

5. Public finances: a dicey decade ahead?

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Summary

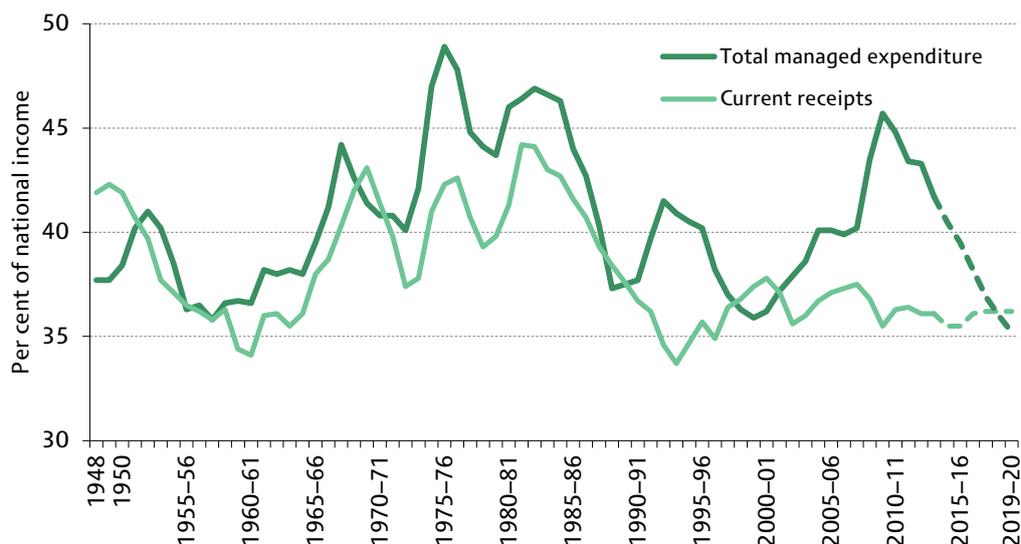
- Government borrowing is forecast to decline, reaching a surplus of 1% of national income in 2019–20. Debt is forecast to fall as a share of national income from a high of 81.1% of national income in 2015–16. A 1% surplus throughout the 2020s would reduce debt as a share of national income by 27 percentage points (ppts), a decade of budget balance would reduce it by 19ppts and a decade of current budget balance while maintaining investment spending would reduce it by 9ppts.
- Debt is likely to remain at a relatively high level by international standards and by recent UK historical standards for some time. During this time, the public finances would be less well placed to accommodate another adverse shock.
- There remain uncertainties facing the public finances. It is difficult to know in real time to what extent borrowing will naturally disappear as the economy recovers and how much will require policy action to eliminate. Estimates from independent forecasters suggest that the fiscal tightening needed to bring about a budget balance could be anywhere between 1.2% and 5.5% of national income (or £23 billion to £108 billion in 2015–16 terms). The government is currently planning to implement a tightening of 4.9% of national income (£92 billion).
- This plan hinges on cutting public spending to its lowest level, as a share of national income, since at least 1948. The next government might be unable or unwilling to do this. Even if achieved, in the longer term an ageing population will put upward pressure on spending.
- Revenues are also (as ever) uncertain. They are sensitive to the composition of economic growth. Not only has employment income turned out weaker than forecast in 2010, but also it has comprised much weaker earnings growth and much stronger employment growth. We estimate that this different composition of growth from what was forecast in 2010 will reduce revenues by £6.5 billion in 2015–16 (on top of a £26.2 billion reduction from lower aggregate employment income). Recent reforms, such as those that have made income tax more progressive and increased reliance on capital taxes, have slightly increased sensitivity to the distribution of economic growth.
- Policy risks are also significant. Past experience suggests that future governments may find it difficult to index fuel duties as currently intended. Freezing them for five years would cost £4.1 billion. There may also be pressure for more generous indexation of certain tax thresholds. We estimate that, under current policy, fiscal drag would cause the number of families losing some or all of their child benefit to more than double over the next decade (from 1.2 million to 2.5 million).
- There will always be uncertainties and risks around future borrowing. Governments in the 1980s and 2000s overestimated the underlying strength of the public finances after periods of, as it turned out, unsustainable growth. A cautious government may wish to aim for a slightly lower level of borrowing than it actually wants to achieve.

5.1 Introduction

The latest official forecasts suggest that borrowing (as a share of national income) will be reduced to below pre-crisis levels in 2016–17 and that the government will be in surplus to the tune of 1% of national income in 2019–20. If achieved, this would be a larger budget surplus than in all but four financial years since 1950–51 (and would be 3% of national income stronger than the average 2% deficit experienced over the period from 1948 to 2007–08).

Achieving such an overall budget surplus is not costless. Most obviously, it requires a combination of higher taxes and/or lower public spending than has typically been seen in the UK. Figure 5.1 shows total government receipts¹ and total public spending, as a share of national income, from 1948 through to the end of the current forecast horizon in 2019–20. The planned surplus is actually set to be achieved without a particularly high level of revenues as a share of national income. This is to be made possible by the large planned cut to spending (as a share of national income). The latest forecasts suggest that, by 2019–20, public spending will comprise a lower share of national income (at 35.2%) than in any year since the end of the Second World War and significantly lower than has been the case throughout much of the post-war period.²

Figure 5.1. Receipts and spending since 1948



Source: Office for Budget Responsibility, 'Public finances databank', 26 January 2015, available at <http://budgetresponsibility.org.uk/data/>.

¹ Total receipts include both tax and non-tax revenues. Non-tax revenues are expected to make up 7.0% of public sector revenues in 2014–15. The main non-tax incomes received by the public sector are the gross operating surplus of public corporations (forecast to be £39.2 billion, or 6.1% of total revenues, in 2014–15) and interest and dividends from the private sector (£6.3 billion, or 1.0% of revenues).

² It is somewhat difficult to make these types of historical comparisons because the scope of what the state does has changed a lot over time. Most notably, throughout much of the 1970s and 1980s, the public sector ran several large nationalised industries; this increased the apparent level of public spending (and revenues) in those periods compared with today. However, even bearing this caveat in mind, it is notable that the current government is planning to reduce spending to below the lowest level previously seen in the post-war period. The previous lowest level of spending was seen in 1957–58, when public spending was 35.8% of national income. Spending was also relatively low (at 35.9% of national income) in 1999–2000. The average over the period 1948 to 2007–08 was 40.4% of national income.

Furthermore, these figures for total spending hide an even more significant shift away from state provision of public services (defined as total spending less spending on debt interest payments and social security). Figure 7.4 in Chapter 7 illustrates that the proportion of public spending going on social security has been steadily increasing over time and it is forecast to account for 31.1% of total spending in 2019–20, up from 29.3% in 2013–14 and just 12.3% in 1953–54.³ This means that, if the latest forecasts for public spending were to be achieved without any further cuts to welfare spending (as current policy implies), public service spending would be reduced to 21.5% of national income. This would be the lowest share of national income seen since at least 1948 – the previous lowest level seen was 22.9% of national income in 1998–99.

Maintaining a budget surplus over the longer term would have the advantage of reducing public sector net debt as a share of national income relatively quickly. In the 2014 Autumn Statement, HM Treasury estimated that maintaining a 1% of national income surplus for a decade beyond 2019–20 would reduce public sector debt as a share of national income by 27 percentage points. If instead the government ran a balanced budget, the Treasury estimated that debt would decline by 19 percentage points, and if the government ran a 1.2% of national income deficit (equivalent to a current budget balance, if 1.2% of national income is spent on investment), the estimated decline in debt would be 9 percentage points. However, even if the outcome implied by the government's current forecasts is achieved, maintaining low levels of borrowing might prove difficult. An ageing population will put upwards pressure on spending as a share of national income and, as ever, there are uncertainties around future tax revenues.

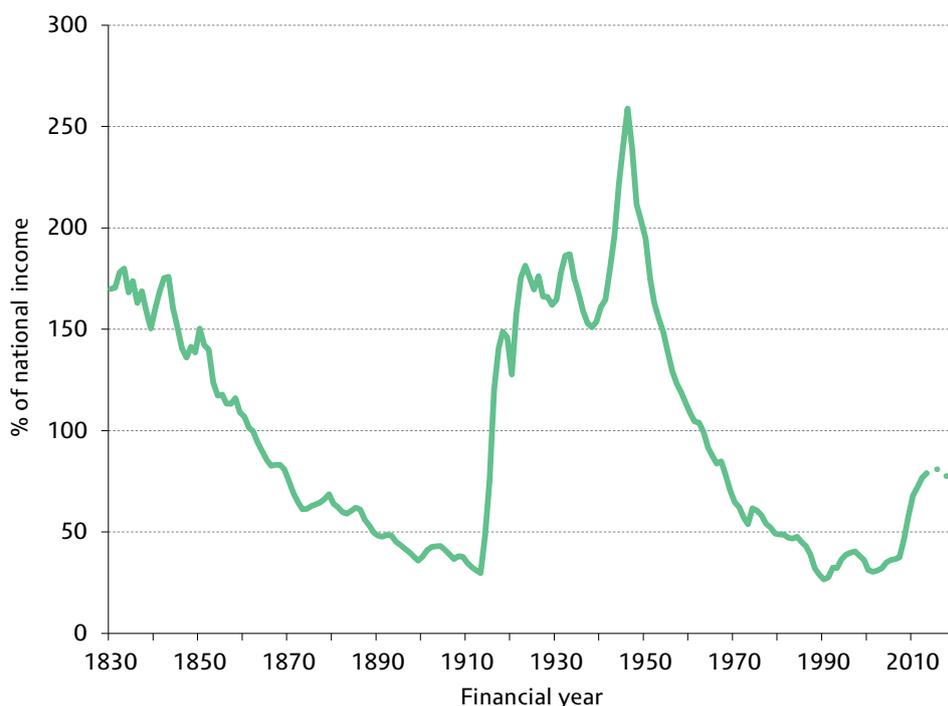
In this chapter, we set out some of the risks and uncertainties the government still faces in reducing borrowing in the wake of the financial crisis, and in maintaining low levels of borrowing in the medium term in order to reduce public sector net debt as a share of national income. We start in Section 5.2 by discussing the main reasons why the government is concerned with reducing public debt (all three main UK political parties have committed to fiscal targets that would imply declining paths for debt through the next parliament and beyond). We then turn to discuss the risks and uncertainties surrounding plans to achieve and maintain low levels of borrowing. In Section 5.3 we discuss the uncertainties around the size of policy action that is required to achieve a budget surplus. In Section 5.4 we explore the short-term risks and medium-term difficulties in reducing spending, while in Section 5.5 we describe the uncertainties and risks around future tax revenues over the next parliament and beyond. Section 5.6 concludes.

5.2 Risks posed by high government debt

Public sector debt more than doubled during the recent crisis (from 37% of national income at the end of 2007–08 to 79% at the end of 2013–14, as shown in Figure 5.2) as nominal GDP fell. It was beneficial for the UK economy that the government could allow this to happen without seeing borrowing costs soar: it meant that fiscal policy could be used to cushion the impact of the crisis in the short term and adjust gradually to this permanent shock. However, if debt remains at its new higher level, it could limit a future government's ability to accommodate the next shock and would mean that a greater proportion of public spending must be allocated to financing debt interest payments. In

³ The figure for 2019–20 assumes that there are no further changes to social security spending.

Figure 5.2. Public sector debt, 1830–31 to 2013–14 and forecast to 2019–20



Note: Figures for the years 1830–31 to 1973–74 are for the nominal value of national debt; figures for 1974–75 onwards are for public sector net debt.

Source: Figure 9 of A. Jowett and M. Hardie, ‘Longer-term trends: public sector finance’, ONS, 2014, <http://www.ons.gov.uk/ons/rel/elmr/longer-term-trends/public-sector-fianaces/art-ltt-psf.html#tab-UK-Debt>. Forecasts are for financial years from table 4.47 of Office for Budget Responsibility, *Economic and Fiscal Outlook: December 2014*, <http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/>.

this section, we describe the UK government’s current and expected level of debt and debt interest spending and what this might imply for how vulnerable the UK’s public finances are to plausible future shocks.

The latest OBR forecasts suggest that public sector net debt will peak at 81.1% of national income next year before starting to decline. (Note this is the National Accounts measure of public sector net debt – for a discussion of how this compares with government liabilities captured by the Whole of Government Accounts see Chapter 6.) This debt position is sustainable in the sense that current plans imply debt falling rather than rising in the longer term. Furthermore, current plans imply that the public sector will have a 3.2% of national income primary surplus (that is, revenues exceeding non-debt-interest spending by this amount) by 2019–20, meaning that debt would still decline even if the interest rate payable on the debt was somewhat above GDP growth.⁴ Exactly how fast debt will decline will depend, among other things, on the policies pursued by the next government. However, all three main UK political parties have committed to fiscal targets

⁴ If revenues exactly match non-debt-interest spending (i.e. there is exactly a primary balance) and the interest rate charged on debt is equal to GDP growth, then debt will remain constant as a share of GDP. If instead the interest rate on debt is higher than GDP growth, the government will need to run a primary surplus in order to have debt stable or declining as a share of GDP.

that would imply declining paths for debt through the next parliament and beyond, assuming the economy continues to grow at currently forecast rates.⁵

But this is perhaps a weak criterion for sustainability, as there are risks that things will not turn out as currently expected and thus push UK government debt onto an unsustainable path.

