregate total for capital spending. This includes the National Productivity Investment Fund. The NPIF will extend into 2022-23 at £7bn in that year.

Table B.1: Measures announced at Spring Budget 2017 or earlier that will take effect from December 2017 or later (£ million)[a]

		Head	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Measures announced at Spring Budget 2017								
a	Making Tax Digital: one year deferral for businesses with turnover below VAT threshold	Tax	-105	+100	*	*	*	*
b	Stamp Duty Land Tax: delay reduction in payment window to 2018-19	Tax	0	0	-5	-5	-5	-5
c	Packaging Recycling Targets: set rates for 2018-20	Tax	0	+55	+150	+175	+150	+65
d	Tax Credit Debt: enhanced collection	Tax	*	-5	+820	+770	+850	+945
e	Dividend Allowance: reduce to £2,000 from April 2018	Tax	-105	+100	*	*	*	*
Measures announced at Autumn Statement 2016								
f	Company Car Tax: reforms to incentivise ULEVs	Tax	0	0	0	-45	-115	-75
g	Offshore Tax: close loopholes and improve reporting	Tax	+15	+30	+15	+60	+85	+85
h	HMRC: administration and operational measures	Tax	-20	+45	+165	+210	+185	+190
i	Money Service Businesses: bulk data gathering	Tax	0	+5	+10	+10	+15	+15

Measures announced at Budget 2016								
j	Public Service Pensions: update to discount rate	Spend	0	0	+2040	+2090	+2130	+2165
k	Soft Drinks Industry Levy	Tax	0	+275	+275	+275	+275	+275
l	Business Rates: switch from RPI in April 2020	Tax	0	0	0	-295	-580	-850
m	Corporation Tax: reduce to 17% in April 2020	Tax	0	0	-365	-2120	-2650	-2850
n	Corporation Tax: extend first year allowance and lower emission thresholds for business cars	Tax	+5	+40	+110	+155	+170	+175
o	Corporation Tax: defer bringing forward payment for large groups for two years	Tax	+30	+25	-15	-10	*	*
p	Self Employed: abolish Class 2 NICs	Tax	0	-400	-435	-405	-390	-380
q	Business Energy: abolish Carbon Reduction Commitment and offsetting increase to Climate Change Levy	Tax	0	0	+405	+115	+170	+205
r	Carbon Price Support Rate: cap at £18/tCO2 in April 2019 and uprate in April 2020	Tax	0	0	0	+20	+35	+40
s	Aligning the tax and employer NICs treatment of termination payments and preventing	Tax	+45	+390	+425	+430	+440	+445

	manipulation of the rules							
t	Value Added Tax: tackling overseas trader evasion	Tax	+65	+130	+230	+250	+265	+235
u	Help to Save	Spend	0	0	-25	-85	-65	-90
Measures announced at Spending Review and Autumn Statement 2015								
v	Capital Gains Tax: reduce payment window for residential property	Tax	0	0	+1200	+310	+100	+100
w	Insurance Premium Tax: reform to motor insurance claims rules	Tax	0	-10	-35	-45	-55	-55
x	Making Tax Digital: reducing errors through record keeping	Tax	0	+10	+365	+770	+930	+940
Measures announced at Summer Budget 2015								
y	Residential property: restrict finance relief to basic rate, phase from 2017	Tax	0	+245	+450	+685	+955	+915
z	TV Licence: BBC funding for over-75s	Spend	0	+195	+445	+725	+760	+790
Measures announced at March Budget 2015								
aa	Company car taxation: 3ppt increase in 2019-20	Tax	0	0	+295	+305	+320	+265

a Costings reflect the OBR's latest economic and fiscal determinants.

* Negligible

Annex C
Supplementary data tables

Information in these tables these tables is consistent with the OBR's March 2018 Economic and fiscal outlook (EFO) and supplementary tables, unless otherwise noted. The OBR's supplementary tables are available at http://budgetresponsibility.org.uk/efo/economic-fiscal-outlook-march-2018/. Any HM Treasury calculations are derived from and consistent with published sources. Further details of outturn statistics drawn from Autumn Budget 2017 or EFO can be found in the data sources documents on the HMT and OBR websites respectively.

