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The IFS Green Budget

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February 2015

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Paul Johnson
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ICAEW and Oxford Economics

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The IFS Green Budget

February 2015

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Foreword from ICAEW

ICAEW is very pleased to be associated with the IFS Green Budget.

In what will be one of the most open general elections in decades, there is intense competition across the political parties for the hearts and minds of the British electorate.

In this volatile environment, it is easy to feel perplexed by the volley of claim and counterclaim that has characterised recent political debate.

Amidst all the rhetoric, there is a need for objective analysis of the various competing visions on offer, which is what the IFS Green Budget provides. This evidence base is a prerequisite for good public policy development and a better-informed electorate.

As part of our support for this project, ICAEW has produced a balance sheet analysis of the public finances (Chapter 6), which we think offers a powerful alternate framework through which to assess the current state of the nation's financial health.

Over time, we would like to see a far more rigorous approach to public finance adopted across central and local government. The prize for getting this right will be increased transparency and better public understanding of the choices facing policymakers, which in turn should lead to more informed political debate.

ICAEW is a world-leading professional body with 144,000 members in over 160 countries. As an organisation and a profession, we stand for high-quality financial information that can be used to inform good decision making. In the run-up to the general election in May, we hope the Green Budget will be widely used to that end.

Michael Izza
Chief Executive Officer of ICAEW

Foreword from the Nuffield Foundation

The Nuffield Foundation has funded much of the work that informs the IFS Green Budget for several years. It is an association of which we are proud. We believe this annual publication, produced by IFS for 33 years, has improved public debate about the Chancellor's Budget and has had a positive longer-term effect on discussions about economic policymaking.

The Green Budget is valued by many analysts, policymakers, journalists and commentators who have confidence that the analysis it provides is independent, rigorous and open. It also examines alternative policy options, which further enriches the debate. Time and time again, IFS's Green Budget has played an important role in debate on the UK's public finances, a role that will be particularly important ahead of the general election in May 2015.

This year, we are delighted that the Green Budget has been co-funded by, and produced in association with, ICAEW. This additional funding will help secure the future of the Green Budget, which has become one of the most important fiscal publications in the calendar.

We also acknowledge the contribution of the Economic and Social Research Council (ESRC), which funds the IFS Centre for the Microeconomic Analysis of Public Policy, the work of which underpins all IFS analysis.

Professor David Rhind CBE FRS Hon FBA
Chairman of the Trustees of the Nuffield Foundation

The Nuffield Foundation is an endowed charitable trust that aims to improve social well-being in the widest sense. It funds research and innovation in education and social policy and also works to build capacity in education, science and social science research. The Nuffield Foundation has funded this project, but the views expressed are those of the authors and not necessarily those of the Foundation. More information is available at http://www.nuffieldfoundation.org.

Preface

Welcome to the Institute for Fiscal Studies (IFS)'s 2015 Green Budget. In the following pages, we discuss some of the issues confronting the Chancellor as he prepares his sixth Budget.

In this book, we examine how the public finances, and the plans for fiscal consolidation, have evolved during this parliament. We set out what has happened to the pay of different groups, and assess the current direction of travel as real earnings growth slowly returns. We consider the risks that the next government will face in reducing the deficit and then maintaining low levels of borrowing. We also analyse some of the specific options that a government might consider to achieve further deficit reduction. We take, in turn, cuts to spending on public services (including a detailed overview of the challenges facing the NHS), cuts to spending on social security and increases in tax.

As ever, we collaborate with others to write the macroeconomic chapters. We are grateful to Oxford Economics, and in particular to Andrew Goodwin, Martin Beck and Adam Slater, for their chapters on the outlook for the UK economy and the global economy.

We are delighted to work for the first time with ICAEW. In addition to providing financial support for the Green Budget, they have contributed a valuable chapter assessing the new Whole of Government Accounts which should enable better financial policymaking – a natural complement to our own detailed analysis of the public finances.

We are also very grateful to the Nuffield Foundation for the funding it has provided to support the Green Budget. Our most important aim for the Green Budget is to influence policy and inform the public debate. It is particularly appropriate, then, that it should be supported by the Nuffield Foundation, for which these are also central aims.

The continuing support that the Economic and Social Research Council (ESRC) provides for our ongoing research work via the Centre for the Microeconomic Analysis of Public Policy at IFS underpins all our analysis in this volume and is gratefully acknowledged.

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As with all IFS publications, the views expressed are those of the named chapter authors and not of the institute – which has no corporate views – or of the funders of the research.

Paul Johnson
Director, Institute for Fiscal Studies

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Summary

Chapter 1
Public finances under the coalition

- In March 2008, the official forecasts suggested structural borrowing was 2.7% of national income in 2007–08, which was slightly smaller than estimates produced by the IMF and the OECD at the time.
- When the last Labour government left office, the official forecasts implied that underlying structural borrowing had, since the March 2008 Budget, increased by around 5.7% of national income. The Labour government planned to eliminate this with new measures totalling 5.8% of national income to be fully implemented by 2016–17.
- In 2010, the coalition government announced further tax increases, cuts to social security benefits and further cuts to day-to-day spending on public services. The additional fiscal tightening it announced amounted to an extra 1.2% of national income on top of what Labour had planned. The government thought at the time that this would be sufficient to put it on course to eliminate the structural current deficit by 2014–15.
- Between 2010 and 2012, the outlook for economic growth and tax revenues deteriorated. The coalition government decided not to increase the fiscal tightening planned for this parliament but to extend the period of consolidation into the next. Consequently, the coalition government has borrowed more than planned over this parliament: over the five years from 2010–11 to 2014–15, borrowing is now estimated to have been around £100 billion higher than forecast in the November 2010 Autumn Statement.
- Between the end of 2012 and the end of 2014, the underlying outlook for the public finances was little changed. Despite this, the coalition government pencilled in further spending cuts for the second half of the next parliament in order to bring about a stronger fiscal position – an overall surplus of 1.0% of national income by 2019–20. The additional fiscal consolidation measures planned for between now and 2019–20 are 2% from net tax rises and 98% from spending cuts; this compares with an 18%/82% split between tax and spending among the measures implemented so far.
- IMF forecasts suggest that, out of 31 advanced economies, only Japan will have higher structural borrowing than the UK in 2015. This is despite the UK having done the seventh-largest fiscal consolidation since the crisis began. Plans set out for the next parliament imply that the UK is planning the largest fiscal consolidation between 2015 and 2019.
- Had the March 2010 Budget plan instead been retained, taxes would have been lower and spending higher than they have been. This would have offered greater support to household incomes and made it easier to deliver public services. But it would have resulted in significantly more borrowing and would only have deferred, rather than avoided, the need for greater fiscal consolidation.

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Chapter 2
Earnings since the recession

- Since the Great Recession, the UK labour market has been characterised by robust employment and weak earnings growth. Employment for 16- to 64-year-olds is back to its 2008Q1 rate, but average earnings remain well below their pre-crisis level.
- Weak productivity has underpinned both of these features of the labour market. In 2014Q3, productivity was still no higher than before the recession and had not grown overall since the end of 2011. If anything, workers' pay seems to have fallen by even more than productivity, but the key puzzle is over why productivity has fallen so much, rather than over the relationship between productivity and pay.
- There has been substantial variation in the magnitude of real earnings falls since 2008. They have been larger for men, young adults and the private sector. Earnings have also fallen by somewhat less at lower points in the earnings distribution (driven by the trend since 2011).
- The workforce has continued to exhibit rising shares of older adults, women, highly-educated individuals and relatively skilled occupations (with a plateau in the last trend in 2014). There have also been rises in the proportions of workers who are self-employed (from 13% in 2007 to 15% in 2014Q1–Q3) and part-time (25% to 27%).
- If the characteristics of employees had not changed since the recession then, all else equal, falls in earnings would have been even larger. This is because factors such as increasing education levels have acted to push average earnings up. There is little sign that the earnings-increasing effects of such 'compositional' changes are reversing or slowing down. Hence, the continued weakness of earnings is due to continued weakness for given types of employee, not compositional effects.
- Between 2011 and 2014, individuals continuously in the same full-time job from year to year saw their average real pay rise as they aged, even while economy-wide earnings were falling – a fact that has recently gained some attention. Because pay tends to increase with experience, and because people in continuous employment are a select group (e.g. are more educated), changes in the earnings of continuously employed individuals as they age tend to look more favourable than trends in average earnings over time. This is important to understand, but is not new or surprising. The falls in both measures of annual real earnings growth since before the crisis are of a similar magnitude – so the drop in overall earnings is not driven only by people starting a new job.

Chapter 3
The global economy

- The global economy is expected to grow faster in 2015 than in 2014, but with considerable variation in momentum across countries.
- World growth will pick up from 2.6% last year to 2.9% – broadly in line with the average pace of expansion over the last 20 years.

- The US is expected to lead the advanced economies in 2015, with GDP rising by 3.3%. Conditions now seem to be in place for a firmer consumer upturn in the US, with solid employment gains and signs of a firming in wage growth.
- A modest improvement is likely in the eurozone, thanks in large part to more supportive fiscal and monetary policies and an improvement in external demand. Germany is likely to grow fastest of the larger eurozone economies, with overall eurozone growth at 1.5%.
- The sharp drop in global oil prices since mid-2014 will benefit most of the advanced economies in 2015–16. But big oil producers will be losers, most prominently Russia.
- Chinese growth is set to slow further while Brazil remains stagnant. Growth will improve in India but overall emerging market growth will dip below 4%, the slowest pace since 2009.
- A key downside risk to our forecast is a widespread retreat from risk by investors, resulting in a considerable decline in asset prices. A plausible upside scenario relates to a faster improvement in wages and consumer and business confidence in the US and Europe, pushing world growth to around 4% by 2016.

Chapter 4
The UK economic outlook

- The UK's economic expansion finally became entrenched in 2014, with GDP growth of 2.6% placing it at the top of the G7 league table. Though the expansion appeared to be losing momentum towards the end of last year, the slump in the oil price should offer renewed impetus by boosting consumer spending power. We expect this to propel UK GDP growth to 3% in 2015 and 2.8% in 2016. Business investment should continue to make a disproportionate contribution to driving growth, with robust confidence encouraging firms to spend their accumulated cash piles. But the expansion is likely to remain a largely domestic affair, with net trade expected to make only modest contributions to growth over the next five years.
- With rapid expansion of the labour supply and robust business investment likely to have underpinned strong growth in potential output last year, we estimate that the output gap only narrowed very slightly in 2014, ending the year at 4% of potential output. The prospects for potential output growth are favourable, with the labour supply set to be boosted by sustained strength in inward migration and the staged increase in the state pension age, and robust growth in business investment boosting the capital stock. This will provide the conditions for relatively strong growth and low inflation over the medium term, with GDP growth expected to average 2.6% a year from 2015 to 2019. Our forecasts are a little stronger than those of the OBR and the market consensus.
- The risks around our forecast are skewed to the downside. Domestically, the upcoming general election provides the most immediate source of uncertainty, with a wide range of results possible. A decisive result could mean changes to fiscal policy, while an inconclusive result and failure to establish a government with a workable majority could undermine business confidence. But external events have the greatest potential to alter the UK outlook. The most likely upside scenario would involve stronger recoveries in the US and eurozone, which would boost UK export growth. On

the downside, the biggest threat would be a widespread retreat from risk, which could push the UK back into recession in late 2015.

Chapter 5
Public finances: a dicey decade ahead?

- 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.

Chapter 6
The government's financial accounts: an ICAEW perspective

- Over the past four years, the UK government has introduced a new method of reporting its financial position, adopting financial accounting similar to that used by businesses around the world in accordance with international generally accepted accounting standards. 'Whole of Government Accounts' prepared on this basis include a balance sheet that reflects not only the inclusion of assets controlled by government bodies, but also the inclusion of liabilities such as those for public sector employee pensions, nuclear decommissioning costs and clinical negligence claims.
- In 2012–13 (the latest year available), the accounting deficit of £179 billion was £94 billion more than the current deficit of £85 billion reported in the National Accounts. The main differences were £49 billion in higher charges for public service pensions, £35 billion from the accounting for assets and £16 billion for nuclear decommissioning, clinical negligence and other obligations.
- Financial statements provide useful information that can be used to support financial decision-making, in addition to measuring progress against previous plans, budgets and market expectations. For example, the reported liabilities of £1.2 trillion for employee pension obligations included in the balance sheet give a measure for monitoring the scale of the government's obligations and offer the potential for improved transparency about how the government intends to fund the payment of these obligations over the coming decades.
- The financial accounts provoke some significant questions. How does the government plan to address an accounting deficit of almost 30% of total revenue? How will long-term public sector pension obligations and nuclear decommissioning costs be funded?
- Financial accounting should also support the government in developing comprehensive financial reviews that use balance-sheet information as an integral part of the analysis used in making financial decisions.
- Financial analysis based on Whole of Government Accounts has the potential to change the public debate on the government's finances from a narrow focus on balancing the public finance deficit in the National Accounts to a more comprehensive discussion around how the government plans to deal with its longer-term financial challenges, using a similar financial language to that used by millions of people outside of government.

Chapter 7
Options for further departmental spending cuts

- Coalition government plans imply real departmental spending cuts of 9.5% between 2010–11 and 2015–16. Real health, official development assistance and day-to-day schools spending has been protected, leaving other departments to face cuts averaging 20.6% over this period.
- Departmental spending between 2010–11 and 2014–15 has differed from the original coalition plans. Resource (non-investment) spending has been cut more than originally intended in cash terms, but inflation has turned out lower than forecast, so it has still been cut less than originally expected in real terms (7.8% compared with

8.3%). Real capital spending cuts have turned out much lower than originally planned (13.6% rather than 25.9%) due to lower-than-forecast inflation and decisions since 2010 to top up these spending plans.

- The 2014 Autumn Statement plans imply real cuts to departmental spending between 2015–16 and 2019–20 of 14.1%. This would take the total cut since 2010–11 to 22.2% and return real departmental spending to around its 2002–03 level.
- The Office for Budget Responsibility forecasts that these cuts to departmental spending would entail significant reductions in general government employment: a cut of 900,000 between 2015–16 and 2019–20, on top of a cut of 500,000 between 2009–10 and 2015–16. This would reduce the size of the government workforce, and its share of total employment, to its lowest level since at least 1971.
- However, departmental spending cuts after 2015–16 will be implemented by the next government, and all three main UK political parties have announced fiscal rules that would allow them to increase spending relative to the Autumn Statement plans. Given their fiscal rules and stated policy intentions, the Conservatives' plans could imply cuts to departmental spending of as little as 6.7% between 2015–16 and 2019–20, the Liberal Democrats as little as 2.1% and Labour as little as 1.4%.
- Smaller cuts to spending and further restrictions on public sector wage growth could both reduce future government employment cuts relative to current forecasts. A real wage freeze between 2015–16 and 2019–20 would imply cuts to government employment of around 750,000 if departmental spending is cut by 14.1%, 400,000 if it is cut by 6.7%, 150,000 if it is cut by 2.1% or 100,000 if it is cut by 1.4%.
- A 2015 spending review would allocate departmental budgets for beyond April 2016. There is apparent consensus between the three main UK parties that spending on health and official development assistance will remain protected from cuts. However, other departments face considerable uncertainty about their budgets between 2015–16 and 2019–20. What seems certain is that some will face large cuts – on top of those already delivered – regardless of the outcome of the general election.

Chapter 8
Challenges for health spending

- The Department of Health (DH), which funds the National Health Service (NHS) in England, has been protected from the large ongoing cuts to departmental spending. The DH budget is currently planned to increase in real terms by an average of 1.2% per year between 2010–11 and 2015–16, compared with a real cut of 3.3% per year to other departmental spending over the same period.
- The NHS, however, faces a number of pressures that tend to increase demand for healthcare over time. The population is both growing and ageing, and older individuals on average demand more, and more expensive, healthcare. Real increases in health spending of 1.2% per year could be required to keep pace with population growth and the changing age structure of the population.
- Demand will also increase over time as a result of the rising prevalence of some chronic conditions, improvements in access to care, and improvements in technology combined with government policy increasing the range of healthcare treatments

available. NHS England and the Nuffield Trust estimate that the combined impact of demographic and other pressures could increase demand by around 3% per year.

- The NHS also typically faces pressures from rising costs – in particular from wages and high-cost drugs. The DH has been assisted in dealing with its small real budget increases since 2010–11 as government policies have been able to restrain public sector pay. Low private sector earnings growth will probably have helped to contain any adverse effects of this pay restraint on the recruitment, retention and motivation of high-quality NHS workers. However, as private sector wages recover, continuing pay restraint without adverse effects is likely to be harder.
- NHS England estimates that demand pressures and rising costs could create real financial pressures of around 3.5% per year and that it needs real budget increases or improvements in productivity amounting to around £30 billion (2020–21 prices) annually by 2020–21 to meet these pressures without a decline in service quality.
- These factors may argue for a more favourable spending settlement for the DH in future than it received over the current parliament, but such a choice cannot be made lightly. There will almost certainly be further real cuts to overall departmental spending in the years after 2015–16, regardless of who forms the next government. A more beneficial outcome for the DH would mean more spending overall or harder budgetary pressures for other departments.
- The Autumn Statement forecasts, for example, imply departmental spending cuts averaging 3.7% per year between 2015–16 and 2019–20. Even if the NHS achieves the productivity improvements of 2.4% per year it is aiming for (reducing the financial pressures from around £30 billion to £8 billion), the DH budget would still need to increase by 0.8% a year in real terms to meet demand and cost pressures. This would imply the cuts to other departments need to average 6.1% per year.

Chapter 9
Options for reducing spending on social security

- Total social security spending is forecast to be £220 billion in 2015–16, around 30% of total government expenditure. It is therefore possible that whoever forms the next government will look at cutting spending in this area as part of a deficit reduction strategy.
- Pensioners are expected to receive 55% of social security spending in 2015–16. This proportion has been growing as a result of increased numbers of pensioners, greater state pension entitlements among those who recently reached the state pension age, and the fact that pensioners have so far been largely protected from the cuts to social security. Continuing to protect pensioners would require much larger cuts to working-age social security for a given reduction in public spending.
- The Conservatives have said that they would seek to make further cuts of £12 billion to annual social security spending were they to form the next government. To give an idea of scale, freezing all benefits and tax credits other than state pensions for five years would cut spending by £13 billion, taking an average of £800 a year from 16 million families. To cut spending on this scale while protecting pensioners entirely would require more severe cuts to working-age benefits; even continuing the Conservatives' proposed freeze of most working-age benefits for five years would only reduce spending by £6.9 billion.

- Other options that could save substantial sums include making all tenants pay at least 10% of their rent (£2.5 billion), abolishing child benefit and increasing universal credit to compensate low-income families (£4.8 billion), reducing the generosity of means-tested support for children to its 2003–04 level (£5.1 billion) and restricting benefits for families with children to the first two children (which would save around £4 billion a year in the long run).
- Many of the policies suggested by the Conservative and Labour parties – withdrawing winter fuel payments from higher- and additional-rate taxpayers, cutting housing benefit for young people, reducing the benefit cap, and increasing child benefit by 1% for a further year – would reduce spending by relatively little.
- The social security system not only gives support to vulnerable groups but also affects incentives around how much paid work to do, where to live and with whom, and even the number of children to have. Giving exemptions from cuts for groups deemed more vulnerable can weaken work incentives and strengthen incentives for people to have children or claim disability benefits. When considering possible changes to the social security system in the coming years, policymakers should bear these trade-offs in mind, have a clear vision for what they want the social security system to achieve and ensure that the overall system of support is coherent.

Chapter 10
Options for increasing tax

- The last five general elections have all been followed by net tax rises of more than £5 billion per year in today's terms. Although just 2% of the remaining fiscal consolidation is currently planned to come from tax rises, and none of the main political parties is proposing significant tax rises, it would not be surprising to see an incoming government increase taxes in order to limit the scale of public spending cuts required to meet its fiscal targets.
- Of the big three taxes:
  - a 1 percentage point rise in all rates of income tax would raise £5.5 billion;
  - a 1 percentage point rise in all employee and self-employed National Insurance contribution (NIC) rates would raise £4.9 billion; and
  - a 1 percentage point rise in the main rate of VAT would raise £5.2 billion.
- Increasing any of these would weaken work incentives and hit the rich harder than the poor. The main differences between them are that the VAT rise would be less progressive than the others (as it would affect poor, non-income-tax-paying households) and that the retired and savers would not be affected by a rise in NICs (which only tax the earnings of those below state pension age).
- Increasing rates of corporation tax, council tax, business rates or fuel duties could also raise significant sums, though the recent trend has been to reduce the rates of these taxes.
- Politicians from all main parties have indicated that they think the burden of fiscal consolidation should be focused on the better-off – though tax payments are already highly concentrated: for example, a quarter of income tax comes from just 0.5% of the adult population and around half comes from 3% of adults. As well as increasing rates of income tax or NICs for high-income individuals, options include increasing inheritance tax or capital gains tax – though in both cases reducing thresholds might

have greater revenue-raising potential than increasing rates. Introducing a separate 'mansion tax' would be unnecessarily complicated when council tax could be brought up to date and refocused on higher-value properties.

- All these taxes include costly reliefs. In many cases, removing these reliefs would leave the tax system simpler and more efficient than increasing tax rates – though policymakers must also decide where they want the burden of tax increases to fall.
- Which, if any, possible tax increases are the best to pursue would depend on a government's distributional goals and wider priorities, on which we take no stance. But some tax rises should definitely be avoided. Stamp duty land tax is particularly damaging and recent governments' tendency to turn to it for more revenue should be resisted. And while there are sensible ways to raise more revenue from the taxation of pension saving, the widespread proposal to restrict income tax relief on pension contributions to the basic rate is misguided.

1. Public finances under the coalition

Carl Emmerson and Gemma Tetlow (IFS)

Summary

- In March 2008, the official forecasts suggested structural borrowing was 2.7% of national income in 2007–08, which was slightly smaller than estimates produced by the IMF and the OECD at the time.
- When the last Labour government left office, the official forecasts implied that underlying structural borrowing had, since the March 2008 Budget, increased by around 5.7% of national income. The Labour government planned to eliminate this with new measures totalling 5.8% of national income to be fully implemented by 2016–17.
- In 2010, the coalition government announced further tax increases, cuts to social security benefits and further cuts to day-to-day spending on public services. The additional fiscal tightening it announced amounted to an extra 1.2% of national income on top of what Labour had planned. The government thought at the time that this would be sufficient to put it on course to eliminate the structural current deficit by 2014–15.
- Between 2010 and 2012, the outlook for economic growth and tax revenues deteriorated. The coalition government decided not to increase the fiscal tightening planned for this parliament but to extend the period of consolidation into the next. Consequently, the coalition government has borrowed more than planned over this parliament: over the five years from 2010–11 to 2014–15, borrowing is now estimated to have been around £100 billion higher than forecast in the November 2010 Autumn Statement.
- Between the end of 2012 and the end of 2014, the underlying outlook for the public finances was little changed. Despite this, the coalition government pencilled in further spending cuts for the second half of the next parliament in order to bring about a stronger fiscal position – an overall surplus of 1.0% of national income by 2019–20. The additional fiscal consolidation measures planned for between now and 2019–20 are 2% from net tax rises and 98% from spending cuts; this compares with an 18%/82% split between tax and spending among the measures implemented so far.
- IMF forecasts suggest that, out of 31 advanced economies, only Japan will have higher structural borrowing than the UK in 2015. This is despite the UK having done the seventh-largest fiscal consolidation since the crisis began. Plans set out for the next parliament imply that the UK is planning the largest fiscal consolidation between 2015 and 2019.
- Had the March 2010 Budget plan instead been retained, taxes would have been lower and spending higher than they have been. This would have offered greater support to household incomes and made it easier to deliver public services. But it would have resulted in significantly more borrowing and would only have deferred, rather than avoided, the need for greater fiscal consolidation.

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1.1 Introduction

The period since the financial crisis and associated recession struck has seen a dramatic deterioration in the UK's public finances. This has led to the highest level of public sector net borrowing since the Second World War increasing public sector net debt to levels not seen since the late 1960s. While other advanced economies have also seen their public finances worsen, the UK has been relatively hard hit and has seen its international rank in terms of general government debt slip from its pre-crisis 'mid-table' position. This chapter documents how the underlying health of the public finances, and the government's fiscal response to this situation, have evolved since 2010. It does so using the National Accounts measures of the public finances – differences between these measures and the relatively new Whole of Government Accounts measures are discussed in Chapter 6.

The story is told by comparing five different vintages of forecasts and plans for fiscal policy. These are from Budget 2008, the March 2010 Budget, the November 2010 Autumn Statement, and the Autumn Statements of December 2012 and December 2014. Figure 1.1 sets out the forecasts at each of these points for the structural current budget deficit (the difference between non-investment spending and total receipts, after adjusting for the estimated impact of the ups-and-downs of the economic cycle, shown in panel a), total borrowing (the difference between total spending and total receipts, shown in panel b) and total public sector net debt (which, loosely speaking, is accumulated borrowing so far, shown in panel c). Each is measured as a share of national income. The series are shaded such that the more recent forecasts are in darker colours.

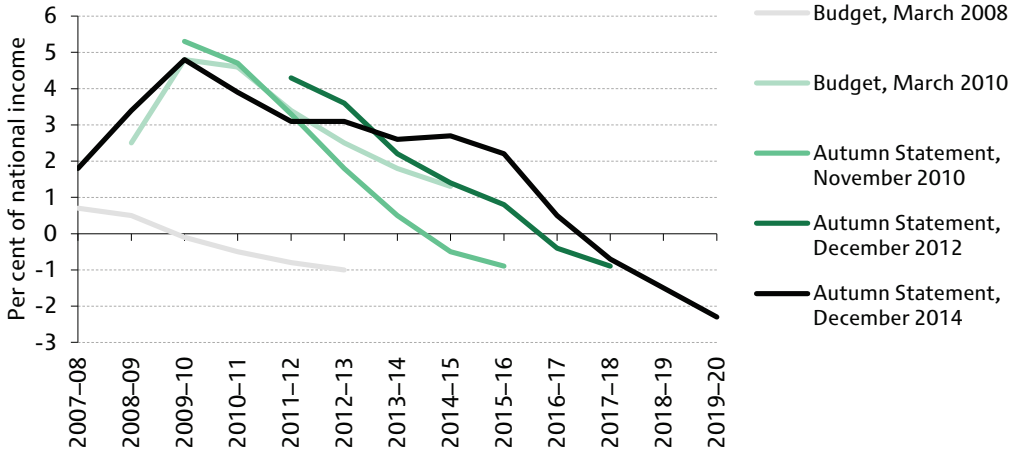
It should be noted that the forecasts are not quite like-for-like, with the classification changes that took place prior to the December 2014 forecast being particularly large. These led to more spending being classified as investment rather than current, thereby reducing the measured current budget deficit (and not affecting headline borrowing). They also increased the measured level of public sector net debt and the measured level of economic activity (and therefore reduced public sector net borrowing as a share of national income slightly).[1]

The story starts with the March 2008 Budget, which provides a pre-crisis baseline – setting out the last government's view on how the UK's economy and public finances would evolve before the worst of the financial crisis occurred. Two years later, the picture painted by the March 2010 Budget – of what the previous Labour government was bequeathing to the incoming coalition government – was much gloomier in terms of the outlook for the economy and public finances, even though these forecasts included plans for a significant fiscal policy tightening. The sharp deterioration in the outlook for the public finances between March 2008 and March 2010 can be seen in all three panels of Figure 1.1. In March 2008, the Treasury forecast that borrowing would decline from 2.9% in 2008–09 to 1.3% of national income in 2012–13, but instead it climbed to over 10% of national income (the highest level seen in the UK since the Second World War). This, coupled with the decline in national income, pushed up public sector net debt measured as a share of national income substantially.

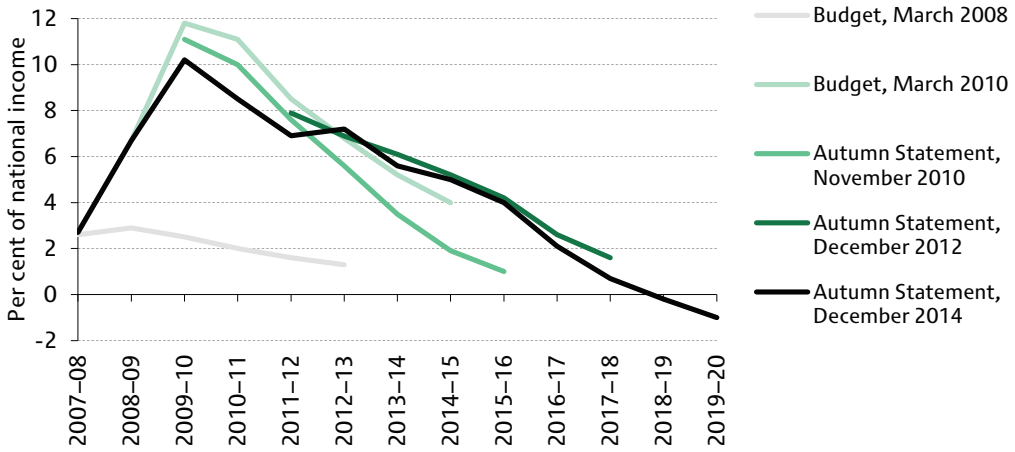
[1] Further details can be found in box 4.3, page 106, of Office for Budget Responsibility, *Economic and Fiscal Outlook, December 2014*, http://cdn.budgetresponsibility.independent.gov.uk/December_2014_EFO-web513.pdf.

Figure 1.1. Historic forecasts of:

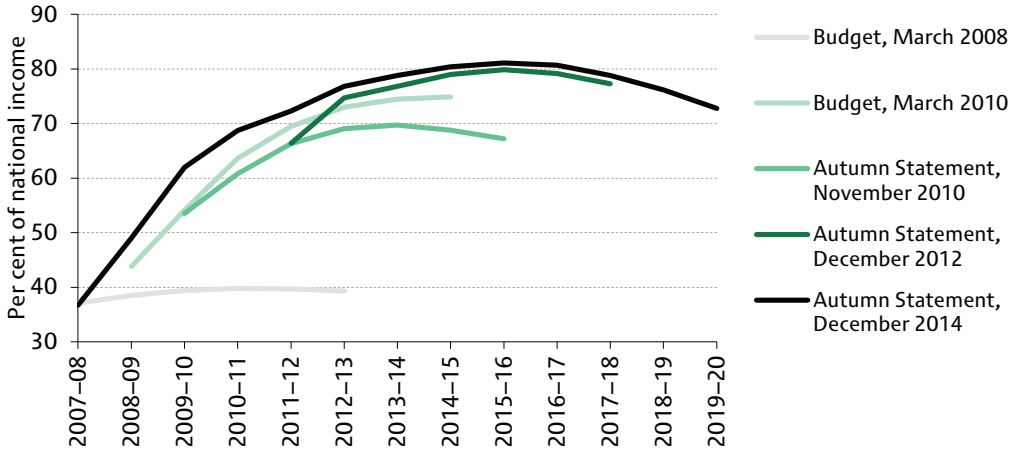
(a) Structural current budget deficit



(b) Public sector net borrowing



(c) Public sector net debt



Note: The transition from the 1995 European System of Accounts to the 2010 European System of Accounts (ESA95 to ESA10) between the March 2014 Budget and the December 2014 Autumn Statement affected measures of GDP and public sector net debt. Therefore note that some of the difference between the December forecast and the earlier forecasts reflects accounting changes, rather than a change in the underlying fiscal forecast. Figures exclude banks.
Source: HM Treasury, *Budget 2010*, http://webarchive.nationalarchives.gov.uk/20100407010852/http://www.hm-treasury.gov.uk/budget2010_documents.htm; OBR's Economic and Fiscal Outlook, various years.

Forecasts from the newly-formed Office for Budget Responsibility (OBR) – published in the November 2010 Autumn Statement – were slightly more pessimistic about the structural position in the near term (panel a) but not the headline position (panel b) than the March 2010 Budget forecast had been. The new coalition government decided to extend and accelerate the fiscal squeeze that had been announced by the Labour government, with a significant takeaway having been announced in the June 2010 Budget and the October 2010 Spending Review. The additional austerity announced by the coalition government meant that the November 2010 forecast was for borrowing to fall faster and further than had been forecast in March 2010.

Between Autumn 2010 and Autumn 2012, weak economic growth resulted in further downgrades to the outlook for the public finances. This was not matched by an announcement of further austerity for the current parliament on top of what the coalition government had already set in place during its first six months in office – instead the government responded by pencilling in more spending cuts for the first half of the forthcoming parliament. As a result, although borrowing continued to fall over this parliament, it did not fall as far as had been forecast in November 2010. Borrowing relative to national income in 2014–15 is expected to be slightly below half its peak level (i.e. as a share of national income, it is correct to say that the deficit has been halved), but this will still be more than twice as high as was forecast by the coalition government in Autumn 2010 (when the forecast was for borrowing this year of 1.9% of national income). In fact, it is more borrowing than had been forecast in Labour's March 2010 Budget for 2014–15 (4.0% of national income), despite the implementation of newly-announced net tax rises and spending cuts in the intervening period.

Between Autumn 2012 and Autumn 2014, the underlying health of the public finances was little changed, but the coalition decided to pencil in spending cuts for the second half of the next parliament. These mean that an overall budget surplus is forecast in the medium term (1.0% of national income in 2019–20, as shown in panel b). This would be a tighter fiscal position than the UK had (or was aiming to have) prior to the crisis, and a tighter one than has been achieved in all but four of the years since 1951.[2]

Public sector net debt is now projected to peak at over 80% of national income – double its pre-crisis level. While it is forecast to be on a downwards trajectory from 2016–17 onwards, it is forecast to remain considerably above pre-crisis levels in the medium term, although below the levels seen throughout the period from 1915 to 1968 (inclusive).[3]

This chapter goes through the changes in the assessed underlying health of the public finances and governments' responses to this situation in some detail. Section 1.2 starts by looking at Labour's bequest. Section 1.3 considers changes over the coalition's time in office – looking separately at its initial plan, its plan as of Autumn 2012 and its current plan. Section 1.4 describes how the UK's plans for reductions in structural borrowing compare with those for other countries. Section 1.5 concludes.

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[2] These years were 1969–70, 1988–89, 1999–2000 and 2000–01.

[3] See figure 9 of A. Jowett and M. Hardie, 'Longer-term trends: public sector finance', November 2014, Office for National Statistics, http://www.ons.gov.uk/ons/rel/elmr/longer-term-trends/public-sector-fianaces/art-ltt-psf.html#tab-UK-Debt.

1.2 Labour's bequest

The position on the eve of the crisis

In the years leading up to the financial crisis, the UK economy experienced fairly strong, and extremely stable, growth. As Budget 2008 boasted, 'Over the past decade, the UK economy has proved strong and stable, with GDP growth averaging almost 3 per cent a year and inflation close to the Government's symmetric inflation target'.[4] But despite this, at the time of the March 2008 Budget, public sector net borrowing in 2007–08 was thought to have been £36.4 billion or 2.6% of national income.

This level of borrowing was slightly higher than the Labour government was comfortable with, not least because it required borrowing of no more than about 2% of national income in order to keep public sector net debt below the ceiling of 40% of national income that it had set for itself.[5] Therefore, the Labour government was planning a fiscal tightening to reduce borrowing to 1.3% of national income by 2012–13. It intended to bring this about by increasing public spending less quickly than growth in the economy (and much less quickly than it had been increased over the previous few years) and increasing tax receipts slightly as a share of national income (as a result of fiscal drag and some tax-raising measures, including increases in alcohol duties and vehicle excise duty).

On the face of it, these forecasts suggested that the public finances were in reasonable shape. At the time of the March 2008 Budget, the Treasury's estimate of structural borrowing – that is, the difference between total spending and total revenues after adjusting for the estimated impact of the ups-and-downs of the economic cycle – was only slightly more optimistic than that of the OECD or the IMF (see Box 1.1 for a further discussion). However, the UK's public finances could have been better prepared for a potential downturn.

One way of thinking about this is that – after more than a decade of strong growth – the deficit in the years prior to 2008 had been substantial and debt had grown as a proportion of national income in every year since it had dipped below 30% of national income in 2001–02. To believe this was genuinely cautious fiscal management really would require you to believe that boom and bust had been abolished – as Gordon Brown claimed on a number of occasions that it had been.

Box 1.1. How big was the UK's structural borrowing in 2007?

Policymakers often focus on structural borrowing – that is, the difference between total spending and total revenues after adjusting for the estimated impact of the ups-and-downs of the economic cycle – rather than headline borrowing. This is because the need for a fiscal tightening, or scope for a fiscal loosening, will depend not on the headline level of borrowing but rather on the amount of borrowing that is expected to be impervious to future economic growth and therefore is expected to persist.

[4] Paragraph B.30, page 148 of HM Treasury, *Budget 2008*, March 2008, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/250345/0388.pdf.

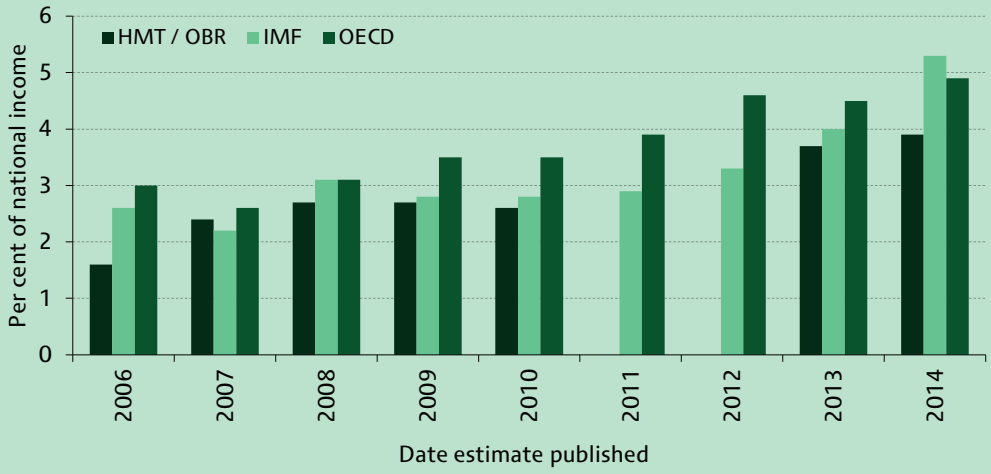
[5] This assumes that nominal economic growth averaged 5% a year, which was what the official forecasts assumed long-term economic growth would be prior to the crisis. Strictly, the 40% of national income ceiling on debt stated by Labour's sustainable investment rule only applied to the economic cycle at the time.

Unfortunately, estimating the structural level of borrowing is far from straightforward, and is particularly difficult to do in real time. It requires an estimate of the amount of spare capacity in the economy and an estimate of the relationship between this and the amount of cyclical borrowing. Neither is observed perfectly and estimates of spare capacity tend to vary substantially from forecaster to forecaster (see Chapter 5).

In the March 2008 Budget, the Treasury's judgement was that structural borrowing was 2.7% of national income in 2007–08 (£51 billion in 2015–16 terms). This is small relative to the size of the fiscal problem that we now face. However, the Treasury was not alone in taking this view. Figure 1.2 shows estimates from the Treasury, the IMF and the OECD for the size of structural borrowing in 2007, which were produced each spring between 2006 and 2014. The figure shows that in 2008 the Treasury's estimate of structural borrowing in 2007 was more optimistic than that of either the IMF or the OECD. But the differences were relatively small: the external estimates imply that additional fiscal tightening of about ½% of national income (or about £9 billion in 2015–16 terms) would have been needed to restore the public finances to the same position as the government intended.

More recent estimates have suggested that structural borrowing in 2007 was in fact much larger. In March 2014, the OBR estimated that structural borrowing in 2007 was 3.9% of national income (i.e. 1.2% of national income, or £23 billion in 2015–16 terms, greater than was thought by the Treasury in the March 2008 Budget). The April 2014 IMF and June 2014 OECD estimates are that structural borrowing in 2007 was larger still, at 5.3% and 4.9% of national income respectively. These estimates are 2.2% and 1.8% of national income higher than those institutions thought back in 2008. These are significant upwards revisions, suggesting that a significant public finance problem could, perhaps, have been apparent in 2007. However, this still only accounts for a minority of the permanent increase in underlying structural borrowing that we estimate has taken place since March 2008 (8.4% of national income).

Figure 1.2. How big was structural borrowing in 2007?



Note: HMT estimates relate to those from the Spring Budget and are for the financial year 2007–08. The OBR did not produce revised estimates for structural borrowing in 2007–08 until March 2013; therefore data for 2011 and 2012 are missing. OECD forecasts are from the Economic Outlook from June of each year and are for the calendar year 2007. IMF forecasts are from the World Economic Outlook from April of each year and are also for the calendar year 2007.
Source: HM Treasury Budget, various years; IMF World Economic Outlook, various years; OECD Economic Outlook, various years.

As the OBR recently noted, between March 2003 and March 2008 independent forecasts for borrowing four years ahead were, on average, about £10 billion less optimistic than the official forecasts.[6] This was not solely because external forecasters took a different view of prospects for economic growth but also because they expected this growth to generate less additional tax revenue than the Treasury expected. For example, IFS Green Budgets in 2003, 2004 and 2005 – similar to other independent forecasters at that time – projected borrowing around £10 billion above the official forecast, even though these IFS forecasts assumed that the economy would evolve broadly in line with the official forecast. This suggests that part of the looser out-turn for fiscal policy over this period was predictable. However, £10 billion is only a small part of the deterioration in the public finances that ultimately manifested.

Furthermore, while the UK's public finances were not in a bad state on the eve of the crisis, they were not particularly strong compared with those of other advanced economies. As Chote, Emmerson and Tetlow (2008)[7] noted at the time:

> We are entering the current recession with one of the largest structural budget deficits in the industrial world and a debt level that may be among the smallest in the G7 but which is larger than that of most industrial countries. We have done less to reduce our structural budget deficit and less to reduce our debt than most other industrial countries since Labour came to office.

The position – and response – after the crisis struck

Later in 2008 and during the early part of 2009, it became apparent that the public finances were in a much weaker state than had been thought and that, at some point, policy action would be required to put them back onto a sustainable footing. Between the March 2008 Budget and the March 2010 Budget, we estimate that structural borrowing, stripping out the direct impact of fiscal policy measures announced in the interim period, was increased by 5.7% of national income (£107 billion in 2015–16 terms).[8]

The short-term response of the Labour government was to announce a package of temporary spending increases and tax cuts in an attempt to limit the length and depth of the recession. This short-term giveaway totalled 0.6% of national income in 2008–09 and 1.5% of national income in 2009–10. The largest single measure was a cut in the main rate of VAT from 17.5% to 15.0% for the 13 months from the start of December 2008 to the end of 2009.

The fiscal rules that the Labour government had attempted to adhere to between 1997 and 2007 were missed and, sensibly, ignored after the crisis hit. However, in order to help convince the public, and financial market actors, that it intended to reduce borrowing and return the public finances to a sustainable path, Labour replaced the existing fiscal rules

[6] See chart 2.10 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.

[7] Page 1 of R. Chote, C. Emmerson and G. Tetlow, 'The UK public finances: ready for recession?', IFS Briefing Note BN79, 2008, http://www.ifs.org.uk/bns/bn79.pdf.

[8] Figure 1.8 in the conclusion summarises the estimated increase in structural borrowing at the time of successive Budget statements, Pre-Budget Reports and Autumn Statements, along with the size of the medium-term policy response planned at that time.

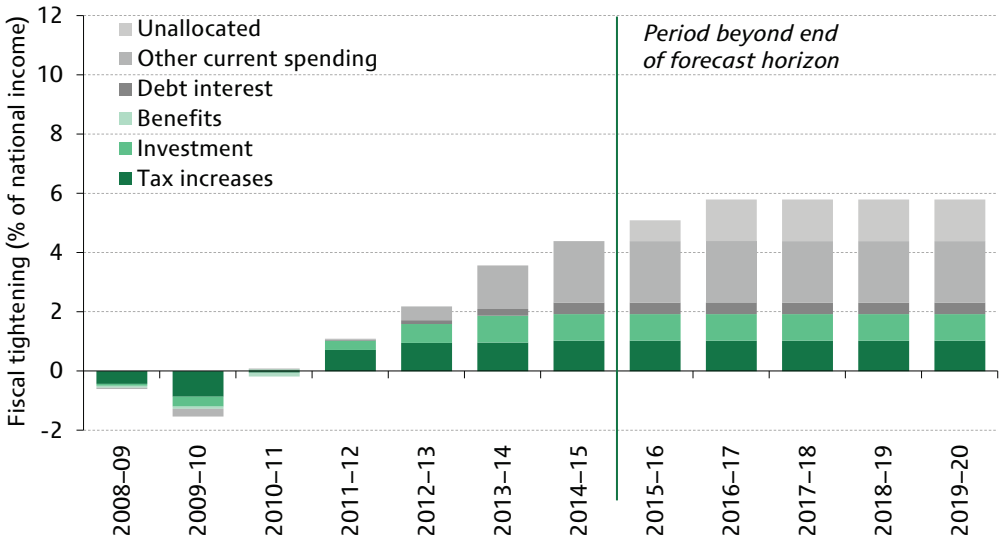
with three new targets, which were legislated as part of the Fiscal Responsibility Act 2010:[9]

- borrowing to fall as a share of national income in each year from 2010–11 to 2015–16;
- borrowing as a share of national income to be at least halved between 2009–10 and 2013–14;
- public sector net debt as a share of national income to fall between 2014–15 and 2015–16.

The Labour government then set in place a fiscal consolidation plan. Our estimates of its size, composition and timing are presented in Figure 1.3, with details of our methodology provided in Box 1.2. The fiscal consolidation began under Labour in April 2010, with the ending of the fiscal stimulus package (which represented a 1.5% of national income fiscal tightening between 2009–10 and 2010–11). A new 50p top rate of income tax (for those with an income over £150,000) also took effect from April 2010, although most of the revenue predicted to be raised from this was not expected to be received until after April 2011. Further tax rises were announced to come in April 2011 – in particular, increases in the rates of employee and employer National Insurance contributions (NICs) and a significant reduction in the generosity of tax relief on pension contributions for those on very high incomes. In total, these tax rises were forecast to boost receipts by 1.0% of national income by 2014–15.