Table 5.1. Level and change in debt and debt interest spending, compared with 24 other advanced economies

	UK rank	Notes
<i>Level of debt</i>		
2007 (pre-crisis)	11 th highest	
2015	8 th highest	Only Greece, Japan, Portugal, Italy, Ireland, France and Belgium higher
2019	9 th highest	
<i>Change in debt</i>		
2007 to 2015	5 th largest increase	Only Ireland, Portugal, Japan and Greece larger
2015 to 2019	7 th largest reduction	Only Greece, Ireland, Iceland, Germany, Italy and Portugal larger
2007 to 2019	5 th largest increase	Only Ireland, Japan, Portugal and Spain larger
<i>Level of debt interest spending</i>		
2007 (pre-crisis)	10 th highest	
2015	9 th highest	
2019	6 th highest	Only Italy, Greece, Portugal, Ireland and Spain higher
<i>Change in debt interest spending</i>		
2007 to 2015	9 th highest	
2015 to 2019	2 nd highest	Only Japan larger
2007 to 2019	6 th highest	Only Ireland, Spain, Iceland, Portugal and Japan larger

Note: Comparisons for debt relate to general government net debt. Comparisons for debt interest spending relate to net debt interest payments by general government. We choose to look at 2015, as this is the year in which debt in the UK peaks. Most other countries experience peak debt levels sometime between 2014 and 2017, although a few (such as Iceland, Germany and Greece) peak earlier than this and some (such as Denmark and Finland) are projected to see rising debt levels (or falling surpluses) throughout the period up to 2019. The 24 other countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, Latvia, the Netherlands, New Zealand, Norway, Portugal, South Korea, Spain, Sweden, Switzerland and the United States.

Source: International Monetary Fund, 'World Economic Outlook Database', October 2014, <http://www.imf.org/external/pubs/ft/weo/2014/02/weodata/index.aspx>.

⁵ Each of the parties has suggested a fiscal target that (if achieved exactly) would be somewhat looser than the fiscal policy currently planned by the coalition government. However, each of the targets is still likely to imply a primary surplus in the medium term, if the economy evolves as currently expected. For a comparison of the parties' fiscal targets and a brief discussion of the implications for debt, see R. Crawford, C. Emmerson, S. Keynes and G. Tetlow, 'Fiscal aims and austerity: the parties' plans compared', IFS Election Briefing Note BN158, 2014, <http://election2015.ifs.org.uk/article/fiscal-aims-and-austerity-the-parties-plans-compared>.

The current level of debt is high in comparison with recent experience in the UK: public sector net debt has not exceeded 80% of national income since 1967–68 (as shown in Figure 5.2). However, it is not unusually high by more historic standards. The UK had a debt-to-GDP ratio above 80% between 1830–31 and 1869–70 and for the entire period from 1916–17 to 1967–68.

The UK does currently have a relatively high level of government debt compared with other advanced economies. As Table 5.1 shows, the International Monetary Fund (IMF) forecasts that the UK will have the eighth-highest level of net debt in 2015 among the 25 advanced economies for which comparable data are available. This is because the UK entered the financial crisis and associated recession with a ‘mid-table’ level of debt (eleventh-highest out of 25 advanced economies) and then experienced the fifth-largest increase in debt between 2007 and 2015 (with only Ireland, Portugal, Japan and Greece experiencing a larger increase). However, a number of other countries currently have debt higher than the UK’s: Italy has for several years had net debt of more than 100% of national income. This may suggest that the current level of UK debt is not too concerning.

However, the level of debt is not the only relevant metric when considering the affordability or sustainability of debt. It is also important to look at the cost of servicing that debt. Table 5.1 confirms that the UK’s current international ranking is similar in terms of net debt interest spending to what it is for debt level. A slightly different story is shown in Figure 5.3 for the historic comparison though. This shows that, even though the UK’s debt level is projected to increase to a level not seen in the UK since the late 1960s, debt interest spending (as a share of national income) will actually remain below the level seen in the mid-1990s, and substantially lower than the level seen in the late 1960s. Of course, the details are sensitive to the actual path of the interest rates paid on government debt, as discussed further in Section 5.4. However, even though debt interest spending is expected to be lower than it has been for much of the post-war period, it will still be above the levels seen recently, meaning there will be less scope for spending on other items.

Figure 5.3. Public sector debt interest spending since 1948–49



Source: Gross debt interest spending is ONS series JW2P; net debt interest spending is ONS series JW2P less series JW2L and JW2M; national income is ONS series BKTL. Forecasts are from OBR, *Economic and Fiscal Outlook: December 2014*.

However, recent experience suggests that the debt ratio (and debt interest spending as a share of national income) can increase rapidly in the face of an adverse shock. During the recent crisis, debt more than doubled as a share of national income. This was a much sharper rise than was seen during other post-war recessions (as shown in panel b of Figure 5.4). In part, the rise reflects the very high levels of annual borrowing during the crisis and the impact of some measures to shore up the financial sector. However, another contributing factor was that nominal GDP declined during the recent recession – as a result, the existing stock of debt (much of which is fixed in nominal terms) came to represent a much larger share of national income.

This is very different from the experience during other recent recessions. With the exception of 1945, the UK has not experienced a year-on-year fall in nominal GDP since the recession of the early 1930s.⁶ More recent recessions have all been inflationary. The impact of this is illustrated by Figure 5.4, which shows how nominal debt levels and debt-to-GDP ratios evolved during the three most recent recessions. Between 2007–08 and 2011–12, nominal public sector net debt slightly more than doubled (increasing by 113%); the debt-to-GDP ratio also almost doubled (increasing by 97%). In contrast, between 1979–80 and 1983–84, nominal debt rose by 46%, while the debt-to-GDP ratio actually fell. More similar to the most recent experience is what happened to the debt ratio during the recessions in the early 1920s and 1930s, during which the debt-to-GDP ratio rose despite very little increase in nominal debt because of a decline in nominal GDP.

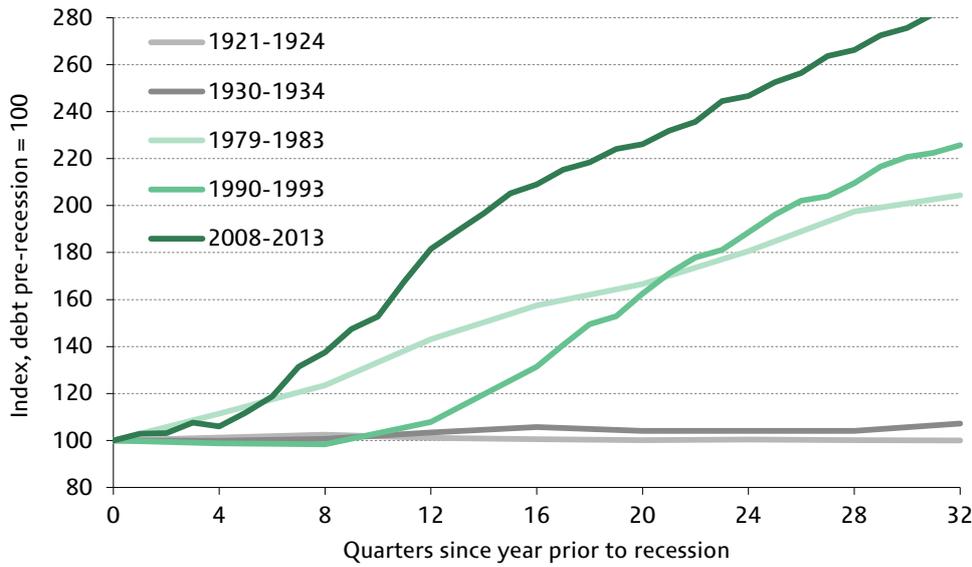
Although the UK's recent experience of a nominal fall in GDP leading to a sharp rise in the debt-to-GDP ratio is unusual by recent historical standards, it serves to highlight one of the risks of maintaining high levels of public sector debt. The higher is the government's debt stock, the more vulnerable is its position to unexpected periods of low inflation and falls in nominal GDP.

There has been a recession in every decade since the Second World War ended. It is currently intended that it will take eight years for debt to start declining again as a share of national income after the increase seen during the most recent crisis. If the past is any guide to the future, it might suggest that debt could still be at quite a high level when the next recession hits. If this also turned out to be a deflationary recession, debt could again jump up substantially. This is a lot of 'ifs' but it illustrates a potential risk: debt at 80% of national income may not be cause for concern to the UK's creditors, but debt at 120% might start to be – especially were the next downturn to be more UK focused rather than one that depresses the public finances of most advanced economies. It is very hard to know how much weight to put on this risk relative to some of the risks outlined below and relative to the costs associated with having lower levels of public spending than might otherwise be the case. It is in part, implicitly at least, disagreement over this which has led the three main UK parties to have quite different fiscal targets.

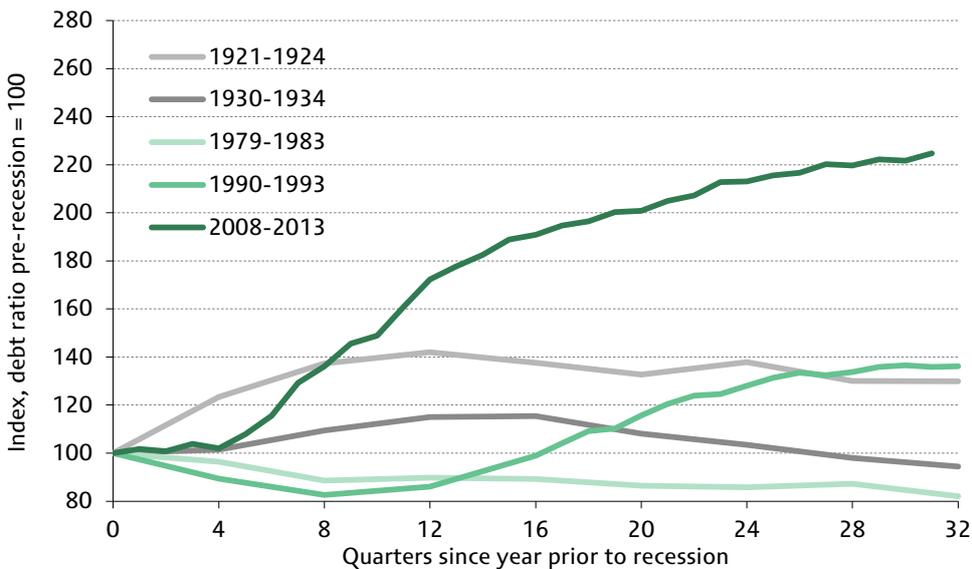
⁶ Figures for nominal GDP were obtained from the data set accompanying S. Hills, R. Thomas and N. Dimsdale, 'The UK recession in context – what do three centuries of data tell us?', *Bank of England Quarterly Bulletin*, 2010 Q4, <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/threecenturiesofdata.xls>.

Figure 5.4. Changes in debt levels through recent recessions

(a) Nominal debt



(b) Debt-to-GDP ratio



Note: Prior to 1993, data are only available for March of each year. Therefore, each of the series is indexed such that the debt level in March of the calendar year before each recession started is set equal to 100. In other words, for the 1921–24 recession, the debt level in March 1920 is set equal to 100; for the 1930–34 recession, the debt level in March 1929 is set equal to 100; for the 1979–83 recession, the debt level in March 1978 is set equal to 100; for the 1990–93 recession, the debt level in March 1989 is set equal to 100; and for the 2008–13 recession, the debt level in March 2007 is set equal to 100.