Table C.1: Macroeconomic prospects

	Level[a]	Rate of change					
	2017	2017	2018	2019	2020	2021	2022
Real GDP	1958.7	1.7	1.5	1.3	1.3	1.4	1.5
Nominal GDP	2038.7	3.8	3.1	2.8	3.0	3.1	3.3
Private consumption expenditure[b]	1296.4	1.7	0.9	0.9	1.1	1.4	1.5
Government consumption expenditure	366.2	0.3	1.1	0.9	0.6	0.9	1.1
Gross fixed capital formation	331.1	3.9	1.8	1.5	2.4	1.9	2.1
Changes in inventories and net acquisition of valuables (% of GDP)[c]	0.0	-0.3	0.0	0.0	0.0	0.0	0.0
Exports of goods and services	555.8	5.0	3.3	2.0	0.3	-0.1	0.0
Imports of goods and services	596.2	3.5	1.5	1.0	0.2	0.0	0.1
Contributions to real GDP growth							
Final domestic demand	-	1.9	1.1	1.0	1.3	1.4	1.5
Changes in inventories and net acquisition of valuables	-	-0.4	0.0	0.0	0.0	0.0	0.0
External balance of goods and services	-	0.3	0.5	0.3	0.0	0.0	0.0

a Pounds sterling, billion.

b Includes households and non-profit institutions serving households.

c Rate of change of changes in inventories and net acquisition of valuables is give as the percentage point year-on-year change.

Table C.2: Price developments

	Level	Rate of change					
	2017	2017	2018	2019	2020	2021	2022
GDP deflator	104.1	2.1	1.5	1.6	1.6	1.7	1.8
Private consumption deflator	103.4	2.0	2.1	1.9	2.0	2.0	2.0
HICP[a]	103.4	2.7	2.4	1.8	1.9	2.0	2.0
Public consumption deflator	102.5	1.2	1.1	0.7	0.5	0.9	1.1
Investment deflator	103.5	2.0	1.2	1.5	1.5	1.4	1.4
Export price deflator (goods and services)	111.1	6.0	-1.2	-0.9	0.1	0.3	0.4
Import price deflator (goods and services)	109.2	5.7	-0.1	-0.5	0.1	0.3	0.4

[a] The UK's Harmonised Index of Consumer Prices (HICP) is the Consumer Price Index (CPI).

Table C.3: Labour market developments

	Level	Rate of change					
	2017	2017	2018	2019	2020	2021	2022
Employment, persons (millions)[a]	32056.3	1.0	0.6	0.4	0.4	0.3	0.3
Employment, hours worked[b]	1029.7	1.2	0.7	0.4	0.3	0.3	0.3
Unemployment rate (%)[c]	4.4	-0.5	0.0	0.1	0.1	0.0	0.0
Labour productivity, persons[d]	61102.6	0.7	0.9	0.8	0.9	1.0	1.1
Labour productivity, hours worked[e]	36.6	0.6	0.8	0.9	1.0	1.1	1.2
Compensation of employees[f]	1008.8	4.1	3.2	3.0	2.8	2.9	3.1
Compensation per employee[g]	37005.2	3.0	2.5	2.7	2.6	2.8	3.0

a All aged 16 and over.

b Millions per week.

c ILO measure, all aged 16 and over. Rate of change is percentage point year on year change.

d GDP per worker, pounds sterling.

e GDP per hour, pounds sterling.

f Pounds sterling, billion

g Pounds per worker

Table C.4: Sectoral balances

% of GDP	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Net lending/borrowing vis-à-vis the rest of the world	5.4	4.9	4.3	3.9	3.7	3.7
of which:						
- Balance on goods and services	-2.0	-1.6	-1.4	-1.2	-1.2	-1.2
- Balance of primary incomes and transfers	-3.1	-3.2	-2.9	-2.7	-2.5	-2.5
- Capital account	0.1	0.1	0.0	0.0	0.0	0.0

Table C.5: General government budgetary prospects

	£ billion	% of GDP						
	Outturn	Forecast						
	2016-17	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Net lending by subsector								
General government	47.1	2.4	2.2	1.8	1.7	1.5	1.4	1.0
Central government	39.3	2.0	1.8	1.5	1.4	1.3	1.3	0.8
Local government	7.8	0.4	0.5	0.3	0.3	0.2	0.2	0.2
General government								
Total revenue	719.8	36.2	36.4	36.7	36.6	36.5	36.2	36.5
Total expenditure	766.9	38.6	38.7	38.5	38.3	38.0	37.7	37.4
Net borrowing[a]	47.1	2.4	2.2	1.8	1.7	1.5	1.4	1.0
Interest expenditure	49.5	2.5	2.7	2.6	2.4	2.3	2.3	2.3
Primary balance[b]	2.4	0.1	0.4	0.8	0.8	0.8	0.9	1.3
Selected components of revenue								
Taxes on production and imports	254.4	12.8	13.0	13.1	13.1	13.1	13.0	12.9
Taxes on income and wealth	240.4	12.1	12.0	12.1	12.1	12.1	12.1	12.1
Capital taxes	4.9	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Social contributions	125.9	6.3	6.4	6.5	6.5	6.5	6.5	6.5
Other	94.2	4.7	4.7	4.8	4.7	4.6	4.4	4.6
Total revenue	719.8	36.2	36.4	36.7	36.6	36.5	36.2	36.5
Selected components of expenditure								
Current expenditure on goods and services	369.5	18.6	18.3	18.2	18.0	17.7	17.5	17.3