The plans for public spending implied cuts to investment spending (0.9% of national income) alongside cuts to day-to-day government spending (2.1% of national income). The former was particularly deep given that the government had only previously been intending to spend 2¼% of national income on investment. But the Labour government

Figure 1.3. Size, timing and composition of the fiscal tightening: March 2010 plans



Source: Authors' calculations using all HM Treasury Budgets and Pre-Budget Reports between March 2008 and March 2010 (available at http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/budget_archive.htm).

[9] Available at http://services.parliament.uk/bills/2009-10/fiscalresponsibility.html.

did not announce any detailed departmental spending limits for the period beyond 2010–11 nor did it announce any significant net cuts to social security spending.

On top of this fiscal tightening allocated to tax and spending, the Labour government pencilled in a further tightening, worth 1.4% of national income (0.7% in 2015–16 and a further 0.7% in 2016–17), to come from an unspecified combination of further tax rises

Box 1.2. Measuring the size, composition and timing of the fiscal consolidation

There are a number of ways that one could define the size of the fiscal consolidation that has been announced since the crisis started. The method we follow essentially aims to quantify the difference between the levels that spending and revenues are now expected to be at and the levels they would have been at in the absence of any new policy announcements since March 2008. Three broad types of policy changes have been announced since March 2008: changes to taxes, changes to benefit spending and changes to public service spending.

The size of the fiscal consolidation arising from tax and benefit changes is taken to be the sum of the official estimates of the impact of tax and benefit policy changes (respectively). These costings are published alongside the policy announcements in Budgets, Pre-Budget Reports and Autumn Statements, and start from existing government policy – including the assumption that tax and benefit thresholds are increased each year using the normal uprating rules.

Measuring the size of the fiscal consolidation arising from changes to public service spending is more difficult, and requires us to define a *counterfactual* – what would have happened to levels of spending in the absence of policy change. The fiscal consolidation can then be calculated as the difference between actual (or the latest forecast for) spending and this counterfactual.

For years up to 2012–13, we take as the counterfactual the plans set out in the March 2008 Budget. At that point, the then government had set out plans for overall spending for the two years beyond 2010–11 (the end of the then current spending review period) alongside some small medium-term tax increases. The spending plans were for a real-terms increase in current spending, with investment held constant as a share of national income; this implied that overall spending would fall as a share of national income. To the extent that real spending is less than this baseline, this is part of the consolidation.

Beyond 2012–13, we have no explicit pre-crisis spending plans. There are perhaps two obvious counterfactuals we could take. One would involve an assumption that, had the crisis not happened, real-terms spending would have stayed constant. This seems to us an entirely unrealistic scenario; it would have implied the size of the state shrinking and borrowing falling (and, ultimately, a surplus growing) indefinitely. Much more plausible is an assumption that spending would have risen in line with trend national income; certainly no period since the Second World War has seen a sustained cut to public spending as a share of national income. So, from 2012–13, we take as our counterfactual that total spending grows in line with GDP.

Using this methodology, counterfactual non-investment public service spending is assumed to grow more quickly beyond 2012–13 than before. Therefore the same real-terms cut to this spending between 2014–15 and 2015–16 as between 2011–12 and 2012–13, say, would imply a greater cut relative to the counterfactual and therefore a greater contribution to fiscal consolidation. That is one reason why, on this methodology, we find that a large proportion of cuts to non-investment spending are still to come.

and cuts to day-to-day government spending. It is perhaps not unreasonable that these cuts were unspecified, given that the size of the policy response required at the time was extremely uncertain and Labour was not planning to implement these measures until after the end of its five-year forecast horizon anyway. Overall, the planned tightening totalled 5.8% of national income – so was very slightly larger than our estimate of the increase in structural borrowing that had occurred since March 2008 (5.7% of national income). Therefore, the plan set out by the Labour government implied returning borrowing to roughly the path that it had been forecast to be on in March 2008. These forecasts also put the government on course to comply with its Fiscal Responsibility Act. Of the fiscal tightening, by 2014–15 (i.e. before the unallocated tightening was due to start) just under one-quarter (24%) was planned to be from tax rises and just over three-quarters (76%) from spending cuts.

1.3 The coalition's actions

On taking office, the new coalition set up an interim OBR – headed by Sir Alan Budd – to produce economic and fiscal forecasts in advance of an 'emergency' June 2010 Budget. The government announced a package of measures that would reduce borrowing by about £5 billion in 2010–11.[10]

The coalition repealed Labour's Fiscal Responsibility Act. The requirement to halve borrowing as a share of national income between 2009–10 and 2013–14 was – sensibly – replaced with a new fiscal mandate. This stated that the government would aim to balance the cyclically-adjusted current budget by the end of the (rolling) five-year forecast horizon. As we have discussed elsewhere, a forward-looking target for borrowing has many attractive features.[11] Less sensibly, the Chancellor decided to retain Labour's commitment that public sector net debt should be falling as a share of national income between 2014–15 and 2015–16. As we have argued elsewhere, this target has little to commend it.[12]

The interim OBR forecast that headline borrowing would be slightly lower than had been suggested in Labour's March 2010 Budget. However, the interim OBR judged that more of this borrowing was structural rather than cyclical and therefore would prove impervious to economic growth and require policy action to reduce. Our estimates suggest that, at the time of the November 2010 Autumn Statement (by which point the full OBR, headed by Robert Chote, was in place), the long-run increase in underlying structural borrowing that had emerged since March 2008 stood at 6.0% of national income – up from the 5.7% of national income estimate at the time of the March 2010 Budget.

[10] A total of £6.2 billion of spending cuts were announced, although the impact on borrowing was offset by £500 million due to some spending increases and a small cut to business rates. In addition, £700 million was due to come from devolved administrations but did not apply until 2011–12. In 2010–11, a total of £5.0 billion came from cuts to spending by central government on public services and their administration, although the NHS, MoD, overseas aid, schools, Sure Start and 16- to 19-year-old education were protected from these cuts. The remaining savings came from the abolition of the child trust fund. For more details, see R. Chote and C. Emmerson, 'The first cut', IFS Observation, May 2010, http://www.ifs.org.uk/publications/4924.

[11] See C. Emmerson, S. Keynes and G. Tetlow, 'The fiscal targets', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2013*, IFS Report R74, 2013, http://www.ifs.org.uk/publications/6562.

[12] See Emmerson et al. (2013) referred to in previous footnote.

The initial plan: fiscal repair complete in 2015–16

The coalition responded with a larger fiscal consolidation than had been planned by the Labour government. It announced additional measures worth 1.2% of national income on top of Labour's planned fiscal tightening, bringing the total fiscal consolidation to 7.0% of national income. This was deliberately more than sufficient to offset the additional

Table 1.1. Planned fiscal tightening by end of this and next parliament: March 2010 and November 2010 plans compared

	2014–15		*2019–20*	
	% GDP	**£bn**	**% GDP**	**£bn**
March 2010 Budget				
Estimated increase in structural borrowing since pre-crisis	–	–	*5.7*	*107.2*
Total fiscal tightening	4.4	82.7	5.8	109.1
Total specified net tax rises	1.0	19.4	1.0	19.4
Total specified net spending cuts	3.3	63.2	3.3	63.2
Investment cuts	0.9	17.0	0.9	17.0
Social security cuts	0.0	–0.3	0.0	–0.3
Current public service cuts	2.1	39.3	2.1	39.3
Debt interest cuts	0.4	7.2	0.4	7.2
Unspecified tax rise or non-investment cut	0.0	0.0	1.4	26.4
March 2010 to November 2010				
Change in estimated increase in structural borrowing since pre-crisis	–	–	*0.3*	*6.2*
Increase in total fiscal tightening	1.9	35.6	1.2	23.5
Increase in net tax rises	0.4	8.1	0.4	7.2
Increase in net spending cuts	1.5	27.4	2.3	42.7
Increase in investment cuts	0.0	–0.1	0.0	0.0
Increase in social security cuts	0.8	14.6	1.1	20.8
Increase in public service cuts	0.5	10.0	1.0	18.9
Increase in debt interest cuts	0.2	3.0	0.2	3.0
Increase in unspecified tightening	0.0	0.0	–1.4	–26.4
November 2010 Autumn Statement				
Estimated increase in structural borrowing since pre-crisis	–	–	*6.0*	*113.4*
Total fiscal tightening	6.3	118.2	7.0	132.6
Total net tax rises	1.5	27.6	1.4	26.6
Total net spending cuts	4.8	90.7	5.6	105.9
Investment cuts	0.9	16.9	0.9	17.0
Social security cuts	0.8	14.3	1.1	20.5
Current public service cuts	2.6	49.3	3.1	58.2
Debt interest cuts	0.5	10.2	0.5	10.2

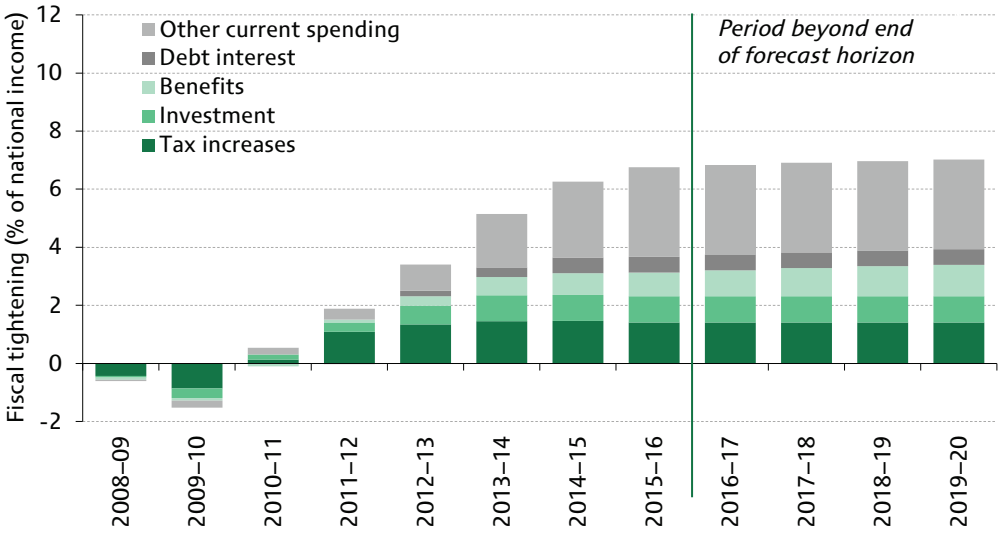
Note: Figures in £bn are in 2015–16 terms.
Source: Authors' calculations using all HM Treasury Budgets and Pre-Budgets between November 2008 and March 2010 (available at http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/budget_archive.htm) and the OBR Economic and Fiscal Outlooks of June 2010 and November 2010 (available at http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/).

borrowing that was thought to have materialised since the March 2008 Budget. Had things gone to plan, this would have left public sector net borrowing at a lower level than had been forecast in March 2008, though debt was still expected to rise from 53.5% of national income in 2009–10 to 69.7% in 2013–14. The coalition's fiscal repair job was also intended to be implemented more swiftly than Labour's, being fully implemented by 2015–16 rather than taking until 2016–17.

The scale and composition of the fiscal consolidation plans as of March 2010 and Autumn 2010 are compared in Table 1.1. The June 2010 Budget announced a net tax rise worth 0.4% of national income. The most significant tax increase was the increase in the main rate of VAT from 17.5% to 20% in January 2011.[13] This brought the total post-crisis net tax rise up to an estimated 1.4% of national income. The June 2010 Budget and the October 2010 Spending Review announced net cuts to social security benefits and tax credits that were expected to raise 1.1% of national income. The largest single policy was to change the measure of inflation used to uprate most social security benefits (and also public service pensions). There were also significant cuts planned to benefits such as disability living allowance for those aged under 65 and housing benefit for both private and social sector tenants.[14]

The remainder of the planned additional consolidation came from further cuts to public service spending. These fell on day-to-day spending as the coalition chose largely to keep to (rather than add to) the planned deep cuts to investment spending that had been set out in the March 2010 Budget. Of the additional fiscal tightening measures announced by the coalition government during its first six months in office, 14% was from a net tax rise and 86% from net cuts to spending. Taken together, this meant that the overall post-crisis fiscal tightening planned in November 2010 comprised 20% tax rises and 80% spending cuts, as shown in Figure 1.4.

Figure 1.4. Size, timing and composition of the fiscal tightening: November 2010 plans



Source: As Table 1.1.

[13] For a discussion of tax changes implemented by the coalition government, see http://election2015.ifs.org.uk/taxes.

[14] See A. Hood and D. Phillips, 'Benefit spending and reforms: the coalition government's record', IFS Briefing Note BN160, 2015, http://www.ifs.org.uk/publications/7535.

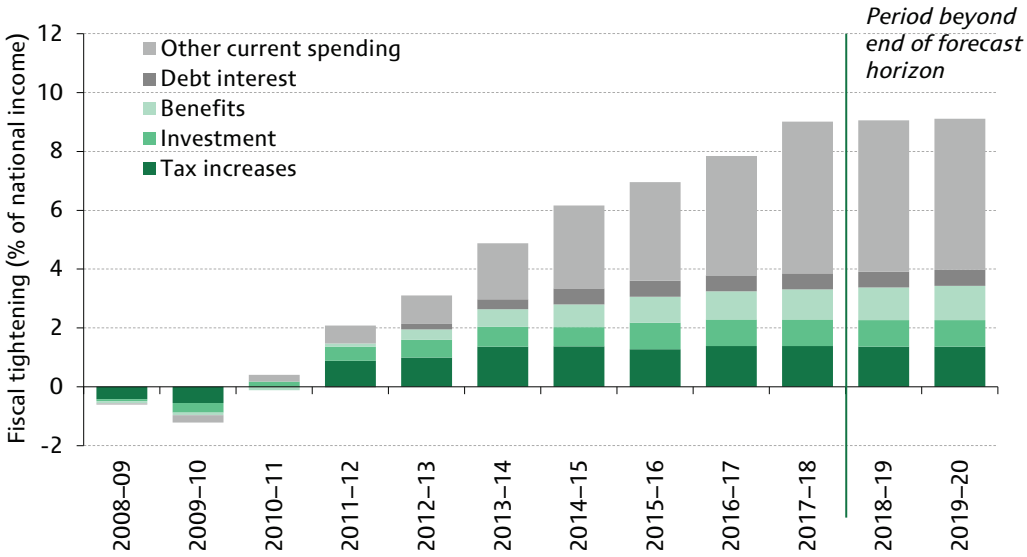
The 2012 plan: fiscal repair complete in 2017–18

The economy – and therefore the public finances – did not, however, remain on the course forecast by the November 2010 Autumn Statement. Unfortunately, over the following two years, the OBR made sizeable downwards revisions to its forecasts for growth and therefore tax revenues. The OBR judged that these in large part reflected weaker potential output of the UK economy – in other words, were indicative of a larger structural problem in the UK's public finances. We estimate that the increase in the estimate for structural borrowing between March 2008 and December 2012 was 8.3% of national income; this compares with an increase of 6.0% of national income up to November 2010.

The coalition government's response to this increase in forecast borrowing came in two parts:

- For this parliament, the coalition government chose not to implement any additional net tax rises or net spending cuts. Instead borrowing was simply allowed to fall more slowly than previously planned. As a result, the December 2012 Autumn Statement forecast that borrowing would fall by 46% by 2013–14 from its 2009–10 level. This was less than the 50% fall that Labour's Fiscal Responsibility Act would have required. Borrowing was expected to still be running at 5.2% of national income by 2014–15, almost three times the 1.9% of national income that had been forecast in the November 2010 Autumn Statement (as shown in panel b of Figure 1.1).
- For the next parliament, the coalition government chose to offset almost exactly the increase in forecast structural borrowing by pencilling in two more years of planned

Figure 1.5. Size, timing and composition of the fiscal tightening: December 2012 plans



Source: Authors' calculations using all HM Treasury Budgets and Pre-Budgets between November 2008 and March 2010 (available at http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/budget_archive.htm) and all OBR Economic and Fiscal Outlooks between June 2010 and December 2012 (available at http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/).

spending cuts.[15] This extended the planned period of fiscal consolidation to 2017–18. Since all of the additional tightening was through net spending cuts (rather than through any net tax rises), this meant that, by 2017–18, the planned fiscal tightening was now intended to comprise 85% spending cuts and 15% tax rises, as shown in Figure 1.5.

Despite the increase in borrowing over this parliament – and associated upwards revision to the cyclically-adjusted current budget deficit – the coalition government was still judged to be complying with its fiscal mandate. This is because the mandate applied to the forecast deficit at the end of the forecast horizon, by which point the additional planned spending cuts were forecast to be sufficient to offset the underlying deterioration in the public finances. In December 2012, the OBR was forecasting that the current budget (cyclically-adjusted) would be in surplus by 0.9% of national income in the last year of the forecast horizon (2017–18), just as it had done in November 2010 (when the last year of the forecast horizon was 2015–16). This is shown in panel a of Figure 1.1.

In contrast, the (lack of) fiscal action in the current parliament in response to the increase in borrowing left the supplementary target – that public sector net debt should be lower in 2015–16 than in 2014–15 – on course to be breached. In November 2010, the OBR had forecast that debt would fall from 68.8% of national income in 2014–15 to 67.2% one year later, but the December 2012 forecast was that it would instead increase from 79.0% to 79.9% (as shown in panel c of Figure 1.1). However, this target had little to commend it, so the fact that it was on course to be breached should not, in itself, be of concern. Indeed, it would have been unwelcome for the government to implement new fiscal policy measures purely to comply with that misguided objective.

The 2014 plan: further cuts to achieve surplus in 2019–20

Over the period between December 2012 and the current set of forecasts, the underlying public finance picture has not changed significantly. Our estimates suggest that the increase in underlying structural borrowing since the crisis began is now estimated to be 8.4% of national income, which is slightly higher than the 8.3% of national income estimated in December 2012. Essentially, all of this upwards revision occurred in the March 2013 Budget. Over the five-year period from 2010–11 to 2014–15, borrowing is now estimated to have been around £100 billion higher than forecast in the November 2010 Autumn Statement.[16]

Even though the estimated size of the problem did not increase very much between December 2012 and December 2014, the coalition government chose to extend the planned duration and depth of the spending squeeze. In November 2013 the spending squeeze was extended from 2017–18 to 2018–19 and in November 2014 it was extended further to 2019–20. This increased the overall size of the post-crisis fiscal consolidation package to 10.7% of national income (£202 billion in 2015–16 terms). As a result, the OBR now forecasts that the cyclically-adjusted current budget will be in surplus by 2.3% of national income in 2019–20 (shown in panel a of Figure 1.1) and that the overall

[15] We estimate that the increase in underlying structural borrowing between the November 2010 and December 2012 forecasts was 2.3% of national income, while the fiscal response – in the form of further spending cuts – was increased by 2.1% of national income.

[16] This is the change in cumulative public sector net borrowing over the five years and therefore includes changes that have occurred purely due to classification changes such as those in Autumn 2014.

budget will be in surplus by 1.0% of national income (panel b of Figure 1.1). Keeping to this plan would comply with Chancellor George Osborne's desire, as stated in his Autumn 2013 Conservative Party conference speech, to deliver a budget surplus in the next parliament.[17]

Table 1.2. Planned fiscal tightening by end of this and next parliament: March 2010 and December 2014 plans compared

	2014–15		*2019–20*	
	% GDP	**£bn**	**% GDP**	**£bn**
March 2010 Budget				
Estimated increase in structural borrowing since pre-crisis	–	–	*5.7*	*107.2*
Total fiscal tightening	4.4	82.7	5.8	109.1
Total specified net tax rises	1.0	19.4	1.0	19.4
Total specified net spending cuts	3.3	63.2	3.3	63.2
Investment cuts	0.9	17.0	0.9	17.0
Social security cuts	0.0	–0.3	0.0	–0.3
Current public service cuts	2.1	39.3	2.1	39.3
Debt interest cuts	0.4	7.2	0.4	7.2
Unspecified tax rise or non-investment cut	0.0	0.0	1.4	26.4
March 2010 to December 2014				
Change in estimated increase in structural borrowing since pre-crisis	–	–	*2.7*	*52.9*
Increase in total fiscal tightening	1.5	27.5	4.9	92.7
Increase in net tax rises	0.0	0.3	0.1	2.4
Increase in net spending cuts	1.4	27.2	6.2	116.7
Increase in investment cuts	–0.3	–5.5	–0.1	–2.8
Increase in social security cuts	0.8	15.2	1.1	21.3
Increase in public service cuts	1.0	18.9	4.1	77.1
Increase in debt interest cuts	–0.1	–1.3	1.1	21.1
Increase in unspecified tightening	0.0	0.0	–1.4	–26.4
December 2014 Autumn Statement				
Estimated increase in structural borrowing since pre-crisis	–	–	*8.4*	*160.1*
Total fiscal tightening	5.8	110.1	10.7	201.8
Total net tax rises	1.0	19.7	1.2	21.9
Total net spending cuts	4.8	90.4	9.5	179.9
Investment cuts	0.6	11.5	0.8	14.2
Social security cuts	0.8	14.9	1.1	21.0
Current public service cuts	3.1	58.1	6.2	116.4
Debt interest cuts	0.3	5.9	1.5	28.3

Note: Figures in £bn are in 2015–16 terms.
Source: Authors' calculations using all HM Treasury Budgets and Pre-Budgets between November 2008 and March 2010 (available at http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/budget_archive.htm) and all OBR Economic and Fiscal Outlooks between June 2010 and December 2014 (available at http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/).

[17] See, for example, http://www.politics.co.uk/comment-analysis/2013/09/30/george-osborne-s-conference-speech-in-full.

The scale and composition of the fiscal consolidation plans as of March 2010 and December 2014 are compared in Table 1.2. Between November 2010 and December 2014, the coalition announced significant additional spending cuts – in particular, the choice to extend the spending squeeze to cover 2017–18, 2018–19 and 2019–20. This increased the total spending cut by 6.2% of national income compared with what had been planned in March 2010. The entire additional squeeze on spending was on current spending. In fact, over the current parliament, the government has actually increased planned investment spending. The initial plan (shown in Table 1.1) had been to keep to the cuts set out in Labour's last Budget, but subsequent decisions have reallocated some spending from current to capital, meaning that in 2014–15 the government has actually increased investment spending relative to the plan it inherited from the last Labour government. The overall squeeze on day-to-day spending on public services over this parliament has also turned out greater than planned due to central government departments not spending all of their allocations. Fuller details of how spending cuts were allocated between current and capital spending and between different government departments – and how these allocations changed over time – can be found in Chapter 7.

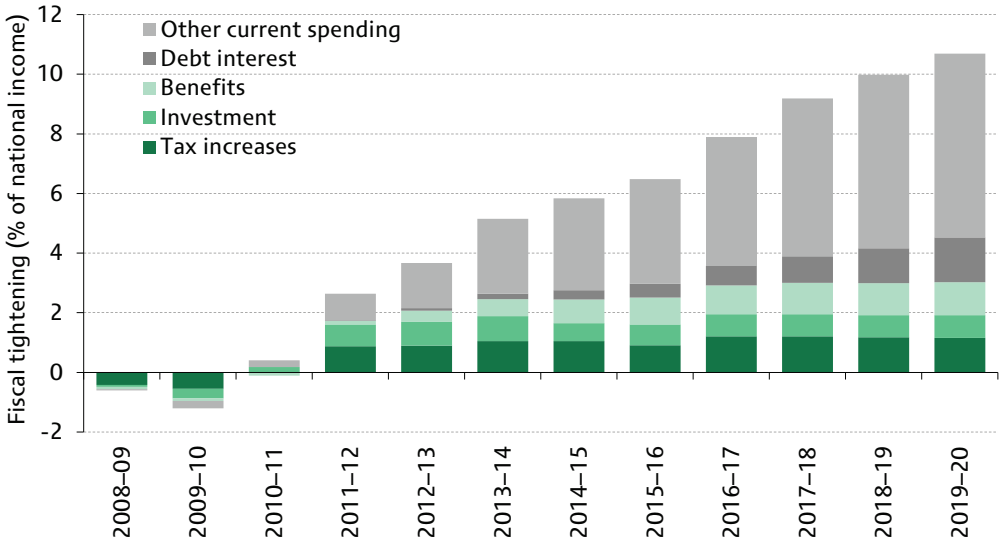
On the tax side, since the coalition government came to office, the net effect of new tax measures plus changes to estimates of how much previously-announced measures would actually raise has been to increase the overall net tax increase by just 0.1% of national income (£2.4 billion in 2015–16 terms) on top of the planned tax rise that the coalition inherited from the previous Labour government. However, even this may overstate the long-run tax rise coming from the measures announced by the coalition. Some of the measures that have been implemented are forecast to boost revenues over this parliament but to have either no effect or actually weaken revenues over the longer-term.[18] This issue is discussed in more detail in Section 5.5 of Chapter 5.

Overall – taking all the measures announced since the crisis began – the UK's fiscal consolidation plan involves (by 2019–20) a net tax increase of 1.2% of national income (£22 billion in 2015–16 terms) and a net spending cut of 9.5% of national income (£180 billion in 2015–16 terms), relative to our pre-crisis counterfactual (see Box 1.2). In other words, overall the plan now comprises 89% spending cuts and 11% tax rises, as shown in Figure 1.6. However, because the net tax increase has been relatively front-loaded, by the end of 2014–15 net tax rises will represent 18%, and net spending cuts 82%, of the consolidation actually implemented. Looking forwards over the period from 2014–15 to 2019–20, the plans imply a small net tax rise (0.1% of national income) and a significant spending cut (4.7% of national income). Therefore, of the consolidation to come, an estimated 2% is from net tax rises and 98% is from spending cuts.

The change in the height of the bars from year to year in Figure 1.6 provides an indication of the pace of austerity over time. It accelerated in 2010–11 and 2011–12 (when the additional tightening was 1.5% of national income and 2.3% of national income, respectively) and has since slowed (reaching 0.7% of national income in 2014–15 and 0.6% of national income in 2015–16), but is projected to accelerate again in 2016–17 (1.4% of national income). For example, there is actually a smaller net tax rise in 2015–16 than in either the previous or the subsequent year.

[18] In particular: the reduction in tax for those drawing funds from a defined contribution pension after age 55; the introduction of a new class of voluntary NICs for two years; accelerating payments for tax avoidance schemes; and capping the proportion of banks' profits that can be offset with prior losses.

Figure 1.6. Size, timing and composition of the fiscal tightening: December 2014 plans



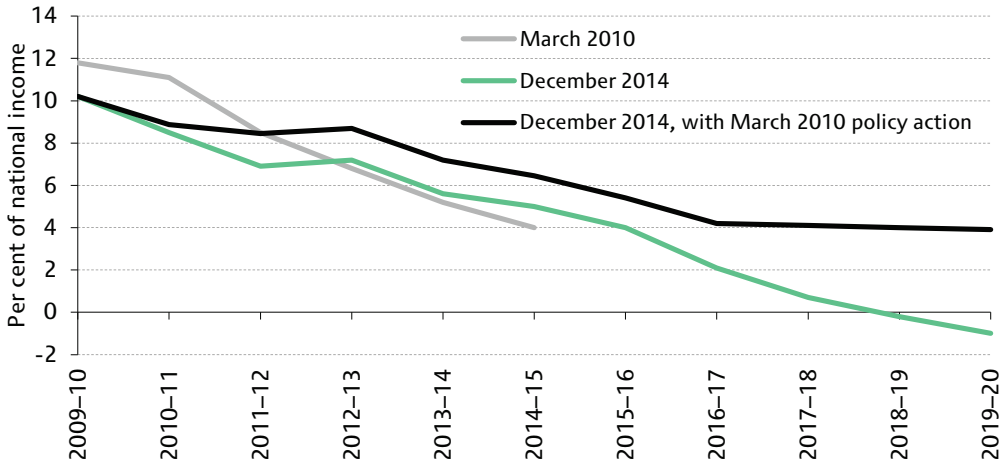
Source: As Table 1.2.

It is clear from Table 1.2 that the coalition's response to the public finance challenge has been to implement a larger fiscal consolidation over this parliament, and to plan for a larger fiscal consolidation over the next parliament, than was envisaged by the last Labour government in its March 2010 Budget. It is not possible to know how Labour would have reacted to the worse public finance situation that has developed over this parliament. One option might have been to keep to the March 2010 Budget plan, i.e. to implement a smaller package of net tax rises and spending cuts than the coalition has done. This would have made it easier for the government to support household incomes and to deliver public services over this period. But it would have meant more borrowing, thereby missing the targets that Labour legislated in its own Fiscal Responsibility Act (and by a greater margin than the coalition did), and would only have deferred rather than avoided much of the need for greater fiscal consolidation.

An estimate of how much greater government borrowing (and therefore how much greater household incomes and/or spending on public services) would have been had the March 2010 Budget plan been left in place is provided in Figure 1.7. This shows the OBR's latest forecast for public sector net borrowing (in green) alongside the March 2010 Budget forecast (in grey), plus an estimate of what borrowing might now be projected to be had the March 2010 plan been left in place (in black). This third line is calculated by taking the December 2014 forecasts for borrowing and adding to these the difference between the estimated direct impact of the fiscal consolidation being implemented now and that which was planned back in March 2010. An important caveat is that this line does not allow for any significant indirect impact of the consolidation on the path of the economy or the interest rate payable on government debt; these are strong assumptions.

Borrowing is now forecast to be slightly larger as a share of national income in 2012–13, 2013–14 and 2014–15 than was forecast at the time of the March 2010 Budget before any of the coalition's additional fiscal tightening had been planned. Had only the policies as of March 2010 (i.e. the announced fiscal position of the then Labour government) been implemented, and had the economy followed broadly the same path, then borrowing would have been an estimated 6.5% of national income in 2014–15 rather than its actual

Figure 1.7. Plans to reduce borrowing compared: March 2010, December 2014, and December 2014 with March 2010 policy action



Source: Authors' calculations using the HM Treasury March 2010 Budget (available at http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/budget_archive.htm) and all OBR Economic and Fiscal Outlooks between June 2010 and December 2014 (available at http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/).

5.0% of national income. The difference between borrowing under each plan increases after 2015–16 due to the additional austerity that is now implied by the coalition government's forecasts.

1.4 How does the UK compare internationally?

The UK has already done significant fiscal tightening in response to the global financial crisis and recession and is planning significant further tightening. It was not the only country whose public finances were substantially affected by the crisis and so it is interesting to look at how the UK's plans for reducing borrowing compare with other countries' plans. (A cross-country comparison of general government net debt is provided in Chapter 5.)

Unfortunately, comparable detailed data on the magnitude of fiscal consolidation measures on a consistent basis across countries are not (to the best of our knowledge) currently available. However, an indication of the size of fiscal consolidation being carried out can be produced by looking at estimates of structural borrowing in different countries and how this is projected to change over time. This is done in Table 1.3 using estimates from the International Monetary Fund (IMF), produced on a consistent basis, for general government structural borrowing across 32 advanced economies. This measure of borrowing differs from the standard UK measure, which we have focused on throughout the rest of this chapter, for a number of reasons. Importantly, the measure shown in Table 1.3 excludes the financial position of public corporations and, for the UK, are based on policies as of the March 2014 Budget.

The left-hand set of columns in Table 1.3 show the peak level of general government structural borrowing over the period from 2008 to 2010 (inclusive) for each country, as well as the forecast level of borrowing in 2015 and 2019. The right-hand columns show the change between the peak level of borrowing and 2015, the change between 2015 and 2019, and the change between the peak and 2019. Countries are ranked from the weakest

to the strongest fiscal position at the start of this period, with Greece having the highest level of structural borrowing initially (19.1% of national income) and Singapore the lowest (–0.9%, i.e. a surplus).

The data show that the UK had the fourth-highest level of borrowing at the peak (which for the UK was 10.3% of national income in 2009), behind only Greece (19.1% in 2009), Iceland (17.9% in 2008) and Ireland (12.1% in 2008). Those three countries were all

Table 1.3. Austerity in the UK compared with other advanced economies (IMF forecasts of general government structural borrowing, and change in structural borrowing, from recent peak to 2015 and 2019)

	Level of structural borrowing (% of national income)			*Change in structural borrowing (% of national income)*		
	Recent peak	**2015**	**2019**	**Peak to 2015**	**2015 to 2019**	**Peak to 2019**
Greece	19.1	–1.2	0.9	–20.3	2.0	–18.3
Iceland	17.9	0.8	0.3	–17.0	–0.5	–17.5
Ireland	12.1	2.2	–0.7	–9.9	–2.9	–12.8
United Kingdom	10.3	3.6	0.2	–6.6	–3.5	–10.1
Portugal	9.6	1.5	1.8	–8.1	0.3	–7.8
Spain	9.5	2.9	1.6	–6.7	–1.2	–7.9
United States	9.1	3.3	4.0	–5.8	0.6	–5.2
Latvia	8.9	0.7	0.6	–8.2	–0.1	–8.3
Japan	7.8	5.5	4.7	–2.3	–0.8	–3.1
Slovak Republic	7.6	1.5	0.7	–6.1	–0.8	–6.9
Malta	6.1	2.5	1.8	–3.6	–0.7	–4.3
Norway	5.9	6.5	6.7	0.6	0.3	0.8
Israel	5.9	2.5	1.6	–3.4	–0.9	–4.3
France	5.6	2.8	0.5	–2.9	–2.3	–5.1
Australia	4.9	1.8	–0.2	–3.2	–2.0	–5.1
Belgium	4.8	1.5	–0.5	–3.4	–1.9	–5.3
Czech Republic	4.8	1.3	0.0	–3.6	–1.3	–4.8
Netherlands	4.5	0.0	0.1	–4.5	0.1	–4.4
Slovenia	4.5	2.7	3.0	–1.7	0.3	–1.5
New Zealand	4.5	0.6	–1.3	–3.9	–1.8	–5.7
Canada	4.0	1.8	0.9	–2.1	–1.0	–3.1
Austria	3.8	1.0	0.5	–2.8	–0.5	–3.3
Italy	3.7	0.5	0.0	–3.3	–0.5	–3.8
Germany	3.5	–0.4	–0.4	–4.0	0.0	–4.0
Denmark	1.9	2.3	0.9	0.3	–1.3	–1.0
Finland	1.3	–0.3	–0.3	–1.6	0.0	–1.7
Hong Kong SAR	0.9	1.0	–0.9	0.1	–1.9	–1.8
Luxembourg	0.4	1.3	2.0	1.0	0.7	1.7
Switzerland	–0.2	–1.1	–1.1	–0.9	0.0	–0.9
Sweden	–0.3	0.6	–1.4	0.9	–2.0	–1.2
Korea	–0.5	–0.7	–1.7	–0.2	–1.0	–1.3
Singapore	–0.9	–4.1	–3.3	–3.1	0.8	–2.3

Source: Statistical table 3 of IMF, *Back to Work: How Fiscal Policy Can Help*, Fiscal Monitor, October 2014, http://www.imf.org/external/pubs/ft/fm/2014/02/fmindex.htm.

forced into implementing larger, swifter fiscal consolidations than the UK. As a result, by 2012, all are judged to have reduced their structural borrowing to below that of the UK.[19]

Out of all 32 advanced economies, up to 2015 the UK is forecast to have seen the seventh-largest reduction in structural borrowing since the crisis peak. This leaves the UK with the third-highest estimated level of structural borrowing (at 3.6% of national income), behind just Japan (5.5%) and Norway (6.5%). The latter is a very special case because the IMF excludes oil revenues in its estimates of structural borrowing for Norway. The IMF forecasts that Norway's overall structural budget position will be a surplus of 9.9% of national income in 2015. Therefore the UK's fiscal position in 2015 is, in effect, forecast by the IMF to be stronger than only that of Japan.

Between 2015 and 2019, the IMF is forecasting that the UK's structural borrowing will fall by 3.5% of national income (from 3.6% to 0.2%). This is larger than the reduction in structural borrowing forecast by the IMF for any of the other 31 advanced economies shown in Table 1.3, suggesting that the UK is planning the largest fiscal consolidation over this period. The only two countries that appear to be planning fiscal tightening on a comparable scale are Ireland (2.9%) and France (2.3%). As a result, the UK is forecast to have the fifteenth-smallest (or eighteenth-largest) level of borrowing by 2019.

It is possible that the UK's planned fiscal consolidation between 2015 and 2019 appears so much larger than that in most other economies because other countries have not yet developed or published full plans for this period. For example, the IMF forecasts that in the United States structural borrowing will be 3.3% of national income in 2015 but will rise to 4.0% of national income by 2019. On the other hand, the IMF forecasts actually miss out some of the austerity now planned in the UK: the IMF forecasts were produced in October 2014 and therefore do not include the announcement in December 2014 that the government has pencilled in a further squeeze on public spending in 2019–20.

1.5 Conclusion

Public sector borrowing has not fallen as quickly over this parliament as was expected in 2010. This is not because the coalition government has failed to implement the tax increases or spending cuts that it announced, nor primarily because those measures have raised less or cut spending by less than expected, but rather because economic growth has been lower than forecast, depressing tax revenues.

In November 2010, the coalition government thought that a large part of the borrowing in that year was purely cyclical and would disappear as the economy recovered. However, the economy has not bounced back as strongly as initially expected and the OBR now judges that it never will. As a result, headline borrowing has declined less quickly than originally expected and the government has announced additional spending cuts for the forthcoming parliament with the aim of achieving a budget surplus. But virtually no net additional measures have been announced since November 2010 for implementation in this parliament. Instead the coalition government chose largely to stick to its originally-planned pace of fiscal tightening and leave the additional cuts for after 2015. Consequently, borrowing has been higher over this parliament than was originally expected. As a result, public sector net debt is higher than was intended by the coalition government at the start of the parliament and is at a relatively high level both compared

[19] The structural deficit in Iceland is judged to have been lower than the UK's since 2009.

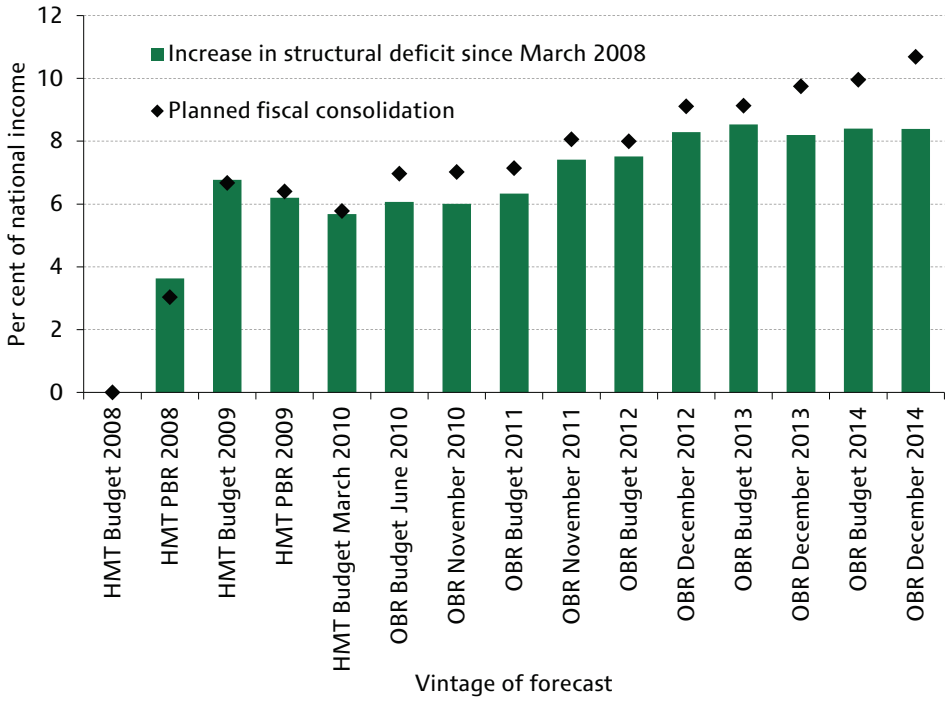
with recent UK history and relative to many other advanced economies. This is discussed further in Chapter 5.

There have been three notable broad trends in fiscal policy during this parliament. First, economic news has caused the OBR successively to revise down its forecasts for economic growth and to revise up its forecasts for both headline and structural borrowing. This has caused the government to respond by pencilling in further fiscal tightening. We calculate that the OBR's December 2014 forecasts imply an increase in underlying structural borrowing since the March 2008 Budget (i.e. that which was caused, or at least revealed, by the financial crisis and recession) of 8.4% of national income; this compares with an increase of 6.0% of national income implied by its November 2010 forecasts.

The second notable trend is that the government has chosen to announce new consolidation measures that more than offset the effects of these forecast revisions on medium-term borrowing. The government's plan is now to achieve an overall budget surplus of 1.0% of national income by the end of the five-year forecast horizon, compared with borrowing of 1.0% that was planned in November 2010.

The third notable trend has been to shift the balance of fiscal consolidation increasingly towards spending cuts and away from tax increases. The net effect of new measures announced during this parliament has been, at most, to increase future tax revenues very slightly and to reduce future public spending substantially.

Figure 1.8. Estimated increase in medium-term cyclically-adjusted borrowing (excluding policy response) and the size of the policy response since March 2008



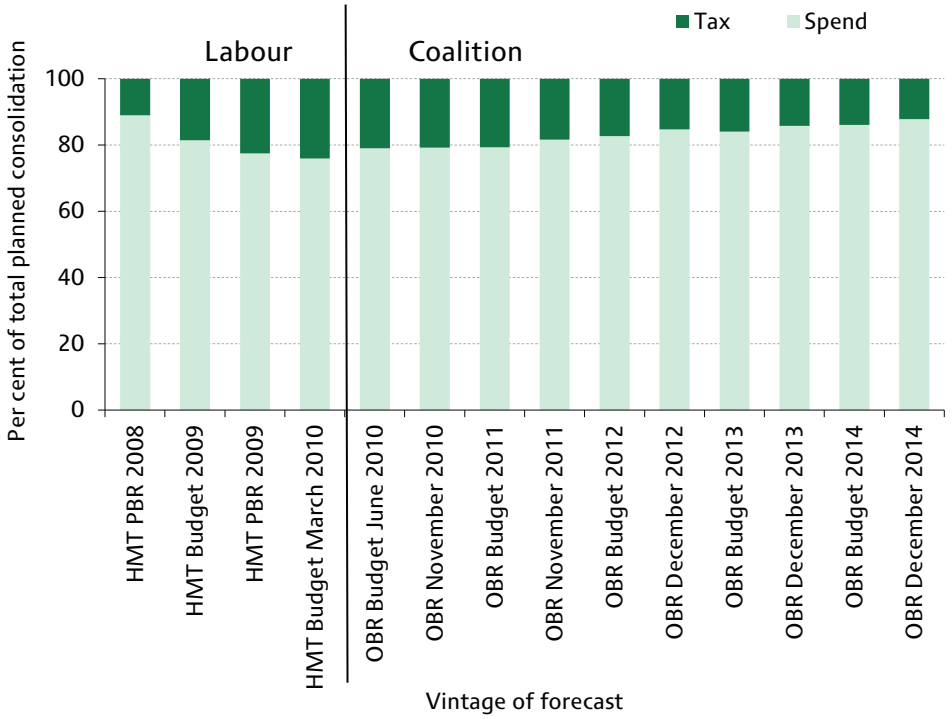
Source: Authors' calculations using all HM Treasury Budgets and Pre-Budgets between March 2008 and March 2010 (available at http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/budget_archive.htm) and all OBR Economic and Fiscal Outlooks between June 2010 and December 2014 (available at http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/).

These three stories are summarised in Figures 1.8 and 1.9. Figure 1.8 shows – for different points in time – the estimated underlying increase in structural borrowing since the March 2008 Budget (green bars) and the planned fiscal response at that point in time (black diamonds). Particularly large increases in the size of the estimated fiscal challenge were seen in the Pre-Budget Report of 2008, the Budget of 2009, the Autumn Statement of 2011 and (to a lesser extent) the Autumn Statement of 2012. These fiscal events also saw particularly large increases in the size of the fiscal response, but so too did June 2010 (in the coalition government's first Budget) and December 2013 and December 2014 (when the coalition decided to extend the planned public spending squeeze in order to reduce structural borrowing further).

Not only has the planned size of the overall fiscal consolidation changed over time but the share that is from net tax rises, as opposed to net spending cuts, has also changed. Figure 1.9 shows the share of the planned eventual fiscal consolidation that was forecast to come from net tax rises and net spending cuts from each fiscal event since the March 2008 Budget. Under the Labour government, the share forecast to come from net tax rises, while still a minority of the overall planned consolidation, was increased at each fiscal event. In contrast, under the coalition government, the share of the planned consolidation coming from net tax rises has fallen over time (it fell in every fiscal event except Budget 2013).

The coalition government will have implemented tax increases and spending cuts worth around 5.8% of national income by the end of the current financial year (2014–15). This goes some, but far from all, of the way to offsetting the increase in underlying structural

Figure 1.9. Share of the planned fiscal consolidation from net tax rises or spending cuts



Source: Authors' calculations using all HM Treasury Budgets and Pre-Budgets between November 2008 and March 2010 (available at http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/budget_archive.htm) and all OBR Economic and Fiscal Outlooks between June 2010 and December 2014 (available at http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/).

borrowing that we estimate was caused (or revealed) by the financial crisis and recession (8.4% of national income). The current government will bequeath to its successor a plan for further deep cuts to spending in the next parliament, in order to achieve an overall budget surplus of 1.0% of national income. This will not be easy to achieve. Chapter 7 discusses what the government's plans imply for spending on public services. Alternative options include cutting social security spending (discussed in Chapter 9) and/or increasing taxes (discussed in Chapter 10) further than currently planned. But, of course, the exact scale of measures that will be required remains uncertain, as developments over this parliament have demonstrated. Chapter 5 discusses some of the upside and downside risks to the official forecasts and plans that have been the focus of discussion here.