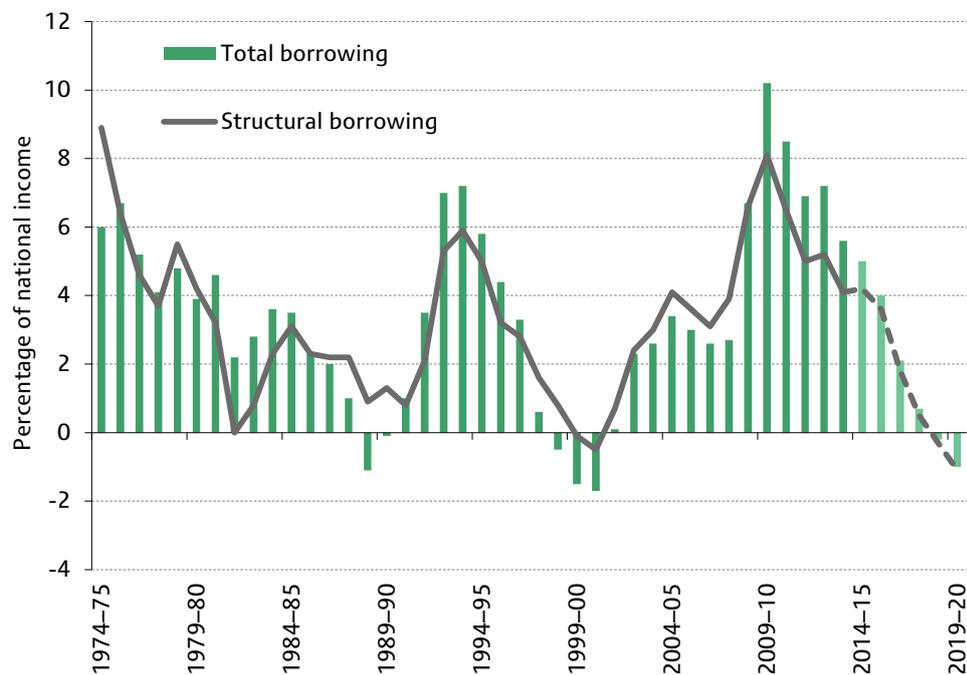
Source: Data for the recessions of the 1920s and 1930s are for national debt; debt and GDP figures for these periods are from the data set accompanying S. Hills, R. Thomas and N. Dimsdale, 'The UK recession in context – what do three centuries of data tell us?', *Bank of England Quarterly Bulletin*, 2010 Q4, <http://www.bankofengland.co.uk/publications/quarterlybulletin/threecenturiesofdata.xls>. Data for the later recessions are for public sector net debt; data are from series HF6W and HF6X from Office for National Statistics, 'Public sector finances: December 2014', <http://www.ons.gov.uk/ons/rel/psa/public-sector-finances/december-2014/tsd---public-sector-finances.html>.

5.3 The size of the problem could be different

The government currently has a plan that is expected to return the public finances to a sustainable position. An important issue in making a judgement about the sustainability of the public finances given current policy plans is the degree to which any deficit is structural (i.e. is here to stay even as the economy grows) or cyclical (i.e. will disappear as the economy grows). Figure 5.5 shows the latest estimates of both total and structural borrowing since the mid-1970s.

The late 1980s provides a good example of the difficulties that can arise if cyclical changes in the public finance position are mistaken for structural changes. During the recession of the early 1980s, structural borrowing was far lower than headline borrowing. Between 1983–84 and 1988–89, borrowing fell sharply (from borrowing of 3.6% of national income to a surplus of 1.1% of national income) but the improvement in the structural position was much more modest. This distinction was not, however, recognised at the time. As an example, between March 1987 and March 1988, the estimate for borrowing in 1987–88 was revised down significantly (from a forecast deficit of 1% of national income to a surplus of 1% of national income).⁷ In response to this unexpected good news and anticipating that it would prove permanent, the Chancellor (Nigel, now Lord, Lawson) announced a substantial package of tax cuts in March 1988 – totalling 1.1% of national income (equivalent to £20 billion in today's terms), predominantly through a reduction in the basic and higher rates of income tax and an increase in income tax personal allowances.

Figure 5.5. Total and structural borrowing over time



Source: Office for Budget Responsibility, 'Public finances databank', accessed on 22 January 2015.

⁷ Figures come from table 2.6 of HM Treasury, *Financial Statement and Budget Report: 1987–88* and table 2.6 of HM Treasury, *Financial Statement and Budget Report: 1988–89*.

The March 1988 Budget concluded that ‘The strength of the economy coupled with fiscal prudence has enabled the Government to achieve a balanced budget on a sustainable basis’.⁸ With the benefit of hindsight, it is now clear that this was not the case. Over-optimism about the structural position of the public finances led to significant fiscal mistakes in both the late 1980s and 2000s.⁹

In order to estimate how much of borrowing is cyclical and how much is structural, a concept known as the ‘output gap’ is used. This measures the difference between the actual level of GDP and the trend (or potential) level of GDP, and therefore how much ‘spare capacity’ there is in the economy. However, this is difficult to estimate, particularly in real time: it is difficult enough to measure how much output an economy is actually producing, let alone how much it *could* be producing. The OBR and several other institutions publish estimates of the output gap, but there is no consensus on the best approach to take and there is substantial variation between estimates of past, current and future output gaps.¹⁰

As described in Chapter 1, the official estimate of the hole in the public finances created (and/or revealed) by the financial crisis has changed significantly over the last five years. This has largely been driven by changes to the official estimate of the trend level of GDP. In this section, we show how the estimates of the current output gap from different forecasters would, if adopted by the OBR, lead to very different conclusions as to how much fiscal tightening is required.

Alternative estimates of the output gap

In December 2014, the OBR forecast that in 2015 the UK economy would be operating 0.5% below its trend output level. This is virtually the same as the average of the latest estimates of other independent forecasters (0.6%), as shown in Figure 5.6. However, among the other independent forecasters, there is an array of estimates for the size of the output gap in 2015, ranging from –4.2% to +1.9%.

At one end of this distribution at the moment is Oxford Economics. It uses a different method from the OBR to estimate the output gap. As described in Chapter 4, Oxford Economics uses a production function approach to estimate what output the UK economy ought to be able to produce given what is known about the availability of the important factors of production (such as labour and capital). The OBR instead focuses on a number of indicators of ‘spare capacity’ in the economy. There are strengths and weaknesses of each method and both involve a significant element of judgement, which may well be informed by results obtained from the other method.

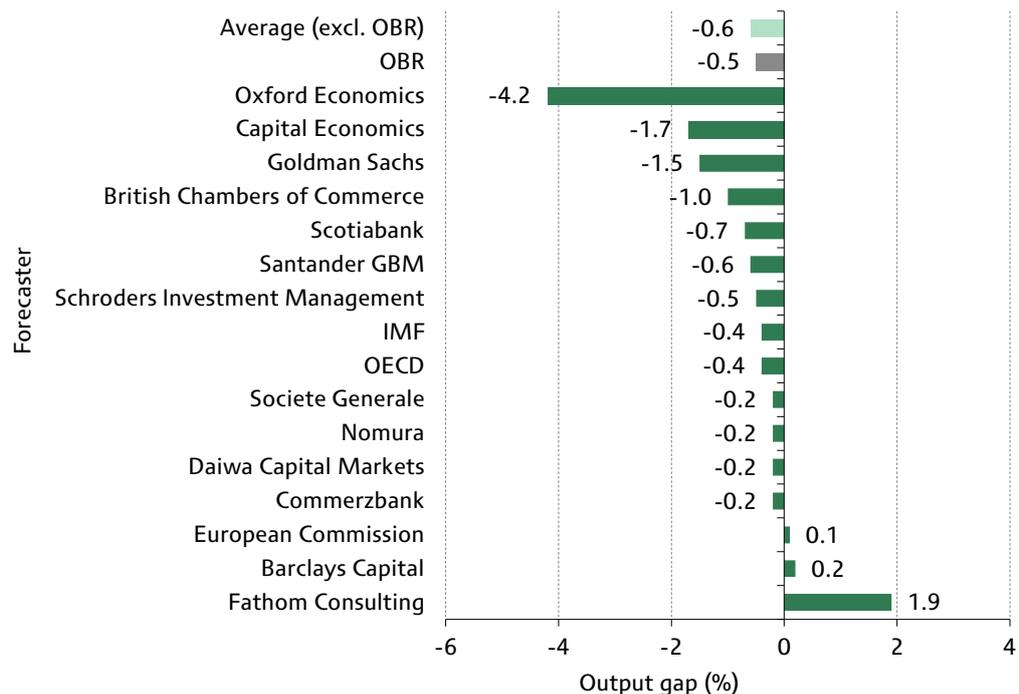
Strong growth in labour supply (driven, in particular, by high inward migration and the continued rise in the female state pension age) and strong growth in business investment cause Oxford Economics to conclude that potential output grew quite fast in 2014 and

⁸ Paragraph 2.21 of HM Treasury, *Financial Statement and Budget Report: 1988–89*. Perhaps appropriately, the number 1 song in the UK singles chart at the same time was Kylie Minogue’s ‘I should be so lucky’.

⁹ Chapter 1 discusses the level of structural borrowing before the recent crisis and how different the current view is from what was thought by policymakers at the time.

¹⁰ For more detail on the different methods that can be used to calculate the output gap, see, for example, Office for Budget Responsibility, ‘Estimating the output gap’, Briefing Paper 2, 2011, <http://budgetresponsibility.org.uk/wordpress/docs/briefing%20paper%20No2%20FINAL.pdf>. For an assessment of errors in contemporaneous assessments of the output gap see A. Chiu and T. Wieladek, ‘Did output gap measurement improve over time?’, Bank of England, External MPC Unit, Discussion Paper 36, 2012, <http://www.bankofengland.co.uk/research/Documents/externalmpcpapers/extmpcpaper0036.pdf>.

Figure 5.6. Alternative estimates of the output gap in 2015



Source: Table 4 of HM Treasury, 'Forecasts for the UK economy: a comparison of independent forecasts', December 2014, <https://www.gov.uk/government/statistics/forecasts-for-the-uk-economy-december-2014>; chart 3.5 of Office for Budget Responsibility, *Economic and Fiscal Outlook December 2014*, <http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/>.

thus the output gap closed only marginally, despite headline GDP growth of around 3%.¹¹ In contrast, the OBR judges that potential output did not grow as strongly in 2014 and thus the output gap closed more significantly. This conclusion is supported by some indicators – such as evidence of recruitment difficulties and high levels of capacity utilisation – but looks somewhat at odds with ongoing weakness in wage growth.

How large is structural borrowing?

It is possible to use different measures of the output gap in 2015 to decompose the level of borrowing forecast into that which is structural and that which is cyclical.¹² Such calculations provide alternative estimates for the size of the policy response required to achieve a given desired level of future borrowing. Table 5.2 illustrates the impact of different output gap assumptions on the amount of tightening required. Specifically, it shows (for four alternative estimates of the output gap) what further tightening would be required after 2014–15 in order to achieve, by 2019–20: (i) a balanced current budget (assuming 1.2% national income investment spending); (ii) a balanced overall budget; and (iii) an overall surplus of 1.0% of national income.

¹¹ See Section 4.3 for further details.

¹² The relationship between structural borrowing and the output gap is estimated using data on how the public finances have varied with economic cycles in the past. The OBR estimates that a 1 percentage point increase in the output gap reduces the amount of borrowing thought to be structural by 0.7% of national income. However, this does assume that the current period of weak economic performance has the same relationship with government borrowing as that seen in previous economic recessions and booms. (Source: T. Helgadottir, G. Chamberlin, P. Dhami, S. Farrington and J. Robins, 'Cyclically adjusting the public finances', OBR Working Paper 3, 2012, <http://budgetresponsibility.independent.gov.uk/wordpress/docs/Working-paper-No3.pdf>).

Table 5.2. Implication of different output gap assumptions for the consolidation required after 2014–15

% of national income	Tightening required after 2014–15:		
	To achieve current budget balance	To achieve overall budget balance	To achieve 1% of GDP surplus
Pessimistic (+1.9%)	4.3	5.5	6.5
OBR (–0.5%)	2.6	3.8	4.9
Average (–0.6%)	2.5	3.7	4.8
Optimistic (–4.2%)	0.0	1.2	2.3

Note: The OBR's assumptions for the growth in trend GDP are maintained in all scenarios. Tightening to achieve a current budget surplus assumes 1.2% of national income spending on investment (as forecast in the 2014 Autumn Statement).

Under a pessimistic scenario, taking the estimate that the economy will actually be operating 1.9% above its trend level in 2015 (as Fathom Consulting expects) and combining that with the OBR's assumptions for the growth in trend GDP, the structural deficit would be around 1.7% of national income larger than currently forecast by the OBR. However, even under this scenario, the 4.3% additional tightening required to achieve a current budget balance would still be less than the fiscal consolidation currently planned for the years after 2014–15 (of 4.9% of national income or £92 billion in 2015–16 terms, as described in Chapter 1). However, an additional 0.6% of national income tightening (£12 billion in 2015–16 terms) – on top of what is already planned – would be needed to achieve an overall budget balance in 2019–20. If instead one wanted to achieve the 1% surplus that is currently planned by the government, additional measures (on top of those already announced) worth 1.7% of national income (or £32 billion in 2015–16 terms) would be required.

Under an optimistic scenario, taking the estimate from Oxford Economics that the economy will be operating 4.2% below its potential level in 2015 and combining it with the OBR's assumptions for the growth in trend GDP,¹³ the structural deficit would be much smaller, with more of current borrowing estimated to be temporary. Specifically, we estimate that the structural deficit would be around 2.6% of national income smaller than currently forecast by the OBR for 2019–20. If this were the case, the government would not need to implement any additional fiscal tightening after 2014–15 in order to achieve a current budget balance, or would need a tightening of 1.2% of national income (£23 billion in 2015–16 terms) to achieve an overall budget balance. Alternatively, we could more than halve the fiscal consolidation planned for beyond 2014–15 (from 4.9% to 2.3% of national income) and still meet the 1% overall surplus in 2019–20 forecast in the Autumn Statement.