Net social benefits	233.7	11.8	11.5	11.5	11.3	11.2	11.2	11.3
Interest expenditure	49.5	2.5	2.7	2.6	2.4	2.3	2.3	2.3
Subsidies	13.7	0.7	0.9	1.0	1.0	1.1	1.1	1.0
Gross fixed capital formation	50.0	2.5	2.6	2.5	2.7	2.9	2.8	2.8
Other	50.5	2.5	2.6	2.7	2.9	2.9	2.8	2.8
Total expenditure	766.9	38.6	38.7	38.5	38.3	38.0	37.7	37.4

a Treaty deficit

b General government net borrowing less interest expenditure

Table C.6: No-policy change projections and amounts to be excluded from the expenditure benchmark

	£billion	% of GDP						
	Outturn			Forecast				
	2016-17	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Total revenue at unchanged policies[a]	719.8	36.2	36.4	36.8	36.8	36.5	36.3	36.5
Expenditure on EU programmes fully matched by EU fund revenue[b]	4.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Cyclical unemployment benefit expenditure[c]	2.2	0.1	0.1	0.1	0.1			
Discretionary revenue measures[d]	-	-	0.0	-0.1	-0.1	0.0	-0.1	-0.1

a General government total revenue less discretionary revenue measures at Autumn Budget 2017 (consistent with the OBR's Economic and fiscal outlook).

b Expenditure on EU programmes fully matched by EU funds revenue is calculated as the 'Public sector receipts from the EU' row from the OBR's Table 2.26 in their March 2018 Economic and fiscal outlook supplementary fiscal tables. This only includes EU receipts that are administered by UK government bodies. (Excludes other private sector receipts that are not administered by UK government bodies.) The EU receipts that are administered by UK government bodies are not netted off current expenditure in the national accounts, because they are deemed to finance spending in the UK by the EU.

c Cyclical unemployment benefit expenditure is calculated as is defined as COFOG subfunction 10.5, central government own expenditure on unemployment divided by GDP, and is consistent with Public Expenditure Statistical Analyses 2017 Table 6.4 (which extends to 2019-20). Estimates used for plans data are subject to further revisions by departments. Universal credit additional costs that are not already included against other benefits are not included with the unemployment COFOG category.

d Sum of discretionary revenue measures taken at Autumn Budget 2017.

Table C.7: Central government expenditure by function[a,b,c]

	% of GDP	
	2015-16	2019-20
General public services	3.3	3.3
Defence, public order and safety	2.8	2.5
Economic affairs	1.7	1.9
Environmental protection	0.3	0.2
Housing and community amenities	0.1	0.1
Health	7.1	6.8
Recreation, culture and religion	0.3	0.3
Education	2.1	1.9
Social protection	11.0	10.1
Total expenditure[d]	30.2	29.5

a Spending data used consistent with Public Expenditure Statistical Analyses (PESA) 2017, HM Treasury July 2017.

b Central Government data taken from PESA 2017 Table 6.4 (which extends to 2019-20)

c Percentage of GDP calculations consistent with March 2016 EFO

d Total expenditure is more than just the sum of the functions, it also includes EU transactions and accounting adjustments

Table C.8: General government debt developments

	% of GDP						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Gross debt[a]	86.6	85.5	85.4	85.3	84.9	84.8	84.2
Change in gross debt ratio	-0.3	-1.0	-0.2	0.0	-0.4	-0.2	-0.6
Contributions to changes in gross debt							
Primary balance[b]	0.1	0.4	0.8	0.8	0.8	0.9	1.3
Interest expenditure	2.5	2.7	2.6	2.4	2.3	2.3	2.3
Stock-flow adjustment[c]	1.1	-0.4	0.5	0.7	0.6	1.0	1.2
Implicit interest rate on debt[d]	3.0	3.2	3.1	2.9	2.8	2.8	2.8