2. Earnings since the recession

Jonathan Cribb and Robert Joyce (IFS)

Summary

- Since the Great Recession, the UK labour market has been characterised by robust employment and weak earnings growth. Employment for 16- to 64-year-olds is back to its 2008Q1 rate, but average earnings remain well below their pre-crisis level.
- Weak productivity has underpinned both of these features of the labour market. In 2014Q3, productivity was still no higher than before the recession and had not grown overall since the end of 2011. If anything, workers' pay seems to have fallen by even more than productivity, but the key puzzle is over why productivity has fallen so much, rather than over the relationship between productivity and pay.
- There has been substantial variation in the magnitude of real earnings falls since 2008. They have been larger for men, young adults and the private sector. Earnings have also fallen by somewhat less at lower points in the earnings distribution (driven by the trend since 2011).
- The workforce has continued to exhibit rising shares of older adults, women, highly-educated individuals and relatively skilled occupations (with a plateau in the last trend in 2014). There have also been rises in the proportions of workers who are self-employed (from 13% in 2007 to 15% in 2014Q1–Q3) and part-time (25% to 27%).
- If the characteristics of employees had not changed since the recession then, all else equal, falls in earnings would have been even larger. This is because factors such as increasing education levels have acted to push average earnings up. There is little sign that the earnings-increasing effects of such 'compositional' changes are reversing or slowing down. Hence, the continued weakness of earnings is due to continued weakness for given types of employee, not compositional effects.
- Between 2011 and 2014, individuals continuously in the same full-time job from year to year saw their average real pay rise as they aged, even while economy-wide earnings were falling – a fact that has recently gained some attention. Because pay tends to increase with experience, and because people in continuous employment are a select group (e.g. are more educated), changes in the earnings of continuously employed individuals as they age tend to look more favourable than trends in average earnings over time. This is important to understand, but is not new or surprising. The falls in both measures of annual real earnings growth since before the crisis are of a similar magnitude – so the drop in overall earnings is not driven only by people starting a new job.

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2.1 Introduction

Since the recession of 2008 and 2009, the standout features of the UK labour market have been robust employment and weak earnings. The employment rate of 16- to 64-year-olds is already back to its level as of 2008Q1 (73.0%), which is close to the highest rate recorded since consistent data began in 1971;[1] but average earnings remain well below their pre-crisis level. In both respects, this recession, and the recovery from it, have been very different from previous ones.[2] Robust employment has meant that fewer people have faced the particularly severe shock of losing all of their earned income. But the falls in (and continued stagnation of) real earnings have meant that the pain from this recession has probably been considerably more widespread.

Workers' earnings comprise the majority of household income.[3] Earnings trends therefore have very important consequences. The fall in average household incomes since the recession has been driven largely by falls in workers' earnings.[4] Weaker-than-expected earnings growth has also led to lower tax receipts – particularly income tax receipts – than previously expected. Finally, despite rapidly falling unemployment and robust GDP growth in 2013 and 2014, low earnings growth has been one reason that the Monetary Policy Committee of the Bank of England has not raised Bank Rate from its very low level.[5]

The aim of this chapter is to outline what we know about changes in earnings since the recession and to cast light on the current direction of travel. A number of facts can complicate matters. For example, the workforce changes in composition, there are many measures and data sources which tell us slightly different things, and the earnings of different people change differently. The public discourse, based on slightly different figures from one week to the next, can often seem a little bewildering. There is a need to set out systematically what we know.

As crucial background, Section 2.2 shows what has happened to employment – which in many respects is the good news story – and to the characteristics of the employed population. Section 2.3 looks at average earnings levels among employees. It summarises what has happened to leading measures of average earnings, analyses how this is affected by the changes in the characteristics of the workforce outlined in Section 2.2, and compares changes in average earnings with changes in labour productivity. Section 2.4 shows how earnings trends have varied across the population. This includes a look at earnings changes among those in continuous employment in the same job for at least a year, which have attracted some attention recently. Section 2.5 considers the prospects for earnings growth. Section 2.6 concludes.

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[1] It was 73.1% in 1974 and 2005 (source: ONS series LF24).

[2] See R. Blundell, C. Crawford and W. Jin, 'What can wages and employment tell us about the UK's productivity puzzle?', *Economic Journal*, 2014, 124, 377–407.

[3] Total earnings after direct tax are about two-thirds of total household income after direct taxes and including state benefits – see W. Jin, R. Joyce, D. Phillips and L. Sibieta, *Poverty and Inequality in the UK: 2011*, IFS Commentary C118, 2011, http://www.ifs.org.uk/comms/comm118.pdf. An alternative measure from the National Accounts is total gross compensation of employees (note that this excludes self-employment income) as a share of GDP, which was 51.2% in 2013 (http://www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-national-accounts/the-blue-book--2014-edition/rpt---chapter-1.html).

[4] See C. Belfield, J. Cribb, A. Hood and R. Joyce, *Living Standards, Poverty and Inequality in the UK: 2014*, IFS Report R96, 2014, http://www.ifs.org.uk/publications/7274.

[5] See, for example, the Governor of the Bank of England's speech on 9 September 2014, http://www.bankofengland.co.uk/publications/Documents/speeches/2014/speech754.pdf.

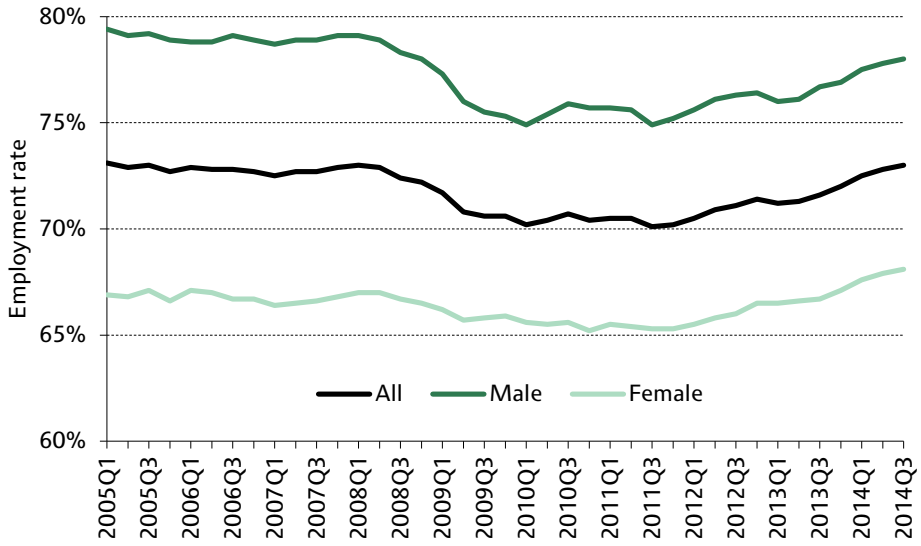
2.2 Employment and the characteristics of the employed

The employment rate for 16- to 64-year-olds has recovered its pre-crisis level as of 2014Q3, as shown in Figure 2.1.[6] This comes after a fall from 73.0% in 2008Q1 to a low of 70.1% in 2011Q3.[7]

The figure also shows that employment rates have evolved differently for men and women. The female employment rate in 2014Q3 was 68.1%, over 1 percentage point higher than its rate of 67.0% in 2008Q1. The male employment rate, at 78.0%, was still below its pre-crisis rate of 79.1%. This is primarily because the female employment rate fell less between 2008 and 2011. Between 2008Q1 and the overall trough in the employment rate in 2011Q3, employment fell by 4.2 percentage points for men and 1.7 percentage points for women.

The relatively strong employment trends for women continue a longer-term theme. Although the most rapid rises in female labour market participation happened a while ago, the female employment rate continued to rise gradually before the crisis – from 65.6% in 2000Q1 to 67.0% in 2008Q1 – while the male employment rate remained flat overall. There is evidence that benefit reforms have also contributed to rising female

Figure 2.1. Employment rate for 16- to 64-year-olds, by sex, 2005 to 2014

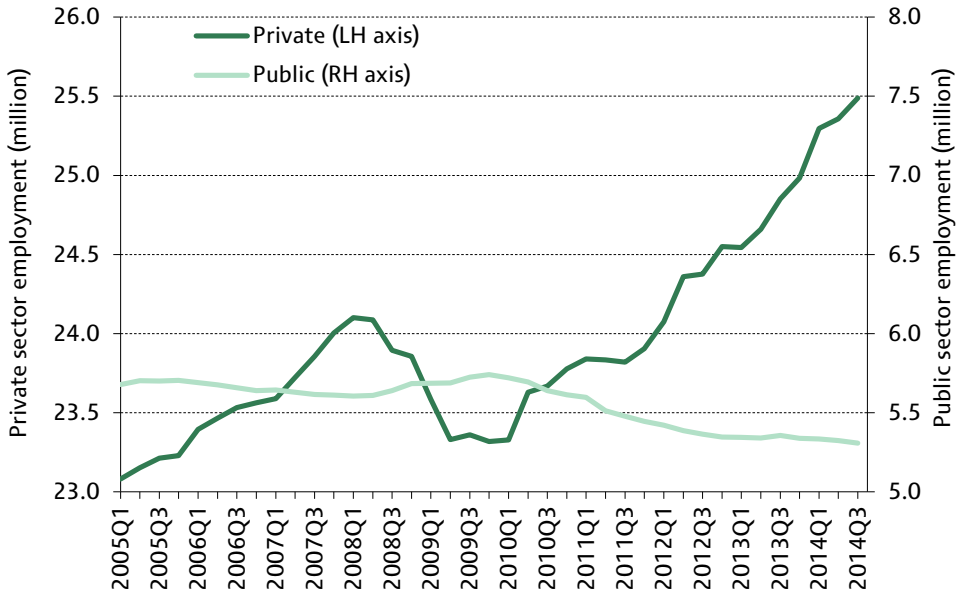


Source: Office for National Statistics (Labour Force Survey) series LF24, LF25 and MGSV.

[6] The very latest data (for September–November 2014) also show an employment rate for 16- to 64-year-olds of 73.0%.

[7] This is by no means universal across developed countries. For example, in the United States, the employment rate for 15- to 64-year-olds reached 68.5% in November 2014, still well below its January 2008 level of 71.7%. See http://research.stlouisfed.org/fred2/series/LREM64TTUSM156S.

Figure 2.2. Private and public sector employment, 2005 to 2014



Note: Public and private sector employment adjusted for the nationalisation (and subsequent privatisations) of financial corporations, privatisation of Royal Mail and the reclassification of further education and sixth-form colleges in England to the private sector. All institutions are treated as though they always belonged to the sector that they are in currently.
Source: Authors' calculations using ONS Public Sector Employment Statistics.

employment recently: in particular, the rise in the female state pension age,[8] and the so-called 'lone-parent obligations' reforms.[9]

Even more striking are the differences between the public and private sectors, as shown by Figure 2.2 (which strips out the effects of reclassifications between the sectors, such as the nationalisation of financial corporations and the privatisation of Royal Mail). During the recession, private sector employment fell by 800,000 from peak to trough, but recovered quickly and has risen by almost 2.2 million since early 2010 (1.4 million higher than its pre-recession peak). By contrast, public sector employment rose gradually throughout 2008 and 2009, but has fallen by 430,000 since late 2009.

Table 2.1 summarises how some of the key characteristics of the workforce have been evolving. Workers with different characteristics tend to earn different amounts, so – as we shall explore in Section 2.4 – understanding these changes in workforce composition is important for understanding earnings changes. Compositional changes can be cyclical: for example, the low-skilled might be the most likely to drop out of work during a recession and then rejoin during a recovery. In addition, there can be longer-running 'secular' changes in composition. Examples from recent history include increases in labour force participation among women and increases in education levels.

[8] J. Cribb, C. Emmerson and G. Tetlow, 'Labour supply effects of increasing the female state pension age in the UK from age 60 to 62', IFS Working Paper W14/19, 2014, http://www.ifs.org.uk/publications/7323.

[9] Department for Work and Pensions, *Lone Parent Obligations: An Impact Assessment*, DWP Research Report 845, 2013, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211688/rrep845.pdf. These reforms gradually extended the requirement to take steps to look for work in order to claim out-of-work benefits. These requirements now apply to lone parents whose youngest child is aged 5 or more (previously, the age threshold was 16, or 19 for children in full-time education).

Table 2.1. Characteristics of the workforce since the recession

Characteristic	2007	2012	2013	2014 (Q1 to Q3)
Female	46.0%	46.6%	46.7%	46.7%
Public sector	19.1%	18.1%	17.8%	17.3%
Not born in the UK	12.1%	14.4%	14.8%	15.5%
Part-time	25.3%	27.4%	27.1%	27.0%
Self-employed	13.0%	14.2%	14.2%	14.9%
Age				
16–17	1.8%	1.2%	1.1%	1.0%
18–24	12.3%	11.3%	11.2%	11.3%
25–49	59.5%	58.8%	58.3%	57.9%
50–59	18.9%	20.1%	20.6%	20.7%
60+	7.5%	8.7%	8.9%	9.1%
Skill level of occupation				
High skilled	42.5%	43.4%	44.1%	44.0%
Medium skilled	30.9%	30.8%	30.8%	30.9%
Low skilled	26.6%	25.8%	25.1%	25.2%
Highest qualification (ages 16–59)				
Higher education or equivalent	33.7%	40.9%	42.1%	42.6%
A levels / GCSEs or equivalents	46.3%	45.6%	44.7%	44.5%
No GCSEs or equivalents	20.0%	13.4%	13.2%	12.9%

Note: All statistics refer to the 16+ workforce, except for those about qualifications, which relate to the 16–59 population (due to a discontinuity in survey questions). Skill level of occupation is defined by one-digit Standard Occupational Classification (SOC) 2010 code (SOC 2000 for 2007). High skilled is defined as codes 1–3, medium skilled is codes 4–6 and low skilled is codes 7–9. A definitional change in the Labour Force Survey decreased the proportion of workers with 'No GCSEs or equivalents' in 2011Q1 compared with 2010Q4 by around 1 percentage point. As a result , the categories 'Higher education or equivalent' and 'A-levels / GCSEs or equivalents' rose by around 0.5 percentage points each.
Source: Authors' calculations using the Labour Force Survey, ONS series MGRQ and MGRZ (self-employment) and ONS public sector employment statistics, adjusted in the same way as set out in the note to Figure 2.2.

As implied by Figures 2.1 and 2.2, the share of the workforce that is female has risen slightly since 2007 and the public sector's share of the workforce has fallen markedly from 19.1% in 2007 to 17.3% in 2014 (Q1 to Q3).

There has also been a relatively large increase in the proportion of the workforce that was born outside the UK, rising from 12.1% in 2007 to 15.5% in 2014. And the workforce has been ageing, with clear increases in the proportion of workers who are aged 50 or older. Rises in employment at older ages are analysed in detail by Chandler and Tetlow (2014),[10] and the specific role of the rise in female state pension age in this is described by Cribb, Emmerson and Tetlow (2014).[11] The workforce has also, in general, continued to become more oriented towards high-skill occupations and the more highly educated.

[10] D. Chandler and G. Tetlow, *Retirement in the 21st Century*, IFS Report 98, 2014, http://www.ifs.org.uk/publications/7384.

[11] J. Cribb, C. Emmerson and G. Tetlow, 'Labour supply effects of increasing the female state pension age in the UK from age 60 to 62', IFS Working Paper W14/19, 2014, http://www.ifs.org.uk/publications/7323.

There has been some interest lately in the idea that increases in the numbers of relatively low-skilled jobs are dragging down earnings levels (for example, in the Bank of England's November 2014 Inflation Report[12]). Table 2.1 shows that the most recent period has indeed somewhat bucked the trend of a shift towards higher-skilled occupations (defined as managers, professionals and 'associate' professionals). This may reflect cyclical effects, whereby the low-skilled lost the most jobs during the recession and are now returning to work, offsetting the underlying secular trend towards higher-skilled occupations. As a proportion of the whole workforce, though, the rise in the proportion of the low-skilled (sales, plant/processing and elementary occupations) from 25.1% to 25.2% since 2013 looks negligible and is not statistically significant.

Along with the secular trend towards higher-skilled occupations, the proportion of workers (aged 16 to 59) with a higher education qualification has continued to rise rapidly, from 33.7% to 42.6% since 2007.[13]

The rises in the prevalence of self-employment and part-time work are reasons for caution in interpreting the employment numbers as an unambiguously positive story. The self-employed accounted for 13.0% of the workforce in 2007 but 14.9% in 2014. This is primarily due to reductions in the numbers leaving self-employment, though there has also been an increase in the number of people moving into self-employment.[14]

Part-timers accounted for 25.3% of the workforce in 2007 but 27.0% in 2014. This is despite the fact that, during the recovery in overall employment, the share of part-timers has fallen back slightly (from 27.4% in 2012). Some of the rise in part-time work since 2007 is driven by older age groups – the proportion of workers aged 16–64 who work part-time rose by 1.2 percentage points (4.9%) between 2007 and 2014 (see Table 2.2), compared with 1.7 percentage points (6.7%) for the workforce as a whole.

As with non-employment, increases in part-time work – and the increases in the prevalence of relatively low weekly earnings that come with them – might reasonably be regarded as more of a problem if they are 'involuntary': that is, if people working part-time would prefer to work full-time. More generally, we might worry that employment has stayed so high partly because workers are settling for less work than they want (of course, this may well still be preferable to large rises in unemployment).

Table 2.2 sets out various measures of, or potential proxies for, 'under-employment' (defined as workers working fewer hours than they would like), for workers aged 16 to 64. All of the indicators shown have increased since the crisis. There has been a particularly large rise in the proportion of part-time workers who would like to work full-time hours, which nearly doubled from 9.9% in 2007 to 19.0% in 2012 before falling back slightly to 18.1% in 2014. Bell and Blanchflower (2014)[15] look in some detail at the characteristics of people who say they want to work more hours. They are disproportionately likely to be young, male, low educated and self-employed – both for

[12] Chart 3.5 at http://www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14nov.pdf.

[13] Due to definitional changes in the Labour Force Survey data since 2008, we restrict attention to workers aged 16–59 when measuring trends in educational qualifications, to ensure comparability over time. For information on the large increases in the numbers of graduates in the workforce, see Office for National Statistics, 'Full report: graduates in the UK labour market 2013', 2013, http://www.ons.gov.uk/ons/dcp171776_337841.pdf.

[14] Office for National Statistics, 'Self-employed workers in the UK: 2014', 2014, http://www.ons.gov.uk/ons/dcp171776_374941.pdf.

[15] D.N.F. Bell and D.G. Blanchflower, 'Commentary: labour market slack in the UK', *National Institute Economic Review*, 2014, 229, http://ner.sagepub.com/content/229/1/F4.short?rss=1&ssource=mfr.

Table 2.2. Indicators of under-employment (16- to 64-year-olds)

Measure of under-employment	2002	2007	2012	2014 (Q1 to Q3)
% of workers 'under-employed' (wanting to work more than their current hours)	6.7%	6.9%	10.0%	9.7%
Average number of additional hours wanted by the under-employed	11.2	11.7	12.2	12.2
% of workers who would like a different job	6.2%	6.1%	7.5%	7.5%
% of workers who work part-time	24.6%	24.3%	26.0%	25.4%
% of part-timers who work part-time because they cannot find more hours	8.4%	9.9%	19.0%	18.1%

Source: Authors' calculations using the Labour Force Survey, various years.

the period since 2001 as a whole and in the post-recession period (2012 to 2014) specifically.

One consequence of the numbers in Table 2.2 is that, while the employment rate has returned to its pre-crisis level, the proportion of the population in work and working at least as many hours as they want has not. Table 2.3 shows that the proportion of 16- to 64-year-olds in work was the same in 2014 as it was in 2007 (72.7%), whereas the proportion who are in work but not underemployed remains clearly lower, at 65.7% compared with 67.7% in 2007. The proportion of the population who are in work and would not like a different job has also fallen, from 68.3% to 67.3%, over the same period.

However, the interpretation of under-employment measures is not entirely straightforward. Weale (2014) finds that, when under-employed people change jobs and subsequently do not report wanting more hours, they tend to have taken fewer additional hours than they said they wanted when they were under-employed.[16] Whether or not a

Table 2.3. Work and under-employment characteristics (16- to 64-year-olds)

	2002	2007	2012	2014 (Q1 to Q3)
% in work	72.7%	72.7%	70.9%	72.7%
% in work and under-employed	4.9%	5.0%	7.1%	7.0%
% in work and not under-employed	67.8%	67.7%	63.8%	65.7%
% in work and would like a different job	4.5%	4.4%	5.3%	5.4%
% in work and would not like a different job	68.1%	68.3%	65.6%	67.3%
% in part-time work	17.9%	17.7%	18.4%	18.5%
% in part-time work, wants full-time job	1.5%	1.8%	3.5%	3.3%
% in part-time work, as desired	16.4%	15.9%	14.9%	15.1%

Source: Authors' calculations using the Labour Force Survey, various years.

[16] M. Weale, 'Slack and the labour market', speech given at the Thames Valley Chamber of Commerce, 20 March 2014, http://www.bankofengland.co.uk/publications/Documents/speeches/2014/speech716.pdf; quantitative results reported in D.N.F. Bell and D.G. Blanchflower, 'Commentary: labour market slack in the UK', *National Institute Economic Review*, 2014, 229, http://ner.sagepub.com/content/229/1/F4.short?rss=1&ssource=mfr.

worker is satisfied with a given number of hours of work might itself depend on features of their job besides their working hours, and these features may be changing over time. For example, to the extent that a desire for more hours were caused by falls in hourly wages, under-employment would simply be a corollary of the problem of falling real pay – the subject of the remainder of this chapter.

2.3 Average earnings

There are many measures of earnings in the UK, which at times seems to confuse as much as it helps. Earnings can be measured over different periods (generally hourly, weekly or annually); and as discussed in Box 2.1, there are a number of underlying data sources, which use different samples of workers and are available at different frequencies. In this section, we start by describing what leading measures of average earnings have been telling us, disentangling the important differences between data sources and definitions. We then analyse the role of compositional changes in the workforce, which were outlined in the previous section, in driving these average earnings changes. Finally, we briefly compare changes in average earnings with changes in productivity.

None of the data sources looked at in this section captures the earnings of (the growing number of) self-employed individuals, so all analysis in this section looks at employees only. We briefly discuss what we do know about earnings from self-employment in Section 2.4.

Figure 2.3 shows mean real weekly earnings, deflated by the RPIJ price index, from three sources: the Annual Survey of Hours and Earnings (ASHE), average weekly earnings (AWE) and the Labour Force Survey (LFS).[17] Box 2.1 gives details of each of these sources. Each measure is indexed to 100 in 2008Q1, just before the recession began. We deflate using the RPIJ because it is the only consumer price index that includes housing costs for owner-occupiers as well as renters and is designated a National Statistic. Figure 2.4 shows what difference this choice makes. Since 2008, real earnings falls have been smaller than would be recorded using the CPI. Since 2009, though, CPI and RPIJ inflation have been almost identical. The main reason for the divergence between CPI- and RPIJ-adjusted measures of earnings growth between 2008 and 2009 is that the sharply falling mortgage interest costs during the recession are not accounted for by the CPI. Overall, inflation between April 2008 and April 2014 was 15% according to the RPIJ and 19% according to the CPI.

Figure 2.3 shows that by 2014Q3, real average earnings remained 5.9% below their pre-crisis level according to AWE and 3.0% below according to the LFS. ASHE recorded real mean weekly earnings 7.4% lower in April 2014 than in April 2008. The more benign picture painted by the LFS is largely due to it recording more of a recent recovery in earnings: ASHE and AWE continue to measure real falls in 2013 and 2014, while the LFS records real growth since the end of 2013. Nevertheless, even the LFS data show real earnings no higher than at the end of 2012. In contrast, the less benign picture painted by ASHE continues a longer-term theme: ASHE had recorded the slowest earnings growth pre-recession too. Overall, real earnings in 2014Q2 were 5.0% higher than in 2001Q2 according to AWE, 6.7% higher according to the LFS, but 1.0% lower according to ASHE.

[17] ASHE weekly earnings data are available each April, which for the purposes of the figure we count as the second quarter of the calendar year. AWE is available each month and the LFS is available each quarter. For comparability, we must compare *mean* earnings, as that is all that is available from AWE.

Box 2.1. Measuring earnings in the UK

One difficulty in understanding earnings performance in the UK is that there are multiple potential data sources from which to choose. Three main sources are described here. These are the Annual Survey of Hours and Earnings (ASHE), average weekly earnings (AWE) and the Labour Force Survey (LFS). Each of them has its advantages and disadvantages.

The **Annual Survey of Hours and Earnings** is a sample of approximately 1% of employees. It provides hourly, weekly and annual earnings measures. It is often thought to be the best-quality individual-level data on earnings, as it is reported by employers for administrative purposes. However, it does not capture earnings outside of the PAYE system (e.g. earnings that are taxed by self-assessment), and it probably under-records people with very low earnings.[a] Practical limitations include the fact that it is based on a sample of workers from just one month (April) in each year (potentially meaning that the hourly and weekly earnings measures are affected by seasonality, e.g. annual bonuses are often paid in December and January) and is only available with a lag of a number of months (particularly the underlying micro-data, which can be used by researchers for further analysis). Results must also be adjusted for methodological changes, which otherwise cause discontinuities in the series in 2004, 2006 and 2011.

The **average weekly earnings** series is designed to measure the mean weekly earnings of employees in the UK. AWE figures are released each month and so are often seen as the 'headline' figures for earnings growth. The series is based largely on the Monthly Wages and Salaries Survey (MWSS), which asks firms their total payroll in that month and the headcount to which that applies. The MWSS does not sample firms with fewer than 20 employees, and the AWE series uses ASHE data to try to fill this gap. It is released by ONS each month with a relatively short lag, which means it is a timely source of information. However, it allows for very little assessment of changes in earnings within particular population groups and does not allow for any assessment of how the distribution of earnings is changing.

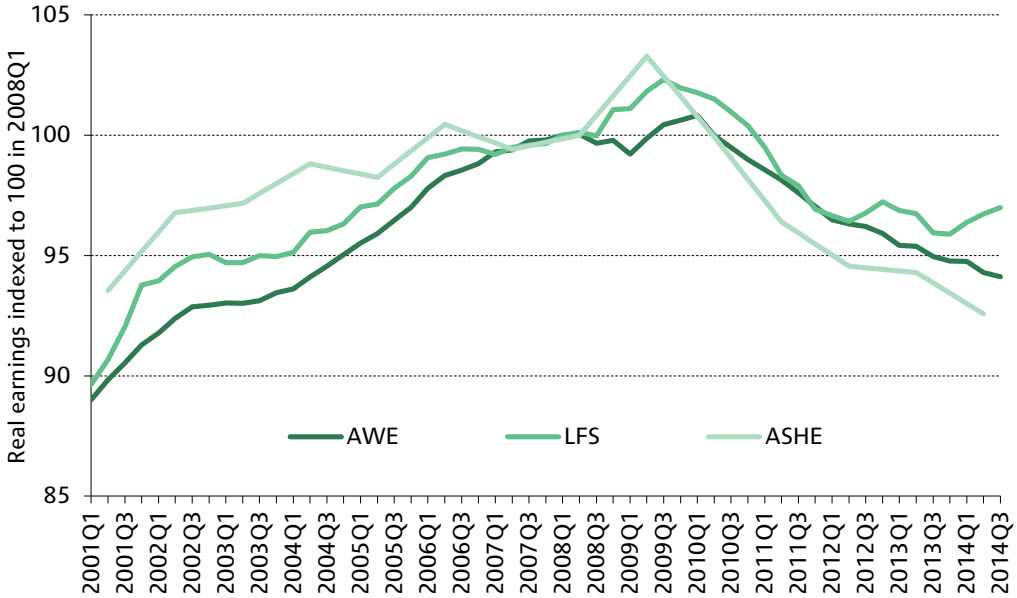
The **Labour Force Survey** is a large household survey that is used primarily to measure employment and unemployment. It also asks questions on the earnings of employees. An advantage is that the underlying micro-data are available to researchers only a few weeks after data collection, allowing for timely and detailed research into changes in the labour market. However, there is substantial non-response to the earnings questions and earnings are often measured with some error, e.g. individuals often report annual salaries that are rounded to the nearest £1,000. For a given type of person, ASHE almost certainly contains less measurement error in earnings than the LFS (but ASHE may be a less representative sample of certain types, such as the low-paid).

Due to these differing samples and methodologies, some differences in results (particularly when looking over short periods) are not surprising.[b] But these sources do all tell a similar basic story about earnings changes over the past decade or so.

[a] This problem has likely diminished with the move to Real-Time Information in the PAYE system. However, ONS suggests that this change has not materially affected estimates of earnings growth. See page 34 of Office for National Statistics, 'Annual Survey of Hours and Earnings, 2014 provisional results', 2014, http://www.ons.gov.uk/ons/dcp171778_385428.pdf.

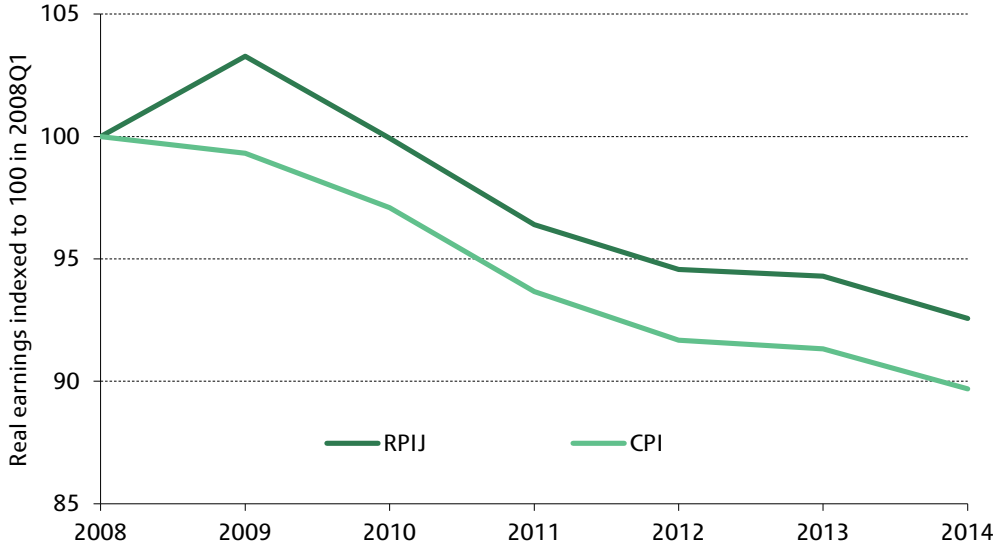
[b] These differences are also discussed in Office for National Statistics, 'An examination of falling real wages, 2010–2013', 2014, http://www.ons.gov.uk/ons/dcp171766_351467.pdf.

Figure 2.3. Mean weekly earnings since 2001 adjusted for RPIJ inflation (indexed to 100 in 2008Q1)



Note: ASHE results adjusted for methodological changes in 2004, 2006 and 2011 so that the figures are consistent over time. ASHE results indexed to April (Q2) 2008 and ASHE earnings are linearly interpolated between each observation in Q2 of each year. AWE and LFS data are reported using a four-quarter moving average, with the last quarter labelled. RPIJ is measured by ONS series KVR8.
Source: Authors' calculations using Annual Survey of Hours and Earnings, average weekly earnings (total pay) index (ONS series K54U) and Labour Force Survey, 2001–14.

Figure 2.4. Mean real weekly earnings changes (ASHE) using inflation measured by RPIJ and CPI (indexed to 100 in 2008)



Note: ASHE results adjusted for methodological changes in 2011 so that the figures are consistent over time. RPIJ is measured by ONS series KVR8 and CPI by ONS series D7BT.
Source: Authors' calculations using Annual Survey of Hours and Earnings, 2008–14.

Table 2.4. Real weekly earnings, total hours and real hourly wages

	Level in year			Average annual change	
	2001	2008	2014	2001 to 2008	2008 to 2014
Weekly earnings (£)					
Mean	506.26	541.19	501.00	1.0%	–1.3%
Median	424.82	444.17	417.90	0.6%	–1.0%
Total hours (p.w.)					
Mean	34.6	33.8	33.1	–0.3%	–0.3%
Median	37.0	37.0	37.0	0.0%	0.0%
Hourly wages (£)					
Mean	14.68	16.05	15.16	1.3%	–0.9%
Median	11.30	12.19	11.61	1.1%	–0.8%

Note: ASHE results adjusted for methodological changes in 2004, 2006 and 2011 so that the figures are consistent over time. Expressed in April 2014 prices; adjusted for inflation using RPIJ.
Source: Authors' calculations using Annual Survey of Hours and Earnings.

Given these differences between data sources, care is needed when looking at the precise magnitudes of recent earnings changes and when making – or interpreting – claims about the latest direction of travel based on a single source. The big picture is consistent across data sources though. On any measure, real earnings have fallen substantially since the recession and any growth remains weak at best. In the rest of the chapter, we use ASHE as the default due to its likely lower measurement error (see Box 2.1); but at times we use other data sets where these have advantages for the specific analysis being undertaken.

Table 2.4 provides more detail on average earnings changes (all using ASHE). First, it shows figures for hourly pay in addition to weekly pay. Weekly pay better captures the total resources that people actually obtain from working. People's decisions about how many hours to work may be constrained – and indeed the evidence above suggests that involuntarily low hours have been on the increase – and therefore of interest to the extent that they affect weekly pay. On the other hand, variation across individuals in hours worked will also, at least partly, reflect differences in preferences. Such differences would typically be of little concern, which strengthens the case for also considering hourly pay. Second, the table shows figures at the median as well as the mean. Median earnings refer to the earnings of someone earning more than half of employees and less than the other half. It is therefore a different measure of 'average' earnings, and a useful one because it is not sensitive to changes at the extremes of the distribution. Finally, the table shows hours worked (at the mean and median), which links the hourly and weekly earnings measures.

Between 2008 and 2014, median weekly earnings fell by a total of 5.9%. Falls in average weekly earnings have been driven primarily by falls in hourly pay rather than reductions in hours worked, although mean weekly hours worked have fallen by 0.3% per year on average (2.1% in total). Median hourly pay has fallen by 4.7% since 2008. Mean and median earnings measures have, overall, fallen by similar proportions over this period, indicating that the key trends in mean earnings have not been driven simply by small

groups at the extremes of the earnings distribution.[18] However, both weekly and hourly wages have fallen by slightly more at the mean than at the median. This implies that trends have not been uniform across the distribution; we explore this more fully in Section 2.4.

The role of compositional changes in driving average earnings trends

It is natural to ask whether the trends in average earnings set out above are related to the changes in the characteristics of the employed population shown in Section 2.2.

Simple measures of average earnings growth conflate changes in earnings for particular types of people with 'compositional effects', or changes in the relative numbers of different worker types. Disentangling these effects can be important. For example, if a group of low-skilled unemployed people find work, this would drag down average earnings without any (direct) adverse effects on the earnings of a particular individual.

In Section 2.2, we showed that the workforce is continuing to become more highly educated, older and generally more oriented towards skilled occupations (with some plateau in that last trend in 2014). This provides little evidence of a compositional shift towards types of workers who are likely to be paid less, which suggests that the weakness of earnings is due to 'underlying' factors – trends for given types of worker – rather than compositional shifts.

Figure 2.5 confirms this more formally using a decomposition analysis.[19] This separates the changes in mean real earnings into two components: the change in average earnings that would have occurred in the absence of any changes in observed workforce characteristics (the 'underlying' change) and a component that is due to changes in the observed characteristics of the workforce (the 'compositional effect'). We use the Labour Force Survey (LFS) for this analysis so that we are able to control for all of the following characteristics: age, sex, education level, number of children, occupation, industry, job tenure, region, and whether the employee works full- or part-time. The figure shows decompositions for three periods: 2002–07 ('pre-crisis'), 2007–12 and 2012–14. Note that '2014' here includes only the first three quarters, as LFS data for 2014Q4 are not yet available. We present separate estimates for hourly and weekly pay (panels a and b respectively), because some compositional effects (e.g. changes in the prevalence of part-time workers) might be more important for one measure than the other.

One striking aspect of the figure is that variation in the rate of earnings growth over time since 2002 has been driven almost entirely by variation in the 'underlying' rate of earnings growth. This is because compositional effects, such as rising education levels, have consistently been acting to raise average earnings over this period at quite a uniform rate (particularly for hourly pay).

Panel a shows that, between 2007 and 2012, compositional changes acted to increase mean real hourly wages by an average of 0.6% per year. This means that the 'raw' fall of 0.4% per year in the years after the crisis struck was substantially understating the 'underlying' fall of 1.0% per year. The role of compositional effects has actually remained very stable over the past two years. Between 2012 and 2014, they continued to push

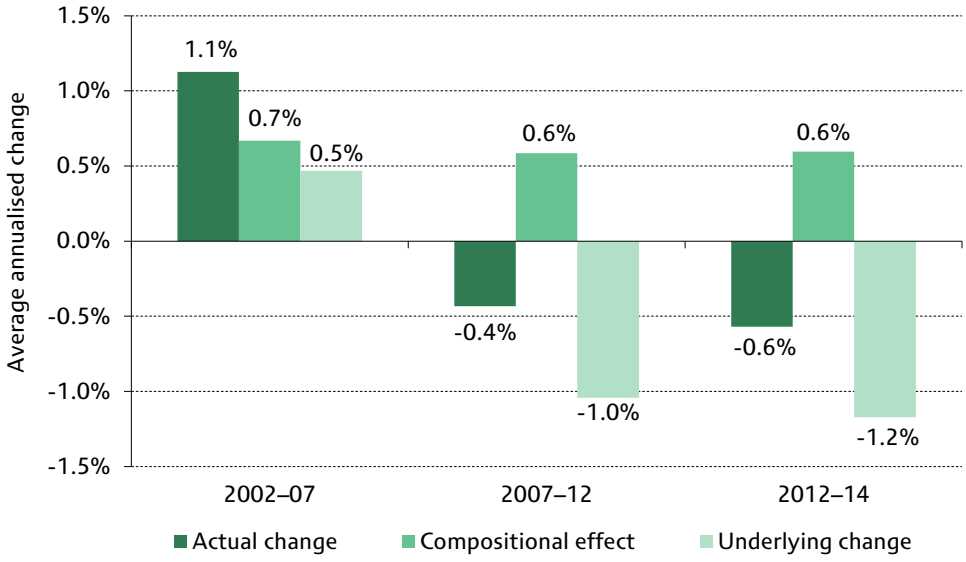
[18] The fall in median earnings from 2008 to 2014 has been larger when adjusting for inflation using the CPI than the RPIJ. Adjusting for CPI inflation, median weekly earnings fell by 1.5% per annum, while median hourly earnings fell by 1.3% per annum.

[19] For more details on this, see the note to Figure 2.5. This analysis is very similar to that carried out in R. Blundell, C. Crawford and W. Jin, 'What can wages and employment tell us about the UK's productivity puzzle?', *Economic Journal*, 2014, 124, 377–407.

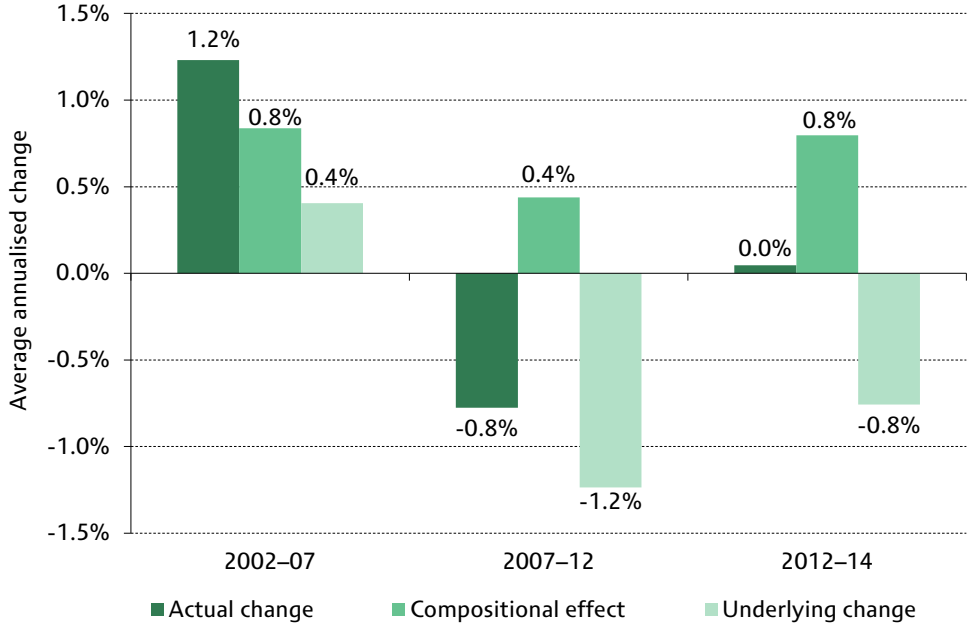
average hourly wages up at the same rate as over the previous five years, so the 'raw' fall of 0.6% per year masks an 'underlying' fall of 1.2% per year.

Figure 2.5. Decomposing changes in mean real earnings

(a) Hourly wages



(b) Weekly earnings



Note: 2014 figures are for quarters 1 to 3 only. Includes only employees aged 16 to 59. Earnings deflated using RPIJ inflation. Hourly wages are *usual* hourly wages. Compositional effects calculated by Oaxaca decomposition, where the change in log hourly (or weekly in panel b) earnings between two periods (Y1–Y0) is decomposed into a compositional effect B1(X1–X0) and underlying (remaining) change (B1–B0)X0. Regressions used to estimate effects are the regression of log real hourly wages or weekly earnings on a sex dummy, dummies for age groups (16–17, 18–24, 25–34, 35–44, 45–54, 55–59), dummies for highest qualification (degree, secondary education, elementary/none), dummy for working part-time, dummies for number of children (0, 1, 2, 3, 4, 5+), nine occupation dummies, 20 regional dummies and 15 industry (SIC1992) dummies. Regressions are weighted using LFS weights.
Source: Authors' calculations using the Labour Force Survey.

Panel b shows that the basic story is similar for weekly earnings. One difference is that the impact of compositional effects in pushing average weekly earnings up was half as large over 2007–12 as it was over 2002–07 or 2012–14. This makes sense in the context of a large increase in the relative prevalence of part-time work after the recession hit – a trend which has since stabilised, and partially reversed (see Section 2.2).

Note that we obtain similar results about the relative roles of compositional and underlying changes if we compare 2013 with 2014, in order to look at earnings changes specifically over the latest year.[20] The overall conclusion that compositional effects are, on average, increasing real wages is also true in both the public and private sectors, and for both men and women.

In summary, we can rule out a story that says that the continued weakness of earnings is due to compositional effects, such as lower-paid types of people returning to work after losing jobs during the recession. Cyclical compositional effects might be playing some role, but they are being dominated by the continuation of longer-run compositional changes, such as increasing education levels, that should act to raise pay. Earnings growth remains weak because earnings growth for given types of workers remains weak.

Earnings and productivity

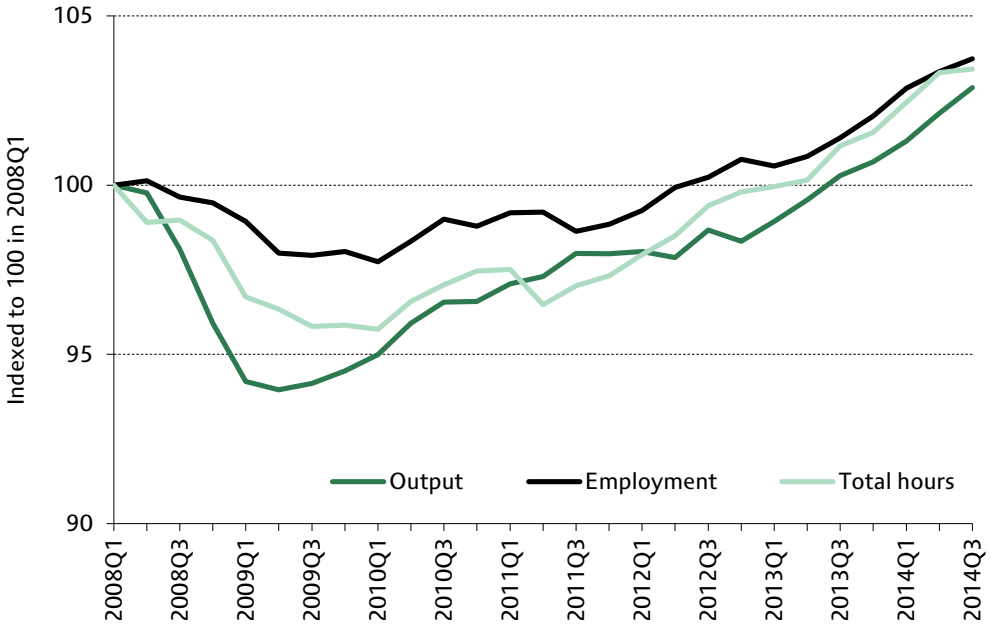
In a competitive labour market, workers' remuneration should reflect their productivity. A lack of earnings growth might therefore reflect a lack of productivity growth. The relationship may not be perfect though. Labour markets are not always perfectly competitive so, for example, employers might use their market power to hold wages lower than productivity would warrant; and there will be 'frictions' or 'rigidities' in pay-setting, which mean that remuneration does not track productivity perfectly in real time. Over a long period, however, total remuneration in the UK has tracked productivity quite closely.[21] There are other components of remuneration besides earnings though (e.g. employer pension contributions), and these might also drive a wedge between trends in earnings and productivity. We discuss this briefly towards the end of this subsection.

Weak productivity performance has been a key feature of the UK economy since the recession. It explains why output growth has been so much less robust than employment growth (or, conversely, why employment has been so surprisingly robust since the large falls in GDP). Figure 2.6 shows the paths of GDP, employment and total hours worked since 2008Q1. During the recession, output fell much faster than either employment or total hours worked. In other words, productivity fell considerably, both in terms of output per worker and output per hour, as shown in Figure 2.7. Since mid-2009, output has grown faster than either employment or total hours , but as Figure 2.7 shows, even in 2014Q3 productivity is still a little below its pre-crisis level more than six years ago. It is also striking that this 'recovery' in productivity happened between late 2009 and late 2011, with no overall productivity growth since then. This puts productivity far below the level implied by its pre-crisis trend: output per hour was growing at 2.4% per year in the

[20] Compositional effects still acted to increase rather than suppress average earnings growth between 2013 and 2014. However, as is shown in Figure 2.3, mean real earnings in the LFS rose rather than fell between 2013 and 2014.