The difference between what the OBR's estimates of the output gap imply for the appropriate policy stance and what the estimates from Fathom Consulting and Oxford Economics imply is significant. This highlights the difficulty for politicians in deciding in real time what course to follow and underlines the importance of remaining nimble so that policy plans can be adjusted as appropriate when new information becomes available.

¹³ In fact, Oxford Economics expect slightly stronger growth in trend GDP over the next five years than the OBR does (as shown in Figure 4.13 in Chapter 4). If we were to incorporate this assumption into our calculations, it would suggest that there was further scope for fiscal loosening relative to the government's current plans than is described in the text here and shown in Table 5.2.

5.4 Cutting spending and keeping it down

Under the coalition plans set out in the Autumn Statement, most of the remaining planned cut in borrowing is predicated on significant further cuts to public spending, and in particular on cuts to public service spending.¹⁴ As Chapter 7 describes, these plans mean significant cuts to departmental spending in real terms: a cut of 14.1% between 2015–16 and 2019–20, on top of a cut of 9.5% between 2010–11 and 2015–16. Of course, it will be up to the next government to implement spending cuts in 2015–16 onwards, and all of the three main UK political parties have announced fiscal rules that would allow them to reduce these future spending cuts if they wished (discussed in more detail in Chapter 7). However, continued cuts to departmental spending will form part of the remaining fiscal consolidation regardless of who forms the next government.

While planned spending cuts have been achieved so far, continuing to cut spending in order to achieve a budget balance, or even just a current budget balance, will not necessarily be straightforward. Nor will keeping public spending down in the medium term. We discuss some of the reasons for this in this section. We illustrate many of the points with reference to the December 2014 Autumn Statement plans. The same issues also apply qualitatively to all the three main UK political parties' plans, though obviously the greater the planned cuts to spending the harder they will be to deliver.

Difficulties in cutting spending over the next parliament

Public service spending cuts are large in an international and historical context

The cuts to public service spending being enacted as part of the current fiscal consolidation are large compared with what the UK has done in the past. (Public service spending per person over time is shown in Figure 7.1 in Chapter 7.) The cut to real public service spending per person implemented between 2009–10 and 2014–15 has already made this the longest period of consecutive cuts, and the period with the largest total cut, since at least the 1960s. Those statistics would only be reinforced by the additional cuts planned for the next parliament.

The cuts being implemented in the UK in the current period are also large in an international context. Out of the 34 countries for which comparable data are available (albeit on a slightly different definition of public service spending from that described above), the UK currently plans to undertake the seventh-largest real reduction in government consumption between 2007 and 2016, and the eighth-largest reduction in government consumption measured as a share of national income (described in Table 5.3). This would move the UK from having the eleventh-highest level of government consumption (measured as a share of national income) in 2007 to the seventeenth-highest in 2016. This would be the same as the UK's ranking in 1997. The additional cuts to public spending planned *after* 2016 could move the UK even further down the rankings if other countries do not similarly reduce their levels of general government spending.

The scale of the planned cuts means there must be some risk over their deliverability. That said, it should also be noted that the current period of relatively large cuts follows a period of relatively large increases in spending on public services (again in both a

¹⁴ Figure 1.6 in Chapter 1 indicates that of the remaining 4.9% of national income fiscal consolidation still to come after 2014–15, 98% is planned to come from cuts to spending and 66% from cuts to spending excluding debt interest and social security.

Table 5.3. Changes to UK general government consumption in an international context

	UK rank	Notes
<i>Level (% of national income)</i>		
1997	17 th highest	Around euro area average, higher than the OECD average
2007	11 th highest	Around euro area average, higher than the OECD average
2016	17 th highest	Around 1½ percentage points below the euro area average, higher than the OECD average
<i>Reduction, 2007 to 2016</i>		
% of national income	8 th largest	Poland, United States, Ireland, Israel, Iceland, Portugal and New Zealand larger
Real terms	7 th largest	Iceland, Greece, Turkey, Hungary, Portugal and Italy larger
<i>Increase, 1997 to 2007</i>		
% of national income	8 th largest	Japan, Netherlands, Spain, Portugal, Turkey, Norway and Greece larger
Real terms	7 th largest	Japan, Korea, Luxembourg, Ireland, Spain and Netherlands larger

Note: Measure is government final consumption expenditure. Real terms changes are calculated using the GDP deflator. The 34 countries for which comparable data are available are: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States. Source: OECD, *Economic Outlook No. 96*, November 2014.

historical UK context and internationally). Even by 2019–20, real spending on public services per person is still forecast to be around the level it was in the early 2000s. This might make the cuts somewhat easier to achieve than headline figures on the relative size of the cuts in isolation would suggest.

The pain from departmental spending cuts is likely to increase

So far, the departmental spending cuts planned by the coalition government have broadly been achieved: departmental non-investment spending has been reduced in nominal terms relative to what was set out in 2010 and, while departmental investment spending plans have been increased, they have been increased by less than the additional cuts to non-investment spending. Furthermore, some of the reduction in departmental spending relative to original plans was due to departments failing to spend all of their allocated budgets (‘underspending’) rather than the government announcing specific policy action to reduce spending. In part, this may have been due to political pressure or the beneficial impact of lower-than-expected inflation, but either way it shows that most departments have been able to stay within their budgets.

However, the difficulty that departments face in achieving a given pace of cuts is likely to increase in the coming years. There are at least three reasons for believing that this will be the case. First, it is reasonable to assume that the easiest cuts will have been done first.

Second, upwards pressure on public sector wages is likely to increase. Lower public sector wages in real terms (as shown in Figure 2.9 of Chapter 2) have meant that the cost of providing many public services has in fact fallen. However, over this period, any detrimental impact of wage restraint on the recruitment, retention and motivation of high-quality workers is likely to have been mitigated by the fact that private sector wages were also falling in real terms (also shown in Figure 2.9). Average earnings in the private sector are now growing in real terms (see Chapter 2), so it may be harder for central government to impose constraints on public sector pay growth in future.

Finally, there are a number of other financial pressures that will bear on departments' budgets in future. For example, from 2016–17, public sector employees will no longer be able to contract out of the second-tier state pension into their employer's defined benefit scheme. This is expected to increase the amount of National Insurance contributions (NICs) that public sector employers have to pay by £3.3 billion per year (around 1% of departments' budgets). The recent revaluation of public service pension schemes will also increase departments' employer pension contributions, by £1.4 billion a year.¹⁵ These commitments will need to be met from within departments' budgets, and between them are equivalent to an additional squeeze of around 1.4% on departmental spending.

Interest rate risk

Another risk to the public finances is that interest rates on government debt can change. The OBR's most recent (December 2014) forecast provided a demonstration of this in a positive direction. Between March and December 2014, the OBR revised down its forecast for debt interest spending in 2018–19 by £7.0 billion (or 0.3% of national income) as a result of movements in interest rates that led the OBR to revise down its forecast for gilt rates and short rates in each of the next four years by around 1 percentage point and by an average of 0.7 percentage points, respectively.¹⁶ This eased the squeeze on public service spending that would otherwise have been implied by the government's desire to achieve a 1.0% of national income budget surplus in 2019–20.¹⁷

But, of course, this risk also exists in the opposite direction: the OBR's ready reckoner suggests that in general a 1 percentage point increase in both gilt rates and short rates in each of the next five years would increase central government debt interest spending in 2019–20 by £5.3 billion (in 2019–20 terms).¹⁸ The government's current plans for total spending during the next parliament imply that spending by government departments will need to be cut in real terms by 14.1% between 2015–16 and 2019–20 (as described in Chapter 7). However, if debt interest spending were to be £5.3 billion higher than currently expected, this would increase the cut required to departmental spending to 15.4%.

However, while higher debt interest costs would put additional pressure on other parts of the government's budget, Figure 5.3 illustrated that even if debt interest costs were to increase somewhat, they would still be relatively low by historical standards.

¹⁵ HM Treasury, *Budget 2014*, <https://www.gov.uk/government/topical-events/budget-2014>; HM Treasury, *Autumn Statement 2014*, <https://www.gov.uk/government/topical-events/autumn-statement-2014>.

¹⁶ Table 4.2 of Office for Budget Responsibility, *Economic and Fiscal Outlook: December 2014*, <http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/>.

¹⁷ Though it is worth noting that the beneficial impact on debt interest spending of lower interest rates is partially offset by lower receipts that the government accrues from its financial assets.

¹⁸ Supplementary fiscal table 2.21 to Office for Budget Responsibility, *Economic and Fiscal Outlook: December 2014*, http://budgetresponsibility.org.uk/pubs/Fiscal_Supplementary_Tables_Dec_2014.v2.xls.

Furthermore, the impact of an increase in interest rates on the public finances as a whole would be slightly lower than that described for (gross) debt interest spending above, since higher interest rates would also increase the income the government receives on its stock of financial assets (a component of public sector receipts).

Difficulties in keeping spending down

Even if the next government does cut spending in the way planned, there is a risk that – once the immediate pressure is relieved and politicians take their eye off spending levels – spending starts to creep back up again. If this were not offset by increases in tax revenues, it would impede the rate at which public sector net debt as a share of national income is reduced over the longer term.

Demographic pressures

One potential driver of increased public spending as a share of national income in the longer term is the pressure created by demographic change. The UK population is ageing, and older people consume a relatively large proportion of health and long-term care spending and all of pension spending. If current levels of service provision were maintained then the demographic structure of the population would be likely to lead to an increase in public spending as a share of national income over time.

Table 5.4 sets out the latest OBR projections for the change in non-interest spending over the 40 years after the end of the government's planned consolidation, under an illustrative scenario where health, long-term care and education spending per capita for a person of a given age and sex are assumed to remain constant as a share of earnings from 2018–19 onwards, and spending on pensions and other benefits is projected on the basis of current benefit policy and pension scheme rules.¹⁹ Between 2018–19 and 2058–59, state spending on health would need to increase by 2.1% of national income, spending on long-term care by 1.1% of national income and spending on state pensions by 2.4% of national income. Offsetting this slightly is a forecast decline in spending on public service pensions (of 0.9% of national income). Taken together, spending on all age-related components of spending would need to increase by 4.8% of national income to keep pace with demographic change.

It is worth noting that this is almost certainly a substantial underestimate of the pressures on health spending. First, it assumes that real-terms health spending does not increase before 2018–19; this is perhaps now not the most likely outcome, as all the main parties seem signed up to some increases, reflecting tight settlements over this parliament and growing pressures on spending. The OBR presents an alternative scenario in which health spending instead keeps pace with demographic pressures after 2014–15. This scenario implies health spending being 7.6% of national income in 2018–19 (rather than the 6.4% set out in Table 5.4) and would push health spending up to 10.1% of national income by 2058–59.²⁰ A second reason why the figures for health spending in Table 5.4 might be underestimates is that they assume no increase in spending on health beyond those associated with ageing. This is at odds with experience over the last half a century: health spending has risen substantially faster over the 50 years than would

¹⁹ These figures were produced in the OBR's *Fiscal Sustainability Report* from July 2014, and therefore pre-date the extension of the forecast horizon (and planned spending cuts) to 2019–20 that occurred in the December 2014 Autumn Statement.

²⁰ See supplementary table 1.7 to Office for Budget Responsibility, *Fiscal Sustainability Report: July 2014*, <http://budgetresponsibility.org.uk/fiscal-sustainability-report-july-2014/>.

Table 5.4. OBR long-run projections for public spending under ‘current policy’ taking into account demographic change

<i>Spending as % of national income</i>	<i>Memo: 2010–11</i>	2018–19	2028–29	2038–39	2048–49	2058–59
Health	8.2	6.4	7.1	7.8	8.2	8.5
Long-term care	1.3	1.2	1.6	1.8	2.1	2.3
Education	6.3	4.3	4.4	4.3	4.2	4.3
State pensions	5.7	5.5	6.0	7.0	7.4	7.9
Pensioner benefits	1.2	0.8	0.9	1.0	1.0	0.9
Public service pensions	2.0	2.2	2.0	1.8	1.5	1.3
Total age-related spending	24.7	20.4	22.0	23.7	24.4	25.2
Other welfare spending	6.2	5.2	5.3	5.2	5.3	5.3
Other spending	13.3	8.6	8.5	8.5	8.7	8.7
Total non-interest spending	44.2	34.3	35.7	37.3	38.4	39.2

Note: Figures for 2010–11 and 2018–19 show outturns and coalition government plans (respectively) for public spending on different service areas. (The cut to ‘other spending’ includes cuts to council tax benefit.) Figures for years 2028–29 onwards show OBR projections for the level of spending on different areas taking into the impact of demographic change.