a Treaty debt

b General government net borrowing less interest expenditure

c Change in Treaty debt less general government net borrowing

d Interest expenditure as a percentage of Treaty debt in previous year

Table C.9: Cyclical developments

	% of GDP						
	Outturn	Forecast					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Net borrowing of general government	2.4	2.2	1.8	1.7	1.5	1.4	1.0
Interest expenditure	2.5	2.7	2.6	2.4	2.3	2.3	2.3
Output gap	-0.1	0.2	0.2	0.1	0.0	0.0	0.0
Cyclical budgetary component[a]	0.0	-0.1	-0.2	-0.1	0.0	0.0	0.0
Cyclically-adjusted balance	-2.3	-2.3	-1.9	-1.8	-1.5	-1.4	-1.0
Cyclically-adjusted primary balance[b]	0.2	0.4	0.6	0.7	0.8	0.9	1.3
	Outturn	Forecast					
	2017	2018	2019	2020	2021	2022	2023
Real GDP growth (%)[c]	1.7	1.5	1.3	1.3	1.4	1.5	1.4
Potential GDP growth (%)	1.6	1.4	1.4	1.4	1.5	1.5	1.6

a Treaty deficit less cyclically adjusted treaty deficit

b Cyclically-adjusted treaty deficit less interest expenditure

c Growth in real GDP and growth in potential GDP are expressed in calendar rather than financial years and are calculated on a non-oil basis.

Table C.10: Divergence from previous update[a]

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Real GDP growth (%)							
Previous update	2.0	1.8	1.6	1.8	1.9	2.0	-
Current update	2.0	1.6	1.5	1.2	1.3	1.4	1.5
Difference	0.0	-0.2	-0.1	-0.6	-0.6	-0.6	
Real GDP growth (%)[b]							
Previous update	2.7	2.8	1.9	1.1	0.9	0.9	-
Current update	2.4	2.2	1.8	1.7	1.5	1.4	1.0
Difference	-0.3	-0.6	-0.1	0.6	0.6	0.5	
Real GDP growth (%)[c]							
Previous update	87.5	87.7	87.7	86.5	84.8	83.6	-
Current update	86.6	85.5	85.4	85.3	84.9	84.8	84.2
Difference	-0.9	-2.2	-2.3	-1.2	0.1	1.2	

a Previous update numbers correspond to the OBR's March 2017 Economic and fiscal outlook

b General government net borrowing on a Maastricht basis

c General government gross debt on a Maastricht basis

Table C.11: Long-term sustainability of public finances[a]

	% of GDP						
	Outturn	Forecasts/Projections					
	2016-17	2017-18	2020-21	2030-31	2040-41	2050-51	2060-61
Total expenditure	39.9	39.8	38.0	40.6	44.6	48.0	51.9
Of which: age-related expenditures[b]	20.8	20.7	19.9	21.8	23.9	25.4	26.8
State pensions	5.2	5.2	5.0	5.5	6.2	6.5	6.8
Pensioner benefits	0.9	0.9	0.8	0.8	0.9	0.9	0.9
Public service pensions	2.0	2.1	2.1	1.9	1.7	1.4	1.3
Health	7.3	7.3	7.0	8.2	9.6	10.8	12.0
Long-term care	1.0	1.0	1.1	1.4	1.6	1.9	2.0
Education	4.4	4.3	4.0	3.9	3.8	3.8	3.8
Net interest	1.8	1.8	1.5	1.9	3.6	5.2	7.6
Total revenue	36.4	36.9	37.0	37.5	37.9	37.9	38.0

a Consistent with the central projection in the OBR's January 2017 Fiscal sustainability report

b Sum of pensions, pensioner benefits, public service pensions, health, long-term care and education

Table C.12: Contingent liabilities[a]

£ billion	2014-15	2015-16
Total quantifiable contingent liabilities	76.4	104.3
Of which: financial stability interventions[b]	0.4	0.4

a Taken from Whole of Governments Accounts- year ended 31 March 2016, HM Treasury, 2017

b This is not reported in the Whole of Governments Accounts- year ended 31 March 2016, so the 2014-15 figure is taken from the Whole of Governments Accounts- year ended 31 March 2015

Table C.13: Basic assumptions

	2016-17	2017-28	2018-19	2019-20	2020-21	2021-22	2022-23
Short-term interest rate (annual average)[a]	0.4	0.4	0.9	1.3	1.5	1.7	1.7
Long-term interest rate (annual average)[b]	1.2	1.3	1.7	1.8	1.9	2.0	2.1
Nominal effective exchange rate[c]	79.4	77.9	80.3	80.5	80.6	80.6	80.8
Exchange rate vis-à-vis the € (annual average)	1.19	1.13	1.14	1.12	1.11	1.10	1.10
	2016	2017	2018	2019	2020	2021	2022
Oil prices (Brent, USD/barrel)	44.0	54.6	64.0	60.1	59.6	60.6	61.8
Euro area GDP growth	1.8	2.5	2.2	2.0	1.6	1.4	1.4
Growth of relevant foreign markets	2.5	4.2	4.6	4.6	4.0	3.7	3.8

a 3 month sterling interbank rate (LIBOR)

b Weighted average interest rate on conventional gilts

c Trade-weighted sterling

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