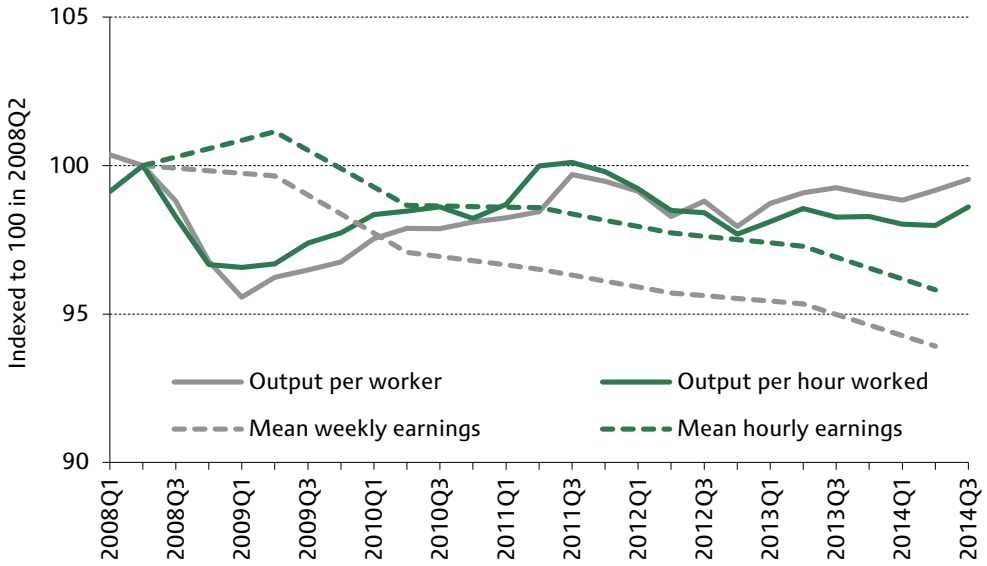
[21] J. Pessoa and J. Van Reenen, 'Decoupling of wage growth and productivity growth? Myth and reality', Centre for Economic Performance (CEP), Discussion Paper 1246, 2013, http://cep.lse.ac.uk/pubs/download/dp1246.pdf.

Figure 2.6. Changes to total output, employment and hours worked since 2008Q1



Source: Output measured by real GDP (ONS series ABMI), employment measured by total employment for those aged 16 and over (ONS series MGRZ) and total weekly hours worked measured by ONS series YBUS.

Figure 2.7. Changes to productivity and real earnings, adjusted using GDP deflator, since 2008



Note: Output per worker is real GDP divided by employment. Output per hour is real GDP divided by total hours worked. Earnings measured in April of each year (so the change is shown relative to 2008Q2 rather than 2008Q1). ASHE results adjusted for methodological changes in 2011. Mean earnings are adjusted for inflation using the GDP deflator.
Source: Output measured by real GDP (ONS series ABMI), employment measured by total employment for those aged 16 and over (ONS series MGRZ), total weekly hours worked measured by ONS series YBUS, and earnings measured in the Annual Survey of Hours and Earnings.

decade prior to 2008.[22] Much of the 'puzzle' about the weakness of earnings is therefore really a puzzle about productivity.[23]

If anything, though, productivity has performed slightly less badly than workers' earnings. The most direct comparison to make is between trends in output per hour and trends in real hourly pay deflated using the GDP deflator. The GDP deflator is the most appropriate when making comparisons with productivity because it accounts for the prices of all domestically-produced output (e.g. including exports, which are excluded from consumer price indices) and does not account for changes in the price of output produced abroad (unlike household inflation indices, which include imports).

Figure 2.7 shows that, on this basis, output per hour in 2014Q2 was about 2.0% below its 2008Q2 level, whereas real hourly pay in April 2014 was more than 4% lower than in April 2008.[24] A comparison between trends in real weekly earnings and output per worker similarly suggests that the earnings measure has performed worse than the productivity measure.

It is worth noting that the discrepancy between productivity and real earnings trends probably feels somewhat larger from the point of view of the workers themselves. This is because the real value of wages to workers has been reduced by factors that do not affect the real cost to firms of employing them – namely, rising import prices and the rise in the main rate of VAT in January 2011. An easy way to see this is to compare the real earnings falls shown in Figure 2.7 with the figures obtained when using a household inflation index that accounts for these factors (rather than the GDP deflator). Between April 2008 and April 2014, mean real hourly earnings fell by 4.2% according to the GDP deflator but by 5.6% according to the RPIJ (and by a much larger 8.5% according to the CPI, but this does not account for large falls in mortgage interest costs).

If one additionally accounts for reductions in the generosity of employer pension promises (which are effectively deferred pay), total remuneration has fallen by even more since the start of the crisis – in absolute terms and relative to productivity.[25] For example, for employees aged 20–59 in the LFS, mean weekly earnings fell by 3.5% from 2007 to 2012. However, using the calculations of the value of workplace pensions in Cribb and Emmerson (2014), the fall in real weekly earnings including pensions was

[22] For links to IFS research on growth and productivity, see http://election2015.ifs.org.uk/growth-and-investment.

[23] For research on this 'productivity puzzle', see R. Disney, W. Jin and H. Miller, 'The productivity puzzles', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2013*, 2013, http://www.ifs.org.uk/budgets/gb2013/GB2013_Ch3.pdf and A. Barnett, S. Batten, A. Chiu, J. Franklin and M. Sebastiá-Barriel, 'The UK productivity puzzle', *Bank of England Quarterly Bulletin*, 2014 Q2, 114–28, http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q201.pdf.

[24] It is difficult to measure public sector productivity well, and there may be less reason to expect pay to track productivity in the public sector. 'Market sector' productivity (similar to private sector productivity) has performed less well than productivity for the economy as a whole (see Office for National Statistics, 'Labour productivity, Q3 2014', Statistical Bulletin, 2014, http://www.ons.gov.uk/ons/dcp171778_389391.pdf) but, as shown in Section 2.4, earnings have also fallen by more in the private sector than in the public sector. The basic story therefore seems to be the same if one looks at the private sector specifically: earnings growth has, if anything, been a little lower than productivity growth.

[25] For more details, see J. Cribb and C. Emmerson, 'Workplace pensions and remuneration in the public and private sectors in the UK', IFS Briefing Note BN151, 2014, http://www.ifs.org.uk/publications/7396. There are three main reasons for pay growth including pensions to be lower than headline pay. First, at least until the recent introduction of automatic enrolment into workplace pensions, there has been falling pension coverage in the private sector, particularly among more generous defined benefit schemes. Second, the proportion of the workforce working in the public sector has fallen, and public sector workers have higher pension coverage and more generous schemes than private sector workers. Finally, reforms to public sector pensions by the Labour and coalition governments have reduced the value of public sector pensions.

7.8% over the same period. Changes to employer pension provision are partly a response to the fact that past pension promises turned out to be more generous and more expensive than intended, so it would not be surprising if cutbacks in that generosity bore little or no relation to current changes in productivity (in addition, the new promises may well turn out to be more or less generous than currently intended, depending on factors such as longevity and asset returns). Changes to pension provision certainly have important additional consequences (e.g. for the distribution of resources between generations), but we continue to focus just on workers' current pay for the remainder of this chapter.

In summary, productivity is key to understanding both of the standout features of the labour market since the recession: robust employment and weak earnings growth. Workers' pay does seem to have fallen by even more than productivity over the past few years, but the major puzzle is over why productivity has fallen so much, rather than over the relationship between productivity and pay.

2.4 Earnings for different groups

This section looks at how earnings have changed across the population and highlights some of the key ways in which this has varied across groups. As in Section 2.3, our analysis is mainly restricted to the earnings of employees, although we discuss the earnings of the self-employed at the end of the section.

Figure 2.8a shows changes in real weekly earnings since 2008 at different points of the earnings distribution (using the Annual Survey of Hours and Earnings, referring to earnings in April of each year). Overall, ASHE suggests that real earnings are 6–7% lower in 2014 than in 2008 with little difference across earnings groups. However, the timing of these falls has varied, with earnings inequality rising and then contracting again. Between 2009 and 2011, when real weekly earnings were declining sharply, proportionate falls were larger towards the bottom of the earnings distribution: 9.7% at the 10th percentile, 7.1% at the median and 6.6% at the 90th percentile. Between 2011 and 2014, the opposite pattern applied: real earnings stopped falling at the 10th percentile (rising by 0.4%) but fell by 2.4% at the median and 4.4% at the 90th percentile.[26] The net result is that weekly earnings inequality was actually slightly lower in 2014 than in 2008 (driven by the trend since 2011).

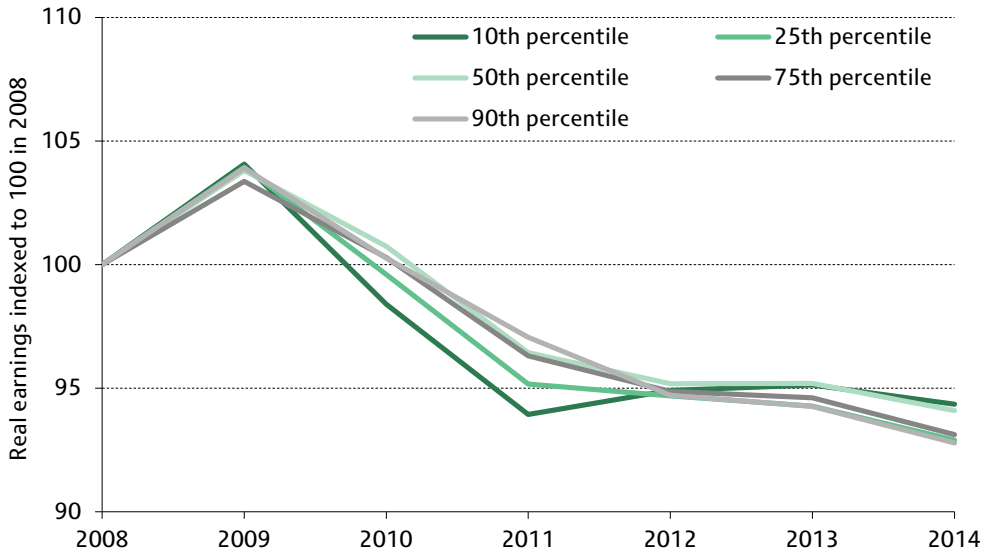
Figure 2.8b shows that the story for hourly pay is similar, though not identical. Because much of the rise in weekly earnings inequality between 2009 and 2011 was due to a rise in part-time work, inequality in real hourly pay stayed roughly constant over that period. As with weekly earnings, inequality in real hourly wages then fell between 2011 and 2014. Taking the period between 2008 and 2014 as a whole, real hourly wages fell by

[26] It is important to appreciate that labour market trends are not the same as trends in living standards. Indeed, inequality in net household income fell rapidly between 2008 and 2011, and is likely to be rising now (though we have no household income data beyond 2012–13): the opposite of the trends in weekly earnings inequality described above. The main explanations for the difference relate to the fact that earnings account for a higher share of the overall income of high-earning households than of low-earning households. State benefits and tax credits were broadly price-indexed between 2008 and 2011 (i.e. unlike earnings, they were kept broadly constant in real terms), and this did far more to cushion the living standards of low earners (and non-workers) than of high earners, on average. Since then, large cuts to the working-age social security budget have been implemented and this will affect low earners (and non-workers) more than high earners. For more details, see C. Belfield, J. Cribb, A. Hood and R. Joyce, *Living Standards, Poverty and Inequality in the UK: 2014*, IFS Report R96, 2014, http://www.ifs.org.uk/publications/7274 and J. Browne, A. Hood and R. Joyce, 'Household incomes set to start growing again, but slowly and unequally', IFS Observation, 2014, http://www.ifs.org.uk/publications/7454.

3.3% at the 10th percentile and by 6.4% at the 90th percentile. The conclusion that pay has fallen by more at the top of the distribution than at the bottom is therefore stronger in the case of hourly pay.[27]

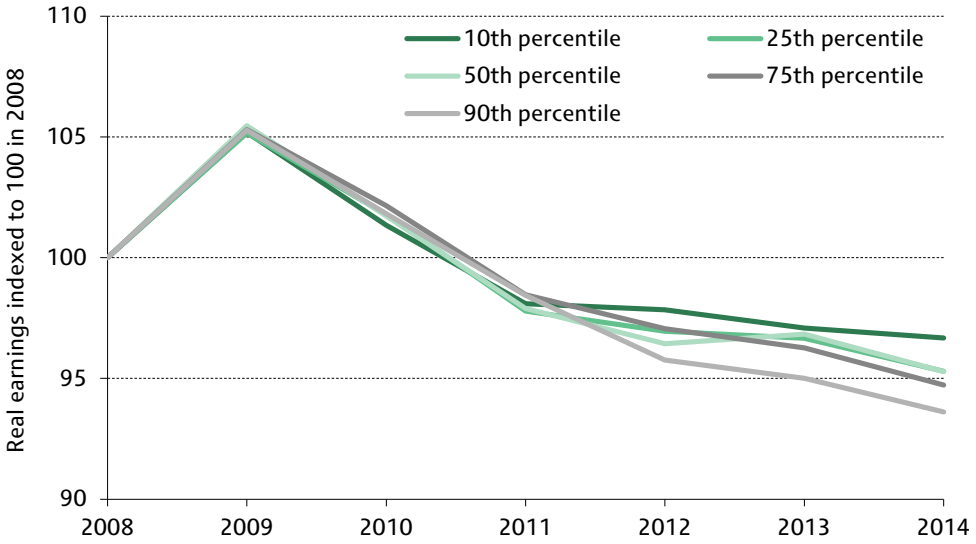
Figure 2.9 shows the path of real weekly earnings in the private and public sectors (where the public sector excludes financial corporations). We use AWE data for this because they remove the effects of the reclassification of financial corporations such as RBS and Lloyds Banking Group from the private to the public sector, which would

Figure 2.8a. Changes to real weekly earnings since 2008, by percentile point



Note: Results adjusted for methodological changes in 2011. Earnings observed in April of each year.
Source: Authors' calculations using Annual Survey of Hours and Earnings.

Figure 2.8b. Changes to real hourly wages since 2008, by percentile point

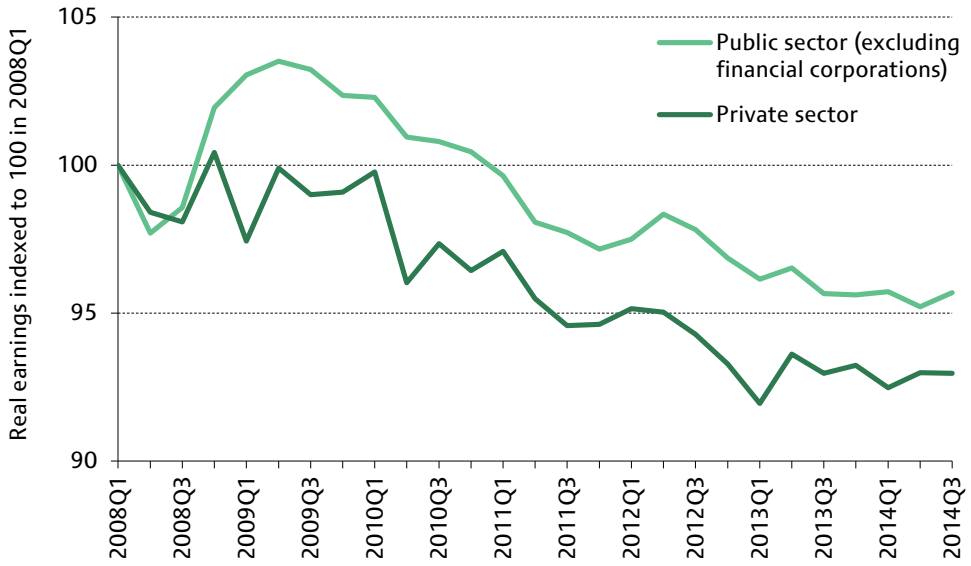


Note: Results adjusted for methodological changes in 2011. Earnings observed in April of each year.
Source: Authors' calculations using Annual Survey of Hours and Earnings.

[27] Changes in weekly and hourly earnings inequality among male employees are very similar to the overall patterns shown in Figures 2.8a and 2.8b. For females, however, the changes in earnings inequality are less clear.

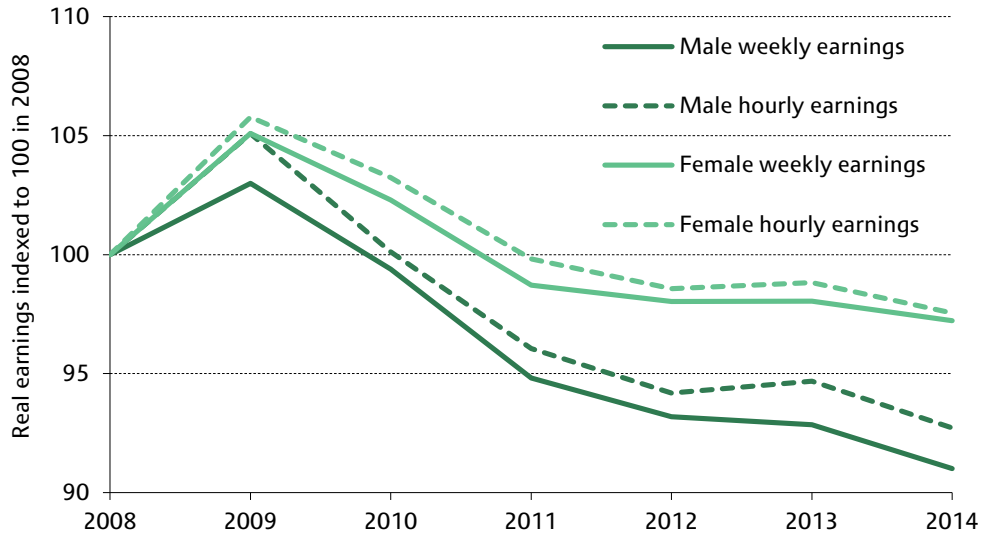
otherwise distort the results.[28] With negative inflation on the RPIJ measure, public sector earnings rose markedly in real terms in late 2008, but in the private sector the impacts of recession were already evident and there was no such real growth. Since late 2009, mean earnings in the private and public sectors have fallen by similar amounts overall (policies to restrain public sector pay began in 2011). Mean private sector weekly earnings in

Figure 2.9. Change in real average weekly earnings since 2008Q1, by sector



Source: Average weekly earnings, ONS series K54V and K54Z.

Figure 2.10. Changes to real median weekly and hourly wages since 2008, by sex



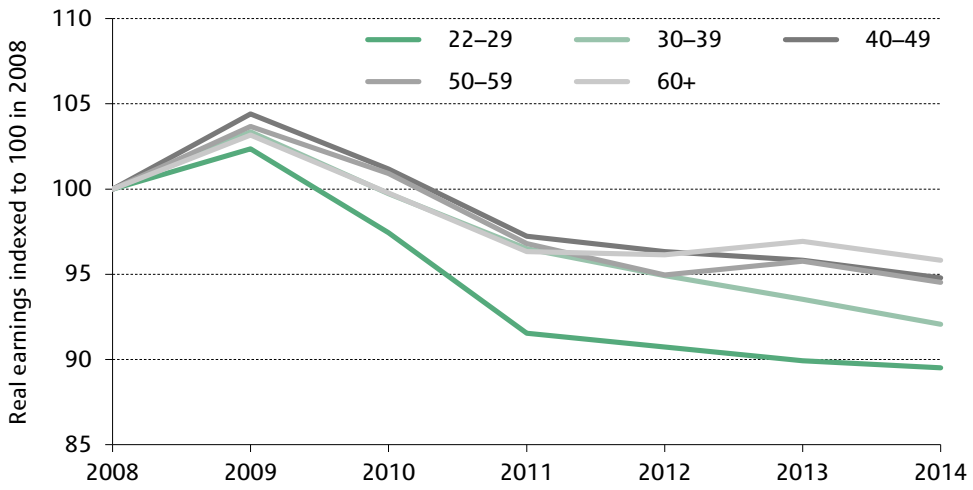
Note: ASHE results adjusted for methodological changes in 2011. Earnings observed in April of each year.
Source: Authors' calculations using Annual Survey of Hours and Earnings.

[28] The ASHE and LFS data do not allow us to strip out the effects of these reclassifications robustly.

2014Q3 were 7.0% below their 2008Q1 level, while public sector earnings were 4.3% below their 2008Q1 level. Continuing pay restraint in the public sector combined with a forecast recovery in private sector pay, however, are likely to unwind this differential between public and private sector earnings changes since the crisis. For a detailed analysis of the evolution of the public–private sector pay differential, see Cribb, Emmerson and Sibieta (2014).[29]

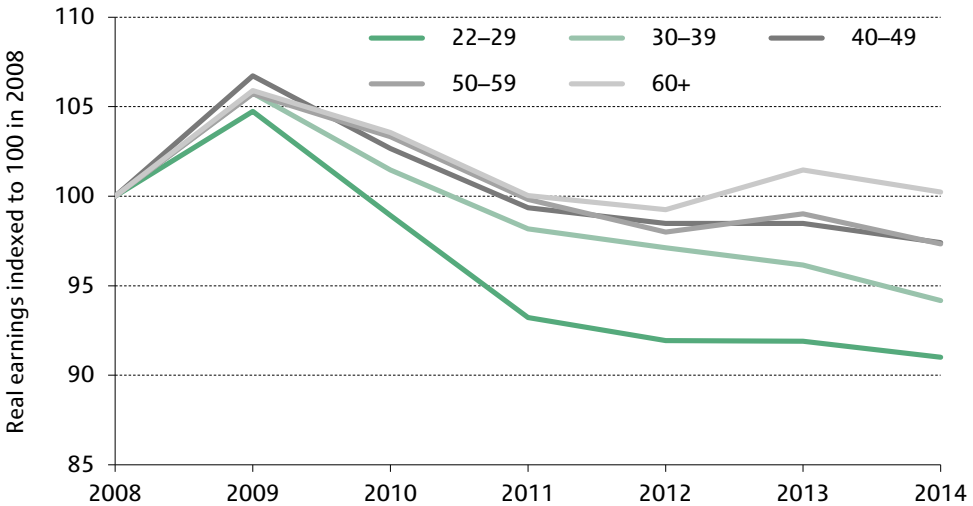
In Section 2.2, we showed that the employment trends of women since the recession have been more favourable than men's. Figure 2.10 shows that women have also seen

Figure 2.11a. Changes to real median weekly earnings since 2008, by age group



Note: ASHE results adjusted for methodological changes in 2011. Earnings observed in April of each year.
Source: Authors' calculations using Annual Survey of Hours and Earnings.

Figure 2.11b. Changes to real median hourly wages since 2008, by age group



Note: ASHE results adjusted for methodological changes in 2011. Earnings observed in April of each year.
Source: Authors' calculations using Annual Survey of Hours and Earnings.

[29] J. Cribb, C. Emmerson and L. Sibieta, *Public Sector Pay in the UK*, IFS Report R97, 2014, http://www.ifs.org.uk/publications/7395.

considerably smaller falls in median earnings than men. Between 2008 and 2014, real median weekly earnings fell by 9.0% for men and by 2.8% for women; for hourly wages, the falls were 7.3% and 2.5% respectively. One (partial) explanation for these trends is that women are disproportionately likely to work in the public sector: according to the LFS, in 2014 women are almost 18 percentage points more likely to work in the public sector than are men. As we saw above, real earnings have fallen less in the public sector than in the private sector since the crisis.

Figure 2.11a shows changes in median weekly earnings by age. The period of rapidly falling earnings, between 2009 and 2011, hit young workers harder than others: median earnings of those aged 22–29 fell by 10.6%, compared with falls of just under 7% at older ages. Since then, trends by age have been more uniform, with further falls in real earnings for all age groups shown, but less rapid falls than before. Since 2011, those in their 30s have seen the largest earnings falls and those aged 60 and above the smallest. The net result is that, between 2008 and 2014, there is a clear pattern across the age spectrum, with larger falls in earnings at younger ages.[30] As shown in Figure 2.11b, the pattern across age groups is even more pronounced when looking at hourly wages, with real hourly pay having returned to its pre-crisis level for employees aged 60 and over, but still 9% lower for employees aged 22–29. This suggests that the hours worked by older employees have tended to fall relative to the hours worked by young employees.

Earnings growth for employees in the same job for at least a year

Recently, some attention has been given to figures on earnings growth for those who have been in continuous employment in the same job for at least a year. It has been highlighted that earnings changes look less weak when focusing on this group.[31] Figure 2.12 reproduces ASHE data recently published by the ONS. It shows, for full-time workers only, the nominal year-on-year change in overall median earnings in each year; it also shows the nominal change in median earnings for the group of workers who were in the data in both the applicable year and the previous one (this is not a trivial restriction – see below) and who have been in the same job continuously in the interim. We also show the rate of RPIJ inflation alongside these.

Year-on-year increases in pay are larger if one focuses on those in continuous employment in the same job for the past year than if one compares the whole population of employees one year with the whole population of employees in the previous year (which is the normal practice). This is not unusual – it was true before the crisis and has been true throughout the period shown. There is also little sign that the magnitude of the difference between these two measures of earnings growth has changed since the crisis (i.e. the 'continuous employment' and 'all employees' lines in the figure are approximately parallel) – though the gap was larger in 2014 than in 2013, a matter that is discussed further below. Figure 2.13 shows that the same story applies when we look at *all* employees in continuous employment in the same job, rather than just those in full-time work upon which the published ONS figures are based (this figure extends only to 2013,

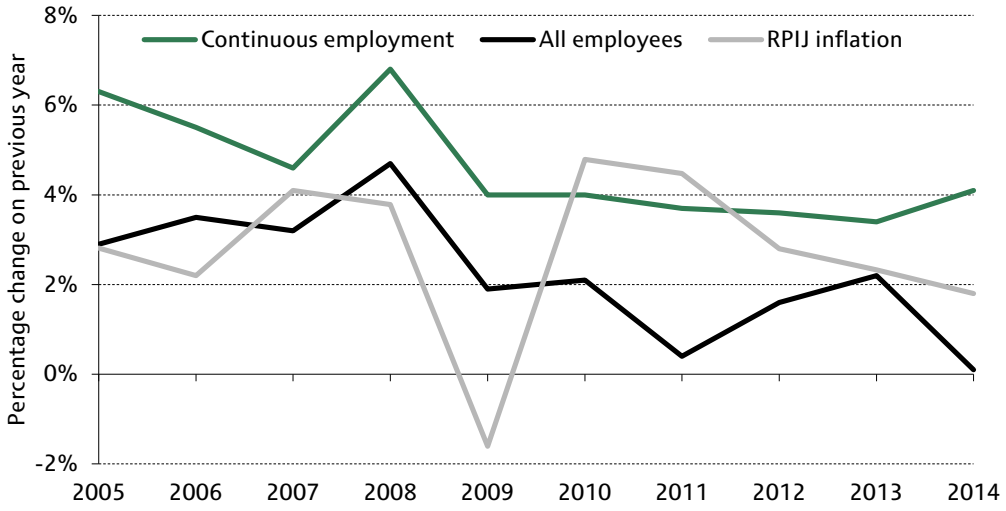
[30] Weekly earnings have fallen even more for those aged 18–21 than for those aged 22–29, but the interpretation of this is hampered by large increases in education participation, which mean that the kinds of people in work at these young ages have potentially been changing substantially. We therefore focus here on ages from 22 upwards.

[31] These figures were cited in Budget 2014 (see page 12 of https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/293759/37630_Budget_2014_Web_Accessible.pdf) and in Autumn Statement 2014 (see page 15 of https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/382327/44695_Accessible.pdf).

because calculating it requires access to the full ASHE data set and this is not available for 2014 at the time of writing).

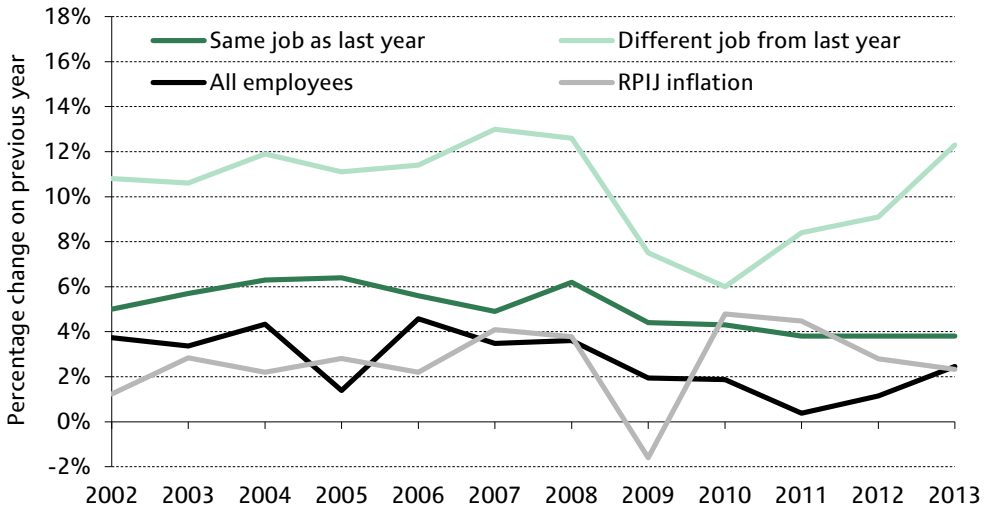
One key reason for earnings changes looking less weak for those in continuous employment is that this measure is picking up pay progression with age (or job tenure). It is following the evolution of earnings for a fixed group of individuals from one year to the next, so the entire sample ages by one year over the period being assessed: it is not, for

Figure 2.12. Nominal growth in median weekly earnings for full-time employees in continuous employment in the same job (ONS analysis)



Note: RPIJ inflation is measured in April of each year using ONS series KVR8.
Source: Figure 2 of Office for National Statistics, 'Annual Survey of Hours and Earnings, 2014 provisional results', 2014, http://www.ons.gov.uk/ons/dcp171778_385428.pdf.

Figure 2.13. Nominal growth in median weekly earnings for all employees in the same job as last year and for those who have changed jobs since last year



Note: Growth in median wages is calculated between April of the labelled year and April of the year before. Changing job can be changing job within a firm or by moving to a job in another firm. Earnings growth only calculated for those who are observed in both the labelled year and the previous year, and individuals whose pay is affected by absence or who are not on adult rates of pay are excluded, in keeping with the ONS's methodology. Analysis is restricted to main jobs, thus excluding secondary jobs.
Source: Authors' calculations using Annual Survey of Hours and Earnings, various years.

example, 'refreshed' by replacing a cohort of retirees with a cohort of new labour market entrants. Effectively, it builds in, by construction, an important compositional effect: that induced by comparing the earnings of a group with the earnings of a group who are one year older (and one year more experienced in their current job). Given that, on average, earnings increase with age and/or experience, this effect will act to overstate economy-wide earnings growth.

A second likely reason for the difference between the two measures of earnings growth is that individuals in continuous employment are a select group of people. For example, they are almost certainly more highly educated on average than those experiencing spells of non-employment. Previous research has shown that more highly educated individuals are likely to see higher earnings growth as they age.[32]

These effects seem to dominate an offsetting factor: as Figure 2.13 shows, employees who switch jobs tend to see particularly high pay rises upon doing so, and those people are excluded from the measure that looks only at those staying in the same job.

The effects of pay progression as people move through their working lives are, of course, interesting (as long as they are distinguished appropriately from other factors affecting pay levels). A common misconception is that falls in economy-wide earnings necessarily imply falls in earnings for particular individuals over time. This is not the case. To take a simple example, imagine a recession that reduces average earnings and hits all age groups equally hard. This means that, at any age, earnings are lower after the recession than they were for people of that age before the recession. For people at a stage in working life when they would typically be moving up pay scales, this could simply mean that they are now experiencing *smaller rises* in pay than their predecessors did at the same age, and hence falling behind the pay levels that their predecessors had reached. This point can be made rather more clearly by following cohorts of people born in particular years as they age. Previous analysis by IFS researchers has shown that the recession hit earnings through a combination of smaller-than-normal rises in pay with age, some actual falls in pay with age for particular cohorts, and new labour market entrants starting on lower pay than previous ones.[33]

The published ONS analysis reproduced in Figure 2.12 does suggest that real growth in median earnings among full-time employees in continuous employment increased significantly between 2013 and 2014, from 1.1% to 2.3%. In fact, real growth of 2.3% is not far from the typical growth seen using the same measure before 2010 (though still lower than in four of the five years before 2010).

It is also noteworthy that this stands in contrast to the story that ASHE tells for overall real median earnings (for full-time employees), which *fell* by 1.7% in 2014 having fallen by just 0.1% in 2013. It is possible that this reflects some compositional changes to the workforce captured by ASHE. The continuous-employment measure, by following a fixed group of individuals in fixed jobs, purges the data of certain compositional effects – in particular, it precludes any shifts in the prevalence of individual or job characteristics that are fixed over time, such as sex, region or industry. However, there are other possible explanations for the difference too, and our analysis of the LFS in the previous section

[32] C. Belfield, J. Cribb, A. Hood and R. Joyce, *Living Standards, Poverty and Inequality in the UK: 2014*, IFS Report R96, 2014, http://www.ifs.org.uk/publications/7274.

[33] C. Belfield, J. Cribb, A. Hood and R. Joyce, *Living Standards, Poverty and Inequality in the UK: 2014*, IFS Report R96, 2014, http://www.ifs.org.uk/publications/7274. See in particular figure 5.10.

Table 2.5. Individuals in continuous and non-continuous employment (ASHE)

	Same job, observed last year in ASHE	Same job, not observed last year in ASHE	Not same job, observed last year in ASHE	Not same job, not observed last year in ASHE
	Panel A: Proportion of employees in each group			
2008	69.3%	9.8%	6.4%	14.5%
2010	72.2%	13.1%	4.1%	10.6%
2013	69.9%	14.1%	5.7%	10.2%
	Panel B: Real median weekly earnings in each group (£ per week)			
2008	500.15	442.15	440.18	329.05
2010	502.17	421.22	419.30	312.47
2013	470.22	406.94	409.71	292.02

Note: Earnings expressed in April 2014 prices, deflated using RPIJ. Individuals whose pay is affected by absence or who are not on adult rates of pay are excluded, in keeping with the ONS's methodology. Analysis is restricted to main jobs, thus excluding secondary jobs.
Source: Authors' calculations using Annual Survey of Hours and Earnings, various years.

suggested that compositional changes are actually continuing to push wages *up*, not down. Without access to the underlying ASHE data set for 2014, or published analysis of compositional effects in ASHE of the kind that we produced in Section 2.3 using the LFS, it is difficult to know what to conclude about the 2014 figures shown in Figure 2.12. Note also that the gap between the continuous-employment and overall earnings growth measures widened by a similar amount in 2011, only to close again the following year.

Finally, it is wise to treat these figures with some caution because of issues that ASHE appears to have in reliably following workers over time. Table 2.5 splits the ASHE sample into four groups.[34] The first accounts for about 70% of the sample and is the group from which the statistics discussed previously are drawn: those in the same job for the last year whose earnings are recorded both this year and last. However, a further 14% (in 2013) appear to have been in the same job for the last year but do not appear in the ASHE data last year, so the change in their earnings is unknown. In other words, about one-sixth of those in the same job for the past year have to be excluded from any analysis of earnings changes for this group. This excluded group is far from random: their median earnings are 13% lower (in 2013) than those of people staying in the same job who are observed in both years. Their earnings growth may well be different too.

In summary, much of the fall in real average earnings since the crisis is driven not by individuals seeing falls in pay as they age, but by them seeing *smaller increases* – and hence falling behind the real earnings levels of similarly experienced individuals before the crisis. Measures of earnings growth for those in continuous employment serve as a useful reminder, then, that workers may still be seeing real pay increases as their careers progress even if economy-wide earnings levels are falling. Because pay tends to increase with age, and because those in continuous employment are a select group, the fact that earnings changes look more favourable when looked at in this way is neither surprising nor new – and there is little evidence that the degree to which this measure looks more favourable has changed since the crisis. We have also provided some practical reasons to

[34] Since ASHE micro-data for 2014 are not yet available to researchers, we are only able to produce this analysis up to 2013.

be cautious about the precise figures, given the features of the ASHE data from which they are derived.

Earnings for the self-employed

As was shown in Table 2.1, about 15% of workers are now self-employed (up from 13% in 2007), but so far this chapter has examined employment income only for employees. The employment income of self-employed workers is genuinely more difficult to measure in a timely and accurate way,[35] and it is not captured in any of ASHE, AWE or the LFS.

However, we can shed some light on the earnings of the self-employed using data from the Households Below Average Income (HBAI) series, which is based on the Family Resources Survey (FRS). Because of the lagged nature of the recording of self-employment income in these data, they could not sensibly be used to look at short-run changes in self-employment incomes.[36] But we can assess the distribution of self-employment income and how this generally compares with the distribution of employee earnings, as in Figure 2.14.

Average reported self-employment incomes are lower than average employee earnings. HBAI records weekly self-employed earnings in 2010–11 to 2012–13 of £438 at the mean and £248 at the median, compared with £519 and £407 respectively for employee earnings (in April 2014 prices).

Figure 2.14. Distribution of reported weekly employment income among employees and the self-employed, 2010–11 to 2012–13

Note: Employee earnings and self-employment income expressed in April 2014 prices, deflated by RPIJ.
Source: Authors' calculations using Households Below Average Income data, 2010–11 to 2012–13.

[35] For more details on these difficulties, see Sir Andrew Dilnot's letter to Rachel Reeves MP and Chuka Umunna MP regarding measuring the earnings of self-employed people (http://www.statisticsauthority.gov.uk/reports---correspondence/correspondence/letter-from-sir-andrew-dilnot-to-rachel-reeves-mp-and-chuka-umunna-mp-04092014.pdf).

[36] Self-employed individuals report their profits over the last accounting period available, so the amounts reported can often refer to periods at least a year or two before the date of interview. The amounts are then uprated to the date of interview in line with growth in the average earnings of employees (the AWE index).

The distribution is also a very different shape for the self-employed, with more dispersion. More than 40% of self-employed people, but less than 20% of employees, reported earnings of less than £200 per week in 2010–11 to 2012–13. However, 9.3% of the self-employed earned over £1,000 per week, which is actually slightly higher than the 8.5% figure for employees. Overall, then, the self-employed have lower average earnings because they are more likely to have low earnings (rather than because they are less likely to have high earnings).

In summary, reported self-employment earnings tend to be both lower and more unequally distributed than employee earnings. The increase in self-employment may therefore be having significant consequences for the distribution of labour income.

Some caveats are worth bearing in mind, however. First, self-employment income will tend to be more volatile from year to year, so at least some of the greater inequality in annual self-employment income is likely to reflect transitory volatility across years rather than persistent or permanent differences between individuals.

Second, there is a substantial amount of evidence that self-employed individuals under-report their income to tax authorities on average,[37] and some evidence – based on how much they say they spend – that they also under-report their incomes to household surveys of the kind analysed here.[38] (Note that variation in reporting accuracy across self-employed individuals could also contribute to the greater inequality in reported self-employment incomes.)

Third, the rise in self-employment since the recession may be being driven by individuals who are different from individuals who were self-employed previously. Therefore, compositional changes in the self-employed population may be driving changes in the distribution of self-employment earnings. This is one potential explanation for a finding from the OBR's analysis of HMRC data, which showed that, among those subject to income tax, a higher proportion of the self-employed declared relatively low incomes in 2011–12 than in 2007–08.[39] (There is not currently more recent tax data available.)

2.5 Prospects for earnings

The latest AWE data for September–November 2014 show mean weekly earnings rising by 1.7% in nominal terms on the same months a year earlier, and by 2.1% in the private sector specifically. This compares with inflation of 1.6% as measured by the RPIJ and 1.2% as measured by the CPI in September–November 2014. This suggests that modest real earnings growth is returning to the private sector, although overall average real earnings remain relatively constant due to lower nominal growth in the public sector.

Table 2.6 sets out the OBR's forecasts for growth in nominal mean earnings and in the CPI (the OBR does not forecast RPIJ inflation), as of the Autumn Statement in December 2014. It also compares these with previous vintages of the same forecasts. The numbers

[37] For a survey, see J. Slemrod, 'Cheating ourselves: the economics of tax evasion', *Journal of Economic Perspectives*, 2007, 21(1), 25–48.

[38] E. Hurst, G. Li and B. Pugsley, 'Are household surveys like tax forms: evidence from income underreporting of the self employed', National Bureau of Economic Research (NBER), Working Paper 16527, 2010, http://www.nber.org/papers/w16527; C. Pissarides and G. Weber, 'An expenditure-based estimate of Britain's black economy', *Journal of Public Economics*, 1989, 39, 17–32.

[39] Page 40 of Office for Budget Responsibility, *Welfare Trends Report*, 2014, http://budgetresponsibility.org.uk/wordpress/docs/Welfare_trends_report_2014_dn2B.pdf.

highlight that the recent fall in inflation will probably be important in boosting real wages in the short run: the OBR is expecting little change in the rate of nominal earnings growth between 2013–14 and 2015–16 but much lower inflation, and hence (finally) some significant real earnings growth, in 2014–15 and 2015–16. (Note also that figures on inflation released since the Autumn Statement have shown it continuing to fall quickly.) The current forecast suggests that we will return to real earnings growth of around 2% from 2017–18. However, the table also highlights that these forecasts have changed significantly over time. The situation remains highly uncertain and the forecasts will no doubt change again.

One of the key areas of contention is over the extent to which different possible indicators of labour market 'tightness' or 'slack' are really good measures of wage pressures. It is uncontroversial to say that we would expect firms to be under more pressure to raise pay when it is harder for them to attract and/or retain a worker at a given wage to perform a particular role (i.e. when the labour market is 'tighter'). But it is not clear which observed metrics best capture the degree of this tightness. In its November 2014 Inflation Report, the Bank of England highlighted 'considerable uncertainty around both the current degree of slack and its likely evolution'.[40]

The level of unemployment – and hence the size of the pool of 'available' workers – is one obvious and traditional metric of labour market tightness. The very large real wage falls during and shortly after the recession might have led one to believe that real wages have actually become increasingly sensitive to unemployment levels.[41] But as Figure 2.15 shows, continued weak or non-existent real wage growth recently has coincided with a

Table 2.6. OBR forecasts of growth in nominal earnings and prices (CPI) at Autumn Statements 2011–14

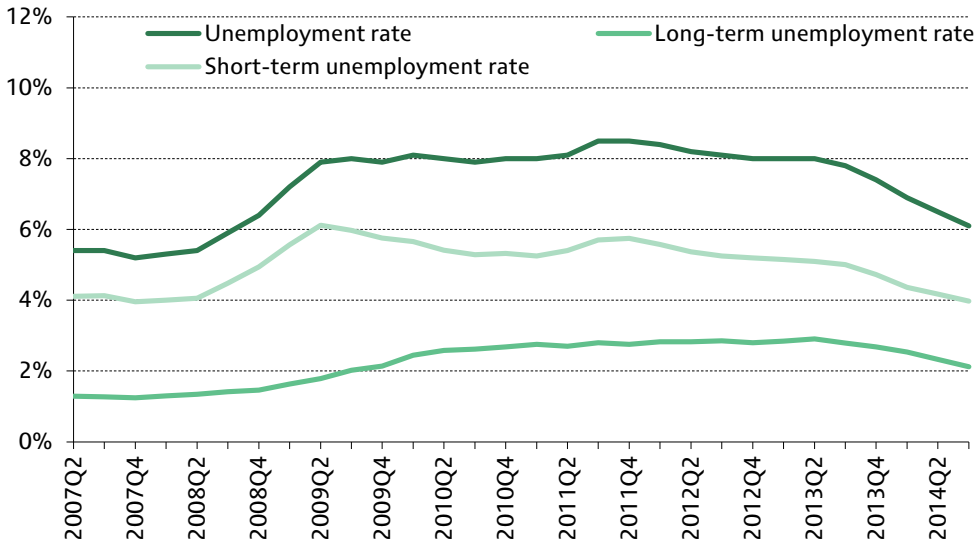
	AS 2011		*AS 2012*		*AS 2013*		*AS 2014*	
	Earnings (%)	**CPI (%)**	**Earnings (%)**	**CPI (%)**	**Earnings (%)**	**CPI (%)**	**Earnings (%)**	**CPI (%)**
2010–11	**0.6**	**3.1**						
2011–12	1.7	5.2	**2.6**	**5.2**				
2012–13	2.1	2.5	2.6	2.2	**1.1**	**2.2**		
2013–14	3.5	2.1	2.2	2.6	2.4	2.7	**1.7**	**2.7**
2014–15	4.4	2.0	3.0	2.2	2.5	2.2	1.8	1.2
2015–16	4.5	2.0	3.9	2.0	3.4	2.1	2.1	1.2
2016–17	4.5	2.0	4.0	2.0	3.6	2.0	3.3	1.8
2017–18			4.0	2.0	3.7	2.0	4.0	2.0
2018–19					3.7	2.0	3.9	2.0
2019–20							3.8	2.0

Note: CPI inflation is the forecast for the September of the given financial year. Out-turn data are shown in bold.
Source: Table 4.1 in the Office for Budget Responsibility's Economic and Fiscal Outlook (November 2011, December 2012, December 2013 and December 2014).

[40] Page 33 of Bank of England, *Inflation Report: November 2014*, 2014, http://www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14nov.pdf.

[41] This was argued in P. Gregg, S. Machin and M. Fernandez-Salgado, 'Real wages and unemployment in the Big Squeeze', *Economic Journal*, 2014, 124, 408–32, using both national-level unemployment and earnings data and variation in unemployment and earnings across regions.

Figure 2.15. Unemployment rate (16- to 64-year-olds)



Note: Long-term unemployment rate is defined as the proportion of the labour force that has been unemployed for over 12 months. Short-term unemployment is the proportion of the labour force that has been unemployed for up to 12 months.
Source: Authors' calculations using ONS series LF2Q and LF36.

fall in the unemployment rate of 2 percentage points over the two years to 2014Q3[42] (and the Bank of England expects it to have fallen to 5.75% by the end of 2014 – only just above its estimate of the medium-term equilibrium unemployment rate of 5.5%).[43]

The apparent lack of a wage response so far is particularly striking given that short-term unemployment – which may be a better measure of tightness or slack, as the short-term unemployed are probably more substitutable for existing workers than the long-term unemployed are – has fallen particularly rapidly. And unemployment measures are by no means telling a different story from all other possible measures of slack. The Bank of England shows that the number of job-to-job moves has also risen markedly since 2012 and is now close to its pre-crisis level.[44] This might indicate that firms are facing increasing competition from potential recruiters of their staff (which, for many firms, is arguably a more relevant metric of wage pressures than the size of the pool of unemployed workers).