Source: 2010–11 figures are from table 1.1 of long-term projections for OBR, *Fiscal Sustainability Report 2011*, <http://budgetresponsibility.org.uk/fiscal-sustainability-report-july-2011/>. Figures for 2018–19 onwards are from supplementary table 1.1 to OBR, *Fiscal Sustainability Report: July 2014*, <http://budgetresponsibility.org.uk/fiscal-sustainability-report-july-2014/>.

simply have been implied by demographic pressures, as a result of other demand pressures and rising costs (see Chapter 8). The OBR also presents an alternative scenario in which health spending per capita for a person of a given age and sex rises by 3.4% per year in real terms, rather than the 2.2% per year required to increase spending in line with earnings. Combining this assumption with demographic projections after 2018–19 suggests health spending would grow to 13.6% of national income by 2058–59.²¹

In other words, even if the government implemented the cuts to public services that it is planning by 2018–19 (which can be seen in the large decline in spending as a share of national income between 2010–11 and 2018–19 shown in Table 5.4), maintaining those lower levels of service spending in the face of demographic pressures would still place significant upward pressure on public spending as a share of national income. If one wanted to avoid spending increasing as a share of national income in this way, the level of public service spending (per person of a given age and sex) would need to rise less quickly than average earnings over time, and/or there would have to be cuts to the generosity of the state pension or public service pension benefits or to the relative generosity of non-pensioner benefits. Alternatively, spending could be increased without detrimental effects on the path of debt reduction if it were offset by increases in tax revenues as a share of national income.

Capping welfare spending

Until now, spending on social security benefits has been demand led. Sharp increases in, for example, spending on disability living allowance and housing benefit have simply been accommodated. Recognising this, the coalition government introduced a cap on welfare spending in Budget 2014. The welfare cap imposes a limit on a subset of welfare

²¹ See supplementary table 1.8 to Office for Budget Responsibility, *Fiscal Sustainability Report: July 2014*, <http://budgetresponsibility.org.uk/fiscal-sustainability-report-july-2014/>.

spending (most importantly, it excludes the state pension, highly cyclical benefits such as jobseeker's allowance, and benefit spending by local authorities) for each year of the forecast horizon. In each Autumn Statement, the OBR assesses whether the government is meeting its cap; the government may exceed the cap by up to 2% due to forecasting changes, but is not allowed to make policy decisions that would increase welfare spending above the cap without the permission of parliament.

The rationale behind the cap on welfare spending is the perception that governments find it difficult to curb unexpected and unplanned increases in benefit spending since this requires unpopular decisions about how to make the benefit system less generous. By introducing a cap, the government will be forced to make active decisions about a desirable level of welfare spending, rather than allowing it unintentionally to drift upwards. However, it remains to be seen how effective the cap will be in this regard: while for the period through to 2019–20 the cap is currently set at a level that could constrain, this might not always be the case. There is also a risk that it could even result in worse policymaking if politicians turn to implementing quick or politically easy cuts to benefits in order to stay within the cap rather than making well-argued and well-designed choices.

5.5 Is expected growth in tax revenues feasible and permanent?

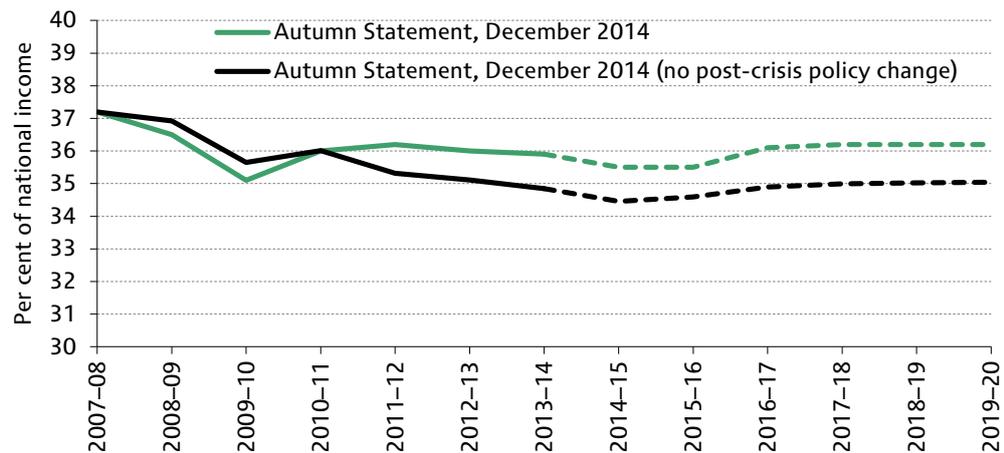
There are several possible reasons why tax revenues could come in below or above forecast. First, economic growth over the next few years could be higher or lower than forecast (as discussed in Section 5.3) and would typically feed into stronger or weaker growth in tax receipts. Second, even if overall economic growth is as expected, tax revenues could come in stronger or weaker than forecast. This could be because the composition of economic growth is different from what was expected: for example, stronger (weaker) growth in consumer spending offset by weaker (stronger) growth in exports would tend to boost (depress) revenues because consumer spending is, on average, more heavily taxed than exports. Third, the tax system will, presumably, be affected by subsequent Budget announcements, which may increase or reduce receipts. This section discusses the latter two risks.

Forecasts for overall tax receipts

The latest official forecast for current receipts (that is, both tax and non-tax revenues received by the government), as a share of national income, is shown by the green line in Figure 5.7. This shows how receipts fell as a share of national income between 2007–08 and 2009–10 before recovering slightly over the following two years to 2011–12. The forecasts suggest that the slight decline in receipts as a share of national income seen since 2011–12 will continue through to 2015–16 before climbing back slightly to just above 36% of national income in 2016–17.

Ordinarily, we might expect receipts to grow as a share of national income over time. This is because many thresholds in the tax system – most notably in income tax, capital gains tax, stamp duty land tax and inheritance tax – either are not indexed at all or increase in line with inflation, which is typically lower than growth in the underlying tax base (e.g. incomes or transacted house prices). Estimates based on past data suggest that one might

Figure 5.7. Outlook for receipts, with and without policy measures announced since March 2008



Source: Authors' calculation using sources as set out in Table 1.2.

expect this 'fiscal drag' to push receipts up by about 0.1% of national income each year.²² However, it is striking that, over the three years between 2016–17 and 2019–20, the OBR is forecasting that tax receipts will grow by just 0.1% of national income in total.

One potential explanation for this lack of fiscal drag would be if discretionary net tax cuts had already been announced that were to be implemented in later years. However, this is not the case. The black line in Figure 5.7 shows what we calculate the outlook for receipts would have been in the absence of the direct impact of tax measures announced in Budgets, Pre-Budget Reports and Autumn Statements since March 2008. This scenario still has receipts rising by only a little over 0.1% of national income between 2016–17 and 2019–20. So the OBR's forecasts suggest that receipts will grow by about half the amount that might have been expected historically from fiscal drag alone.

Further details of the OBR's forecast for tax receipts are provided in Table 5.5. Between 2016–17 and 2019–20, the largest forecast increases in tax receipts as a share of national income are from income tax and NICs (0.5% of national income) and capital taxes (0.2% of national income). We discuss the forecasts for both of these in some more detail below. Offsetting these – and therefore contributing to the overall weakness in forecast receipts over these years – are declines in revenues from onshore corporation tax (0.1% of national income), VAT (0.1% of national income), fuel duties (0.1% of national income) and council tax (0.1% of national income). The decline in forecast onshore corporation tax receipts is attributed by the OBR to increased business investment and the financial sector offsetting past losses, while the decline in VAT revenues is from a growing share of consumer spending being devoted to zero-rated housing costs.²³

A comparison of selected recent forecasts for current receipts as a share of national income is shown in Figure 5.8 (these vintages of forecasts were compared in Chapter 1). Again these subtract off the estimated direct impact of net tax changes announced since

²² Source: paragraph 2.19 of T. Helgadottir, G. Chamberlin, P. Dhami, S. Farrington and J. Robins, 'Cyclically adjusting the public finances', OBR Working Paper 3, 2012, <http://budgetresponsibility.independent.gov.uk/wordpress/docs/Working-paper-No3.pdf>.

²³ See paragraph 4.40 of OBR, *Economic and Fiscal Outlook: December 2014*, <http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/>.

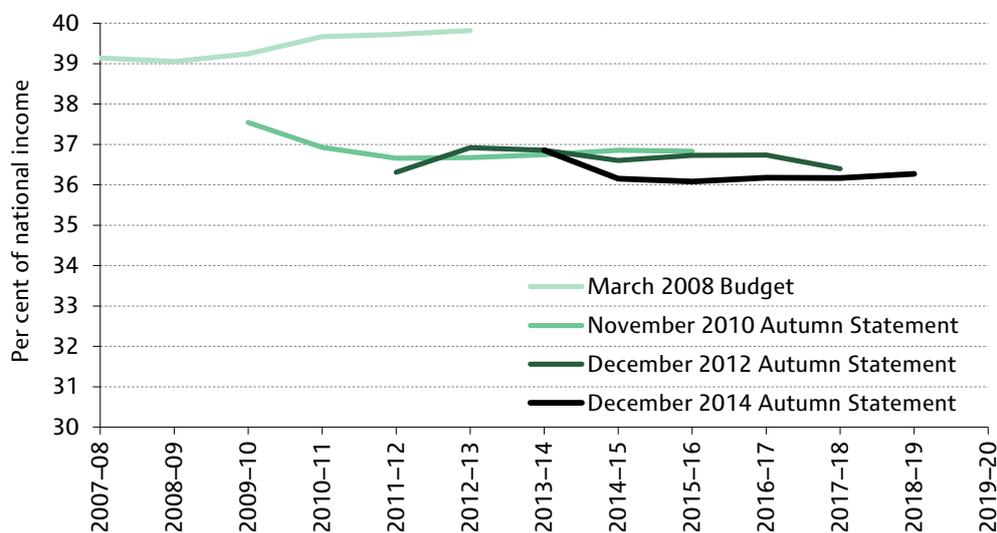
the March 2008 Budget. In addition, in order to make the forecasts as comparable as possible, we have attempted to adjust the most recent forecast for methodological changes associated with the shift from the 1995 to the 2010 European System of Accounts (ESA).²⁴

Table 5.5. OBR's revenue forecasts as a per cent of national income, 2014–15 to 2019–20

	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20
Income tax and NICs	14.9	15.0	15.5	15.7	15.8	16.0
VAT	6.0	6.0	6.0	6.0	5.9	5.9
Onshore corporation tax	2.2	2.2	2.1	2.1	2.1	2.0
UK oil and gas receipts	0.2	0.1	0.1	0.1	0.1	0.1
Fuel duties	1.5	1.4	1.4	1.4	1.4	1.3
Business rates	1.5	1.5	1.5	1.5	1.5	1.5
Council tax	1.5	1.5	1.5	1.5	1.4	1.4
Excise duties	1.1	1.1	1.0	1.0	1.0	1.0
Capital taxes	1.3	1.4	1.5	1.6	1.6	1.7
Other taxes	2.8	2.8	2.7	2.6	2.6	2.5
National Accounts taxes	33.0	33.0	33.4	33.4	33.5	33.5
Interest and dividend receipts	0.3	0.4	0.5	0.6	0.6	0.7
Other receipts	2.1	2.1	2.1	2.1	2.1	2.1
Current receipts	35.5	35.5	36.1	36.2	36.2	36.2

Source: Table 4.4 of OBR, *Economic and Fiscal Outlook: December 2014*, available at <http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/>.

Figure 5.8. Different vintages of forecasts for current receipts



Note: All figures are adjusted for the estimated direct impact of net tax rises announced since the March 2008 Budget. Up to December 2014, the figure shows current receipts as a share of national income from the relevant document. For December 2014, we take current receipts on an ESA95 basis and divide through by an estimate of out-turns and forecasts for GDP on an ESA95 basis.

Source: Authors' calculation using sources as set out in Table 1.2.

²⁴ In particular, measured receipts as a share of measured national income are lower under ESA10 than they were under ESA95. This is why the black line in Figure 5.8 is higher than the black line in Figure 5.7.

The effect of the financial crisis and recession on receipts is very clear: there was a sharp downgrade in forecast receipts between the March 2008 Budget and the November 2010 Autumn Statement. Furthermore, unlike the March 2008 forecast, which was for receipts to grow as a share of national income, the November 2010 Autumn Statement forecast that current receipts would remain roughly constant as a share of national income from 2011–12 onwards. The December 2012 forecast was also very similar, even though the outlook for the economy had been downgraded quite significantly over the intervening two years.