One uncertainty is over the relevance of 'under-employment' for thinking about labour market slack. Bell and Blanchflower (2014) argue that the weakness of earnings is far less surprising than simple unemployment trends suggest, given the rise in measures of under-employment (see Section 2.2).[45] On the other hand, Martin Weale, who currently sits on the Bank's Monetary Policy Committee, has cautioned that under-employment

[42] The very latest data (for September–November 2014) show an unemployment rate for 16- to 64-year-olds of 6.0%, 0.1 percentage point lower than in 2014Q3 (July–September).

[43] Pages 26 and 32 of Bank of England, *Inflation Report: November 2014*, 2014, http://www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14nov.pdf. The Bank of England's estimate of the long-term equilibrium unemployment rate is around 5%.

[44] Chart 3.6 of Bank of England, *Inflation Report: November 2014*, 2014, http://www.bankofengland.co.uk/publications/Documents/inflationreport/2014/ir14nov.pdf.

[45] D.N.F. Bell and D.G. Blanchflower, 'Commentary: labour market slack in the UK', *National Institute Economic Review*, 2014, 229, http://ner.sagepub.com/content/229/1/F4.short?rss=1&ssource=mfr.

may not be a good indicator of labour market slack, as the desire to work more may itself be caused by the state of the economy (e.g. the job loss of a partner).[46]

We can be somewhat more confident about a couple of points. First, it is likely that earnings will grow faster in the private sector than in the public sector. The government has announced a 1% nominal increase in basic settlements for public sector workers in 2015–16, and the OBR forecasts public sector earnings to grow by less than earnings in the whole economy for each year from 2015–16 to the end of the forecast period in 2019–20. It is also quite conceivable that a government looking for further deep cuts to public service spending (see Chapter 7) would consider further measures to reduce public sector pay – especially if prices are lower than was expected when the last round of pay restraint was announced. Second, although the timeliest earnings data (AWE) do not tell us about earnings changes at different points of the distribution, it is likely that some employees towards the bottom of the hourly wages distribution are seeing relatively fast earnings growth. In October 2014, the minimum wage rose by 3.0% (from £6.31 to £6.50 per hour), which is well above mean earnings growth of 1.4% recorded in the October AWE data (and well above inflation).

One potential issue for the labour market in coming years is likely to be the further reductions in the size of the public sector workforce. Current OBR forecasts predict a fall in general government employment of 1 million (20%) from early 2015 to early 2020.[47] While some of this is likely to come from freezes in recruitment, it is inconceivable that this could be implemented without significant numbers of redundancies. The extent to which former public sector employees are able to find new jobs that suit the skills they have will be an important determinant of their earnings in the future.

In the longer term, it is important to emphasise that the crucial factor is likely to be labour productivity growth. Low productivity growth can explain much of the large divergence of earnings levels from their pre-crisis trend, and over long periods workers' remuneration has grown broadly in line with productivity.

2.6 Conclusion

This chapter has set out what we know about workers' earnings since the recession from the various available sources of information.

On any measure, average earnings remain well below their pre-crisis level in real terms and any growth remains weak. There has been much variation though. Women have seen lower falls in earnings than men (as well as more favourable trends in employment). Young adults saw particularly steep falls in earnings between 2009 and 2011. Real earnings have, if anything, fallen by somewhat less at lower points in the earnings distribution (driven by the trend since 2011). Private sector workers have so far experienced larger earnings falls than public sector workers, largely because of the period between the onset of recession and the beginning of the current period of public sector pay restraint in 2011. As that restraint continues, public sector earnings are likely to fall back again relative to private sector earnings.

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[46] M. Weale, 'Slack and the labour market', speech given at the Thames Valley Chamber of Commerce, 20 March 2014, http://www.bankofengland.co.uk/publications/Documents/speeches/2014/speech716.pdf.

[47] See Office for Budget Responsibility, *Economic and Fiscal Outlook: December 2014*, 2014, http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/.

Why has the return to robust real earnings growth been taking so long? It is not simply due to compositional changes in the workforce dragging down the numbers. In fact, overall, the long-running shift in the employed population towards higher-wage 'types' is continuing – for example, with increased education levels. We estimate that compositional changes have acted to *increase* average weekly earnings by 0.8% since 2012. Earnings growth remains weak because earnings growth for given types of workers remains weak. We cannot rely on the unwinding of some cyclical change to the composition of the workforce to boost average earnings growth going forwards.

On the contrary, something has been holding down pay for given types of workers. There is an important and unresolved debate about the extent to which wage pressures are building, which relates to uncertainty about the true amount of 'slack' in the labour market. For example, reductions in unemployment (and short-term unemployment in particular) and increases in the number of job-to-job moves might suggest increasing pressures on firms to raise wages to attract or retain the workers that they want; continued high levels of 'under-employment' – workers saying they want more hours than they currently work – might point in the other direction. There is reasonable disagreement over the relative importance of these factors as indicators of wage pressures.

The big picture, though, is that any 'puzzle' about why earnings have fallen so much since the recession (and why employment has been so strong) is largely a productivity puzzle. If anything, earnings growth has been even weaker than productivity growth in recent years, but in the long run a return to strong earnings growth will have to be underpinned by improvements in productivity.

3. The global economy

Adam Slater (Oxford Economics)

Summary

- The global economy is expected to grow faster in 2015 than in 2014, but with considerable variation in momentum across countries.
- World growth will pick up from 2.6% last year to 2.9% – broadly in line with the average pace of expansion over the last 20 years.
- The US is expected to lead the advanced economies in 2015, with GDP rising by 3.3%. Conditions now seem to be in place for a firmer consumer upturn in the US, with solid employment gains and signs of a firming in wage growth.
- A modest improvement is likely in the eurozone, thanks in large part to more supportive fiscal and monetary policies and an improvement in external demand. Germany is likely to grow fastest of the larger eurozone economies, with overall eurozone growth at 1.5%.
- The sharp drop in global oil prices since mid-2014 will benefit most of the advanced economies in 2015–16. But big oil producers will be losers, most prominently Russia.
- Chinese growth is set to slow further while Brazil remains stagnant. Growth will improve in India but overall emerging market growth will dip below 4%, the slowest pace since 2009.
- A key downside risk to our forecast is a widespread retreat from risk by investors, resulting in a considerable decline in asset prices. A plausible upside scenario relates to a faster improvement in wages and consumer and business confidence in the US and Europe, pushing world growth to around 4% by 2016.

3.1 Introduction

The global recovery remained patchy and lacking in momentum in 2014. World GDP rose by an estimated 2.6%, only marginally higher than in 2013. This represented the third straight year of global growth running at about 2.5%, a rate well below the roughly 3% average pace seen over the last 20 years.

Once again, world trade growth was subdued in 2014 at 3.4%. Although this was an improvement from 2012 and 2013, it was considerably below the long-term average pace of around 5% per year. Slow world trade growth remained a constraint on growth for heavily export-oriented economies and for those seeking to achieve export-led expansions in the face of weak domestic activity.

In the second half of 2014, however, the global economy received a considerable boost from a sharp and largely unexpected collapse in world oil prices. By early 2015, Brent Crude prices were over 50% lower than their peak levels of July 2014 at less than US$50 per barrel. This slump can be traced to both demand- and supply-side factors, but with a sufficient contribution of the latter to make it an overall positive development for the world economy. With Saudi Arabia now emphasising market share goals, supply is

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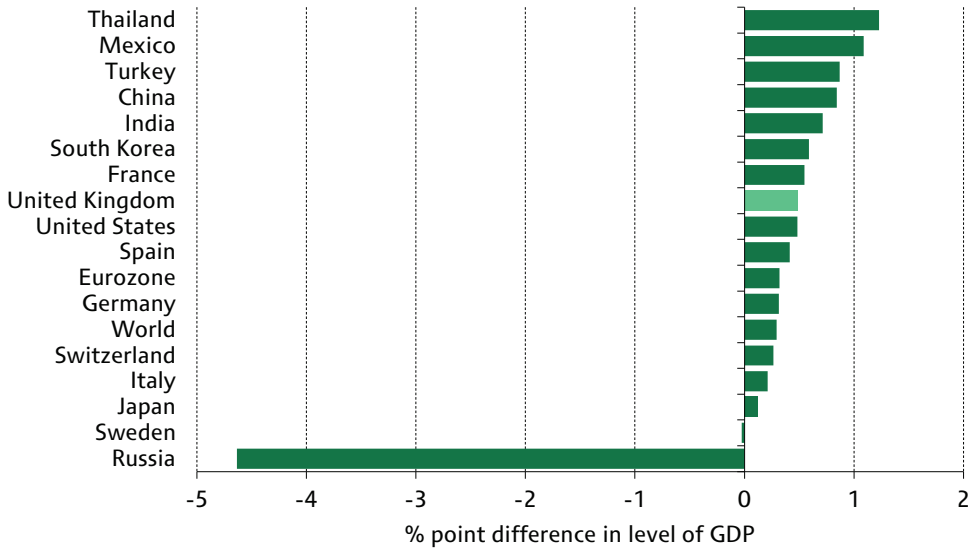
Figure 3.1. Estimated impact of lower oil prices on global GDP, 2015



Note: The figure compares GDP in 2015 under two Oxford Economics forecasts for average world oil prices in 2015: the June 2014 forecast of US$106 per barrel and the current forecast of US$55 per barrel.
Source: Oxford Economics.

unlikely to correct downwards for some time, so that oil prices are likely to remain low for several quarters. We expect oil prices to average US$55 per barrel in 2015 and US$67 per barrel in 2016.

From a UK perspective, the fall in oil prices is a clear positive. While the UK remains a significant oil producer, it has been a net importer for some time. Lower oil prices will cut business costs and boost real consumer incomes, the latter especially welcome given still-subdued wage growth. The boost to business and consumer confidence could also help increase demand for credit.

Simulations with the Oxford Global Economic Model suggest that the decline in oil prices since mid-2014 could, all else equal, add around 0.5% to UK GDP in 2015 (see Figure 3.1). The simulations also suggest considerable boosts to growth in the US and the eurozone, implying likely improvements in demand for UK goods from these key trading partners. Among the emerging markets, the picture is more diverse. Yet while Russia will be a major loser from lower oil prices, as will some countries in Latin America and Africa, the giant emerging economies of China and India should both gain.

Our forecast for the global economy is set out in Section 3.2, while Section 3.3 describes the key risks to this forecast. Section 3.4 concludes.

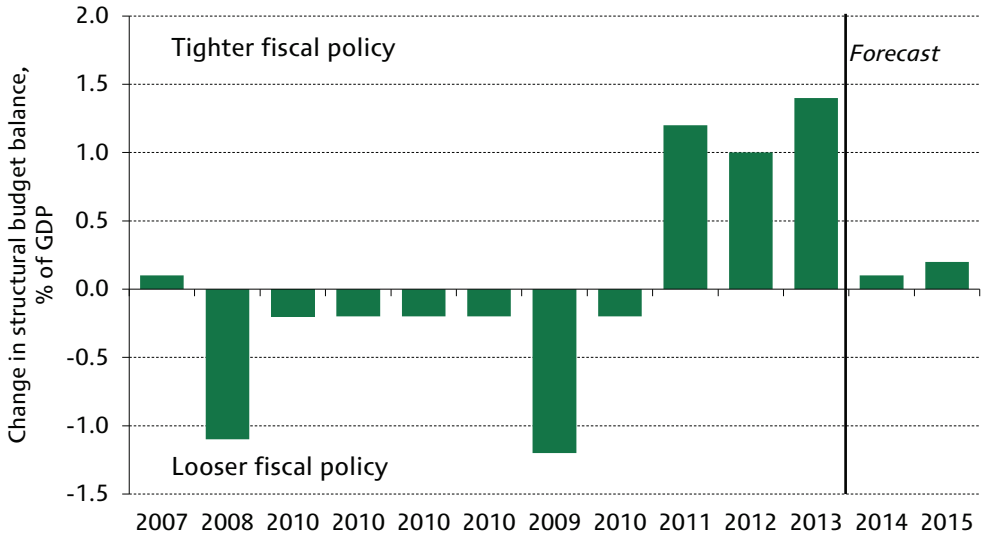
3.2 Global outlook

Eurozone

Eurozone growth remained weak in 2014, at just 0.9%. During the year, the pattern of growth shifted away from externally-focused manufacturing sectors and towards more domestic sectors. In particular, retail sales volumes picked up somewhat, rising at an almost 2% annualised pace in the six months to November.

The collapse in global oil prices should help underpin consumer spending in 2015, and there are also some signs that it may be helping business confidence, including a rise in

Figure 3.2. Eurozone fiscal stance



Source: Haver Analytics, Oxford Economics.

the expectations component of the German Ifo Business Climate Index in November and December of 2014.

Activity will also benefit in 2015 from more supportive fiscal and monetary policies. On the fiscal side, we expect fiscal policy in the eurozone to be broadly neutral in 2015 for the second year, having been restrictive in 2011–13 (see Figure 3.2).

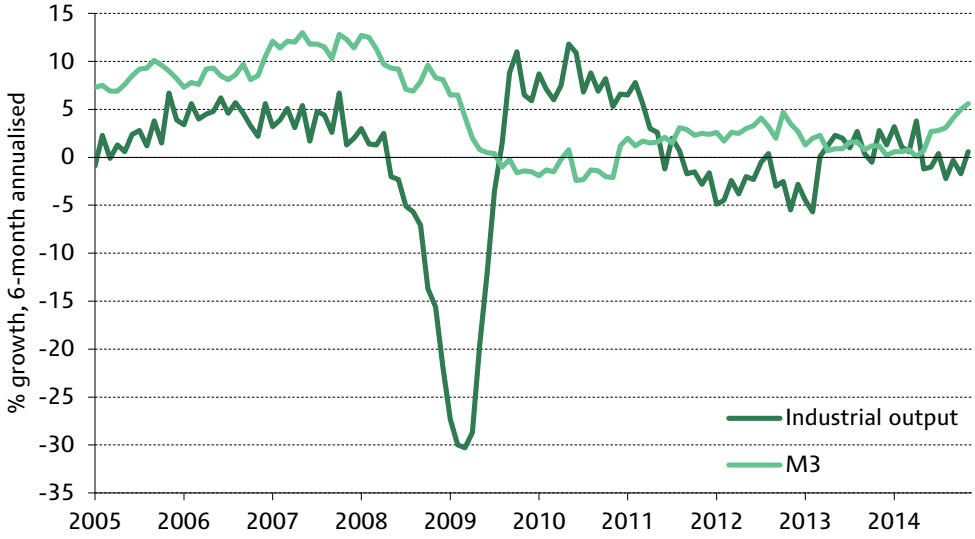
High unemployment will remain a drag on consumer spending. Unemployment edged down through 2014, and further declines will be slow. We expect the unemployment rate to remain above 11% at the end of this year and above 10% even by 2018. Nevertheless, thanks to lower energy prices and broadly neutral fiscal policy, we expect household real disposable income to rise about 2% this year and consumer spending by 1.6%.

On the monetary policy side, the European Central Bank (ECB) loosened policy in a number of steps in 2014, cutting interest rates (including introducing negative rates on banks' deposits at the ECB), providing new cheap targeted long-term refinancing operations (TLTROs) to banks and engineering a fall in the euro exchange rate of around 15% versus the dollar.

The cumulative impact of these actions is already showing up. The ECB balance sheet rose by €150 billion in December in response to the TLTRO offer that month, reversing the decline seen over the previous year. Broad money supply growth has also become markedly stronger. The M3 broad money supply rose by over 5% annualised in the six months to November (see Figure 3.3), compared with around zero growth in the six months to April. Given the lengthy lags between money supply trends and activity, the stronger recent growth should start to be reflected in firmer output growth in the latter part of 2015.

Moreover, the ECB looks likely to add still further monetary stimulus this year, as the oil price decline sees headline inflation turning negative and because the ECB balance sheet will start to shrink again otherwise as banks repay previous loans to the ECB. A major announcement is likely in late January, which we expect will include an asset purchase programme totalling about €500 billion. Along with further TLTRO operations (worth

Figure 3.3. Eurozone broad money supply and industrial output



Source: Haver Analytics, Oxford Economics.

about €600 billion), the ECB balance sheet could rise by around €1 trillion over the next year.

Overall, the eurozone is forecast to grow by 1.5% in 2015, improving to 1.8% the year after. Indeed, 2016 will be the strongest year of growth since 2010. Progress across the eurozone will be uneven, however. Germany is set to post growth of 2% this year, helped by robust consumer spending, with Spanish growth even better at 2.4%. But French growth is expected at just 1.2%, while Italy sees virtual stagnation with GDP up only 0.2%.

The risk of a slide into deflation in the eurozone remains a key downside risk. Headline inflation turned negative at the end of 2014 under the influence of lower oil prices. Although core inflation (excluding food and energy) remains positive, it is also below 1%. Given upward measurement biases in inflation,[1] the real position in core inflation may also be deflationary. Against this background, the danger remains that long-term inflation expectations will slump, raising the risk of sustained deflation and damage to economic growth as firms and business react by delaying expenditure and prioritising debt reduction.

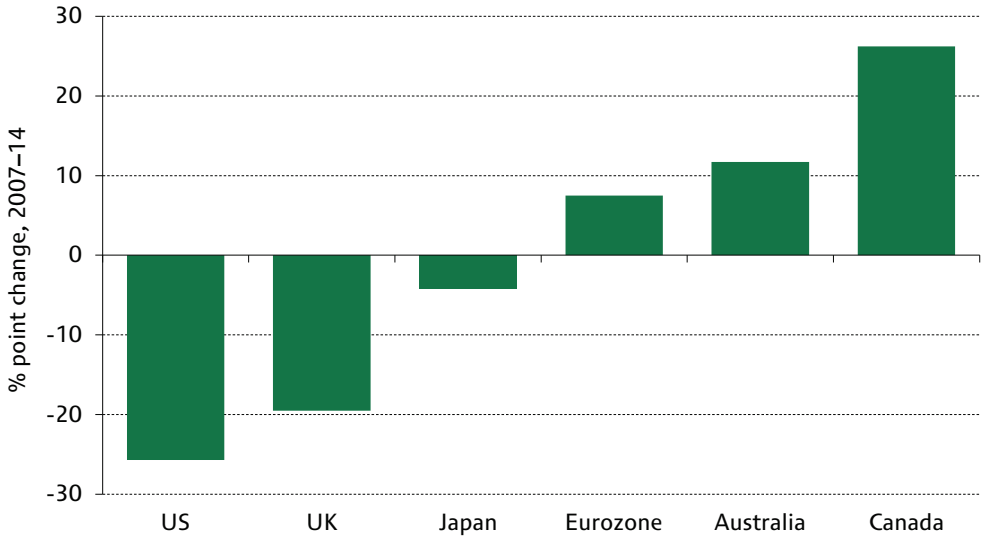
US

US economic growth improved as 2014 proceeded, with annualised GDP growth hitting 5% in Q3. After a weak start to the year, GDP for the whole of 2014 is expected to have expanded by a relatively modest 2.4%, but the outlook for 2015 is much better. Growth is expected to rise to 3.3%, the strongest pace since 2005.

In particular, conditions now seem to be in place for a sustained pickup in consumer spending. Consumption already showed notable signs of improvement in late 2014 thanks to continued robust growth in employment and signs of stronger wage rises. In

[1] For evidence of upward biases in the measurement of inflation in the Eurozone, see M. Wynne, 'An estimate of measurement bias in the HICP', Federal Reserve Bank of Dallas, Working Paper 0509, October 2005. For the US, such biases were identified most famously in the Boskin Commission Report of 1996.

Figure 3.4. Change in the household debt to disposable income ratio between 2007 and 2014: advanced economies



Source: Oxford Economics.

2015, these factors are expected to remain in place and real incomes will receive an additional boost from the steep decline in global oil prices.

Another factor likely to support US consumption in 2015–16 is the improvement in household balance sheets over recent years. The ratio of consumer debt to disposable income has dropped from 134% in 2007 to an estimated 108% in 2014, the best performance among the large advanced economies (see Figure 3.4). Indeed, in recent quarters, consumers in the US have shown signs of being willing to take on new debt, and this trend may be strengthened by improved consumer confidence linked to higher real income growth.

Business investment is also set to grow solidly in 2015, by around 6% – a similar pace to 2014. Financing conditions are favourable, and will remain so as interest rates rise only slowly. Housing investment should also pick up in 2015 after a subdued 2014, helped by lower mortgage rates and stronger real income growth increasing housing demand.

Policy settings in 2015 will remain generally growth-supportive. Fiscal policy is likely to be mildly restrictive, as it was in 2014. Monetary policy meanwhile will tighten, with Federal Reserve asset purchases having ended in 2014Q4 and with short-term interest rates starting to rise from mid-2015. However, with the Federal Funds rate still at only 1% at end-2015, the stance of monetary policy will still be relatively expansionary. The decline in long-term interest rates in late 2014 and at the start of 2015 will also provide some stimulus over the coming year (30-year mortgage rates have declined to 18-month lows).

The upswing we forecast in the US should be good news for the UK, given the importance of the US as a trading partner. Around 13% of the UK's goods exports go to the US, and the fractions of services and foreign income receipts that the UK derives from the US are even higher. A stronger US should also have positive knock-on effects for other important UK trading partners, including the eurozone.

The main risk area for the US is probably financial markets. The main US equity markets have enjoyed a remarkable bull run since 2009, which has left long-term valuations

stretched on many key measures. A sharp stock market sell-off could puncture some of the improved business and consumer confidence seen of late. Lower oil prices are also not an unambiguous positive for the US as they will mean slower growth in the shale oil sector. A weaker outlook for energy firms has already prompted a significant sell-off in high-yield corporate debt, although the impact of this on the real economy is likely to be limited (energy-related high-yield corporate debt amounts to less than 4% of total US corporate debt outstanding).

Japan

Japan's economy disappointed in 2014, with GDP growth estimated at just 0.1%. Although the economy began the year in reasonable health, it slipped back into recession in Q2/Q3 thanks mostly to the impact of a sharp rise in the consumption tax from 5% to 8% in April.

Economic weakness in mid-2014 has now led to the authorities shifting course, however, and implementing more stimulative fiscal and monetary policies. The second planned consumption tax rise (originally set for this year) has now been delayed to 2017 and monetary policy is now very expansionary. The Bank of Japan in October increased its planned asset purchases to ¥80 trillion (over 15% of GDP) per year. Meanwhile, 10-year bond yields have dropped to less than 0.3%.

The yen also weakened further in 2014, by around 6% on an effective basis, and further depreciation is likely in 2015–16 thanks to loose monetary policy and a rising yield gap between the US and Japan. This should contribute to inflation remaining in positive territory, although it is unlikely to reach the Bank of Japan's target of 2% (excluding consumption tax effects).

Overall, Japanese GDP growth is expected to pick up to 0.9% in 2015 and briefly jump to 1.8% in 2016 (as spending is dragged forward in anticipation of the second consumption tax rise in 2017). Key downside risks are a faster-than-expected slowdown in China (which takes almost a fifth of Japanese exports) and further policy mistakes by the authorities such as a premature curtailment of monetary easing.

Emerging economies

Economic growth in the emerging markets was again disappointing in 2014. Emerging market GDP growth slipped to 4.1%, from 4.6% in 2013. Performance across the 'BRIC' economies (Brazil, Russia, India and China) was relatively poor. Both Brazil and Russia saw GDP growth near zero or negative, while Chinese growth slowed further to an estimated 7.4% – the weakest pace since 1990. Indian growth improved to an estimated 5.3% but remained subdued by recent standards. Indeed, the three-year period 2012–14 saw the slowest average annual growth (at 5%) in a decade.

A broadly similar pattern among the BRIC economies is likely to be seen in 2015. Brazil continues to suffer from a combination of weaker key commodity prices, high interest rates, an overstretched consumer and a lack of progress on reforms. GDP growth is forecast at less than 1%.

In Russia, the growth outlook is extremely bleak. Economic sanctions and investor caution related to the conflict in Ukraine have isolated Russia from global financial markets. Added to this, the slump in world oil prices is undermining the balance of payments and weakening the fiscal position. Meanwhile, the currency lost half its value in

2014 and domestic interest rates soared to 17% in late 2014 as balance-of-payments and inflation pressures mounted. GDP is now expected to slump by some 6% this year.

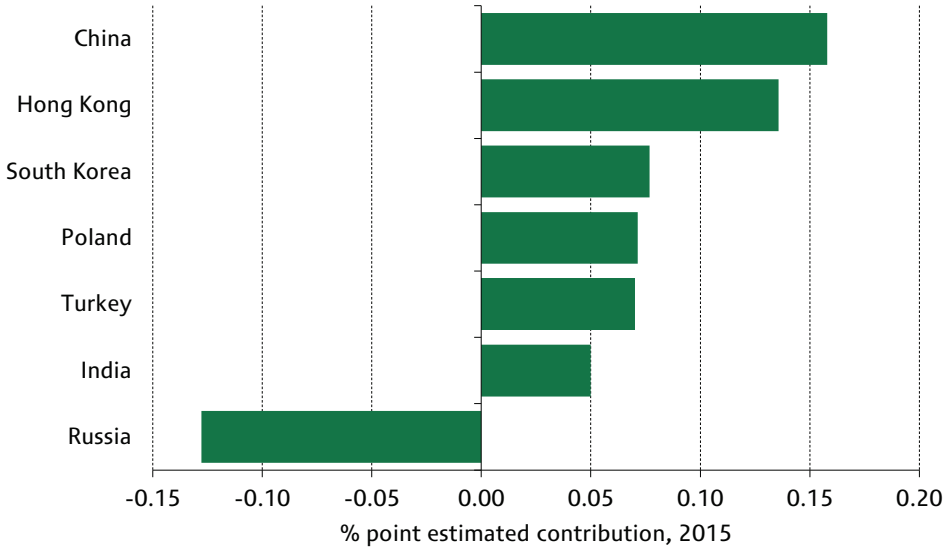
Chinese growth continues to decelerate as the authorities attempt to manage the economy towards a more moderate but more sustainable path of growth and to head off financial risks related to the property and shadow banking sectors. Some 'alternative' indicators such as freight volumes and electricity production suggest that GDP growth is already running somewhat below the official figure of around 7%, and we expect growth in 2015 to come in at below 7% and to slow further over the medium term to around 5.5% per year. This will reflect China's increasingly unfavourable demographics and a slowdown from unsustainably high rates of investment and productivity growth.

India should see a further modest improvement in GDP growth to around 6% in 2015 and 2016. The fall in oil prices is a positive for India – curbing inflation, narrowing the current account deficit and allowing interest rates to fall. The election of a more reform-minded government under Prime Minister Modi should also help growth over the medium term, although many structural barriers to sustained strong growth remain.

Other emerging markets such as Turkey and South Korea should also benefit from a combination of lower world oil prices and a gradual firming in world trade growth. As a result, we expect any impact on UK growth from the deep economic recession in Russia to be limited. Russia accounts for less than 1% of UK exports, so even though Russian imports are forecast to contract some 15% in 2015, the negative impact on UK exports will be small (at around 0.1%) and easily offset by growth in exports to more important emerging market destinations such as China, Hong Kong, India and South Korea (see Figure 3.5).

Nevertheless, emerging market growth is forecast to slow again in 2015, to just 3.9%. This will be the slowest pace of growth since 2009. Commodity-dependent economies will remain under pressure, with external financing conditions also starting to tighten as a result of rising interest rates in the US. Economic performance is set to be especially poor in Latin America, where GDP growth is expected to total only around 1% for the second straight year. As well as slow growth in Brazil, the outlooks in both Venezuela and

Figure 3.5. Emerging market contribution to UK export growth



Source: Oxford Economics.

Argentina are very bleak, with financial crisis and social unrest likely to accompany economic weakness. Fortunately, these two markets amount to just 0.2% of UK exports.

Global outlook

The forecast improvement in world growth to 2.9% this year and 3.1% in 2016 represents a gradual return to something around a trend rate of expansion after three years of subdued activity. World growth will nevertheless not return to the 4% rates seen in the boom period of 2004–07 (see Table 3.1).

The improvement in growth forecast for 2015 will mostly be seen in the advanced economies, including the US and the eurozone. GDP growth in the G7 economies is forecast to pick up from 1.6% in 2014 to 2.3% in 2015 and 2.4% in 2016. By contrast, emerging market growth is set to edge down further in 2015, to below 4%, before picking up a little the year after.

From a UK perspective, this pattern of global growth is not too unfavourable, given the large share of UK exports delivered to other advanced economies. The UK is also fortunate in that its exposure to the most troubled emerging market locations such as Russia and parts of Latin America is limited.

Economic policy settings will remain stimulative in the UK's main trading partners. Fiscal policy is no longer a major drag on growth in the eurozone or US and monetary policy overall will remain expansionary despite a rise in interest rates in the US. Indeed, given the announced large expansion of asset purchases in Japan and the eurozone, total 'non-standard' policy support by major global central banks (asset purchases plus lending to banks) is set to be greater in 2015 than it was in 2014.

Loose monetary policy in Japan and the eurozone is likely to push down the euro and the yen, but set against this the dollar is set to strengthen somewhat in 2015, by around 9%

Table 3.1. Summary of international growth forecasts

Real GDP	2013	2014	2015	2016	2017	2018
North America						
United States	2.2	2.4	3.3	2.9	2.7	2.7
Canada	2.0	2.5	2.4	2.2	2.4	2.2
Europe						
Eurozone	–0.5	0.9	1.5	1.8	1.7	1.6
Germany	0.2	1.5	2.0	2.1	1.7	1.2
France	0.4	0.4	1.2	1.7	1.6	1.6
Italy	–1.9	–0.4	0.2	0.9	1.0	1.0
UK	1.7	2.6	3.0	2.8	2.7	2.5
EU27	0.1	1.4	1.9	2.1	2.0	1.9
Asia						
Japan	1.6	0.1	0.9	1.8	0.8	0.5
China	7.7	7.4	6.8	6.1	5.7	5.5
India	4.7	5.3	6.1	6.2	6.3	6.4
World	2.5	2.6	2.9	3.1	3.2	3.1

Source: Oxford Economics.

on average on an effective basis. As a result, the sterling trade-weighted exchange rate is expected to be broadly unchanged in 2015.

The strengthening recovery we expect in 2014 and 2015 will be accompanied by very muted inflationary pressures. The sharp drop in global oil prices means that headline inflation will be close to zero or negative for at least part of 2015 in many advanced economies. World inflation is expected to drop to 2.3% this year, from 3.2% in 2014, before edging back up to 2.7% in 2016.

3.3 Risks to the global economy

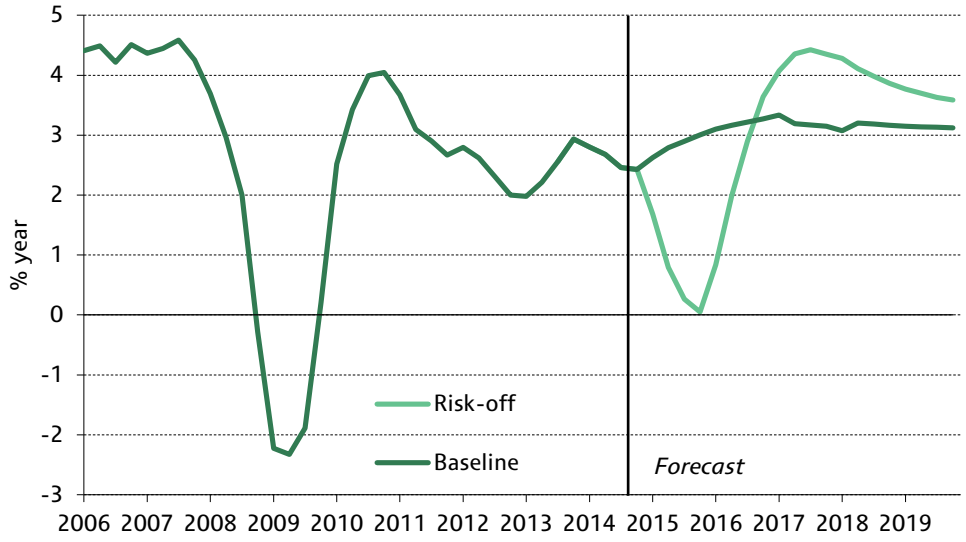
We expect stronger global economic growth in 2015–16 but some significant downside risks remain. As a result, we ascribe a probability to our baseline economic forecast of only 50% and there are a number of possible alternative scenarios, in which global growth could diverge significantly from our baseline. We cover the key scenarios for the global economy below and assess their possible implications for the UK economy in Chapter 4.

Risk-off – turmoil in financial markets

October 2014 saw a severe bout of financial market jitters including steep – albeit temporary – drops in key asset prices. A key downside risk going forward is that the withdrawal of economic stimulus in the US, along with the elevated level of many asset prices, leads to a broad-based retreat from risk by investors – in both emerging and advanced economies.

There are a number of potential triggers for such a move, including a strong market reaction to possible downside surprises to global growth. A possible scenario could involve a slump in stock prices of 20–30% in the major advanced and emerging economies and a sharp widening in emerging market bond spreads of around 1%. This would represent an average of the asset price moves seen in previous crashes, notably

Figure 3.6. World GDP under 'risk-off' scenario



Source: Oxford Economics.

the global setbacks of 1998, 2001–02 and 2008–09, the eurozone crisis of 2011–12 and the 'tapering tantrum' of 2013.

In this scenario, the decline in prices would be relatively short-lived, and met with a monetary policy response with central banks leaving interest rates lower for longer. Nevertheless, the impact on world growth would be considerable as negative wealth effects hit consumer confidence and spending and business confidence and investment.

US GDP growth would slow to less than 1% in 2015 and below 2% in 2016, versus around 3% in both years in our baseline forecast. The eurozone would return to negative growth in 2015, with GDP sliding by around 1%, followed by growth of about 1% in 2016. Emerging market GDP growth would slump to around 2% in 2015, before recovering to around 4% in 2016, while world growth would be less than 1% in 2015 and around 2% in 2016 (see Figure 3.6). We ascribe a 10% probability to this scenario.

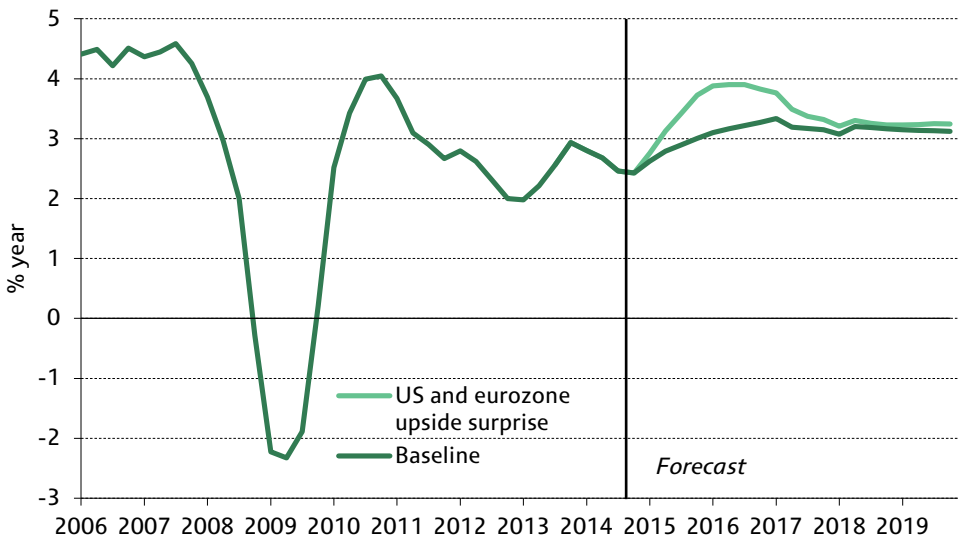
US and eurozone upside surprise

As well as the downside scenario outlined above, there are also possible upside risks to our central forecast. Our baseline forecast takes a cautious view about a number of unfolding developments in the global economy but this could prove too conservative.

Though the US economy grew by around 2.5% in 2014, annualised growth in recent quarters has been substantially higher than this. In an upside scenario, this strong trend might be extended with US growth beating expectations in 2015 after years of falling short. The primary catalysts of this could be rising real wages, a strengthening labour market and buoyant private sector confidence. Witnessing stronger sales, businesses could also feel more confident about increasing hiring and investment, feeding back again into better consumer income growth and spending. In such a scenario, US GDP growth could top 4% in 2015.

Such a scenario could also include a stronger eurozone economy. A weaker euro, improved efficacy of ECB actions, looser credit conditions and stronger investment in Germany could together see the eurozone outperforming our baseline forecast. Eurozone growth could be around 2% in 2015. Stronger growth in the US and the eurozone would

Figure 3.7. World GDP under US and eurozone upside surprise scenario



Source: Oxford Economics.

also be engines for a more robust expansion at the global level, with world GDP rising by around 3.5% in 2015 and 4% in 2016 (see Figure 3.7). We attach a 5% probability to this scenario.

3.4 Conclusion

Solid domestic demand growth in the UK has allowed growth to proceed at a decent pace despite relatively slow growth in external demand. However, the outlook for the world economy remains important, especially if the UK wishes to see a balanced growth pattern.

While 2014 again saw only moderate world growth, the improvements in the US – and to a lesser extent the eurozone – as the year proceeded bode well for 2015. This year should see firmer external demand for the UK, helped by improved demand in the advanced economies and despite a further slowdown in growth in the emerging markets. More supportive fiscal and monetary policies in the eurozone and Japan will play a key role in bolstering G7 growth, which will run at its fastest pace since 2010.

The sharp drop in global oil prices since mid-2014 will also be a bonus for the UK and many of its key trading partners. Although there are also major losers from this development (most notably Russia), the UK's economic exposure to these countries is small. On the whole, the fall in oil prices will support real household incomes in the UK and other advanced economies and should also boost business confidence.

Some downside risks to global growth still exist. In the eurozone, the risk of deflation has not entirely receded, and global growth could suffer in the event of a sharp correction in global financial markets resulting from reduced US monetary accommodation and elevated asset prices.

There are also upside risks to world growth. In particular, it is possible that consumer and business confidence could rise more rapidly in the US and Europe in response to improving labour markets and stronger real income growth. This could create a virtuous circle of higher consumer spending, higher investment and increased employment.

4. The UK economic outlook

Andrew Goodwin and Martin Beck (Oxford Economics)

Summary

- The UK's economic expansion finally became entrenched in 2014, with GDP growth of 2.6% placing it at the top of the G7 league table. Though the expansion appeared to be losing momentum towards the end of last year, the slump in the oil price should offer renewed impetus by boosting consumer spending power. We expect this to propel UK GDP growth to 3% in 2015 and 2.8% in 2016. Business investment should continue to make a disproportionate contribution to driving growth, with robust confidence encouraging firms to spend their accumulated cash piles. But the expansion is likely to remain a largely domestic affair, with net trade expected to make only modest contributions to growth over the next five years.
- With rapid expansion of the labour supply and robust business investment likely to have underpinned strong growth in potential output last year, we estimate that the output gap only narrowed very slightly in 2014, ending the year at 4% of potential output. The prospects for potential output growth are favourable, with the labour supply set to be boosted by sustained strength in inward migration and the staged increase in the state pension age, and robust growth in business investment boosting the capital stock. This will provide the conditions for relatively strong growth and low inflation over the medium term, with GDP growth expected to average 2.6% a year from 2015 to 2019. Our forecasts are a little stronger than those of the OBR and the market consensus.
- The risks around our forecast are skewed to the downside. Domestically, the upcoming general election provides the most immediate source of uncertainty, with a wide range of results possible. A decisive result could mean changes to fiscal policy, while an inconclusive result and failure to establish a government with a workable majority could undermine business confidence. But external events have the greatest potential to alter the UK outlook. The most likely upside scenario would involve stronger recoveries in the US and eurozone, which would boost UK export growth. On the downside, the biggest threat would be a widespread retreat from risk, which could push the UK back into recession in late 2015.

4.1 Introduction

The combination of substantial upward revisions to the historical data and a period of sustained growth at, or above, the long-run trend means that the UK economy looks in a much better state now than at the time of last year's Green Budget. GDP growth of 2.6% in 2014 was the strongest since the financial crisis and, as in previous years, we think there is a good chance that the out-turn will eventually come in even stronger, once the data have been through the Blue Book balancing process.

In this chapter, we discuss the outlook for the UK economy, beginning in Section 4.2 with short-term prospects, where we assess whether we should be concerned about the recent run of weaker data and look at the implications for the UK economy of the slump in the price of oil.

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Moving our focus beyond the short term, we consider prospects for the 2015–19 period as a whole. As part of this, we look at how our estimates of the output gap have evolved over the past year, before moving on to discuss the prospects for potential output growth over the next five years (Section 4.3). Having set out our baseline forecast, we then assess how this compares with the most recent forecast from the Office for Budget Responsibility (OBR) and those of other independent forecasters (Section 4.4).

Section 4.5 analyses the risks around the baseline forecast and looks in detail at the potential impact of alternative global scenarios on the UK economy, including an upside scenario 'US and eurozone upside surprise' and a downside scenario 'risk-off – turmoil in financial markets', which involves a widespread retreat from risk. Section 4.6 concludes.

4.2 The UK economy may be headed back to a period of NICEness

2014 – the economy's expansion becomes entrenched

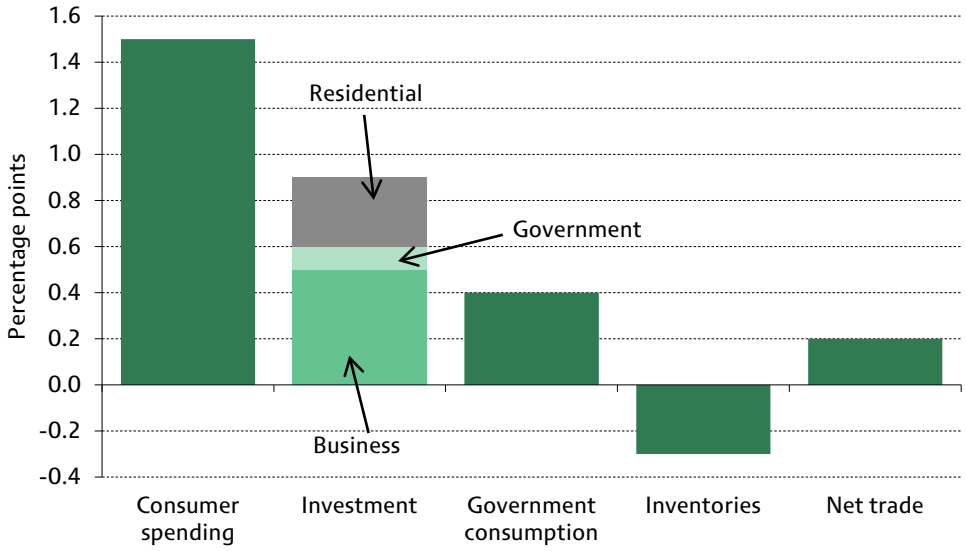
For much of the period since the financial crisis struck in 2008, the prospect of a return to the period of non-inflationary consistent expansion (a term famously coined by former Governor of the Bank of England Mervyn (now Baron) King) enjoyed in the decade or so from the mid-1990s has seemed a forlorn hope. But that prospect is now looking ever more plausible. 2014 was a year of steady growth for the UK economy, with quarterly growth averaging 0.7% through the year and 2.6% for the year as a whole. This was the strongest out-turn since 2006 and placed the UK's growth performance at first place among G7 countries (although this in part reflects greater scope for catch-up growth following a weaker performance in earlier years).

Meanwhile, sizeable revisions to the UK's National Accounts in September 2014 resulted in the recession of 2008–09 being presented in a less severe light, with output estimated to have fallen by 6.4% peak-to-trough compared with the previous estimate of a 7.2% decline. Moreover, the subsequent recovery was judged to have been stronger, resulting in GDP surpassing its pre-financial peak in the third quarter of 2013 compared with the previous estimate of 2014Q2.

The ONS's revisions also illustrated a better-balanced recovery. Admittedly, net trade has made a negligible contribution to growth in recent years, an observation likely to have been repeated in 2014. But the inclusion of R&D spending (which fell less sharply during the recession) in the ONS estimate of investment in order to comply with new European accounting standards, improvements to the method of calculating investment and large revisions arising from the Blue Book balancing process resulted in capital spending, particularly business investment, being revised up significantly. For 2014 as a whole, business investment is forecast to have accounted for a quarter of overall GDP growth, despite this component of expenditure representing only a tenth of GDP.

That said, consumer spending was still the biggest source of GDP growth in 2014, as Figure 4.1 illustrates. Indeed, while growth in consumer spending slowed towards the end of 2014 and consumer confidence dropped back a touch, an annual rise of 2.3% in consumption was the strongest since 2007, with households' appetite to spend spurred by falling unemployment and high levels of consumer confidence. Household resources grew by around 2.5% in 2014, with continued weakness in pay settlements being compensated for by a record rise in the number of people in work. Consequently, having

Figure 4.1. Contributions to UK GDP growth in year to 2014Q3



Source: Haver Analytics, Oxford Economics.

fallen for three consecutive years, a household saving ratio of 6.5% in 2014 was broadly unchanged on the level a year earlier.

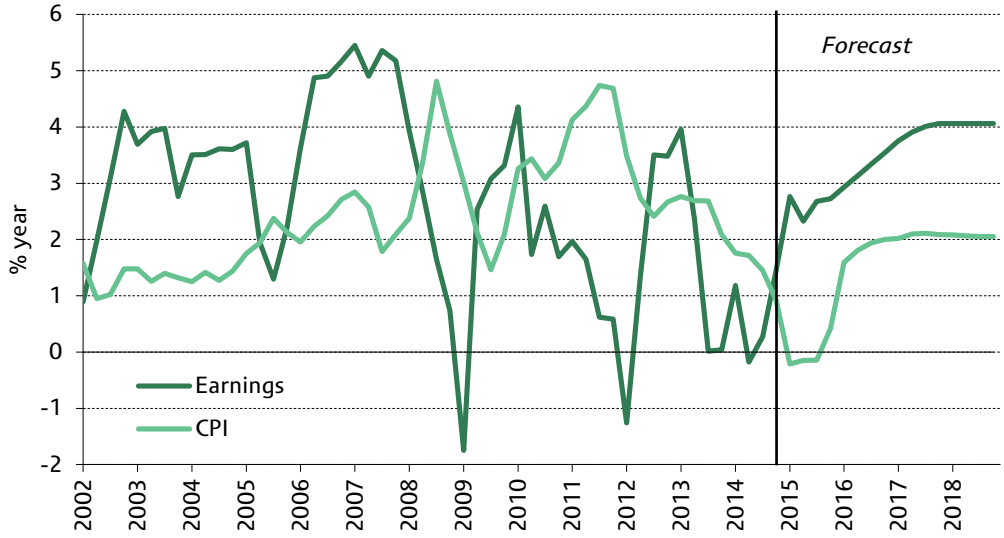
Consumer spending growth to receive a boost …

Healthy growth in consumer spending in 2014 was supported by a record increase in the number of people in work. While 2015 is unlikely to see a repeat of such a strong jobs performance, other factors should provide the basis for another year of robust growth in consumption.

A tightening labour market should bring forth some recovery in pay growth, building on the tentative signs of a pickup seen in the last few months of 2014. Granted, following a steep fall in unemployment in the first half of 2014, labour force data for the three months to October showed the ILO unemployment rate unchanged at 6% for the third successive month. But the number of people in work continued to climb, rising by 114,000 on the quarter to reach a record high of 30.8 million, while the employment rate regained its pre-financial crisis peak of 73%. The entire rise in employment was driven by full-time employment growth, easing concerns that the UK's impressive jobs growth has been largely a consequence of self-employed 'odd-jobbers'. Moreover, the number of unemployed workers per job vacancy fell to 2.8, the lowest since June 2008 (Chapter 2 explores recent labour market developments in more detail).

Unemployment should continue to decline in 2015, although the prospect of a recovery in labour productivity and the incentive provided by cheaper energy to invest in labour-saving capital equipment is likely to slow the pace of that drop. We expect the ILO rate to fall to 5.5% by the end of the year. With firms competing for a shrinking pool of available workers, the negotiating power of employees should see some improvement, a development that will be supported by evidence in recent employment surveys of emerging skills shortages. Nominal growth in average weekly earnings is forecast to accelerate to 2.6% in 2015 (see Figure 4.2), having been 1.4% in 2014. That said, with the supply of workers set to continue rising at a robust pace on the back of later retirement, welfare reform and high levels of inward migration, little in the way of pay rises in the

Figure 4.2. Inflation and earnings growth



Source: Haver Analytics, Oxford Economics.

public sector, and the 'scarring' effect on workers of the recent prolonged period of economic weakness and uncertainty, annual nominal pay growth is set to remain well below the pre-crisis norm of 4–5%.

Alongside a pickup in pay rises, we are due to see another above-inflation increase in the income tax personal allowance in April from £10,000 to £10,600, which will provide an additional boost to net incomes. However, the aggregate gain will be relatively small at around £2 billion, less than 0.2% of disposable income.

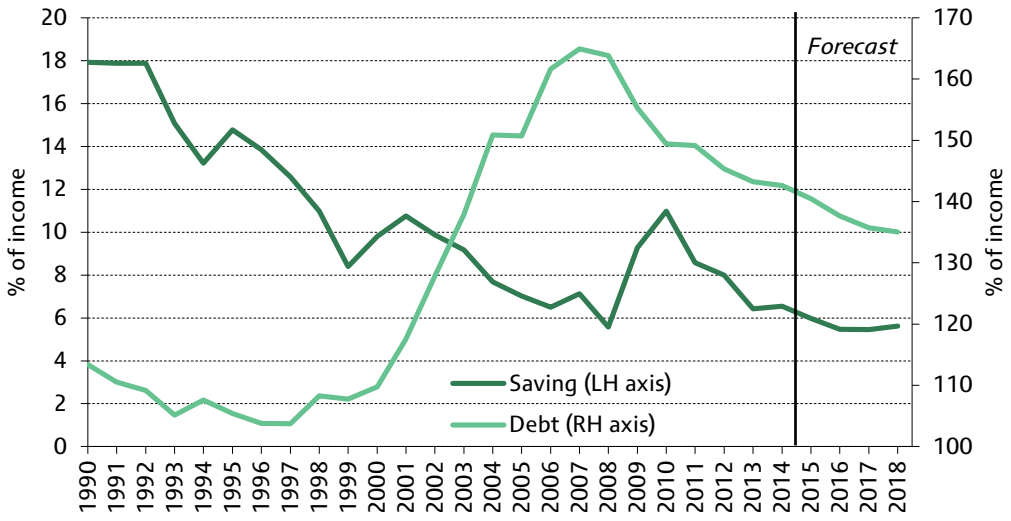
… with 'lowflation' boosting purchasing power …

The dismal performance of real earnings since 2008 (down around 10% at the mean relative to the CPI) has reflected both very subdued growth in cash pay and elevated inflation. But alongside the prospect of faster growth in the former, households' purchasing power will gain from a striking fall in the latter, driven by the recent collapse in the price of oil. Having been trading at US$115 per barrel in June 2014, Brent Crude fell below US$50 per barrel in January this year, a fall of almost 60%. The size of the tax wedge present in the retail price of petrol means that UK pump prices have dropped by a more modest 20% or so (around 25 pence per litre) since last summer. However, this still contributed to annual CPI inflation falling to only 0.5% in December 2014, well below the Monetary Policy Committee's 2% target and the joint lowest rate since records began in 1989.

Moreover, underlying price pressures have also receded, with December's CPI excluding food, energy, alcohol and tobacco running at only 1.3%, down from 2% six months earlier. A large output gap, which continues to put pressure on profit margins and keep wage growth constrained, and a modest appreciation in sterling over the second half of 2014, which has reduced the price of imported commodities, have both contributed to the core measure's weakness.

The IMF and others have pointed to the dangers of such 'lowflation', with concerns centred around raising the real burden of debt and impeding the adjustment of real wages in response to labour market shocks. But from UK consumers' perspective, an

Figure 4.3. Personal debt and saving ratio



Source: Haver Analytics, Oxford Economics.

environment of very low inflation appears unambiguously positive, reflecting 'good' disinflation arising from cheaper oil and commodity prices, rather than 'bad' disinflation flowing from a weak economy and high unemployment. We forecast CPI inflation to average 0% in 2015 compared with 1.5% in 2014 and the recent peak of close to 5% in 2011.

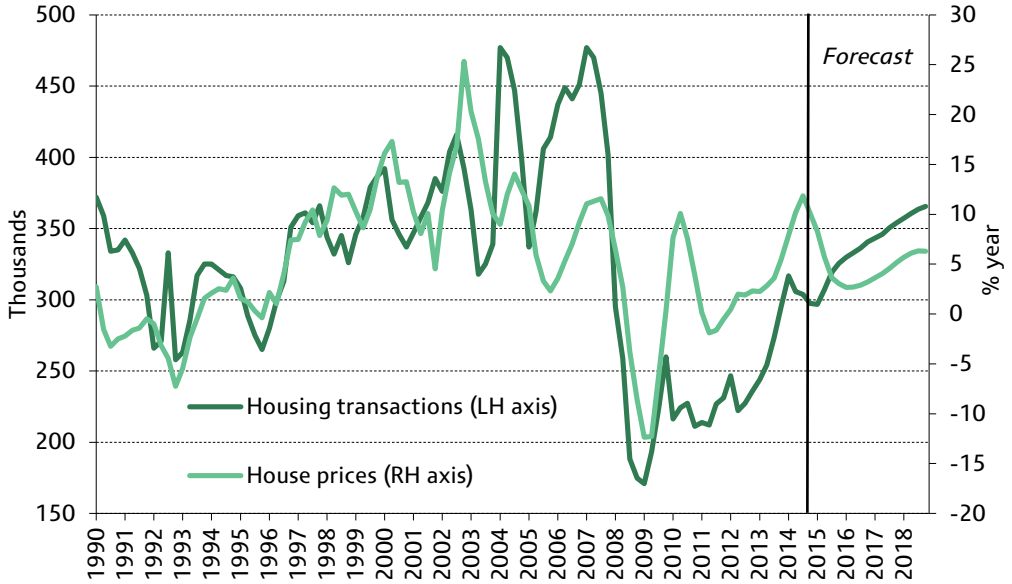
The near-absence of price pressures this year should deliver a significant shot in the arm to household incomes, which are forecast to grow by 2.5% in real terms in 2015, the fastest pace since 2003. And with consumer confidence having recovered strongly and expectations for a hike in interest rates receding over the horizon, we think households will be inclined to spend these real income gains, as they have with compensation from mis-sold payment protection insurance and other windfalls, especially those households that remain credit-constrained. Indeed, growth in consumer spending of 3.2% in 2015 is set to outpace rises in incomes, implying a slight drop in the household saving ratio (see Figure 4.3).

… but the housing market acting as less of a spur

That said, one prop to growth in consumer sentiment and spending in 2014 – the resurgent housing market – looks set to play a more limited role in bolstering the consumer going forward. A combination of policy interventions and market forces appears to have calmed the housing market over the latter part of 2014. Having peaked at over 10% on both the Nationwide and Halifax measures, annual growth in property prices slowed to around 7% by the end of the year. Meanwhile, mortgage approvals of 59,029 in November were 22% below their level at the beginning of 2014.

The very high level of house prices is probably playing a role in this slowdown. The Nationwide measure showed the price of the average house in the UK ending 2014 7.2% higher than a year earlier and slightly above the pre-financial crisis peak reached in early 2008. Alongside this, the latest survey data from the Royal Institution of Chartered Surveyors (RICS) showed new buyer enquiries continuing a decline that began in the middle of 2014. And the Bank of England's Credit Conditions Survey for Q4 reported the sharpest fall in household demand for mortgages since the third quarter of 2008. Lending

Figure 4.4. House prices and transactions



Source: Haver Analytics, Oxford Economics.

conditions may also restrict the number of would-be purchasers, with the supply of mortgages constrained by the long-lasting effect of 2014's policy interventions, including April 2014's Mortgage Market Review and action taken by the Financial Policy Committee last June to restrict the availability of high loan-to-value mortgages.

That said, there are factors that will support a decent level of momentum in housing activity this year. Our forecast for a recovery in real earnings should spur demand for homes by supporting households' ability to bear a mortgage. And recent declines in market interest rates and the diminishing prospect of 2015 seeing the Monetary Policy Committee (MPC) raise Bank Rate will reassure those thinking of taking out a home loan, as well as keeping household debt interest payments as a share of income close to record lows. Moreover, the outcome of stamp duty reforms announced in the December 2014 Autumn Statement, abolishing the oft-criticised 'slab' element, will reduce the extent to which the tax system discourages residential transactions on properties worth less than £1 million.

As Figure 4.4 shows, our forecast sees house price growth decelerating from 10% in 2014 to 5.1% in 2015. This easing will, in the main, reflect weaker demand, although an uptick in housing supply should contribute to constraining price growth, continuing a development evident in 2014. In the first three quarters of 2014, residential investment was 12% up on the level in the same period a year earlier, while housing starts in England averaged just over 35,000 per quarter in the same period, a 15% year-on-year jump. We forecast total UK housing starts to reach 168,000 in 2015, the highest since 2007 but still a long way short of the 203,000 reached in that pre-crisis year. As expectations of house price gains soften, the supply of existing properties available for sale should also be boosted as sellers previously holding back for a higher price bring homes to the market.

2015 should see interest rates remain at record lows

Against the current backdrop of sharp disinflation, the middle of last year, when many commentators expected that the MPC would raise Bank Rate before 2014 was out, now looks like a very long time ago. Admittedly, the prospect that 2015 will deliver some

robust numbers around consumer spending and broader economic growth offers a source of ammunition to the hawkish members of the Committee. And stronger wages growth and further declines in unemployment could create a dilemma for the dovish majority. After all, such developments have frequently been cited by the Governor of the Bank of England, Mark Carney, and other MPC members as being important criteria in paving the way for a decision to raise interest rates.

But our forecast that CPI inflation will average close to zero over the course of this year would appear to rule out the Bank Rate rising from its current record low of 0.5% in 2015. Mark Carney will probably have to write a succession of letters to the Chancellor of the Exchequer throughout 2015 explaining why inflation has deviated more than 1 percentage point below the MPC's 2% target. Communicating the case for a rise in Bank Rate alongside this would be extremely challenging. And the economic argument for 'looking through' a period of below-target inflation resulting from temporary factors (such as a collapse in the oil price) carries less weight when there is little or no room to cut interest rates. Were a rise in Bank Rate to combine with very low inflation to cause inflation expectations to become anchored to a level below the target, the MPC would have to rely on the uncertain approach of more quantitative easing or other unconventional methods to try to reverse the situation. So 2015 should see the sixth successive full year with Bank Rate at 0.5%.

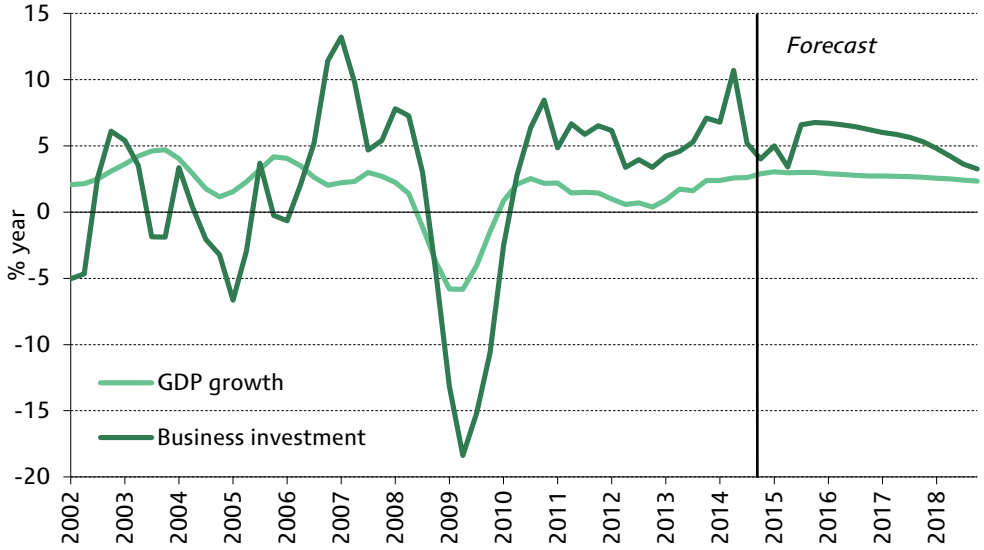
Business should continue to punch above its weight

The publication by the ONS last September of sizeable revisions to the National Accounts transformed the narrative around business investment in recent years. Under the previous vintage of data, capital spending by firms in the first quarter of 2014 was estimated to be almost 16% below the level recorded in 2008Q1. But the inclusion of R&D spending (which fell less sharply during the recession) in order to comply with new European accounting standards, improvements to the method for calculating investment and large revisions arising from the Blue Book balancing process turned spending by firms from the laggard to the star performer among GDP components. Business investment in 2014Q1 is now estimated to have been 5% above the level six years earlier. And while the remainder of last year saw a mixed performance, business investment for 2014 as a whole looks to have grown by almost 7% on an annual basis.

On another positive note, the UK corporate sector ran a financial deficit for a second consecutive quarter in 2014Q3, following nearly 12 years of sustained surpluses. So companies' appetite to invest is becoming increasingly evident. Moreover, corporate profitability has recovered strongly. Excluding the North Sea sector, UK companies' net rate of return reached 11.6% in 2014Q2, the highest rate since the last quarter of 1998.

Granted, uncertainty over the outcome of May's general election and the stance of government policy in the next parliament could act as a check on some firms' appetite to invest. The possibility of a referendum on EU membership in 2017, or possibly earlier, could have a similar effect. But a backdrop of strong consumer spending growth, looser credit conditions and the need for firms to make up for the lost years of the recession should be more than enough to compensate for this drag. If it persists, the fall in energy costs will also favour energy-intensive plant and machinery at the expense of labour. The forecast points to business investment growing by 5.5% this year, before accelerating to 6.5% in 2016. So, as Figure 4.5 illustrates, companies should continue to have a disproportionate weight in driving GDP growth.

Figure 4.5. Business investment and GDP growth



Source: Haver Analytics.

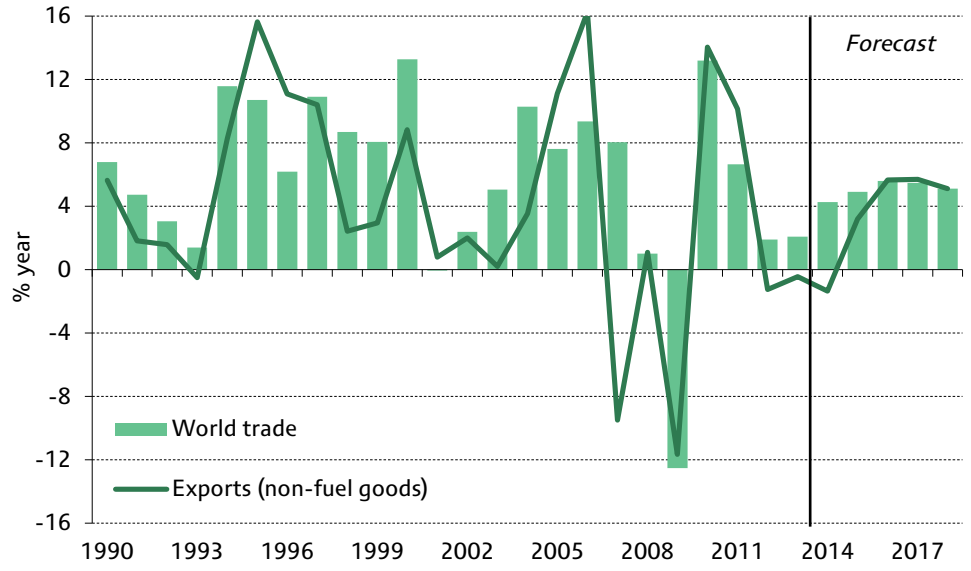
Economic expansion set to remain a largely domestic affair

The other side of the economic rebalancing coin – net exports – has continued to disappoint those hoping for growth driven by overseas demand. Net trade looks to have had a neutral effect on GDP in 2014, although this was an improvement on the drag seen in the previous year. Weakness in the eurozone economy, the UK's largest single export market, has continued to be the culprit, with GDP growth in the currency bloc running at only 0.8% in 2014.

The outlook for exports is mixed. Business surveys reported a softening in export demand over the second half of 2014. However, while 2014 looks likely to have seen export volumes drop by more than 1% on their level in 2013, there were signs of an improving picture as the year went on. Export volumes in the three months to November were 2.6% up on their level a year earlier. Surprisingly, against a background of fairly strong growth in consumer spending, import volumes rose by a more modest 0.8% over the same period.

The international environment for UK exporters offers some cause for hope in 2015 and beyond. Both the US and eurozone economies are forecast to strengthen over the coming two years, with more promising domestic signs augmented by the boost from lower oil prices. As such, growth in world trade (weighted by UK export shares) is forecast to accelerate from 4.3% in 2014 to 4.9% this year and 5.6% in 2016 (see Figure 4.6). With sterling also expected to weaken a little on a trade-weighted basis, this should provide the platform for a solid pickup in export growth. A healthier global economy and rising incomes in emerging economies such as China should particularly benefit UK services exports, which generated a sizeable surplus in 2014 and continued to close the gap with the historically much more important export of goods. In 2014, the value of UK services exports was equivalent to 72% of goods exports, up from 60% in 2008 and just over 40% in the late 1990s. Meanwhile, as a net importer of oil, the UK's trade balance should be supported by the collapse in the oil price and a consequent cut in the import bill.

Figure 4.6. Exports and world trade growth



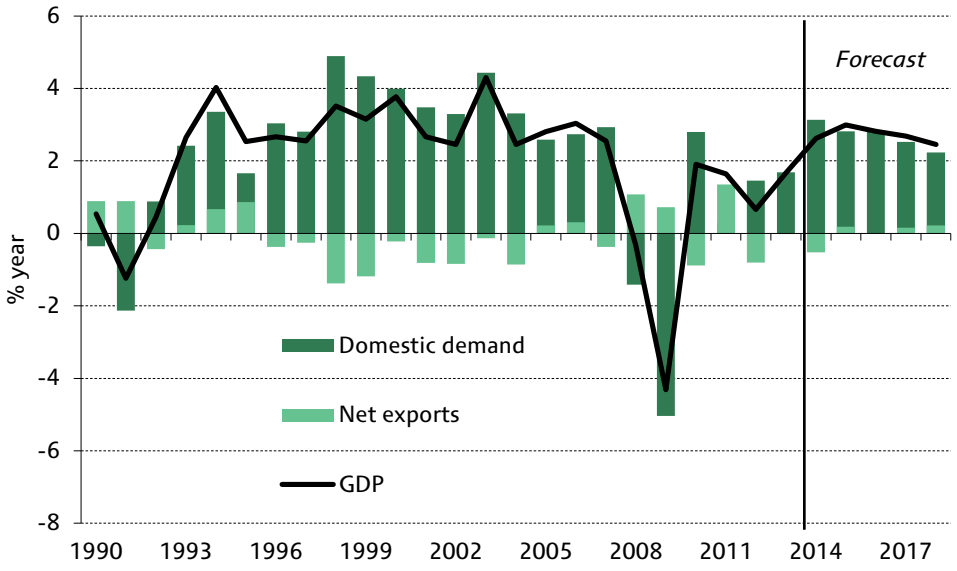
Source: Haver Analytics, Oxford Economics.

That said, headwinds to export-led growth will persist. After all, the weakness of oil and commodity prices is partly a symptom of weak global demand. Sterling is likely to continue strengthening against the euro, particularly now that the European Central Bank has decided to undertake quantitative easing on a significant scale. Meanwhile, political turmoil in Greece has once again raised the prospect of a disruptive break-up of the eurozone, although this is not an eventuality we are expecting in our central forecast. On the import side, stronger growth in domestic consumer spending will underpin firm demand for imports, which will keep the UK's current account deficit, which reached a record high of 6% of GDP in 2014Q3, at an elevated level. Overall, net trade is forecast to make a negligible contribution to GDP growth over the next year or two.

Economy should hit the sweet spot

With plenty of lost ground to make up, it would be disappointing if the UK economy did not attain a reasonable rate of growth in 2015. But the collapse in the oil price should up the tempo of the expansion – indeed, simulations presented in Chapter 3 suggest that the decline in oil prices since mid-2014 could add around 0.5% to GDP in 2015. Our forecast points to quarterly growth rates averaging 0.7–0.8% through 2015. With households set to be the biggest beneficiary of a low-inflation environment, consumer spending will be the dominant driver of growth. But we are by no means anticipating a consumer boom, and business investment should continue to punch above its weight in supporting further rises in output. Exports are unlikely to make much of a contribution to the economy's expansion, but even here prospects are looking relatively upbeat compared with the post-2008 experience. Our forecast shows GDP growing by 3% in 2015, a rate last seen in 2006, with a modest easing to 2.8% in 2016 (see Figure 4.7). And with inflation at a record low, the UK's 'misery index', which sums unemployment and inflation to arrive at a measure of the economic 'misery' of a country, should fall to levels not seen since the long boom of the 1950s and early 1960s.

Figure 4.7. Contributions to GDP growth



Source: Haver Analytics, Oxford Economics.

4.3 Medium-term outlook – steady but unspectacular growth

Over the medium term, we expect a steady, but unspectacular, pace of economic growth to continue. The combination of estimates of the current output gap and of potential growth going forwards drives our forecast for medium-term GDP growth.

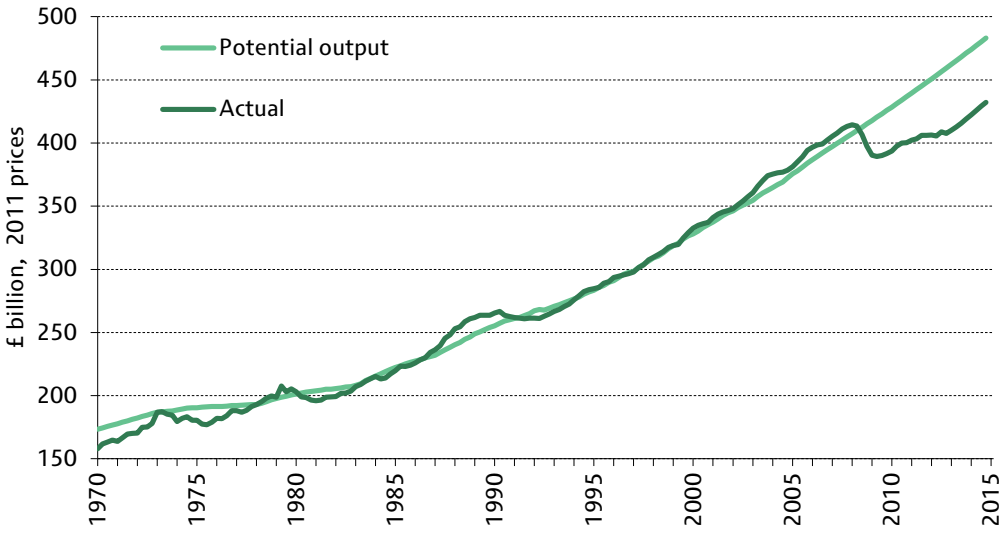
How large is the output gap?

The question of the size of the output gap and forecasts for growth in potential output are crucially important to both fiscal and monetary policy. In terms of fiscal policy, these estimates have taken on added importance since the Chancellor adopted a cyclically-adjusted target for the public finances. With regards to monetary policy, the MPC has been content to leave interest rates at their current level partly because of its belief that there is still some 'slack' in the economy, which can be used up before there is a risk of inflationary pressures building.

However, the size of the output gap and the strength of potential output growth cannot be measured. As such, most commentators agree that the best approach is to use a range of different indicators to try to proxy the level of spare capacity, although with these indicators not always corroborating one another, a high degree of judgement is often required on behalf of the forecaster. Furthermore, economic data can often be subject to revision for many years after the event, which makes 'real-time' estimates of the output gap particularly difficult. Indeed, a working paper from the External MPC Unit of the Bank of England[1] found that estimates of the output gap have become progressively more prone to revision and 'unreliable' over time, with the authors citing the difficulty of

[1] 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/Pages/externalmpcpapers/discussionpaper36.aspx.

Figure 4.8. Quarterly GDP relative to potential output estimated by extrapolating the pre-crisis trend in output



Note: Potential output series shows Oxford Economics estimates from 1970 to 2006. Potential output is then grown in line with the long-term average (2.5% a year) from 2007 to 2014.
Source: Haver Analytics, Oxford Economics.

separating the trend from the cycle in economic data as being the main cause of this. This presents a significant challenge for policymakers.

The depth of the recession and the slow pace of the subsequent recovery make estimating the size of the output gap even harder at the current time. GDP fell by 6% from peak to trough during the recession and, seven years on, it is only 3½% above the early-2008 level. Were we to assume that potential output has continued to grow at historic rates since 2007, it would suggest an output gap of around 11% (see Figure 4.8). Such a divergence between actual output and the level of output implied by long-run trends is by no means uncommon – a number of advanced economies are estimated to have double-digit output gaps if this approach is applied.

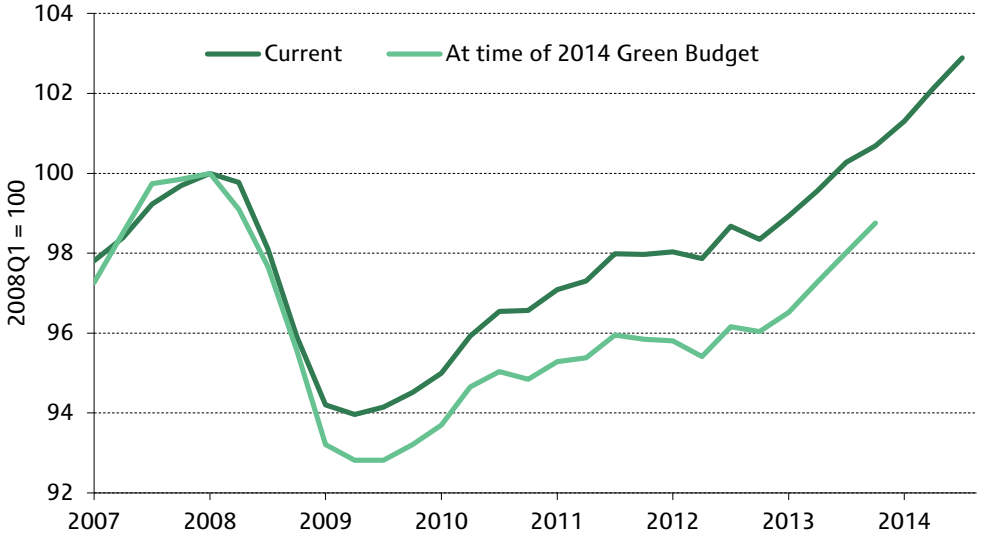
However, as commentators analyse the causes of the financial crisis and its implications, the general conclusion has been that it has inflicted structural damage to potential output which will never be reversed, implying much smaller output gaps.

In last year's Green Budget, we studied this subject in detail[2] and concluded that of the gap between actual GDP and the pre-crisis trend in 2013 – then 15% – around two-fifths was caused by factors that had weakened demand, i.e. the output gap. A similar amount of the shortfall was attributed to permanent damage to potential output caused by the financial crisis. The remainder we attributed to under-reporting of GDP, with a range of evidence suggesting the health of the economy had been somewhat better since the financial crisis than the GDP data had reported.

Since last year's report, the ONS has overhauled the UK National Accounts with the implementation of European System of Accounts 2010 (ESA10). These changes have caused substantial revisions both to the level of GDP and to year-to-year growth rates. In

[2] See pages 72–81 of A. Goodwin and O. Salmon, 'The UK economic outlook', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2014*, http://www.ifs.org.uk/budgets/gb2014/gb2014_ch4.pdf.

Figure 4.9. Revisions to real GDP data



Source: Haver Analytics, Oxford Economics.

particular, the ONS now reports that GDP growth was around 0.5 percentage points per annum stronger over the period from 2007 to 2012 than had previously been estimated. This means that, relative to the pre-financial crisis peak, GDP is now estimated to have ended 2013 2% higher than previously thought (see Figure 4.9).

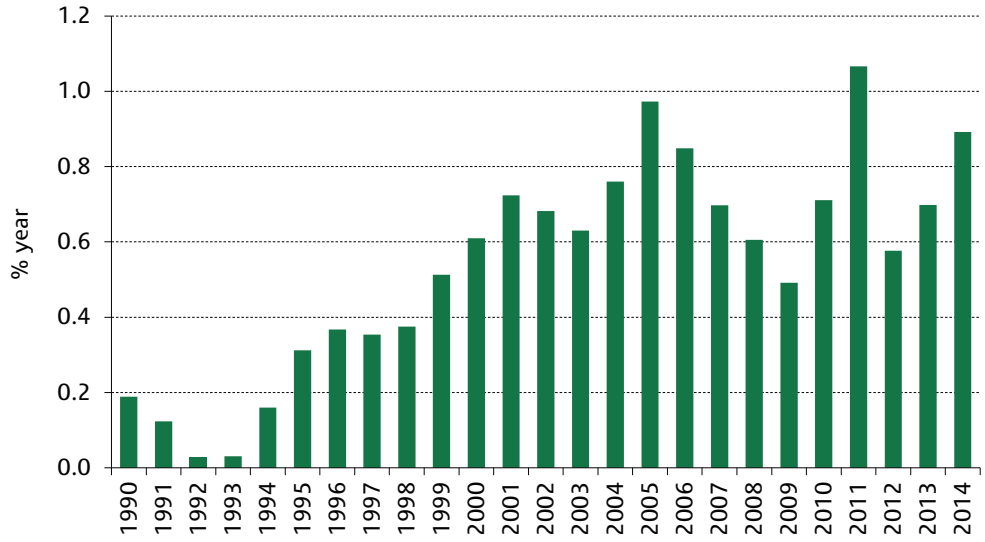
Notably, these revisions were mostly due to substantial upward revisions to the estimates of business investment, the bulk of which were caused by the annual Blue Book balancing – including the benchmarking to the Annual Business Survey and the supply and use balancing – rather than the changes in methodology. As far as we are concerned, these revisions vindicate our earlier view that GDP had been under-reported. Therefore, though the level of GDP in 2013 is now estimated to be somewhat higher than before, we assert that the bulk of this revision merely represents a correction of the earlier erroneous data and remain of the opinion that the output gap was very large, finishing 2013 at around 4.3% of potential output.

We use a production function approach to estimating potential output,[3] which provides a framework that relates the level of potential output to contributions from factor inputs – labour and capital – and the efficiency with which those inputs are used (so-called 'total factor productivity'). It also provides a consistent method for forecasting future growth in potential output, taking into account important changes such as demographic trends.

This approach suggests that 2014 saw strong growth in potential output. The labour supply has been boosted by very high levels of inward migration. The latest data reported that net inward migration totalled 260,000 over the year to June 2014, which was the highest figure for three years and only just short of 2007's record high of 273,000. The pickup in migration levels was largely due to stronger inflows from the European Union and, with unemployment rates remaining high across Europe, net inflows are likely to have remained similarly strong across the second half of 2014.

[3] In the Oxford Economics UK Model, we use a Cobb–Douglas production function, $Y^* = A + L^{\alpha} + K^{(1-\alpha)}$, where: Y^* is potential output; L is potential labour supply, which is equal to the labour supply at the NAIRU (non-accelerating inflation rate of unemployment); K is the capital stock; and A is total factor productivity (TFP). This is rewritten in natural logs, with α equal to 0.65: $\ln(Y^*) = \ln(A) + 0.65\ln(L) + 0.35\ln(K)$.

Figure 4.10. Working-age population growth



Source: Haver Analytics, Oxford Economics.

The labour supply was also boosted by the latest increase in the female state pension age (SPA), which increased by six months through the year to just under 62½ by the end of 2014.

As a result of these two factors, we estimate that the population of working age rose by 0.9% in 2014; since 1990, it has risen this rapidly on an annual basis only twice before (see Figure 4.10). With the participation rate also having nudged upwards in 2014, we estimate that growth in the labour supply contributed more than 1 percentage point (ppt) to potential output growth last year.

Robust growth in business investment will have made a strong contribution to potential output. We estimate that business investment is likely to have risen by 6.6% in 2014, which would represent the strongest growth in seven years. This would mean that the contribution of the capital stock to potential output growth rose in 2014.

Even making a fairly conservative assumption for total factor productivity leads us to conclude that potential output grew by around 2.5% over the year to the end of 2014. Based upon the ONS's current estimate of actual GDP, this would suggest that the output gap narrowed from 4.3% of potential output at the end of 2013 to 4% in 2014Q4. However, as in previous years, we expect the ONS to revise up its estimate for GDP growth once the data have been through the Blue Book balancing process. Other evidence on the health of the economy suggests that it will finish at 3%, or perhaps slightly higher, which would suggest that the output gap narrowed to around 3¾% of potential output.

Potential output growth to remain firm over the next five years

Having estimated how much spare capacity we believe there is in the UK economy at present, we must make a judgement on how potential output will evolve, in order to determine the scope for actual GDP growth to recover. To do this, we again use the production function approach to consider how the contributions of the various factor inputs are likely to evolve.

Capital stock

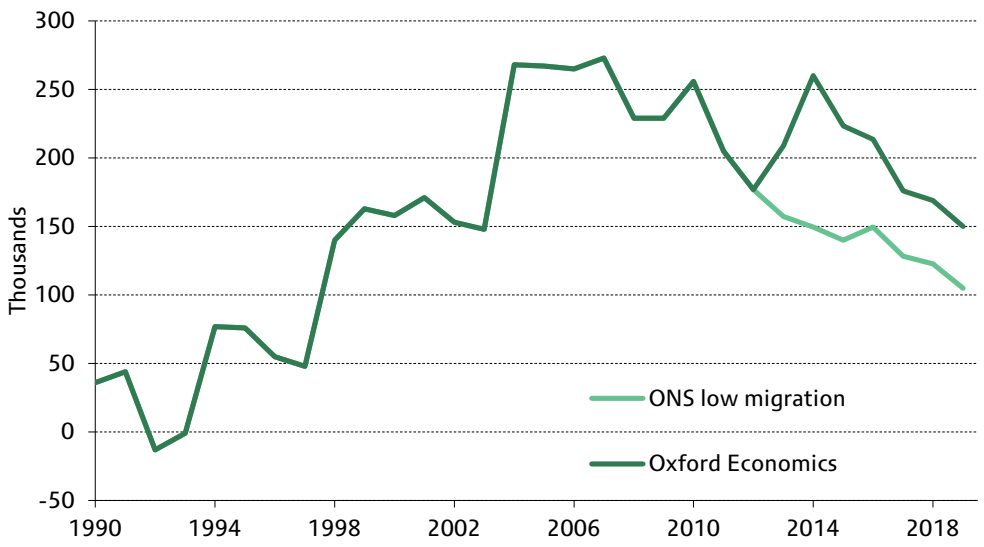
Our forecast shows continued strong growth in business investment, as corporate confidence remains firm and encourages companies to continue to invest their accumulated cash surpluses. Furthermore, the relatively low levels of investment since the financial crisis suggest that there will still be a degree of pent-up demand, with firms that have patched up old machinery coming under pressure to replace it with new equipment. Strong rates of economic growth will mean that firms also increasingly need to invest to expand capacity. This means that the contribution of the capital stock to potential output growth is expected to accelerate through the forecast period, from 0.8ppts in 2014 to average 1ppt a year from 2015 to 2019.

Labour supply

The OBR's forecast adopts the low migration variant of the ONS population projections, which assumes a steady reduction in net inward migration to 105,000 in the year to mid-2019. These projections are only published on a biennial basis and are now looking very dated, with the outturn for mid-2014 of 260,000 well above the low-variant projection of just 149,600.

As economic conditions in the eurozone continue to improve, unemployment there should fall back, which will reduce the motivation for potential migrants to move to the UK. Alongside this, income differentials are steadily closing between countries in Western Europe, such as the UK, and economies in Central and Eastern Europe, such as Poland. This will not only lessen the incentives for workers in these economies to move to the UK, but it will also make it more attractive for those who have migrated from those countries over the past decade to return home. Political considerations also point to a reduction in the levels of inward migration into the UK over the next five years, with all of the main UK political parties having indicated a desire to reduce migration levels to varying degrees. However, given that the bulk of migrants come from EU countries – of net inward migration of 260,000 in the year to June 2014, 142,000 came from the EU – the government's ability to reduce migration levels (while remaining in the EU) is somewhat limited. As such, we do not expect it to fall below 150,000 a year before 2019 and expect it to be substantially higher in the short term (see Figure 4.11).

Figure 4.11. Net inward migration assumptions



Source: ONS, Oxford Economics.

The population of working age will also be boosted by further increases in the SPA. By the end of 2019, the SPA will have reached almost 65½ for both men and women, compared with the current levels of 65 for males and 62½ for females. Overall, we expect the population of working age to grow by 0.9% a year from 2015 to 2019.

However, while we expect the population of working age to continue to grow strongly, a decline in the participation rate is likely to mean that the size of the workforce grows a little more slowly. We expect the participation rate to fall slightly because the population is ageing and labour market participation is still substantially lower amongst those close to the SPA than amongst younger individuals.

The other factor to affect the contribution of the labour supply to potential output growth is the level of the NAIRU.[4] Our forecasts assume that the NAIRU increased from 5% to 5¾% in the aftermath of the financial crisis, which is based upon empirical evidence – notably Blanchard and Summers (1986)[5] and Ball (2009)[6] – which suggests that significant shifts in aggregate demand can lead to changes in the NAIRU through hysteresis. This is because those out of work for a prolonged period see the value of their skills eroded and become detached from the labour market, so the pool of available and suitably-skilled workers is reduced.

On one hand, the shift in employment from the public to the private sector suggests that the NAIRU could remain high. This is because it could lead to a mismatch between skills and opportunities as the likelihood is that the regional pattern of public sector job losses – and private sector opportunities – will be uneven. On the other hand, the fact that increases in unemployment were more highly concentrated on the young than in past cycles might be reason to expect the NAIRU to fall back. This is because we would expect that the younger unemployed would be better placed to retrain and re-enter the workforce than those from older age groups.

On balance, the recent evidence from the labour market leads us to lean towards the latter argument. Not only has the very strong employment growth of the past couple of years reduced the overall unemployment rate, but the number of those unemployed for lengthy periods has also fallen significantly (see Figure 4.12). Compared with 2011, which was the peak year of unemployment, the number of people unemployed for 12–24 months has fallen by 31%, while the number unemployed for more than 24 months has declined by 9%. These figures give us greater confidence in the ability of the economy to reabsorb the long-term unemployed back into the workforce, so we think it reasonable to assume that the NAIRU steadily declines from its current level of 5¾% back to its original level of 5% by the end of the forecast horizon.

Bringing together our forecasts for population growth, participation and the NAIRU, we find that the contribution of the labour supply to potential output growth should pick up slightly from 0.4ppts a year over the period 2007–14 to 0.5ppts a year for 2015–19. However, this is down on the average contribution of 0.7ppts a year over 1996–2006, which reflects lower levels of inward migration and the impact of an ageing population.

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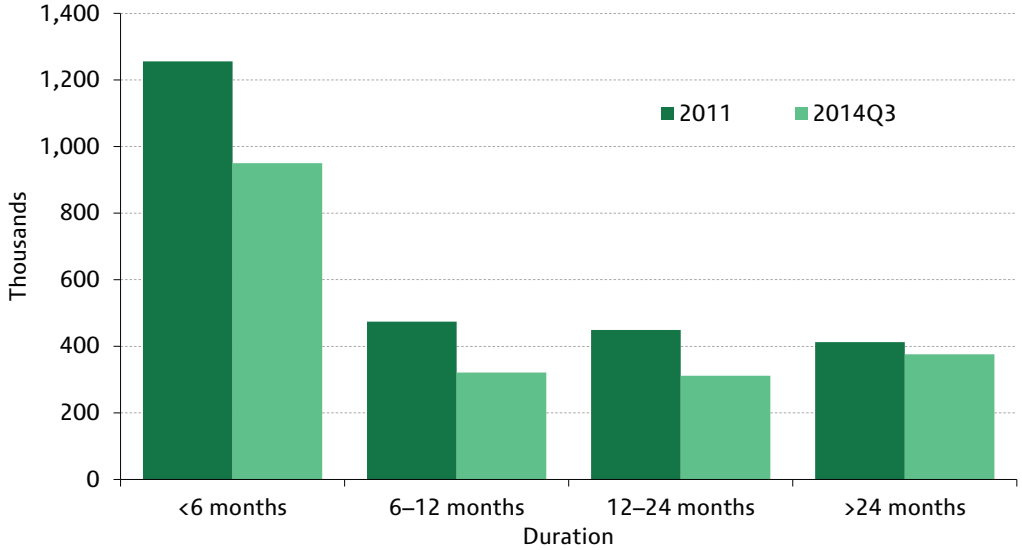
[4] NAIRU – non-accelerating inflation rate of unemployment. Even when the economy is operating at its long-run potential, there will still be some level of frictional unemployment – this is known as the NAIRU.

[5] O.J. Blanchard and L.H. Summers, 'Hysteresis and the European unemployment problem', in S. Fischer (ed.), *NBER Macroeconomics Annual*, volume 1, 1986, http://www.nber.org/chapters/c4245.pdf.

[6] L.M. Ball, 'Hysteresis in unemployment: old and new evidence', National Bureau of Economic Research (NBER), Working Paper 14818, 2009, http://www.nber.org/papers/w14818.

Figure 4.12. ILO unemployment by duration



Source: Haver Analytics.

Total factor productivity

As we established in last year's Green Budget,[7] the literature on the impact of financial crises on potential output suggests that we have already seen the bulk of any permanent damage to total factor productivity. As such, we assume that the contribution of total factor productivity to potential output growth continues to move steadily back towards historical norms through the forecast horizon. Over the 2015–19 period as a whole, we assume that total factor productivity contributes 0.8ppts per year to potential output growth.

A forecast of potential output and the output gap

Bringing these factors together, we expect growth in potential output to average 2.3% a year between 2015 and 2019 (Table 4.1). This is some way below the average of the decade prior to the financial crisis (2.9%) but it represents a clear step up on the average growth rate of 1.6% a year that we estimate was achieved between 2007 and 2014.

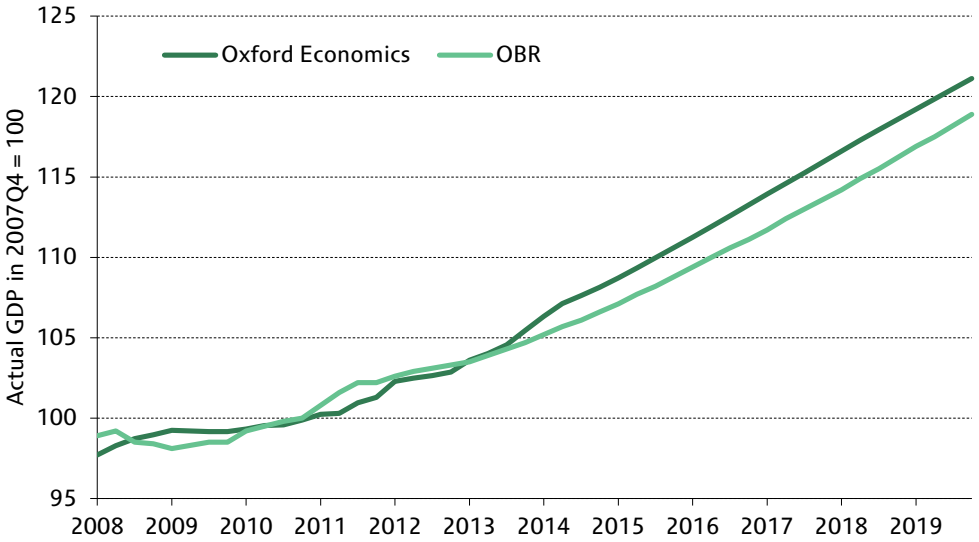
Table 4.1. Contributions to potential output growth (percentage points per annum)

	1996–2006	2007–14	2015–19
Labour supply	0.7	0.4	0.5
Capital stock	0.8	0.6	1.0
Total factor productivity	1.4	0.7	0.8
Potential output	**2.9**	**1.6**	**2.3**
Actual GDP	**3.1**	**0.8**	**2.6**

Note: Columns may not sum exactly due to rounding.
Source: Oxford Economics.