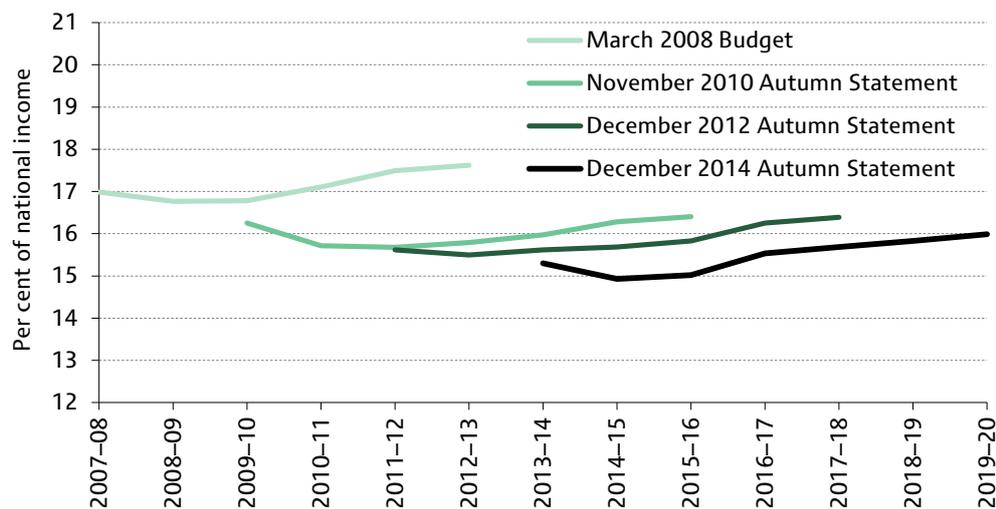
Between December 2012 and December 2014, the overall economic outlook remained largely unchanged. However, the OBR's forecast for receipts as a share of national income was revised down significantly. The remainder of this section highlights some of the reasons why this happened and thus some of the risks that could also surround the latest forecast.

Forecasts for revenues from income tax and National Insurance contributions

One important driver of the decline in the revenue forecast between December 2012 and December 2014 was downgrades to the forecast for revenues from income tax and NICs as a share of national income. Figure 5.9 presents successive forecasts for these revenues. Again we adjust, as far as we have been able to, for the methodological changes induced by the shift to ESA10. We also account for the estimated direct net impact of subsequent policy announcements – that is, the revisions to forecasts shown are not simply due to changes to the tax system that were announced between the different forecasts.

Each of the forecasts has been for these receipts to grow as a share of national income over time, but each successive forecast has revised down the level from which this

Figure 5.9. Different vintages of revenue forecasts for income tax and National Insurance contributions



Note: For December 2014, we take cash receipts of income tax (gross of tax credits) and NICs divided through by forecasts for GDP. For earlier forecast vintages, we take the equivalent cash receipts forecast but instead divide through by what we estimate GDP would have been forecast to be on an ESA10 basis. All estimates adjust for the estimated direct impact of net tax rises announced since that forecast was produced.

Source: Authors' calculations using sources as set out in Table 1.2.

growth starts. The latest forecasts are for receipts from these taxes to grow as a share of national income, with the increase over the last three years of the forecast horizon being similar to that forecast in both November 2010 and December 2012.

The main determinant of growth in these revenues is the growth in total employment income in the UK economy, which is the product of employment and average earnings growth. However, because of the progressivity of these taxes – in particular of income tax – receipts will be higher if a given level of total employment income in the UK is generated by fewer people in work earning more on average than if there are more people in work earning less on average. This means that the distribution of total employment income, as well as its headline growth, matters for tax receipts.

One factor behind the successive downwards revisions to forecasts for income tax and NICs receipts over recent years has been the rather remarkable performance of the labour market through the current recovery (discussed in more detail in Chapter 2). Employment has been surprisingly strong given weak overall economic growth, but growth in average earnings has been sluggish. A potential positive effect of this is that the immediate pain of weak economic performance might be spread across more families than it would have been had unemployment been much higher. But it also means that revenues from income tax and NICs have been lower than was originally forecast.

Table 5.6 illustrates the implications for income tax and NICs receipts of the change in the OBR's forecasts for employment income between 2010 and 2015 that happened between its first forecast (in June 2010) and its most recent (in December 2014). In June 2010, the OBR was forecasting that employment would grow by 3.8% and that average earnings would grow by 24.4% (in nominal terms) over this five-year period. It is now forecasting that employment will have grown much more quickly (by 7.2%), but that average

Table 5.6. Impact of employment and earnings growth on income tax and NICs receipts between 2010 and 2015: June 2010 Budget and December 2014 EFO compared

	June 2010 Budget	December 2014 EFO
(1) Employment growth (%)	3.8	7.2
(2) Average earnings growth (%)	24.4	12.9
(3) Aggregate earnings growth (%)	29.1	21.1
(4) Implied growth in income tax and NICs receipts (%)	43.1	28.3
Total estimated shortfall in revenues forecast in December 2014 compared with June 2010	n/a	£32.6bn
<i>Of which:</i>		
Estimated shortfall from reduction in aggregate earnings	n/a	£26.2bn
Estimated additional shortfall from changing composition of aggregate earnings	n/a	£6.5bn

Source: Authors' calculations based on Office for Budget Responsibility, *June Budget 2010*, <http://budgetresponsibility.org.uk/budget-2010/>; Office for Budget Responsibility, *Economic and Fiscal Outlook: December 2014*, http://budgetresponsibility.org.uk/pubs/December_2014_EFO-web513.pdf; and table 3.2 of Office for Budget Responsibility, 'How we present uncertainty', Briefing Paper 4, 2012, <http://budgetresponsibility.org.uk/wordpress/docs/Briefing-paper-No4-How-we-present-uncertainty.pdf>. £ billion figures based on the latest forecast for receipts in 2015–16.

earnings will have grown significantly less quickly (12.9%). Overall, this means that growth in aggregate earnings has been revised down from 29.1% to 21.1%.

The OBR has estimated the relationship between tax receipts, employment and earnings using historical data. This can be used to compare the revenue impact of a 1% increase in employment income arising from a 1% boost to average earnings with that coming from a 1% increase in employment. This suggests that a 1% increase in average earnings (holding employment constant) would boost receipts of income tax and NICs by about 1.5% (or by between £3¼ billion and £4 billion). In contrast, a 1% increase in employment (holding average earnings constant) is estimated to boost these receipts by about 1% (around £2¼ billion to £3 billion).²⁵

Using these OBR estimates suggests that the June 2010 forecast implied growth of 43.1% in income tax and NICs revenues between 2010 and 2015. In contrast, the out-turns and forecasts for forecast earnings and employment growth from December 2014 imply that they will grow by 28.3%. This equates to receipts in 2015–16 being £32.6 billion lower. This is partly because aggregate earnings growth has turned out to be lower than originally expected (21.1% instead of 29.1%). This accounts for £26.2 billion of the shortfall in 2015–16.²⁶ The remaining drop in revenues (of £6.5 billion) comes from the fact that the composition of aggregate earnings has been less ‘tax rich’ than originally expected – that is, there have been more people in work but on lower average earnings than was expected. To put this £6.5 billion in context, it is almost half of the estimated £14.0 billion raised by the January 2011 increase in the main rate of VAT from 17.5% to 20%.²⁷ Receipts of income tax and NICs will also have been depressed by the greater-than-expected shift within the workforce towards self-employment rather than employment (as shown in Chapter 2); this is because the average tax rate on employment income of the self-employed is lower than that of the employed.

A risk to the forecast recovery in income tax and NICs receipts over the next few years is, therefore, that the mix of employment growth and average earnings growth again turns out to be different from what the OBR is currently forecasting.

Changes to the income tax system introduced since 2009 are likely to have increased somewhat the sensitivity of tax receipts to the composition of aggregate earnings. This is because increases in the income tax personal allowance combined with reductions in the higher-rate threshold and the introduction of a new top rate of income tax have increased the progressivity of the income tax system, which makes earnings growth relatively more important than employment growth to overall tax revenues.²⁸

It is difficult to quantify the size of this change. However, an illustration can be provided by using the IFS tax and benefit model, TAXBEN, to examine the responsiveness of income tax and NICs to changes in earned income under alternative tax systems:²⁹

²⁵ Source: table 3.2 of Office for Budget Responsibility, ‘How we present uncertainty’, Briefing Paper 4, 2012, <http://budgetresponsibility.org.uk/wordpress/docs/Briefing-paper-No4-How-we-present-uncertainty.pdf>.

²⁶ This counterfactual is estimated under the assumption that growth in aggregate earnings, while lower, is as ‘tax rich’ as that implied by the June 2010 Budget forecast.

²⁷ See <http://election2015.ifs.org.uk/taxes>.

²⁸ The methodology we have employed in Table 5.6 has not been able to take this into account, which suggests that the £6.5 billion could be an underestimate of the impact of the changing composition of employment income on receipts of income tax and NICs.

²⁹ The authors would like to thank Andrew Hood for helping with these calculations.

- Under the expected tax system in 2015–16, we estimate that, on average, 30.9% of earnings would be paid in income tax and NICs.
- Under this system, if all earnings were to be 1% higher, we estimate that income tax revenues would increase by 1.59% while NICs revenues would increase by 1.26% (these are tax elasticities).
- If instead the tax system looked as it would have done had none of the reforms implemented since January 2010 been implemented, we estimate that, on average, 31.5% of earnings would be paid in income tax and NICs.
- Under this alternative tax system, if all earnings were to be 1% higher, income tax revenues would increase by 1.41% while NICs would increase by 1.22%.

The fact that these elasticities are greater than 1 indicates that, on average, both income tax and NICs are progressive; the fact that the elasticity of income tax revenues with respect to earnings is greater than the elasticity of NICs with respect to earnings illustrates that income tax is a more progressive tax than NICs.

It should be noted that the data from the Family Resources Survey on which these estimates are based undersample those on very high incomes (whose average and marginal income tax rates are, on average, higher) and therefore the estimated income tax elasticities are likely to be underestimates of the true elasticities. Notwithstanding this caveat, the fact that the elasticities are greater under the 2015–16 tax system confirms that, on average, the direct tax system has been made more progressive with respect to earnings.³⁰ This increased progressivity will mean that the revenues brought in will be more sensitive to whether growth in aggregate earnings is driven by growth in individual earnings or growth in employment.

The introduction of new higher marginal income tax rates means that the amount of income tax revenue brought in will also be more sensitive to how the growth in earnings is distributed.³¹ Figure 5.10 shows the share of total income tax revenues paid by the highest income 1%, 10% and 50% of income tax payers for selected years from 1978–79 to 2014–15. A large share of income tax revenue is paid by a relatively small number of high-income individuals. This reflects both the progressivity of the income tax system and the unequal distribution of taxable income. In 2014–15, the highest-income 1% of income tax payers, who represent just 0.57% of the adult population, paid 27.4% of income tax revenues.³²

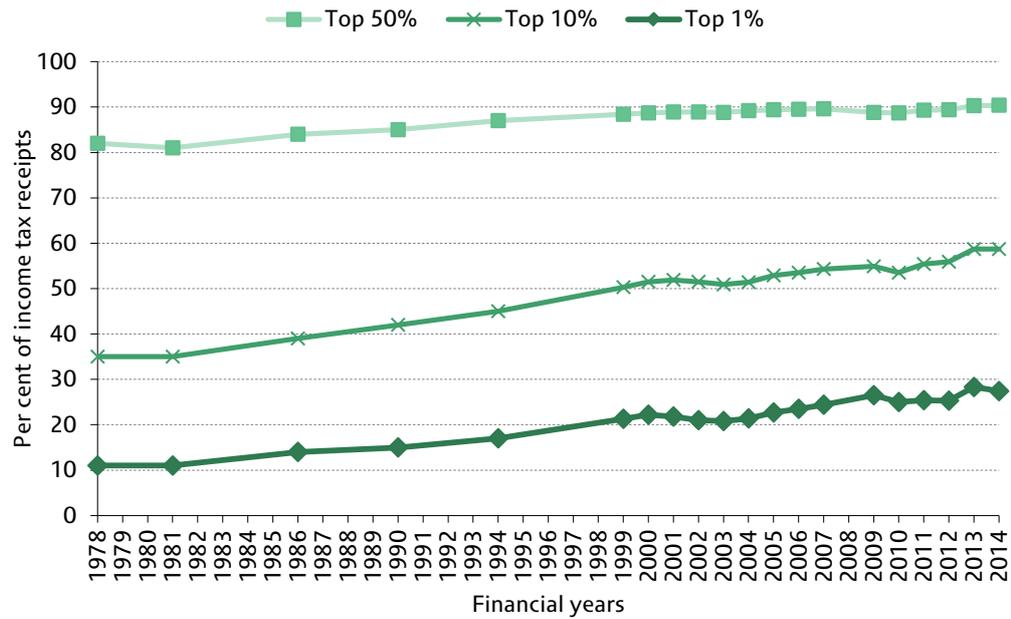
Other taxes are not as progressive as income tax, but it is still the case that revenues of many taxes will be quite dependent on those on higher incomes. Previous work by IFS researchers considered income tax, NICs, VAT, excise duties and council tax and estimated that, in 2013–14, the top 20% of taxpayers of these taxes contributed 54% of

³⁰ The fact that the average tax rate on earnings has fallen (from 31.5% to 30.9%) indicates that, on average, reforms have meant that earnings are now less heavily taxed. However, it should be noted that income tax reforms in recent years have often increased income tax on unearned income – for example, restrictions to tax relief on pension contributions and many anti-avoidance measures.