[7] See pages 77–78 of A. Goodwin and O. Salmon, 'The UK economic outlook', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2014*, http://www.ifs.org.uk/budgets/gb2014/gb2014_ch4.pdf.

Figure 4.13. Forecasts of potential output



Note: Forecasts for OBR taken from *Economic and Fiscal Outlook: December 2014*, http://cdn.budgetresponsibility.independent.gov.uk/December_2014_EFO-web513.pdf.
Source: Oxford Economics, OBR.

We expect GDP growth to average 2.6% a year over the 2015–19 period. Ordinarily, we might expect such a large output gap to foster stronger GDP growth; however, there are several important factors likely to limit GDP growth through the forecast horizon, most notably the drag from fiscal consolidation and the weak recovery in the eurozone, which means it will take longer for the output gap to close. In our view, there is no reason why an output gap should have to close within a particular time frame, and in this case the headwinds to growth provide good reason to expect it to close at a slower pace than in previous cycles.

Our forecast for potential output growth is similar to that of the OBR over the 2015–19 period. However, because we estimate that the permanent damage to potential output during the financial crisis was smaller, our forecast starts from a point where the level of potential output is higher than that of the OBR. As such, by the end of 2019, our estimate of the level of potential output is around 2ppts higher than that of the OBR (see Figure 4.13).

Recovery to remain firm over medium term but still weaker than previous upturns

The existence of such a large output gap should keep inflation low and create the conditions for growth to remain firm over the medium term. GDP growth is expected to average 2.6% a year over 2015–19 (see Table 4.2). Growth exceeds the average in the early part of this period as consumers benefit from the plunge in the oil price. But growth is weaker over the latter part, which reflects the combination of the drag from the cuts in government spending and the impact of higher interest rates.

Our expectations for the current cycle are significantly weaker than for periods following other recent recessions, although this largely reflects the severity of the recession and the subdued nature of the subsequent recovery. As of end-2014, GDP was just 3½% above its 2008Q1 peak, which means that it is a long way behind where it was at the corresponding point of either of the previous two cycles (see Figure 4.14). Following the recession of the

Table 4.2. Oxford Economics UK forecast (annual % change unless stated)

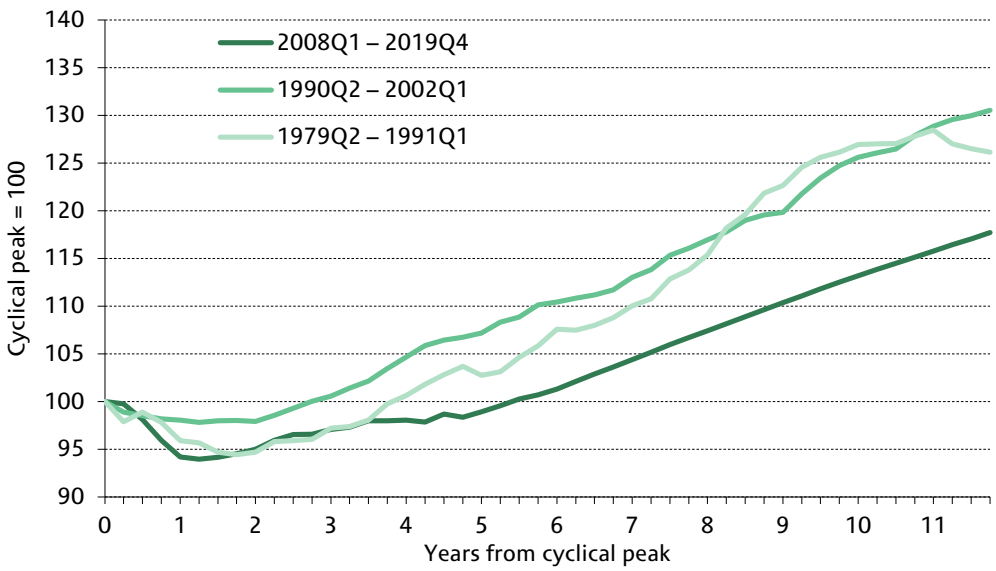
	2013	2014	2015	2016	2017	2018	2019
Domestic demand	1.8	3.2	2.8	2.7	2.5	2.2	2.1
Private consumption	1.7	2.3	3.2	2.9	2.5	2.2	2.3
Fixed investment	3.4	7.2	5.6	6.1	5.7	4.5	3.6
Stockbuilding (% of GDP)	0.5	0.8	0.3	0.3	0.3	0.3	0.3
Government consumption	–0.3	1.5	1.4	–0.6	–0.7	–0.3	0.1
Exports of goods and services	1.5	–1.3	3.1	5.6	5.8	5.2	4.4
Imports of goods and services	1.4	0.4	2.3	5.2	4.9	4.2	3.9
GDP	1.7	2.6	3.0	2.8	2.7	2.5	2.3
Industrial production	–0.6	1.6	1.3	1.5	1.5	1.3	1.1
CPI	2.6	1.5	0.0	1.8	2.1	2.1	2.0
Current balance (% of GDP)	–4.5	–5.4	–4.4	–3.8	–3.2	–2.6	–2.2
Short-term interest rates (%)	0.49	0.54	0.53	1.01	1.73	2.42	3.12
Long-term interest rates (%)	2.45	2.61	2.21	2.79	3.30	3.78	4.21
Exchange rate (US$ per £)	1.56	1.65	1.50	1.51	1.51	1.51	1.51
Exchange rate (euro per £)	1.18	1.24	1.27	1.31	1.34	1.35	1.36

Source: Oxford Economics.

early 1990s, GDP was 12% above its previous peak by this stage, while the recovery of the early 1980s saw GDP around 9% above its previous peak by the same point.

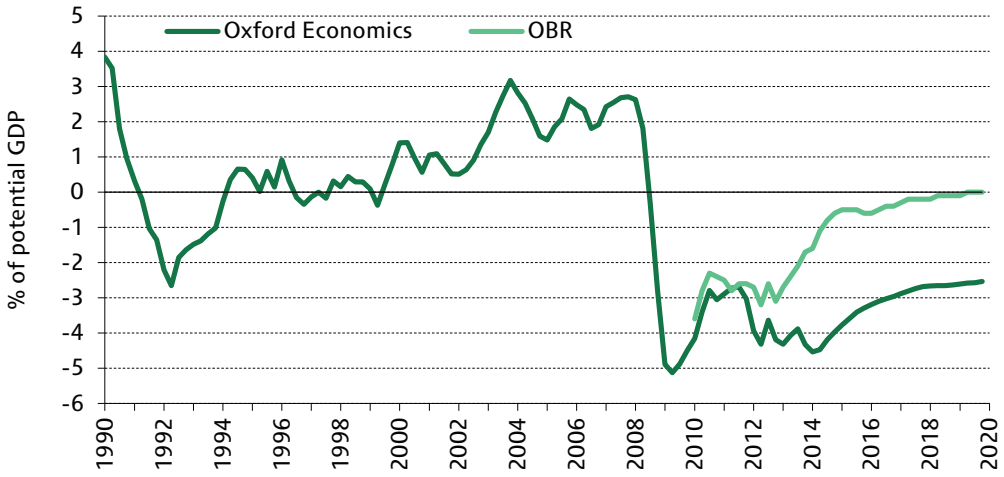
As we have already established, the output gap was estimated to have narrowed from 4.3% of potential output at the end of 2013 to 4% in 2014Q4. With growth set to accelerate further this year, the output gap should start to narrow more rapidly and by the end of 2019 we expect it to have fallen to around 2½% of potential GDP (see Figure 4.15). This forecast points to subdued inflationary pressures over the next few years, meaning that the Bank of England will have scope to keep Bank Rate at 0.5% until early next year and will subsequently be able to tighten policy at a very measured pace.

Figure 4.14. Comparison of UK economic cycles



Source: Haver Analytics, Oxford Economics.

Figure 4.15. UK output gap



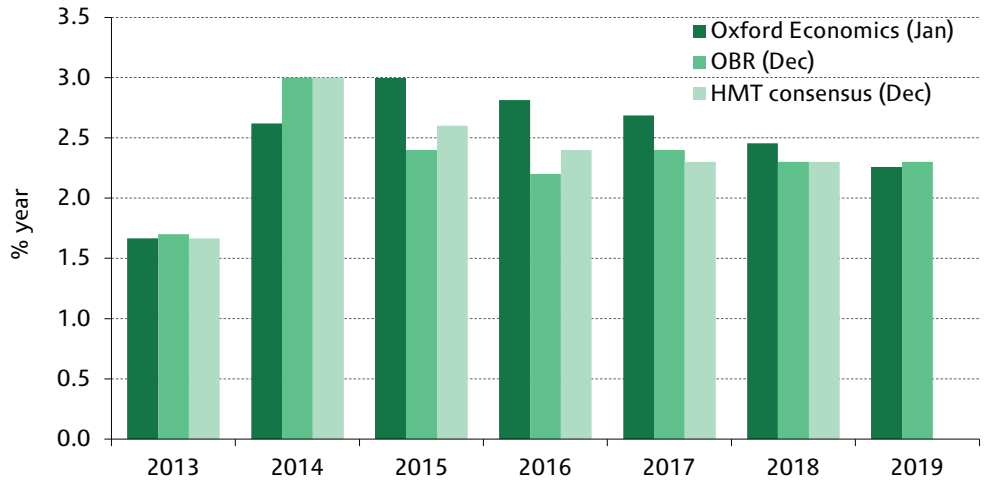
Source: Oxford Economics, OBR.

Our forecast shows a larger output gap than that of the OBR in 2014, to the tune of around 3¼ppts. This gap narrows through the early part of the forecast horizon because of our stronger forecast for GDP growth, but it is still 2½ppts by the end of 2019. That our estimate for the size of the output gap is much larger than the OBR's implies a smaller structural deficit and that the degree to which fiscal policy needs to be tightened may not be as great as the OBR suggests.

4.4 Comparison with other forecasts

The latest National Accounts data report that GDP grew by 2.6% in 2014, a little lower than the OBR's forecast of 3%, although we expect the data to be revised up over time. Our short-term forecasts are a little higher than those of the OBR and the market consensus (Figure 4.16), which we attribute to our forecasts incorporating the effects of the most recent decline in the oil price – our forecast assumes an average price of US$55 a barrel for Brent Crude oil in 2015, whereas the OBR forecast assumes an average of US$83 for fiscal year 2015–16.

Figure 4.16. Comparison of GDP forecasts



Source: Oxford Economics, OBR, HM Treasury.

Over the latter years of the forecast horizon, our forecast is also a little stronger than that of the OBR. This reflects a wider output gap, which allows the economy to grow more strongly without causing inflationary pressures to build. It also reflects our assumption that the current plans for government spending cuts will be reined in, regardless of which party wins May's general election.

4.5 Risks balanced: alternative scenarios for the UK economy

For much of the period since the financial crisis, the risks to our central forecast have been skewed heavily to the downside. For the early part of this period, we typically identified a small number of important international 'event risks', such as the threat of a eurozone break-up or the US going over the 'fiscal cliff'. More recently, those risks have been replaced by a wider spread of risks, which have usually been focused on regional themes around the globe. Nevertheless, we still consider the risks to be skewed to the downside. We attach a probability of around 50% to an outcome similar to our baseline scenario and identify several areas of risk to the upside and downside.

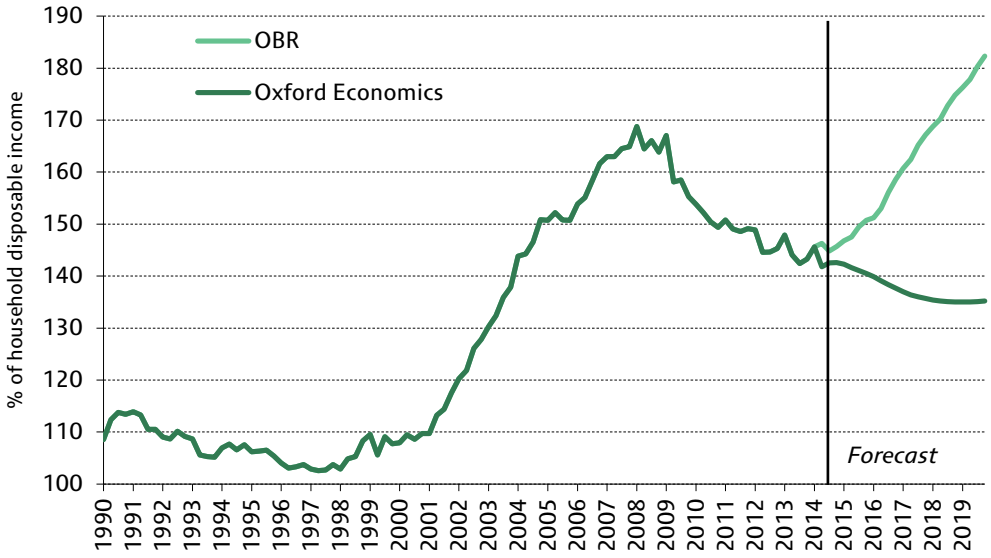
Domestic risks

Domestically, there are risks in either direction. The upcoming general election provides the most pressing source of uncertainty. An indecisive result and failure to establish a government with a workable majority could lead to political paralysis and undermine business confidence. And the election could result in a change of tack with regards to fiscal policy, with a large gap opening up between the degree of borrowing allowed by the main parties' fiscal rules.[8] We do not seek to predict the result of May's election. However, we think it unlikely that the Autumn Statement projections, which imply extremely deep cuts on public spending (described in Chapter 7) in order to bring about a budget surplus of 1% of GDP in 2019–20, will be fully implemented. As a central estimate, Oxford Economics assumes that the appetite of both the government and the population for such deep cuts in public spending will wane, to the extent that public sector current expenditure rises by 7½% over the 2015–16 to 2019–20 period, in contrast to the OBR's assumption that it rises by just under 4%. The possibility of the spending cuts being watered down further, or a switch in the focus of the cuts away from departmental spending to the benefits bill, could yield very different outcomes for the economy.

There remains a high degree of uncertainty surrounding the household sector. Households have been repairing their balance sheets since the beginning of the financial crisis, but recently the pace of deleveraging has eased and the level of household debt remains high by historical standards. Our forecast assumes that households do deleverage further, particularly as the prospect of interest rate rises begins to focus minds, but this outcome is far from certain. Indeed, the OBR's forecast assumes that consumers releverage to the extent that the debt-to-income ratio rises well above its pre-crisis level (see Figure 4.17). In contrast, it is equally plausible that consumers opt to use the anticipated acceleration in income growth to make more rapid inroads into their debts. Which path consumers take will have significant implications for the forecast; a

[8] For more information, see R. Crawford, C. Emmerson, S. Keynes and G. Tetlow, 'Fiscal aims and austerity: the parties' plans compared', IFS Briefing Note BN158, http://election2015.ifs.org.uk/article/fiscal-aims-and-austerity-the-parties-plans-compared.

Figure 4.17. Household debt-to-income ratio



Source: Haver Analytics, Oxford Economics.

debt build-up like the one forecast by the OBR could generate faster growth in the short term, followed by an abrupt slowdown as households struggle to manage the higher debt levels. Meanwhile, more aggressive deleveraging could result in weaker growth in the short term, but leave consumers better placed to support growth further out.

There is also considerable uncertainty surrounding future trends in productivity and, by extension, employment. Productivity has slumped in recent years and is now around 16% below where it would have been had the pre-recession trend continued, although the latest data provided tentative signs that the situation might be starting to improve. We assume that the bulk of the shortfall can be written off as being permanent, but that the economy will achieve similar rates of productivity growth to those seen prior to the crisis. However, some economists believe that both the level of, and the potential for growth in, productivity have been permanently damaged. If this is the case, then the scope for job creation in the short term may be higher as the economy enjoys a period of rapid growth, providing some upside for consumer spending. But on the flip side, if the level of productivity has shifted downwards and productivity continues to grow at slower rates, this would imply weaker potential output growth and, as such, poorer medium-term growth prospects.

External risks

As we established in Chapter 3, the risks to the global outlook are skewed to the downside. In the rest of this section, we look at the two alternative scenarios for the global economy set out in Chapter 3 and consider how they might affect the UK.

US and eurozone upside surprise

Our upside scenario focuses on the US and eurozone economies. In the US, underlying momentum could be stronger than we think, with private sector activity flourishing on the back of stronger labour compensation, more optimistic consumers and looser credit conditions. This would create something of a virtuous circle, with firms reacting to stronger sales by investing more in capital and labour. At the same time, looser credit

conditions, additional investment spending by Germany and rising private sector confidence could support a faster upturn than expected in eurozone activity.

This scenario would generate stronger growth in world trade and, given the relative importance of the US and eurozone to UK exports, the UK would be ideally placed to take advantage. Similarly, a growing risk appetite would be expected to bolster corporate confidence and convince firms to implement capital spending plans more aggressively.

Under this scenario, we would expect the UK economy to grow by 3.6% this year and by 3.8% in 2016. We would attach a probability of around 5% to a scenario where the US and eurozone economies surprise on the upside in this way.

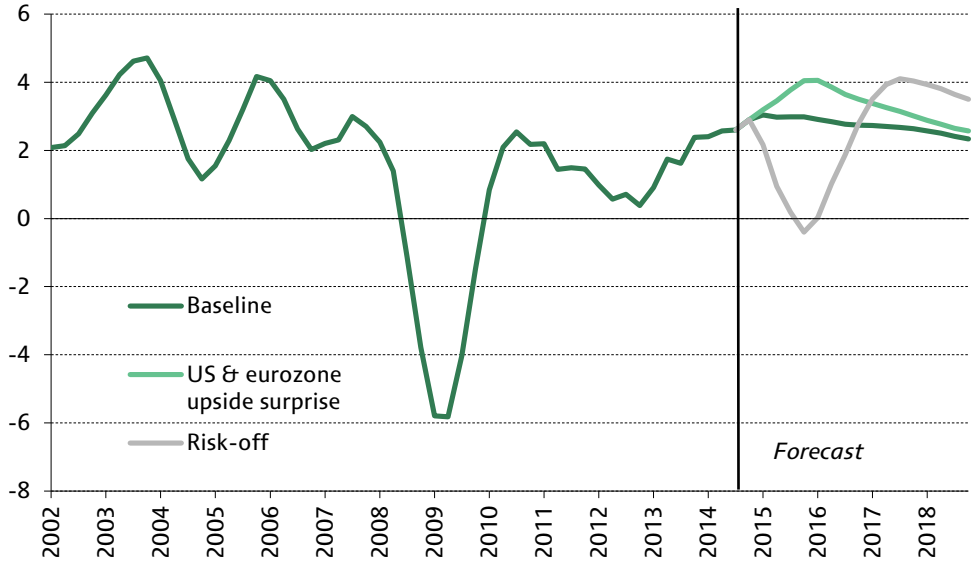
Risk-off – turmoil in financial markets

A ruction in financial markets in October 2014, along with the elevated price of many asset prices, raises the spectre of a widespread retreat from risk. The main driver of our scenario is strong market reaction to several pieces of negative news. There is a substantial sell-off of equities and an increase in market volatility, with the loss of investor confidence precipitating similar damage to consumer and business sentiment. Bond spreads widen most in fragile emerging markets and peripheral eurozone economies, while yields on safe-haven US Treasuries and German Bunds tighten. The shock causes world GDP growth to slow sharply.

The UK would be hit hard by such a scenario, both directly through wealth effects and more indirectly via a slowdown in world trade. The importance of the financial sector to the UK also makes it vulnerable under such a scenario. GDP growth would be just 0.7% this year and 1.4% in 2016, although this would include a brief technical recession at the end of this year. With the Bank of England keeping interest rates lower for longer, and energy prices falling further, the economy recovers through 2016 and enjoys above-average growth rates over the latter part of the forecast horizon. We would attach a probability of around 10% to this downside scenario.

Figure 4.18 shows GDP forecasts for the UK economy, based upon these alternative scenarios.

Figure 4.18. GDP forecasts for alternative scenarios for the UK economy



Source: Oxford Economics.

4.6 Conclusion

After several false starts following the financial crisis, the UK economy has finally put together a period of sustained strong growth. And though the pace of the expansion has slowed a little of late, the plunge in the price of oil offers the promise of renewed momentum in 2015.

We think that there is currently a significant amount of spare capacity in the economy, with the output gap estimated to have been around 4% of potential output at the end of 2014. Our forecast shows potential output growth averaging 2.3% a year over the period from 2015 to 2019, underpinned by further strong growth in the labour supply and robust levels of business investment. This will provide the conditions for strong growth over the medium term, with GDP growth expected to average 2.6% a year from 2015 to 2019, as well as low inflation.

The risks around our forecast are skewed to the downside. Domestically, the upcoming general election provides the most immediate source of uncertainty, with a wide range of results possible. A decisive result could mean changes to fiscal policy, while an inconclusive result and failure to establish a government with a workable majority could undermine business confidence. Future developments around household balance sheets and the potential for productivity to recover are also key sources of uncertainty. But external risks have the greatest potential to alter the outlook. Stronger recoveries in the US and eurozone are a plausible alternative, a scenario which would be particularly beneficial to the UK given its strong trading links with those areas. The biggest downside risk is a widespread retreat from risk. A substantial equity sell-off and associated confidence shock would cause world GDP growth to slow sharply and would see the UK endure a short recession in late 2015.

5. Public finances: a dicey decade ahead?

Rowena Crawford, Carl Emmerson and Gemma Tetlow (IFS)

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.

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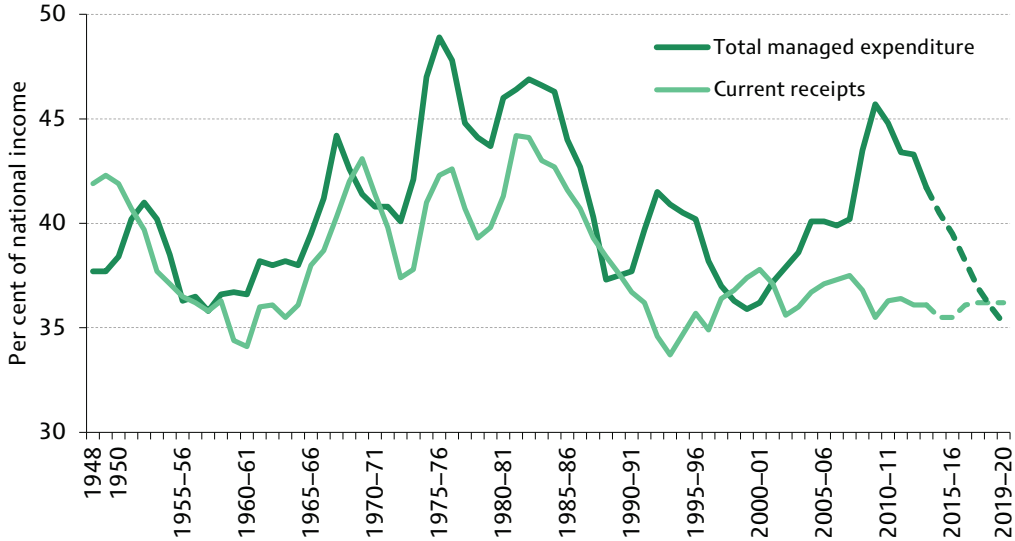
5.1 Introduction

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 receipts[1] 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.

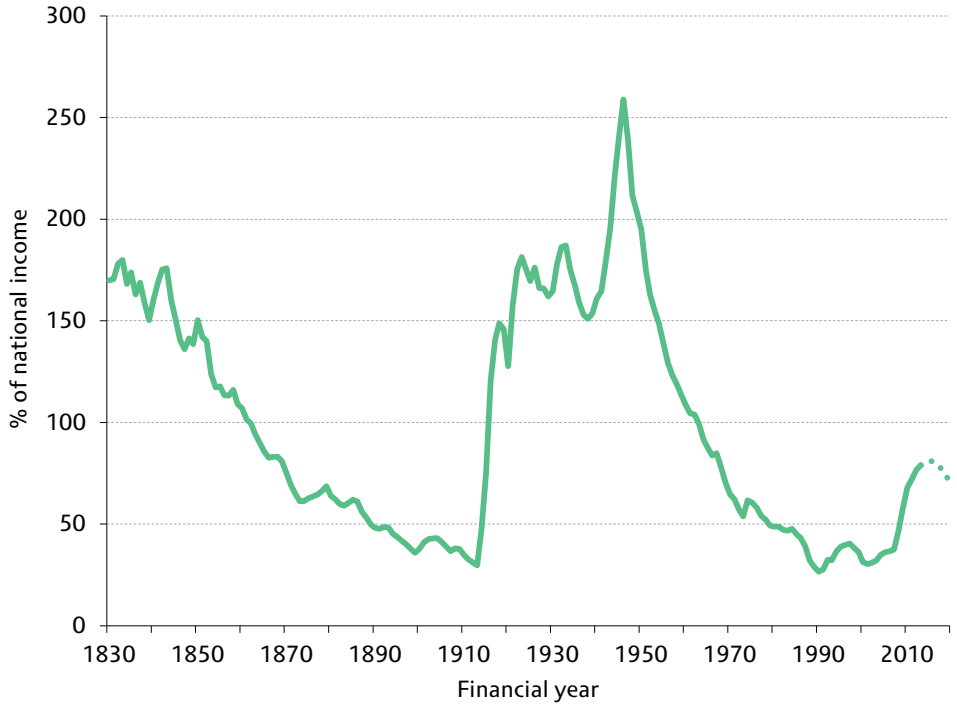
In this chapter, we set out some of the risks and uncertainties the government still faces in reducing borrowing in the wake of the financial crisis, and in maintaining low levels of borrowing in the medium term in order to reduce public sector net debt as a share of national income. We start in Section 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
Level of debt		
2007 (pre-crisis)	11th highest	
2015	8th highest	Only Greece, Japan, Portugal, Italy, Ireland, France and Belgium higher
2019	9th highest	
Change in debt		
2007 to 2015	5th largest increase	Only Ireland, Portugal, Japan and Greece larger
2015 to 2019	7th largest reduction	Only Greece, Ireland, Iceland, Germany, Italy and Portugal larger
2007 to 2019	5th largest increase	Only Ireland, Japan, Portugal and Spain larger
Level of debt interest spending		
2007 (pre-crisis)	10th highest	
2015	9th highest	
2019	6th highest	Only Italy, Greece, Portugal, Ireland and Spain higher
Change in debt interest spending		
2007 to 2015	9th highest	
2015 to 2019	2nd highest	Only Japan larger
2007 to 2019	6th 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.

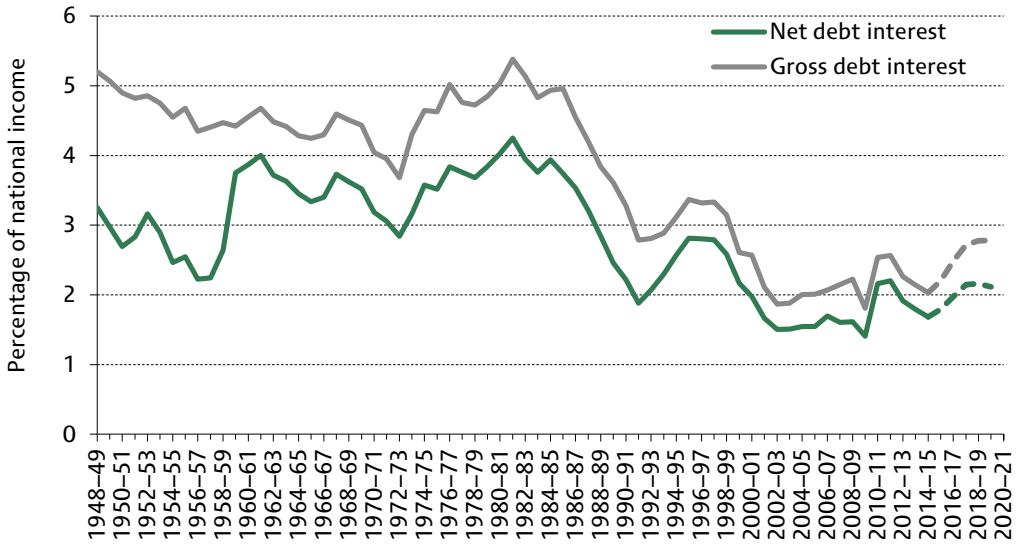
[5] Each of the parties has suggested a fiscal target that (if achieved exactly) would be somewhat looser than the fiscal policy currently planned by the coalition government. However, each of the targets is still likely to imply a primary surplus in the medium term, if the economy evolves as currently 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.

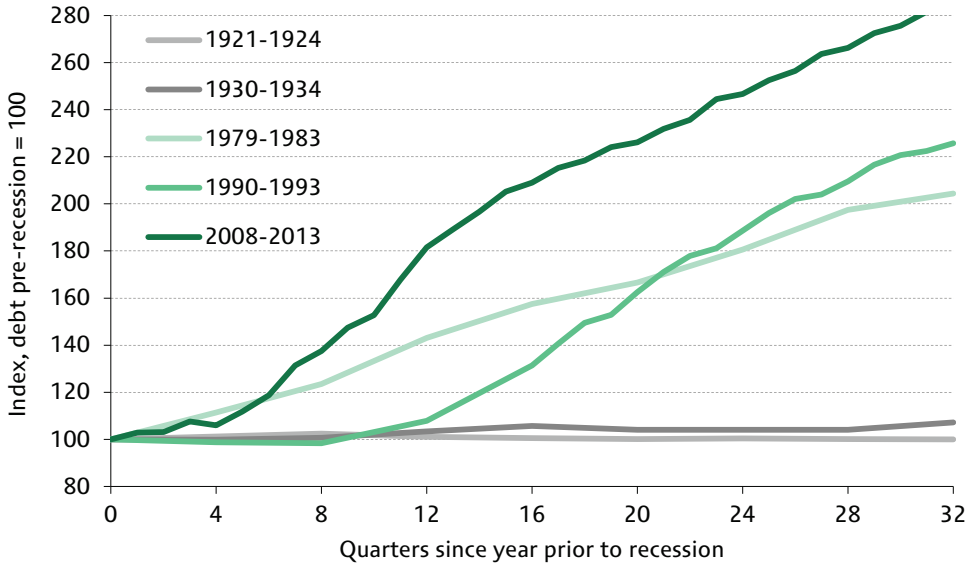
Although the UK's recent experience of a nominal fall in GDP leading to a sharp rise in the debt-to-GDP ratio is unusual by recent historical standards, it serves to highlight one of the risks of maintaining high levels of public sector debt. The higher is the government's debt stock, the more vulnerable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

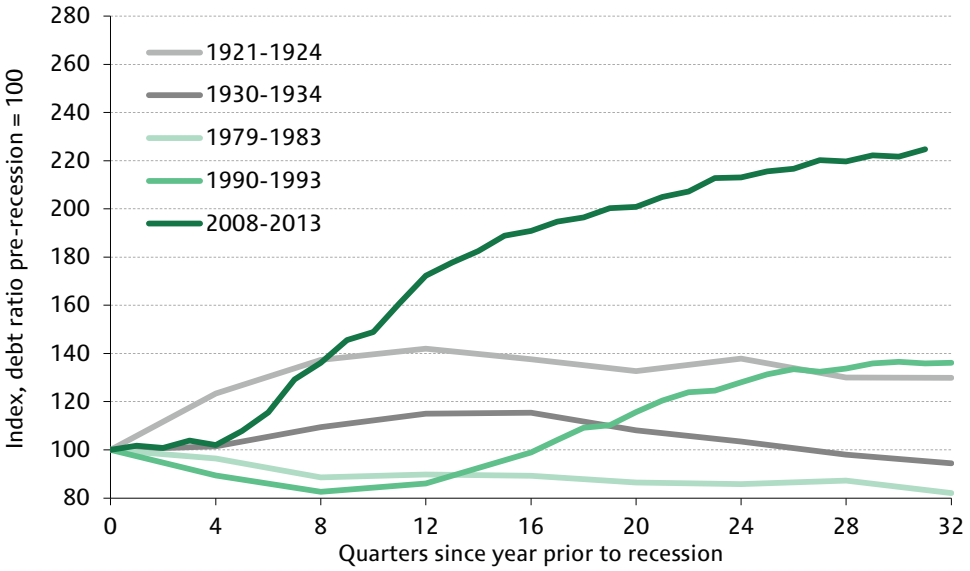
[6] Figures for nominal GDP were obtained from the data set accompanying S. Hills, R. Thomas and N. Dimsdale, 'The UK recession in context – what do three centuries of data tell us?', *Bank of England Quarterly Bulletin*, 2010 Q4, http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/threecenturiesofdata.xls.

Figure 5.4. Changes in debt levels through recent recessions

(a) Nominal debt



(b) Debt-to-GDP ratio



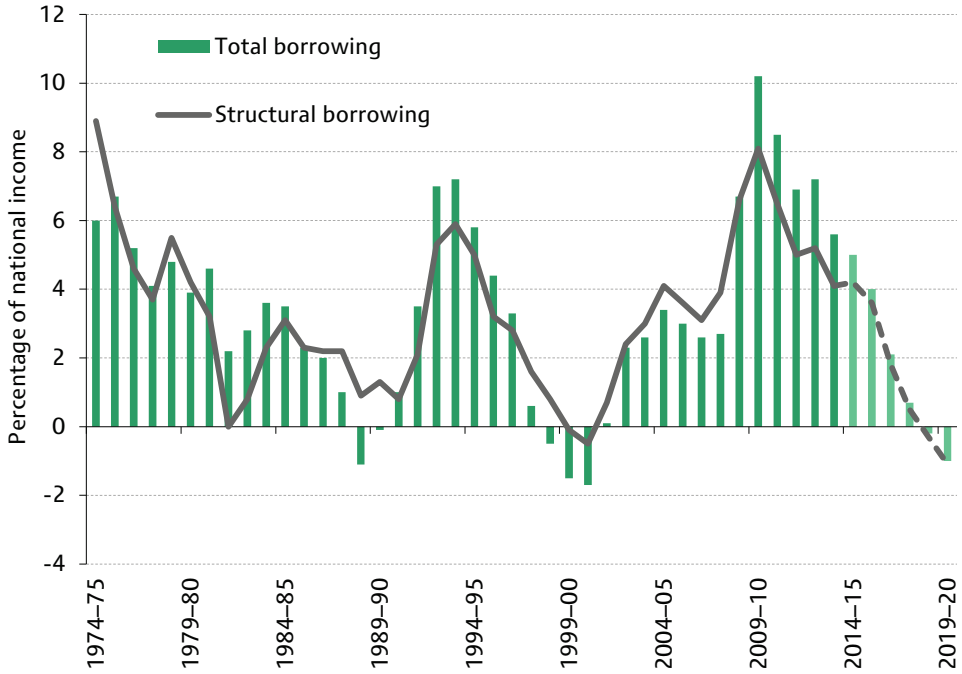
Note: Prior to 1993, data are only available for March of each year. Therefore, each of the series is indexed such that the debt level in March of the calendar year before each recession started is set equal to 100. In other words, for the 1921–24 recession, the debt level in March 1920 is set equal 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/Documents/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.

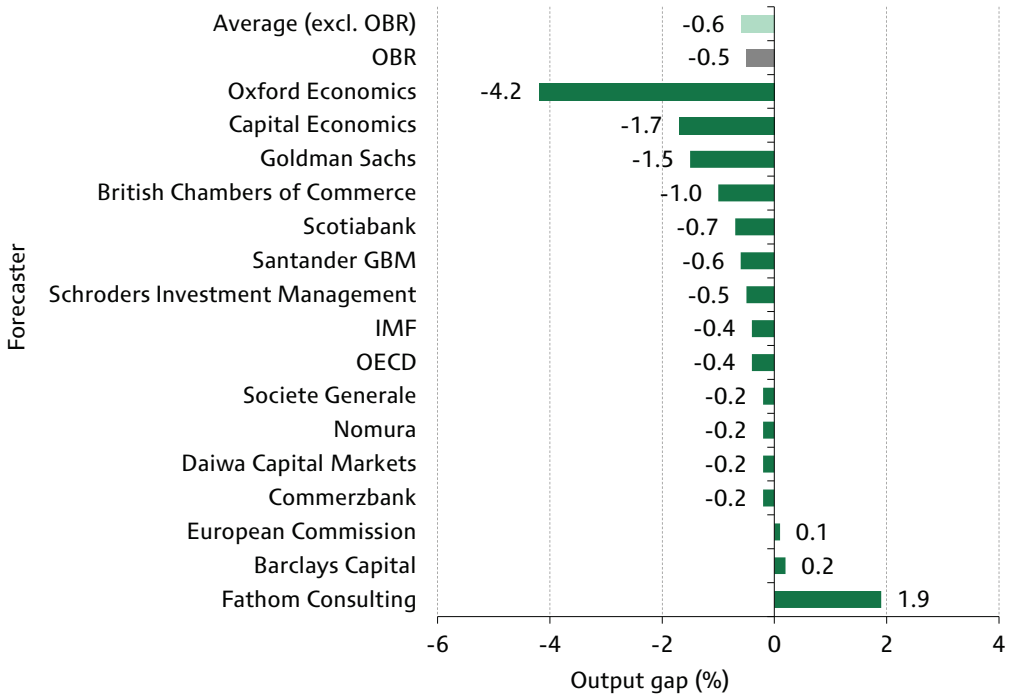
Strong growth in labour supply (driven, in particular, by high inward migration and the continued rise in the female state pension age) and strong growth in business investment cause Oxford Economics to conclude that potential output grew quite fast in 2014 and

[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:		
Output gap	**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
Level (% of national income)		
1997	17th highest	Around euro area average, higher than the OECD average
2007	11th highest	Around euro area average, higher than the OECD average
2016	17th highest	Around 1½ percentage points below the euro area average, higher than the OECD average
Reduction, 2007 to 2016		
% of national income	8th largest	Poland, United States, Ireland, Israel, Iceland, Portugal and New Zealand larger
Real terms	7th largest	Iceland, Greece, Turkey, Hungary, Portugal and Italy larger
Increase, 1997 to 2007		
% of national income	8th largest	Japan, Netherlands, Spain, Portugal, Turkey, Norway and Greece larger
Real terms	7th 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.

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[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

Spending as % of national income	*Memo: 2010–11*	**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?

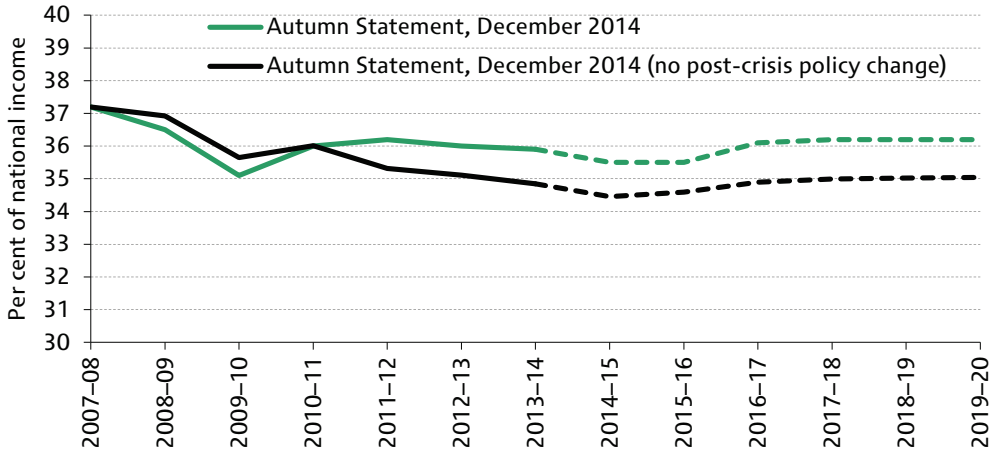
There are several possible reasons why tax revenues could come in below or above forecast. First, economic growth over the next few years could be higher or lower than forecast (as discussed in Section 5.3) and would typically feed into stronger or weaker growth in tax receipts. Second, even if overall 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/.

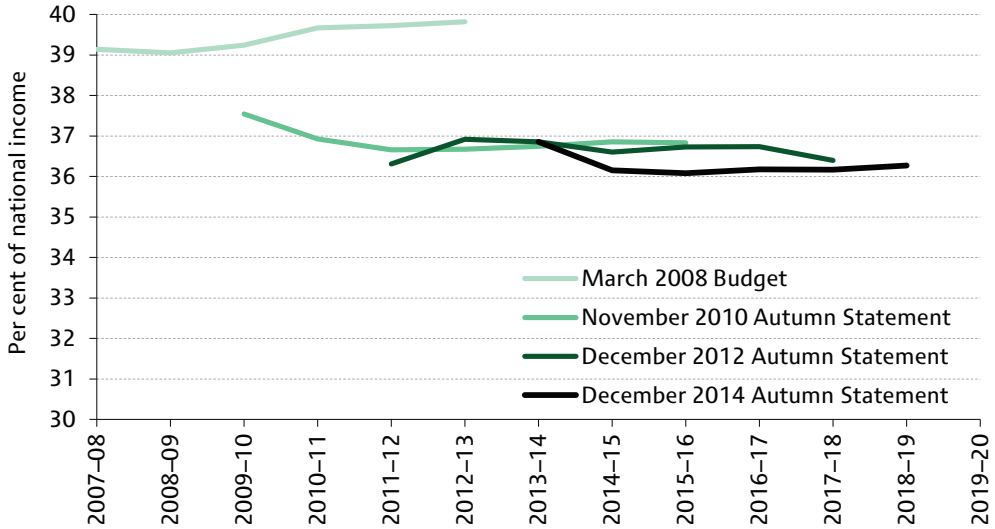
the March 2008 Budget. In addition, in order to make the forecasts as comparable as possible, we have attempted to adjust the most recent forecast for methodological changes associated with the shift from the 1995 to the 2010 European System of Accounts (ESA).[24]

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.

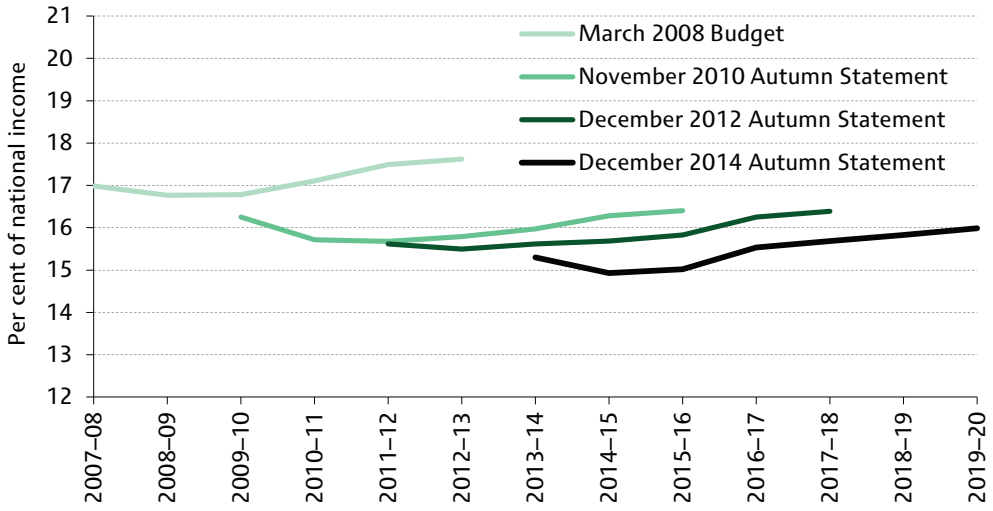
Between December 2012 and December 2014, the overall economic outlook remained largely unchanged. However, the OBR's forecast for receipts as a share of national income was revised down significantly. The remainder of this section highlights some of the reasons why this happened and thus some of the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

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[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]

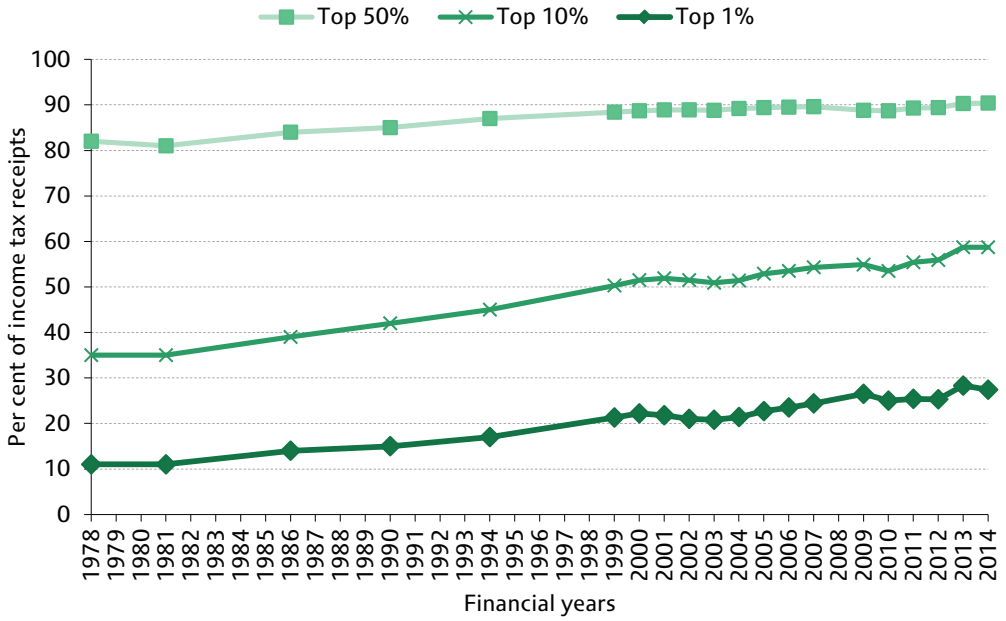
Other taxes are not as progressive as income tax, but it is still the case that revenues of many taxes will be quite dependent on those on higher incomes. Previous work by IFS researchers considered income tax, NICs, VAT, excise duties and council tax and estimated that, in 2013–14, the top 20% of taxpayers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

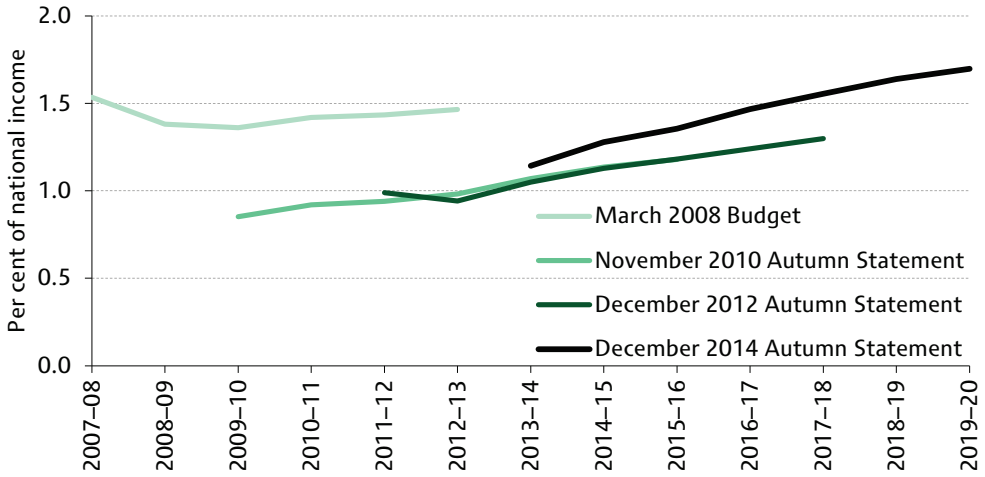
Capital taxes (that is, capital gains tax, stamp duty land tax, stamp duty on share transactions and inheritance tax) currently make up around 4% of all government revenues and are mostly paid by a small number of relatively well-off individuals. In the most recent year of data: 70% of inheritance tax 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.