³¹ In 2009–10, the highest marginal income tax rate was 40%, meaning that a pay rise of £100 could generate at most £40 of additional income tax revenues. However, the 2015–16 income tax system is intended to have marginal tax rates of 45% and 60% for some people, meaning that a £100 pay rise could generate up to £60 of extra income tax revenue, depending on who receives it.

³² The most recent years of data should be treated with caution as they will be distorted by some high-income individuals shifting their income from one year to another in order to take advantage of pre-announced changes in the top rate of income tax (both from 40p to 50p in April 2010 and from 50p to 45p in April 2013).

Figure 5.10. Share of income tax receipts paid by those on high incomes



Source: Table 15 of T. Pope and B. Roantree, 'A survey of the UK tax system', IFS Briefing Note BN9, 2014, <http://www.ifs.org.uk/publications/1711> and table 2.4 of HMRC Collection, 'Income tax statistics and distributions', <https://www.gov.uk/government/collections/income-tax-statistics-and-distributions>.

the revenue raised, while the top half of taxpayers contributed 85% of the revenue.³³ The more revenues are raised from a relatively small set of individuals, the more likely it is that the public finances will be difficult to forecast as they will be more dependent on the behaviour of those individuals.

Forecasts for revenues from capital taxes

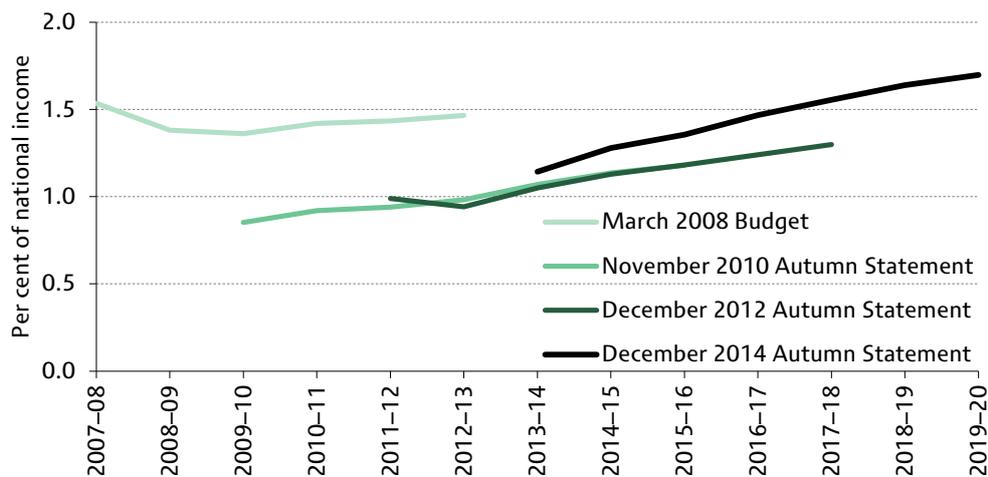
Capital taxes (that is, capital gains tax, stamp duty land tax, stamp duty on share transactions and inheritance tax) currently make up around 4% of all government revenues and are mostly paid by a small number of relatively well-off individuals. In the most recent year of data: 70% of inheritance tax revenue was paid by just 3,900 estates valued at more than £1 million (2011–12); 50% of capital gains tax came from 3,700 individuals who realised gains of more than £1 million (2012–13); and 29% of stamp duty land tax on residential properties was paid by those purchasing a house for more than £1 million (2013–14).³⁴ In some cases, it will undoubtedly be the same individuals who pay large amounts of income tax, capital gains tax and stamp duty and whose estates may pay inheritance tax when they die.

The reliance on revenues from these taxes – and therefore on the behaviour of a relatively small number of, presumably, relatively well-off individuals – is forecast by the OBR to increase. Figure 5.11 shows successive forecasts for capital tax receipts. Despite the relatively flat forecast for overall revenues as a share of national income (shown in Figure 5.7), the latest forecast is for receipts from capital taxes to increase significantly

³³ Source: Figure 9.4 of S. Adam, C. Emmerson and B. Roantree, 'Broad shoulders and tight belts: options for taxing the better-off', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2013*, <http://www.ifs.org.uk/publications/6562>.

³⁴ Source: HMRC Statistics, available at <https://www.gov.uk/government/organisations/hm-revenue-customs/about/statistics>.

Figure 5.11. Different vintages of revenue forecasts for receipts from capital taxes



Note: For December 2014, we take cash receipts of stamp duty on shares, stamp duty land tax, inheritance tax and capital gains tax and divide through by forecasts for GDP. For earlier forecast vintages, we take the equivalent cash receipts forecast but instead divide through by what we estimate GDP would have been forecast to be on an ESA10 basis.

Source: Authors' calculations using sources as set out in Table 1.2.

from 1.1% of national income in 2013–14 to 1.7% in 2019–20. Should this prove correct, then more revenue would be collected from these taxes (as a share of national income) than before the crisis hit.

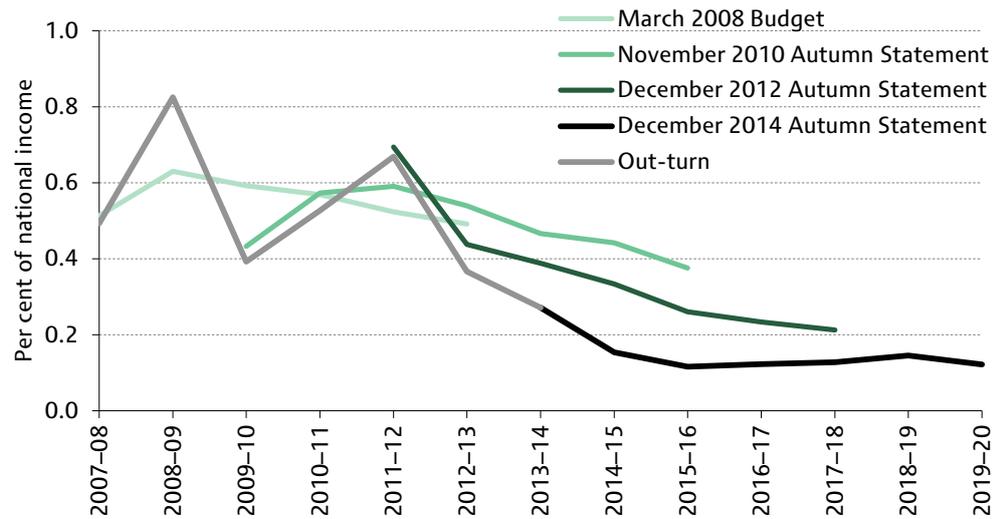
In part, the forecast increase in revenues from capital taxes is a result of discretionary policy changes – for example, the coalition government has frozen the inheritance tax threshold and (like the last Labour government) has increased rates of stamp duty land tax. It has also increased rates of capital gains tax. Forecasting revenues from these taxes is relatively hard, and therefore a significant uncertainty around the outlook for government revenues is that receipts from these taxes could come in significantly lower – or indeed significantly higher – than the OBR expects. This is perhaps most easily demonstrated by the experience of the recent financial crisis and associated recession. As of Budget 2008, capital tax receipts were forecast to be relatively stable as a share of national income. But in fact they declined by 45% between 2007–08 and 2009–10, explaining more of the drop in receipts than any other category of tax, despite their relatively small overall size.³⁵

Forecasts for revenues from North Sea oil and gas production

Revenues from North Sea oil and gas have, for the last four decades, made up a small but not insignificant share of the UK government's revenues. However, they are volatile and, related to this, very difficult to forecast. Receipts can, and have, varied due to changes in the sterling oil price, changes in production, changes in capital and operating expenditure (both of which are fully tax-deductible) and changes to the tax regime. Recent years have seen revenues average around ½% of national income, which is significantly down from the peak of 3.4% of national income received back in 1984–85.

³⁵ See chart 4.1 and paragraphs 4.21–4.24 of J. Riley and R. Chote, 'Crisis and consolidation in the public finances', OBR Working Paper 7, <http://budgetresponsibility.org.uk/wordpress/docs/WorkingPaper7a.pdf>.

Figure 5.12. Different vintages of revenue forecasts for UK oil and gas revenues



Note: For December 2014, we take cash receipts from petroleum revenue tax and offshore corporation tax and divide through by forecasts for GDP. For earlier forecast vintages, we take the equivalent cash receipts forecast but instead divide through by what we estimate GDP would have been forecast to be on an ESA10 basis.

Source: Authors' calculations using chart A on page 122 of Office for Budget Responsibility, *Economic and Fiscal Outlook: December 2014*, <http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/> and sources as set out in Table 1.2.

Successive forecasts for receipts from petroleum revenue tax and offshore corporation tax are shown in Figure 5.12. This shows that revenues fell as a share of national income between 2007–08 and 2013–14 and that both the December 2012 and December 2014 forecasts were for revenues to be lower than previously forecast. The latest forecast is for revenues in 2015–16 to be 0.1% of national income (£2.2 billion) which, if correct, would be the lowest level of receipts (as a share of national income) since 1976–77.

One key source of uncertainty for receipts from these revenues is the sterling oil price. Of the £1.6 billion downwards revision for receipts in 2015–16 that occurred between the March 2014 Budget and the December 2014 Autumn Statement, £1.1 billion arose from the \$6.90 fall in the assumed price of a barrel of oil that occurred over this period. The OBR estimates that the direct impact of a £10 fall in the price of a barrel of oil would be to reduce North Sea oil and gas revenues by £2 billion a year.³⁶ Since the latest OBR forecast was produced, the oil price has fallen further: the average of independent forecasters surveyed by the Treasury in January 2015 was for the oil price to be \$68.1 in 2015 compared with the forecast of \$83.1 used in the OBR's December 2014 forecast (and compared with an average of independent forecasters of \$80.1 in December 2014).³⁷ The OBR's ready reckoner suggests that this \$15 fall (approximately £10) in the expected oil

³⁶ See table 3.2 of Office for Budget Responsibility, 'How we present uncertainty', Briefing Paper 4, 2012, <http://budgetresponsibility.org.uk/wordpress/docs/Briefing-paper-No4-How-we-present-uncertainty.pdf>.

³⁷ See table 5 of HM Treasury, *Forecasts for the UK economy: a comparison of independent forecasts*, January 2015 and December 2014, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/396864/forecomp_201501.pdf and https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387996/forecomp_201412.pdf.

price could eliminate most of the £2.2 billion of North Sea oil and gas revenues in 2015–16 that was forecast by the OBR in December 2014.

However, these figures significantly overstate the negative impact of falling oil prices on the overall public finances. Most obviously, a decrease in oil prices would increase petrol purchases and thereby boost receipts of fuel duties: a £10 fall in the oil price is estimated to increase these revenues by £¼ billion a year.³⁸ However, there would also be a significant indirect increase in revenues as a lower oil price would lead to a boost in output in the economy.³⁹ While there is much uncertainty about the net effect, earlier analysis from the OBR suggested that the overall impact of a fall in oil prices would be to strengthen the public finances very slightly:⁴⁰ in other words, its central estimate is that the indirect impact on tax receipts (in particular, from boosting economic activity and raising revenue from fuel duties) would be more than sufficient to offset the direct fall in receipts from North Sea oil and gas revenues.

Risk from recent policies

Several measures have been announced in recent Budgets that are forecast to boost revenues over the next few years but which do not increase – or, in some cases, even reduce – revenues in later years:

- *Reduction in the tax rate on withdrawals from defined contribution pensions for those aged over 55 (March 2014 Budget):* forecast to boost revenues by £1.2 billion in 2018–19, but to increase them by less in later years and, in fact, to depress annual revenues slightly from 2031–32 onwards.⁴¹
- *Introduction of new class 3A NICs for two years (March 2014 Budget):* forecast to boost revenues by over £0.4 billion in both 2015–16 and 2016–17 but to have no effect on revenues thereafter (and it will increase state pension spending for many years beyond that point).⁴²
- *Introduction of accelerated payments for certain registered tax avoidance schemes (March 2014 Budget):* forecast to bring in £1.2 billion in 2015–16 and £1.3 billion in 2016–17 but will bring in less (and, in fact, is likely to reduce revenues) in later years.⁴³
- *Limiting the proportion of taxable profits that can be offset against losses (December 2014 Autumn Statement):* will boost corporation tax receipts in the near term, but will reduce them by a similar amount in later years.

³⁸ See table 3.2 of Office for Budget Responsibility, ‘How we present uncertainty’, Briefing Paper 4, 2012, <http://budgetresponsibility.org.uk/wordpress/docs/Briefing-paper-No4-How-we-present-uncertainty.pdf>.

³⁹ A fall in the oil price is also estimated slightly to reduce VAT revenues, to reduce spending on benefits, public service pensions and debt interest and to increase spending on the state pension. See Office for Budget Responsibility, ‘Assessment of the effect of oil price fluctuations on the public finances’, Occasional Paper, 14 September 2010, http://budgetresponsibility.org.uk/wordpress/docs/assessment_oilprice_publicfinances.pdf.

⁴⁰ See the Occasional Paper referenced in the previous footnote.

⁴¹ Source: Chart 1.11 of HM Treasury, *Budget 2014*, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/293759/37630_Budget_2014_Web_Accessible.pdf.

⁴² Source: HM Government, *Budget 2014: Policy Costings*, March 2014, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/295067/PU1638_policy_costings_bud_2014_with_correction_slip.pdf.

⁴³ Source: policy costings document in the previous footnote.

More generally, the costing of many measures – in particular anti-avoidance measures – is far from certain. For example, in the December 2014 Autumn Statement, the OBR rated many of the costings that it signed off as having ‘high’ or ‘very high’ levels of uncertainty. While this only applied to £20 million of the £2.9 billion of giveaway measures that were rated, it applied to £875 million of the £2.65 billion of takeaway measures – meaning that the takeaways announced may end up raising significantly more or less than currently expected.

Risk from future policies

The OBR’s forecasts – such as those for revenues presented in Figure 5.7 – take stated current government policy as given and assume that this is left unchanged. While this is understandable, it is clearly the case that budget measures will continue to be made and that these will affect revenues.

Recent history suggests that the forthcoming election might represent an upside risk to tax receipts. Perhaps surprisingly, pre-election Budgets have not, on the whole, tended to contain particularly significant tax cuts. (The obvious exception to this was Norman, now Lord, Lamont’s Spring 1992 Budget.) However, the first 12 months following general elections have often seen significant tax-raising measures being announced. For example, the 12 months after the 1992, 1997, 2001, 2005 and 2010 general elections all saw large net tax increases being announced (as shown in Figure 10.1 in Chapter 10). In many cases, these tax increases were not ones that had been openly discussed prior to the election. Therefore, history suggests we could see significant tax rises early in the next parliament even though none of the main parties is currently talking about doing this.

There are some parts of the tax system in particular where currently-stated policy might not be the most likely outcome. One example is fuel duties. The OBR’s forecasts assume that fuel duties will be increased in line with inflation – as measured by the discredited retail price index (RPI) – each year from September 2015. However, recent years have seen a number of previously-planned inflation increases being deferred and, eventually, abandoned. Similar behaviour often happened during the last period of Labour government. This might lead one to suspect that the indexation planned for the next parliament might also not take place. Freezing fuel duties for five years, rather than increasing them in line with RPI inflation as is currently planned, would reduce forecast revenues by an estimated £4.1 billion a year by 2019–20. Moving instead to indexation in line with the consumer price index – which would be more justifiable than indexation in line with the RPI – would reduce forecast revenues from fuel duties by £1.8 billion by 2019–20.⁴⁴

Another example is various parameters of the tax system that are either not indexed at all or are increased ‘only’ in line with inflation. Because the underlying tax base is expected to grow in real terms over time, the forecasts imply that the average tax rate and the number of individuals to whom the tax applies will increase over time. This is, for example, one of the drivers of the forecast increase in capital tax receipts shown in Figure 5.11. Rising average tax rates and an increase in the number of people paying (higher

⁴⁴ The OBR forecasts that the RPI will increase by 16.6%, and the CPI by 9.3%, over the period from September 2015 to September 2019 inclusive (see table 4.1 of Office for Budget Responsibility, *Economic and Fiscal Outlook: December 2014*, http://budgetresponsibility.org.uk/pubs/December_2014_EFO-web513.pdf). The HMRC ready reckoner suggests that each 1% off fuel duty rates reduces revenues by £250 million a year (see <https://www.gov.uk/government/statistics/direct-effects-of-illustrative-tax-changes>).

rates of) certain taxes may not be sustainable indefinitely. Some cases where this might become a particular issue include the following:

- Both the income tax personal allowance and the higher-rate threshold are, by default, increased in line with inflation. This means that, over time, more individuals will be brought into income tax and into higher-rate tax. We estimate that in 2015–16 there will be about 5.1 million higher- and additional-rate taxpayers but that, under current uprating rules and taking the OBR's forecasts for growth in incomes, fiscal drag would increase this by 1.2 million by 2020–21 and by 2.8 million by 2025–26.⁴⁵
- Since January 2013, child benefit has been tapered away from families containing an individual with a taxable income exceeding £50,000 a year, with families containing an individual with a taxable income of £60,000 a year or more receiving no child benefit. Both these thresholds are, by default, not indexed at all. This means that over time, as child benefit rises in cash terms, the effective income tax rate faced by those who have their child benefit withdrawn would increase.⁴⁶ It also means that more and more families will have part or all of their child benefit withdrawn in future. In 2015–16, we estimate that 1.2 million families lose some or all of their child benefit. If taxable incomes rise in line with the OBR's forecast, while the thresholds remain fixed, we estimate that in five years' time the number of families affected would increase by 50% and in ten years' time it would have more than doubled as a result of fiscal drag.⁴⁷ It remains to be seen whether this is sustainable: indeed it could be that, as fewer families are able to receive child benefit, public support for the benefit is eroded. However, if the objective of the recent policy change was to take some or all child benefit away from about an eighth of families with children in 2015–16, then it seems difficult to see why this should apply to (say) a quarter of families with children in 2025–26.
- The threshold at which the personal allowance starts to be withdrawn (£100,000) and the point at which the 45p additional rate starts to be paid (£150,000) are, by default, not indexed at all, which again means that over time more and more individuals will be affected by them. If the desire was for these tax rates to apply only to individuals with (roughly) the highest 2% (for £100,000) or 1% (for £150,000) of taxable income, it is not clear why these rates should apply to more people in future.
- The thresholds for stamp duty land tax (both residential and non-residential) are, by default, not indexed. This compares with forecast growth in nominal property prices over the next five years of 29.3% for residential properties and 10.0% for non-residential properties.⁴⁸

⁴⁵ Andrew Hood provided these estimates using TAXBEN run on uprated 2012–13 Family Resources Survey data.

⁴⁶ For example, after 10 years of 2% inflation, the marginal income tax rate faced by someone with three children would increase to 69% (40% plus 29%). This compares with a marginal income tax rate of around 64% (40% plus 24%) for such a person at the moment. For more details, see A. Hood and D. Phillips, 'Benefit spending and reforms: the coalition government's record', IFS Briefing Note BN160, <http://election2015.ifs.org.uk/uploads/publications/bns/BN160.pdf>.

⁴⁷ In 2015–16, we estimate that 800,000 families lose all their child benefit and 400,000 lose some. This is a total of 14% of families with children. In five years' time we estimate that these numbers increase to 1.2 million, 600,000 and 22% respectively. In ten years' time, we estimate they increase to 1.8 million, 700,000 and 32%.

⁴⁸ Source: Table 4.1 of OBR, *Economic and Fiscal Outlook: December 2014*, <http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/>.

- The inheritance tax threshold is, under current policy, to be frozen through to 2017–18, with the forecasts suggesting that the number of estates liable for inheritance tax will rise from 4.9% in 2013–14 to 9.9% in 2018–19 (having applied to just 2.6% of estates in 2009–10); this would be the highest proportion since at least 1978–79.⁴⁹
- The limits on how much can be saved in a tax-advantaged way in a private pension (the £40,000 annual pension contribution limit and the £1.25 million lifetime limit) are also both frozen in cash terms, although reforms to public service pensions are likely to mean fewer public sector workers will be affected by these caps in future.⁵⁰

5.6 Conclusion

Debt more than doubled during the recent crisis (from 37% of national income to 79%) as nominal GDP fell. It was beneficial for the UK economy that the government could allow this to happen without seeing borrowing costs soar: it meant that fiscal policy could help cushion the impact of the crisis in the short term and adjust gradually to this permanent shock. However, if debt remains at its new higher level, it could limit a future government's ability to accommodate the next shock. Furthermore, higher levels of debt mean a greater proportion of public spending must be allocated to financing debt interest payments. For these reasons, there is broad agreement among many politicians that debt needs to be reduced, although there is disagreement about exactly how quickly.

The current government has set out a path for borrowing that would culminate in a budget surplus of 1% of national income in 2019–20, and which is expected to result in debt falling as a share of national income from 2016–17 onwards. Each of the three main UK political parties has set out slightly different objectives for borrowing, but all have said that they want to see debt falling as a share of national income by at least the end of the next parliament.

While the latest fiscal forecasts suggest that borrowing will fall over the next few years and debt will start to decline, there are uncertainties and risks around these forecasts and around the longer-term outlook for the public finances.

For a start, there is uncertainty about how much of the current level of government borrowing is cyclical (and will disappear as the economy recovers from the recession) and how much is structural (and will remain even after the economy is fully recovered). This means that there is uncertainty over how much policy action is required in order to reduce borrowing to balance (or a given surplus) over time. The official view on this is similar to the average of other independent forecasters' views, but some forecasters take a much more optimistic and some a more pessimistic view on the matter. If the optimists are correct, borrowing will fall further than currently expected as the economy recovers, and a future government may be able to cancel or reverse some of the planned austerity. If the pessimists are correct, the austerity measures currently planned will not be sufficient to achieve the desired budget surplus and more would be required. It will be important for policy to remain nimble and be responsive to new developments.

⁴⁹ For a discussion, see S. Adam and C. Emmerson, 'Death to the death tax?', IFS Observation, 2014, <http://www.ifs.org.uk/publications/7164>.

⁵⁰ In particular, the move from final salary to career average defined benefit arrangements in the public sector will lead to pension rights accruing more smoothly over an employee's career and therefore will make them less likely to be affected by the annual limit.

There are also a number of factors that make spending and revenues uncertain over the next few years, even if economic growth turns out largely as expected. The progressive nature of income tax means that these revenues are sensitive to the exact composition of income growth in the economy. An economy with higher employment coupled with lower average earnings of those in work – while beneficial for those who gain employment – does not produce as much revenue for the exchequer as an economy with somewhat lower employment but higher average earnings of those in work. Reforms to income tax over the last five years (notably the introduction of the 45p top rate of income tax and increases in the tax-free personal allowance) have also made the public finances slightly more sensitive to these compositional changes. Over the last few years, the Office for Budget Responsibility (and others) have repeatedly been surprised by strong growth in employment and weak growth in earnings. Looking forwards, it is uncertain whether this trend will continue or whether earnings growth will pick up more quickly than currently forecast.

The public finances have also become increasingly reliant on (and, therefore, sensitive to) the incomes and behaviour of the highest-income individuals. In 2014–15, the highest-income 1% of taxpayers (or just 0.57% of the adult population) paid over a quarter of all income tax revenues. These people are also likely to have paid a significant share of other taxes, such as VAT, capital gains tax and stamp duties. Therefore, how the incomes of this group fare and how they behave will be very important for the public finances in future.

There are also two areas of spending that are particularly difficult for the government to control – these are debt interest spending and spending on social security benefits. The former could turn out higher or lower than expected if the interest rate the government has to pay on its debt turned out to be higher or lower than currently forecast – a permanent 1 percentage point movement in gilt and short rates is estimated to affect debt interest spending by around 0.2% of national income after five years. Social security spending is also somewhat unpredictable. However, the risk that borrowing turns out higher than expected because of pressures from social security spending is presumably lower now than in the past because of the government's newly-introduced 'welfare cap'.

As well as these uncertainties, there are some known factors and other risks that are likely to put upward pressure on borrowing in future – at least relative to the plans currently set out by the government. First, the spending cuts planned over the next five years are significant and could prove difficult to deliver without resulting in a potentially unacceptable decline in the quality or quantity of public services. Second, even if these cuts are delivered, it may prove difficult to keep spending down as the UK population becomes increasingly aged, since older people tend to use more public services and receive higher income transfers from the state. Third, future governments may struggle to achieve all of the planned growth in tax revenues: past experience suggests it may be particularly hard to index rates of fuel duties and tax thresholds as it currently plans. Some tax thresholds are currently frozen in nominal terms (and hence declining in real terms) by default. If more and more people get drawn into paying higher rates of tax, politicians may come under pressure to increase thresholds. For example, we estimate that next year (2015–16), 1.2 million families will have some of their child benefit withdrawn because one or both parents have an income above £50,000. However, under the current policy to leave the threshold frozen at £50,000, fiscal drag will increase this to 1.8 million by 2020–21 and 2.5 million by 2025–26.

There will always be uncertainties and risks around future borrowing levels and governments are well-advised to acknowledge these, build some element of caution into

their plans and remain responsive to new developments. Policy changes under the current government have, arguably, increased some risks but reduced others. Changes to the income tax system over recent years have, if anything, made revenues somewhat more sensitive to the composition of economic growth. However, this is an inevitable consequence of reforms that make the tax system more progressive: the more that tax is focused on a particular group (such as those with high income) the more sensitive are revenues to the fortunes of that group relative to others. On the other hand, changes to the planning of social security spending – in particular, the introduction of the welfare cap – have perhaps reduced future risks to the level of welfare spending. However, given that the government faces some particular risks that could increase borrowing relative to expectations, in addition to uncertainties that could result in either higher or lower borrowing, a cautious government may wish to aim for a slightly lower level of borrowing (or larger surplus) than it actually wants to achieve.