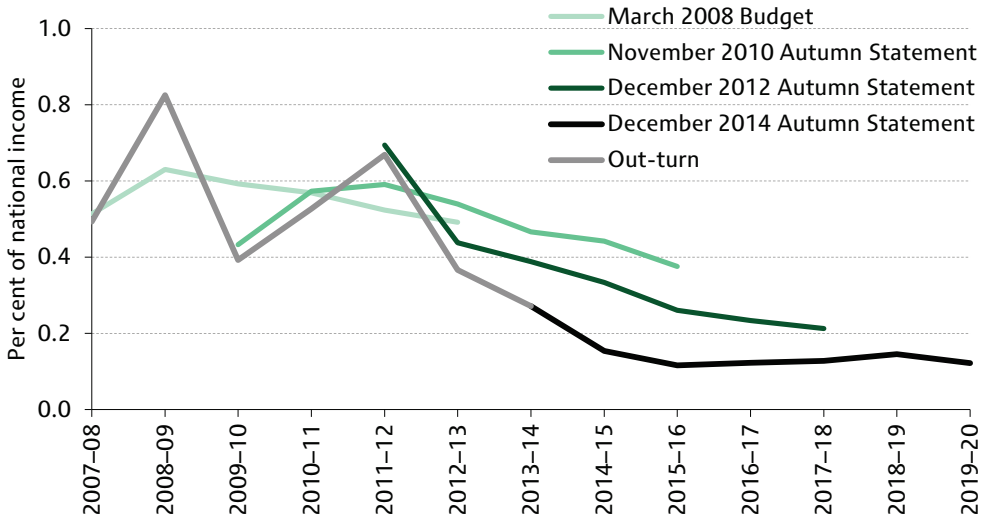
In part, the forecast increase in revenues from capital taxes is a result of discretionary policy changes – for example, the coalition government has frozen the inheritance tax threshold and (like the last Labour government) has increased rates of stamp duty land tax. It has also increased rates of capital 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.

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[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]

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[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 12% of families with children. In five years' time we estimate that these numbers increase to 1.2 million, 600,000 and 18% respectively. In ten years' time, we estimate they increase to 1.8 million, 700,000 and 26%.

[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.

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[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.

6. The government's financial accounts: an ICAEW perspective

Robert Hodgkinson (ICAEW) and Martin Wheatcroft (on behalf of ICAEW)

Summary

- Over the past four years, the UK government has introduced a new method of reporting its financial position, adopting financial accounting similar to that used by businesses around the world in accordance with international generally accepted accounting standards. 'Whole of Government Accounts' prepared on this basis include a balance sheet that reflects not only the inclusion of assets controlled by government bodies, but also the inclusion of liabilities such as those for public sector employee pensions, nuclear decommissioning costs and clinical negligence claims.
- In 2012–13 (the latest year available), the accounting deficit of £179 billion was £94 billion more than the current deficit of £85 billion reported in the National Accounts. The main differences were £49 billion in higher charges for public service pensions, £35 billion from the accounting for assets and £16 billion for nuclear decommissioning, clinical negligence and other obligations.
- Financial statements provide useful information that can be used to support financial decision-making, in addition to measuring progress against previous plans, budgets and market expectations. For example, the reported liabilities of £1.2 trillion for employee pension obligations included in the balance sheet give a measure for monitoring the scale of the government's obligations and offer the potential for improved transparency about how the government intends to fund the payment of these obligations over the coming decades.
- The financial accounts provoke some significant questions. How does the government plan to address an accounting deficit of almost 30% of total revenue? How will long-term public sector pension obligations and nuclear decommissioning costs be funded?
- Financial accounting should also support the government in developing comprehensive financial reviews that use balance-sheet information as an integral part of the analysis used in making financial decisions.
- Financial analysis based on Whole of Government Accounts has the potential to change the public debate on the government's finances from a narrow focus on balancing the public finance deficit in the National Accounts to a more comprehensive discussion around how the government plans to deal with its longer-term financial challenges, using a similar financial language to that used by millions of people outside of government.

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6.1 Introduction

> The WGA [Whole of Government Accounts] is a key means by which Parliament holds the Government to account for its management of public finances, including its progress in delivering fiscal consolidation measures.
>
> *Public Accounts Committee, January 2015*[1]

Over the past four years, the UK government has introduced a new method of reporting its financial position, differing in many respects from the public finances reported in the National Accounts still used primarily by the government and focused on by the media. Although 'new' to the government itself, this approach is based on financial accounting similar to that it has required businesses in the UK to comply with for many decades.

Financial statements provide useful information that can be used to support financial decision-making, in addition to measuring progress against previous plans, budgets and market expectations. For example, the reported liabilities of £1.2 trillion for employee pension obligations included in the Whole of Government balance sheet give a measure for monitoring the scale of the government's occupational pension obligations and offer the potential for improved transparency about how the government intends to fund the payment of these obligations over the coming decades. Similarly, the scale of obligations to decommission nuclear facilities and to settle clinical negligence claims is brought to prominence by the requirement in accounting standards for estimates to be recorded in the balance sheet and then updated as circumstances develop.

The implementation of Whole of Government Accounts is still in its early stages, and the government took 15 months to produce the latest available Whole of Government Accounts, covering the fiscal year ended 31 March 2013. The government plans to reduce this to 12 months for 2013–14 and to nine months for 2014–15.

As shown in Figure 6.1, the deficits reported under accounting standards over the four years to 2012–13 have generally been substantially higher than the current deficits reported in the National Accounts,[2] as a consequence of the more comprehensive nature of financial accounting. These higher numbers for the deficit provide an indication of how the financial challenges facing the government are much wider than the ongoing debate about the balancing of income and spending as reported in the National Accounts.

Section 6.2 provides an analysis of the government's financial position as set out in the Whole of Government Accounts for 2012–13, including its income, expenditure, assets and liabilities and how they relate to the numbers for the public finances reported within the National Accounts. The section also addresses the accounting treatments adopted for pension obligations, student loans, Private Finance Initiative (PFI) contracts and Network Rail. In Section 6.3, we comment on how financial accounting can be used more effectively by the government in making financial decisions and in improving transparency and accountability for its financial performance. Section 6.4 concludes.

Box 6.1 sets out some distinctions that are important in this chapter.

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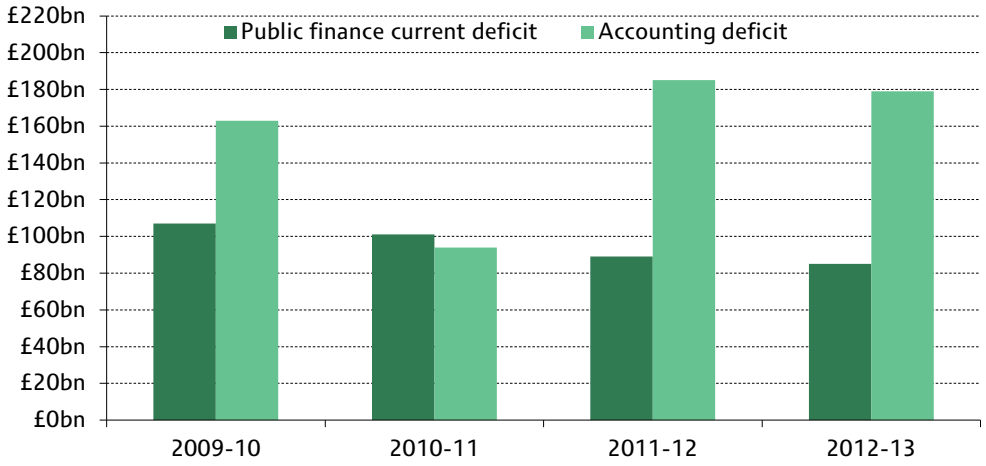
[1] Page 4 of House of Commons Committee of Public Accounts, *Whole of Government Accounts 2012–13*, 26th Report of Session 2014–15, HC 678, http://www.publications.parliament.uk/pa/cm201415/cmselect/cmpubacc/678/678.pdf.

[2] The exception was 2010–11, when there was a substantial one-off gain in the Whole of Government Accounts arising from changes to pension arrangements for government employees.

Figure 6.1. National Accounts versus Whole of Government Accounts



Source: Whole of Government Accounts, 2011–12 and 2012–13.

Box 6.1. Key differences between the National Accounts and financial accounting

National Accounts

The National Accounts is a framework for the presentation and measurement of economic activities in the UK, featuring many key economic statistics. It includes a set of rules for how public sector financial activities should be reported on.

The National Accounts are generally prepared in accordance with the European System of National and Regional Accounts (ESA), which is similar but not identical to the UN System of National Accounts. For the UK, the amounts reported in the National Accounts for 2012–13 and 2013–14 at the time were based on ESA95. In September 2014, a new version – ESA10 – was adopted.

In this chapter, references to the National Accounts are to the public finances as reported within the National Accounts unless the context requires otherwise.

Financial accounting

Financial accounting is a method of accounting in accordance with generally accepted accounting standards. Accounting standards provide a comprehensive set of rules and principles for recording financial transactions and for reporting on the financial performance and position of an organisation in the form of financial statements, which include a balance sheet as well as income and expenditure and cash flow statements.

The Whole of Government Accounts are an example of such financial statements, prepared in this case in accordance with International Financial Reporting Standards (IFRS), with some adaptations for government use under the auspices of the UK government's Financial Reporting Advisory Board.

In the private sector, management teams, boards, audit committees and regulators use external and internal financial reports prepared under IFRS in monitoring the financial performance of businesses and in making financial decisions, while shareholders and debt investors use financial statements and other external financial reports prepared under IFRS in making decisions about the equity or debt finance provided to businesses.

The intention in implementing financial accounting within government is to improve the financial information provided to ministers and their departments, the Cabinet, the Public Accounts Committee, parliament, the public and debt investors and so improve the quality of financial decision-making and the accountability of the government for its financial performance.

Promises, commitments, obligations and liabilities

In this chapter, the term 'obligation' refers to a legal or similar requirement to make a payment in the future, distinct from other types of commitment. If an obligation arises as a consequence of a past event, then accounting rules require it to be recognised in the balance sheet as a liability.

Commitments to spend money in the future, such as on state pensions, future welfare payments or infrastructure spending plans, are not the same, for accounting purposes, as obligations or liabilities. Although similar in terms of outcome, they are treated differently from, for example, payments for clinical negligence claims or contractually committed payments to construct new assets.

To illustrate the differences, consider a plan to build a bridge:

1) Transport Secretary announces plans to build a bridge.

This is a commitment in the form of a political **promise**. But the government could change its mind and so there is no obligation to pay for the bridge.

2) The Chancellor includes funds to build the bridge within the Budget.

This is a **commitment** in the form of planned expenditure. But the government could still change its mind and so there is still no obligation to pay for the bridge.

3) A contract is signed with a construction firm.

This is a commitment in the form of a legally binding contract. The government is not able to change its mind easily because it has signed a contract that is enforceable in the courts by the other party. Hence there is an **obligation** to pay for the bridge. This obligation is required to be reported within the notes to the accounts.

4) The bridge is built.

The government has a current obligation to pay the construction firm as a consequence of a past event (the construction of the bridge). Hence the government has to record a **liability** for the cost of the bridge in its balance sheet.

6.2 The UK government's financial accounts

The Whole of Government Accounts are consolidated financial statements, reflecting the activities of 3,800 different bodies across central government, devolved administrations and local government in the UK. They comprise four primary statements, together with extensive associated notes and accompanying explanatory reports, and in 2012–13 comprised 218 pages of information on the UK government's financial position.

The income statement records income and expenditure incurred during the course of the year, accompanied by a cash flow statement that reconciles from that income statement to the net change in cash balances over the same period. The statement of financial position, commonly known as a balance sheet, summarises the assets and liabilities

controlled by the government at the end of that year. Balance sheets do not attempt to record the effect of all future transactions or wider resources that may have value to an organisation. Nor do they record all future commitments to spend money. In the case of the government, the abilities to raise taxes in the future, to print money or to access financial markets to borrow as required all have a value over and above the amounts recorded in the balance sheet, while commitments to pay state pensions, welfare or other payments in subsequent years out of future revenues or borrowing are also not captured.

The accounting deficit for the year in the income statement provides the first line on a statement of comprehensive gains and losses, incorporating other gains or losses made in the year such as asset revaluations, to calculate a comprehensive loss. This feeds into a reconciliation of movements in financial position that shows how the net liabilities reported in the balance sheet have changed from one year to the next.

Whole of Government Accounts 2012–13[3]

Revenue of just over £620 billion in 2012–13 was insufficient to cover operating expenditures of £717 billion, resulting in a net operating loss of £97 billion before net finance costs of £79 billion and losses on asset disposals of £3 billion. As a result, the total deficit for the year on an accounting standards basis was £179 billion, equivalent to 29%

Table 6.1. Summarised Whole of Government Accounts 2012–13

Revenue and expenditure		Balance sheet	
Year ended 31 March 2013	**£bn**	**As at 31 March 2013**	**£bn**
Revenue	620	Property, plant and equipment	747
Operating expenditure	(717)	Other assets and investments	516
Operating loss	(97)	Public sector pensions	(1,172)
Net finance costs	(79)	Debt and bank deposits	(1,330)
Net loss on disposal of assets	(3)	Other liabilities	(391)
Accounting deficit for the year	**(179)**	**Net liabilities**	**(1,630)**
Cash flow statement		**Comprehensive loss / Movements in financial position**	
Operating loss	(97)	**Accounting deficit for the year**	**(179)**
Add back: non-cash transactions	83	Property revaluations	7
Changes in working capital	2	Financial asset revaluations	6
Operating cash outflow	(12)	Actuarial loss	(97)
Capital expenditure and investments	(58)	**Comprehensive loss for the year**	**(263)**
Cash outflow before financing	(70)	Other movements	(20)
Net cash inflow from borrowing	**99**	**Change in financial position**	**(283)**
Net interest and other financing	(30)	Opening net liabilities	(1,347)
Net change in cash in the year	(1)	**Closing net liabilities**	**(1,630)**

Source: Whole of Government Accounts 2012–13.

[3] HM Treasury corporate report, *Whole of Government Accounts 2012 to 2013*, https://www.gov.uk/government/publications/whole-of-government-accounts-2012-to-2013.

of revenue. This is shown in Table 6.1, together with a summary of the balance sheet, cash flow statement and the statement of comprehensive loss and movements in financial position.

Although revenue is similar (but not identical) to the income reported in the National Accounts, operating expenditure is significantly higher. This is because it includes significant expenditures not recorded in the public finances in the National Accounts, such as charges for nuclear decommissioning costs and clinical negligence claims that may not be settled for several years, and the costs of writing off assets no longer in use. This is even after excluding interest charges, which are reported under the separate heading of finance costs.

As well as interest on the government's debts, net finance costs include the unwinding of the discounting of public service pension obligations and of long-term liabilities such as for nuclear decommissioning.

The cash flow statement shows how net borrowing of £99 billion during the year was utilised to finance operating (i.e. non-capital, non-interest) cash outflows of £12 billion, capital expenditure and investments of £58 billion, and net interest and other financing payments of £30 billion.

The balance sheet included assets of £1,263 billion (£747 billion plus £516 billion) and liabilities of £2,893 billion (£1,172 billion plus £1,330 billion plus £391 billion), giving a net liability position of £1,630 billion.

Based on an estimated population of 64 million people living in the UK as of 31 March 2013, this was equivalent to assets and liabilities as measured under accounting standards of approximately £20,000 and £45,000 per person respectively, a net liability position of £25,000 per person. It is very important to appreciate that this does not represent the net liabilities of individuals due to government activity: as the balance sheet treats the government as a distinct entity separate from the rest of the economy, this does not take account of the fact that a proportion of these liabilities are the assets of private individuals, whether in the form of direct or indirect ownership of government debt (e.g. through investment funds, pension funds or insurance policies) or, for current and former government employees, in the form of pension entitlements.

The overall change between the balance sheet at 31 March 2012 and at 31 March 2013 was an increase in net liabilities of £283 billion. The largest contributors to this were the reported loss of £179 billion and actuarial losses of £97 billion, the latter primarily as a consequence of changes in the rates used to discount pension obligations to their net present value. The majority of these movements are not reflected in the public finance numbers reported in the National Accounts, as discussed in more detail below.

The Whole of Government Accounts also reported £88 billion in contingent liabilities outside of the balance sheet. These are obligations that had not turned into liabilities because they are dependent on uncertain future developments. They included financial guarantees provided to the UK banking sector, export credit guarantees provided to businesses, potential clinical negligence claims, taxes subject to challenge, and support and guarantees provided to international organisations. Generally, these are items that may not occur, but for which there is a reasonable possibility[4] that they could happen.

[4] This means a 50% or less likelihood of occurrence; if they were considered more likely than not to occur – i.e. a greater than 50% likelihood – then they would need to be included within liabilities on the balance sheet instead.

Other items reported in the notes to the financial statements were the total of £245 billion of future payments due under PFI contracts and asset leases, comprising £42 billion of principal repayments recorded as liabilities in the balance sheet and £203 billion for future services, assets yet to be constructed and future interest payments.

The financial statements do not reflect implicit commitments that may have been made by the government – for example, to support the wider financial industry in the event of another banking crisis.

Differences between the National Accounts and the Whole of Government Accounts

There are some significant differences between the numbers reported at the time under ESA95 for the public finances within the National Accounts for 2012–13 and the Whole of Government Accounts, as shown in Table 6.2.

The accounting deficit for 2012–13 of £179 billion was significantly higher than the current deficit reported at the time of £85 billion. This was primarily as a consequence of recording changes in the value of assets and liabilities that are on-balance-sheet for financial accounting purposes, but which are not recognised in the public finance numbers within the National Accounts.

The largest difference related to the accounting for public sector pensions, with £1,172 billion in pension obligations recognised, together with an associated £49 billion of increased charges in the year. These are discussed in more detail later in this section.

Turning to the balance sheet, £747 billion was recorded for property, plant and equipment. This brought with it net charges of £35 billion in the financial accounts, comprising asset write-downs of £21 billion, higher depreciation charges of £5 billion,

Table 6.2. National Accounts reconciled to Whole of Government Accounts 2012–13

Income and expenditure		Balance sheet	
Year ended 31 March 2013	**£bn**	**As at 31 March 2013**	**£bn**
Public finances total deficit[a]	(115)		
Add back: net capital investment	23		
Add back: quantitative easing	7		
Public finances current deficit	**(85)**	**Public sector net debt**	**(1,185)**
Asset-related charges	(35)	Property, plant and equipment	747
Public service pensions charges	(49)	Net pension obligations	(1,172)
Provision charges	(16)	Provisions	(131)
		PFI contracts	(32)
		Nationalised banks	74
Other accounting treatment and timing differences	6	Other assets recognised	197
		Other liabilities recognised	(128)
Accounting deficit for the year	**(179)**	**Net liabilities**	**(1,630)**

[a] This measure for the deficit excluded a £28 billion one-off benefit from the transfer of the Royal Mail pension fund to the government.
Source: Whole of Government Accounts 2012–13.

£3 billion for assets disposed of or scrapped and £12 billion for capital grants treated as an expense, partially offset by £6 billion for military equipment expensed on use.

Provisions (the accounting term for general liabilities) of £131 billion were recorded for nuclear decommissioning, clinical negligence and other costs that the government is expected to incur as a consequence of past events, while £32 billion was recorded for obligations under PFI contracts not included within the national debt.

The balance sheet also records £74 billion relating to the government's investment in the banking sector, including its shares in Lloyds Banking Group, the Royal Bank of Scotland, Northern Rock and Bradford & Bingley.

The other differences were principally related to the recording of receivables and payables in the balance sheet.

Revenue and operating expenditure

The majority of income for the government in 2012–13 was derived from taxes, with the largest items within direct taxes being income tax (£151 billion) and National Insurance (£91 billion) and the largest item within indirect taxes being VAT (£99 billion). These are shown in Table 6.3.

Table 6.3. Revenue and operating expenditure 2012–13

Revenue		Operating expenditure	
Year ended 31 March 2013	**£bn**	**Year ended 31 March 2013**	**£bn**
		Social security benefits	(215)
Direct taxes	289	Employment costs	(183)
Indirect taxes	179	Purchase of goods and services	(163)
Local taxes	56	Grants and subsidies	(56)
Total taxation revenue	524	Depreciation and impairments	(51)
Other income	96	Other charges	(49)
Total revenue	**620**	**Total operating expenditure**	**(717)**

Source: Whole of Government Accounts 2012–13.

Operating expenditure, which is also presented in Table 6.3, excludes finance costs and capital investment, but includes depreciation and impairments of assets. The largest cost within expenditure on social security benefits was for state retirement pensions and pension credit, totalling £92 billion. It also included housing support and tax credits, benefits relating to sickness and disability, jobseeker's allowance, income support and child benefit.

Employment costs of £183 billion related to 4.6 million full-time equivalent employees, of whom 1.3 million worked in the health sector, 1.1 million worked in central government, central government agencies and bodies, public corporations and the armed forces, and 2.2 million worked in local authorities, schools, and police and fire services. These are some of the most significant numbers included in the Whole of Government Accounts, particularly in the light of the government's ongoing austerity programme.

Assets

The balance sheet starts with the assets controlled by the government at the end of the fiscal year, as shown in Table 6.4.

Table 6.4. Government assets at 31 March 2013

Property, plant and equipment		Other assets and investments	
As at 31 March 2013	**£bn**	**As at 31 March 2013**	**£bn**
Buildings, dwellings and land	348	Investment properties	13
Motorways and trunk roads	109	Military systems and munitions	29
Local authority highways	56	Unpaid and accrued taxes	99
Other infrastructure assets	108	Other non-financial assets	57
Assets under construction	39	Investment in nationalised banks	92
Military equipment	36	Student loans	36
Other	51	Cash and other financial assets	190
Property, plant and equipment	**747**	**Other assets and investments**	**516**

Source: Whole of Government Accounts 2012–13.

Most businesses preparing financial statements record property, plant and equipment on a depreciated historical cost basis, i.e. at what they paid for an asset less depreciation as it is used or ages. However, the effect of inflation over long periods of time means that old assets will be recorded at a much lower value than similar assets built more recently and so accounting standards provide for an alternative approach using depreciated replacement cost. Under this approach, assets are revalued to the amount it would cost today to construct them, before being reduced by depreciation for their age and usage. This results in assets of different vintages being more comparable with each other within the accounting records, which is why the government has adopted this approach instead of the depreciated historical cost method.

Irrespective of which of these two methods is used for calculating the book value of an asset, this is not the same as calculating the amount that asset could realise from a potential sale, nor is it the same as the future economic activity expected to be generated by that asset. However, implicit in the decision to record assets in the accounting balance sheet is a conclusion that the assets concerned have an economic value equal to or greater than the amount recorded, even if that value is not quantified.

The infrastructure assets in the balance sheet at 31 March 2013 do not include the approximately £46 billion of railway infrastructure assets owned by Network Rail, but the government has confirmed that they will be included within the Whole of Government Accounts from 2014–15 onwards. The accounts also indicate that local authority highway infrastructure is estimated to be understated in the order of £200 billion because of insufficient information about the current replacement cost of these assets, which are currently carried at historical depreciated cost instead. The Treasury plans to obtain depreciated replacement cost numbers to resolve this issue in future accounts.

The other exception to using the depreciated replacement cost basis for accounting for property, plant and equipment was with respect to investment properties. These are assets held for commercial purposes, such as rental to businesses or for potential future sale, and in accordance with accounting standards are recorded at market valuations. This included the Olympic Park, which was carried at a value of £0.3 billion, substantially less than its construction cost of £1.6 billion.

Military assets are a notable element within the balance sheet, with £36 billion of military equipment complemented by £21 billion in military-related intangible assets (including

software and weapons development) and £8 billion in munitions and other defence supplies.

Unpaid and accrued taxes amounted to £108 billion, before deducting a provision of £9 billion for anticipated non-collection.

The investment in the nationalised banks comprised £45 billion in equity investments, loans of £30 billion and £17 billion recoverable under the Financial Services Compensation Scheme. This included £26 billion invested in the Royal Bank of Scotland, £14 billion in Lloyds Banking Group and a £5 billion equity investment and £27 billion in loans to the Northern Rock and Bradford & Bingley 'bad' banks, together with a £2 billion bilateral loan to Ireland.

Student loans are accounted for as an asset to the government, with £36 billion recorded after taking account of estimated future non-payment. This comprised gross amounts due from students of £53 billion, less an £8 billion allowance for non-payment and £9 billion in interest subsidies, equivalent to a reduction of 32% against the face value of the loans outstanding.

Cash and other financial assets of £190 billion comprised £84 billion in cash, loans and deposits with banks, £40 billion in debt securities, £10 billion in gold holdings and £56 billion in other investments. These are held for a variety of reasons, from day-to-day operations through to long-term international commitments. Of the debt securities, £37 billion are invested in short-term foreign government treasury bills and similar securities with the US, other European countries and Japan as part of the Exchange Equalisation Account used for foreign currency operations. Other investments included £20 billion in Special Drawing Rights with the International Monetary Fund, £8 billion invested in the European Investment Bank and £3 billion in other international financial institutions.

Pension obligations

The second half of the balance sheet consists of liabilities, with pension entitlements of current and former public sector employees of £1,172 billion (as shown in Table 6.5) amounting to just over 40% of the total liabilities of £2,893 billion reported in the balance sheet at 31 March 2013. These obligations are not reflected within public sector net debt as reported within the National Accounts.

Central government has a policy of not setting aside investments for its future pension obligations and instead pays pensions out of current revenues. This policy applies to the national pension plans established for teachers and police and fire services as well as those for central government civil servants, the NHS and the armed forces.

In line with this policy, the government decided to cash in the £29 billion of investments that it received on the transfer of the old Royal Mail pension obligations, even though those investments covered most of the £33 billion in additional liabilities that were assumed as part of the transfer.

Under the ESA95 rules then in operation, there was no recognition of the impact of assuming the additional pension obligations, and the public finances reported a £28 billion one-off gain in 2012–13 for the assets transferred, reducing the reported total

Table 6.5. Net pension obligations at 31 March 2013

Unfunded pension schemes		Funded pension schemes	
At 31 March 2013	**£bn**	**At 31 March 2013**	**£bn**
Pension fund investments	–	Pension fund investments	219
Pension obligations	(1,073)	Pension obligations	(318)
Net pension obligations	**(1,073)**	**Net pension obligations**	**(99)**
NHS	(325)		
Teachers	(259)		
Civil service and other	(197)		
Police and fire services	(141)		
Armed forces	(118)	Local authorities	(90)
Royal Mail	(33)	Other funded pension plans	(9)
Net pension obligations	**(1,073)**	**Net pension obligations**	**(99)**

Source: Whole of Government Accounts 2012–13.

deficit from £115 billion to an official deficit of £81 billion[5] in the National Accounts. This contrasts with the Whole of Government Accounts, where both the assets and the associated obligations were recognised.

During 2012–13, central government and devolved administrations paid £35 billion in pensions to former public service workers. This is £7 billion more than the £28 billion collected in current contributions from government departments, schools, the armed forces, police and fire services and their respective employees, with none of that £28 billion being invested for the future.

Local authorities and their non-teaching employees made contributions of approximately £10 billion in 2012–13, which were invested. Unlike nationally organised pension arrangements, local authority and other funded pension plans have investments equivalent to just over two-thirds of the long-term obligation as measured on a financial accounting basis, reducing the net liability recorded from £318 billion to £99 billion.

Overall, the net accounting charge for central and local government for providing pensions was £76 billion, comprising £28 billion for the increased entitlements earned by government employees during the year (net of employee contributions and non-government employer contributions such as those for GPs) and £48 billion in the unwinding of the discounting of pension obligations less investment returns on local authority pension funds. This is £49 billion more than the net amount recorded in the public finances.

In addition to the £76 billion cost recorded in the income statement, the Whole of Government Accounts recorded a £97 billion actuarial loss within the statement of recognised gains and losses, primarily as a result of a change in discount rates. This variability in the calculation of pension liabilities as discount rates change can be disconcerting, in the same way as investments in the stock market can go up as well as down. However, irrespective of whether the net pension obligation is calculated to be £1.1 trillion, £1.2 trillion or £1.3 trillion, the level of obligation to pay pensions to retired public servants in future is substantial.

[5] The official deficit also reflected amounts relating to quantitative easing of £6 billion.

Debt and other liabilities

The remaining 60% of liabilities in the balance sheet relate to government debt and other liabilities, as shown in Table 6.6.

Government debt, principally in the form of gilts but also including National Savings and local authority loans for example, amounted to almost £1.4 trillion. The majority of this debt was owned by UK investors, primarily pension funds and insurance companies, although the largest single owner of government debt at 31 March 2013 was the Bank of England.

In the National Accounts, the amount owed to the Bank of England is included as part of the national debt, while in the Whole of Government Accounts the Bank of England is considered to be part of the government as it is ultimately controlled by the government, despite its operational independence. As a consequence, this part of the national debt is eliminated, and is replaced by the inclusion of the Bank of England's own liabilities, the largest element of which is bank deposits held by commercial banks. The level of government debt holdings owned by the Bank of England and the level of bank deposits held by commercial banks are substantially higher than was the case before the financial crisis, as a consequence of the Bank of England's purchases of gilts from commercial banks as part of its quantitative easing programme to support the economy.

Trade and other payables comprised £39 billion for accrued expenditures and deferred income, £23 billion in tax and duty refunds, £17 billion due to suppliers and £31 billion relating to other payments due. The latter included £7 billion owed to the International Monetary Fund and £4 billion owed for the financing of the High Speed 1 rail link.

Provisions, or general liabilities, amounted to £131 billion at 31 March 2013. The largest items related to the £70 billion expected cost of nuclear decommissioning facilities and £24 billion for NHS clinical negligence claims, both discounted to their present values. Anticipated nuclear decommissioning costs extend over a long period, with £53 billion out of the £70 billion provision to be incurred after more than five years, with decommissioning expected to be complete in the year 2137. The balance of provisions of £37 billion relates to other matters such as payments to insolvent company pension plan members, oil and gas field decommissioning, injury benefits, medical costs, criminal injuries compensation, legal costs, compulsory purchases, transport infrastructure structural damage and property value claims, and compensation payments for termination of employment.

The balance sheet includes £37 billion in liabilities for assets constructed under the terms of Private Finance Initiative contracts and £5 billion owed for leased assets, a total of

Table 6.6. Debt and other liabilities at 31 March 2013

Debt and bank deposits		Other liabilities	
As at 31 March 2013	**£bn**	**As at 31 March 2013**	**£bn**
Gross government debt	(1,371)	Trade and other payables	(109)
Exclude: held by the Bank of England	375	Provisions	(131)
Net government debt	(996)	PFI and finance leases	(42)
Bank deposits	(334)	Other financial liabilities	(109)
Debt and bank deposits	**(1,330)**	**Other liabilities**	**(391)**

Source: Whole of Government Accounts 2012–13.

£42 billion. These amounts exclude future interest payments in present values of £62 billion. Repayment of capital and interest under these contracts and leases is expected to be around £5 billion a year. For PFI contracts, there is also a further £117 billion obligation (in present values) in addition to the amounts included in the balance sheet to pay for future services and future assets to be constructed. Overall, once operating leases are included, the government had total obligations under PFI contracts and asset leases amounting to £245 billion in present values, £199 billion of which relate to PFI contracts.

The accounts also reported that contracts had been signed to construct non-PFI assets at a cost of £38 billion, while there were £49 billion of obligations under other contracts, including to the nationalised banks, for higher education grants, to Network Rail and other railway companies, and for NHS IT and medical purchases.

Other financial liabilities included £58 billion for bank notes in circulation, £32 billion in other borrowing and £19 billion for other financial obligations.

Absent from the balance sheet were the £35 billion in debt and other liabilities of Network Rail that were excluded in line with the treatment adopted in the National Accounts under ESA95. This has now changed following a review by the Office for National Statistics in connection with the implementation of ESA10,[6] and the Treasury intends to bring these liabilities onto the Whole of Government balance sheet as well from 2014–15 onwards.

The government boundary

One of the critical decisions to be made in drawing up both the public finances within the National Accounts and the Whole of Government Accounts is the boundary between those activities and entities that are included and those that are excluded. Decisions on where the boundary lies can have very significant implications for the financial numbers presented, potentially changing them by hundreds of billions of pounds. For the National Accounts, the determination of the boundary is a decision for the Office for National Statistics to make based on the guidance set out in ESA95 or, for 2014–15 onwards, ESA10. In contrast for the Whole of Government Accounts, the assessment of the boundary will be based on the different requirements set out in accounting standards.

Government financial activities in the UK have been defined as comprising the activities of central government, the devolved administrations, local authorities and public corporations, which in most cases provides clarity as to whether an activity or entity is to be included (or 'consolidated' in accounting terminology). Government departments such as the Home Office, devolved administrations such as the Scottish Executive, local authorities such as counties, boroughs, districts and unitary authorities, and public corporations such as the Civil Aviation Authority are all considered to be part of the government for both the public finances within the National Accounts and the Whole of Government Accounts. Organisations with independent control over their finances, including universities and most charities, are outside the government boundary and so their financial activities are not included in the numbers even where they receive a substantial proportion of their funding from government.

[6] Office for National Statistics, 'Classification of Network Rail under European System of Accounts 2010', 2013, http://www.ons.gov.uk/ons/dcp171766_345415.pdf.

In the Whole of Government Accounts, government funding to an organisation outside of the boundary will be reported as a grant or subsidy. However, for a body inside the boundary, funding is effectively an internal transfer that will be eliminated, with its entire income and expenditure, as well as its assets and liabilities, consolidated into the Whole of Government Accounts instead. For example, the Bank of England is included within the boundary for Whole of Government Accounts because the government has the power to appoint and dismiss its Governor and its directors.

Accounting standards require entities to be consolidated into a set of financial statements based on the degree of control, but despite this the nationalised banks and Network Rail were not included within the government boundary for the Whole of Government Accounts in 2012–13. In the case of Network Rail, the government decided that it was outside the boundary for the National Accounts under ESA95 and chose to adopt the same treatment in the Whole of Government Accounts. However, with Network Rail being included within public sector net debt under ESA10 from October 2014, the government also intends to consolidate it into the Whole of Government Accounts for 2014–15 onwards.

The nationalised banks had assets of £2.3 trillion and liabilities of £2.2 trillion at 31 March 2013, and so if they had been consolidated, government assets would have been £3.6 trillion instead of the £1.3 trillion reported and government liabilities would have been £5.1 trillion instead of £2.9 trillion. Although the government has accepted that in future accounts it should consolidate the Northern Rock and Bradford & Bingley 'bad bank' asset portfolios, as these will not be returning to the private sector, it intends to continue excluding the operational nationalised banks while they remain in government ownership.

Current versus future activities

Any form of accounting requires a distinction to be made between what constitutes a financial transaction to be recorded within the accounts and what is considered to be a future transaction that should not yet be captured. The Whole of Government Accounts, similar to the accounts for commercial enterprises, make provision for future receipts and payments only to the extent they are a consequence of transactions that have happened before the end of the year concerned.

This extends beyond accruals accounting, which caters for the timing difference between entering into a transaction and the associated receipt or payment, to capturing other types of assets and liabilities, such as provisions for clinical negligence claims or criminal injuries compensation.

Not captured are future tax revenues and future expenditure, even where there may be a commitment or confirmed policy. For example, the commitment to pay a state pension to eligible UK residents after retirement in future years is not captured by the Whole of Government Accounts in the current period; neither is the intention to tax in the future. Another example is the future benefit from providing investment allowances to businesses, with the reduction in corporation tax receipts for the allowances themselves being reflected in the current year, but the higher corporation taxes on profits generated from those investments not being recognised until they occur in future periods.

Auditor disagreements

In the private sector, companies have significant incentives to ensure that their accounts receive a clean audit opinion. The lack of a clean audit opinion would almost certainly adversely affect a company's ability to access financial markets and could also affect its ability to trade with other companies.

Financial markets do not currently demand the same level of compliance from governments, which is fortunate as although the Comptroller and Auditor General approved the Whole of Government Accounts for 2012–13, his audit report[7] was qualified by multiple disagreements with the government on how they were prepared in relation to the following specific items:

- **Government boundary.** By generally aligning with the government boundary used in the National Accounts, the Whole of Government Accounts do not comply with accounting standards by excluding Network Rail, the nationalised banks and several other bodies from consolidation.
- **Local authority assets.** Local authority highway infrastructure assets have not been aligned to the Whole of Government Accounts policy of depreciated replacement cost, resulting in an understatement of assets of more than £218 billion.
- **3G and 4G licences.** Income from 3G and 4G licences was fully recognised in the years concerned instead of being recognised over the 20-year period of each licence. Accounting for this in line with accounting standards would result in the loss for 2012–13 being higher by £1 billion and liabilities being higher by £10 billion.
- **School assets.** Not all of the assets of local authority, voluntary and foundation schools have been captured in the Whole of Government Accounts, with the auditor estimating that there are £31 billion of assets omitted from the balance sheet.
- **Department qualifications.** The auditor indicates there are issues with, or lack of evidence to support, the accounting for academies and educational property within the Department for Education and for leased assets, inventories and capital spares within the Ministry of Defence.
- **Intra-governmental balances.** Because not all intra-government balances have been eliminated, income and expenditure may each be too high by up to £9 billion and assets and liabilities may be each too high by up to £4 billion. The potential impact on the loss for the year and the net liability position is estimated to be in the order of £1 billion.

The government has indicated that it intends to address many of these items in the future, including the consolidation of Network Rail and local authority highway infrastructure assets.

The auditor also highlights one particular area of uncertainty in the Whole of Government Accounts concerning the quantification of nuclear decommissioning liabilities. Given the time frame and the complexity of decommissioning, he notes that these liabilities could change significantly as works progress over the next 124 years.

[7] National Audit Office, 'HM Treasury: Certificate and Report of the Comptroller and Auditor General – Whole of Government Accounts 2012-13', 2014, http://www.nao.org.uk/wp-content/uploads/2014/06/Whole-of-government-accounts-2012-13.pdf.

Timeliness

The implementation of financial accounting by the government is making good progress, but the Whole of Government Accounts for 2012–13 were published 15 months after the end of the financial year. The government plans to improve this further and the accounts for 2013–14 are expected to take around 12 months to be issued before the 2015 general election, with 2014–15 expected to further improve to nine months.

This compares with a maximum period of four months for producing consolidated financial statements for UK listed companies, with the majority taking less than two months to publish summary financial information and between two and three months to produce a comprehensive annual report and consolidated financial statements.

In order to reduce the time to produce the Whole of Government Accounts still further and produce audited financial statements within three to six months after the end of a fiscal year, the government will need to change its primary financial management processes and systems onto a financial accounting basis across government, a significant undertaking that will take several years to implement.

6.3 Using Whole of Government Accounts to strengthen financial decision making within government

> I have previously recommended that the profile of the WGA [Whole of Government Accounts] should be raised within government and for it to be used more effectively to help decision making. In 2013, the Committee of Public Accounts also recommended that the Treasury sets out how it will ensure that the Government makes much better use of the WGA to inform decisions, particularly in areas that involve long-term liabilities.
>
> *Comptroller and Auditor General, June 2014*[8]

Over recent years, successive governments in the UK have made significant progress in strengthening financial management within government. This has included implementing accruals accounting, multi-year spending reviews, developing explicit fiscal objectives and the appointment of non-executive directors to departmental boards with outside financial experience. Most recently, a Director General of public spending and finance within HM Treasury was appointed to support further development of the finance function across government and to improve the quality of financial reporting.

The government is also well advanced in the development of Whole of Government Accounts, and as a consequence the UK is one of the leading countries in the world in implementing financial accounting across the public sector. The next stage, which is to embed financial accounting into the government's financial processes and systems, making it the primary method of measuring financial performance within the public sector, should provide further benefits in ensuring that the wider ramifications of

[8] Paragraph 1.17 of National Audit Office, 'HM Treasury: Certificate and Report of the Comptroller and Auditor General – Whole of Government Accounts 2012-13', 2014, http://www.nao.org.uk/wp-content/uploads/2014/06/Whole-of-government-accounts-2012-13.pdf.

financial decisions are captured into budgets, plans and other financial reports used for making decisions at all levels of government.

The greater use of financial accounting will also enable the government to benefit from the developments in accounting and financial reporting processes, systems, financial analysis techniques and skills in the private sector. Although there will always be aspects of government accounting that are specific to the public sector, the financial experience and skills developed outside of government will become easier to utilise once a common set of financial principles and rules is embedded. The government will also be better placed to utilise standardised accounting systems and so improve the efficiency of its financial processes. As a consequence, the development of financial accounting provides a platform for strengthening financial management across government and for providing transparency and accountability for its financial performance and position.

Public finance reporting within the National Accounts and its international equivalents is currently a specialised activity, with around 200 national governments, together with their respective sub-units, involved in accounting in this way. This compares with the millions of companies and other organisations in the UK and around the world that use International Financial Reporting Standards (IFRS) or similar financial reporting frameworks as a basis for their accounting and financial reporting. The view that governments should adopt financial accounting in accordance with some form of generally accepted accounting standards is becoming more popular around the world, with a number of countries announcing plans to adopt International Public Sector Accounting Standards, which provide a similar (although not identical) financial accounting framework to the IFRS-based system adopted by the UK government.

The government will continue to need to produce and use the internationally comparable public finance numbers reported in the National Accounts for the foreseeable future, given that most other countries are still at a much earlier stage in implementing standards-based financial accounting for their own accounts. However, the key benefits of financial accounting will be seen when Whole of Government Accounts numbers become the primary measures for assessing financial performance and position used by the government both internally for financial decision-making and externally in its dialogue with parliament and the public.

The development of Whole of Government Accounts is also driving an alignment in the financial accounting used by individual bodies within the public sector in the UK, where a number of different bases have been used in preparing their accounts. This alignment will improve comparability in the reported financial performance and position of local authorities, schools, hospitals and other public sector bodies.

Using financial statements to provide insights for the future

Although historical financial statements are, by definition, historical when they are published, they provide useful financial information that can be used to support financial decision-making in addition to being used to measure progress against previous plans, budgets and market expectations.

The Whole of Government Accounts for 2012–13 provide a significant amount of financial information that can be used by the government in planning for the future and by parliament and the public in holding the government to account.

For example, the reported liabilities of £1.2 trillion for employee pension obligations included in the Whole of Government balance sheet give a measure for monitoring the scale of the government's obligations and offer the potential for improved transparency about how the government intends to fund the payment of these obligations over the coming decades. Their inclusion also enables a comparison to be made between the funded pension plans of local authorities and the unfunded pension plans operated by central government. Similarly, the scale of obligations to decommission nuclear facilities and to settle clinical negligence claims is brought to prominence by the requirement in accounting standards for estimates to be recorded in the balance sheet and then updated as circumstances develop.

These examples demonstrate one of the strengths of financial accounting compared with the National Accounts, as the balance sheet captures the effect of decisions that might flatter the current year's financial activities in the public finance numbers in the National Accounts, but which in the Whole of Government Accounts have to be recorded and reported.

Another benefit of standards-based financial accounting is that, in preparing the Whole of Government Accounts, the government's financial reporting team is required to estimate future cash flows relating to specific short- and long-term assets and obligations. These estimates can be used to support the long-term financial forecasting carried out by both the government and the Office for Budget Responsibility.

Using projected balance sheets and projected income and expenditure within financial plans and forecasts can provide a more comprehensive view of the future financial position of the government. It also strengthens the quality of financial planning through reconciling between forecasts prepared on a financial accounting basis and cash flow projections, a process which has proved to enhance the quality of both types of forecasts and hence the quality of financial plans that are used as the basis for decision-making.

Improving financial analysis

The effective use of financial accounting across government will benefit from the tools and experience developed in accounting and reporting in commercial and other organisations. This includes analysing financial trend information, comparing financial performance presented in the income and expenditure and cash flow statements as well as developments in the balance sheet between years and across multiple years. This can range from a high-level analysis of trends in the overall accounting deficit, to more detailed analyses of specific items within the accounts. Such monitoring can be used to assess performance against specific objectives set by the government, such as in achieving cost reduction plans, as well as highlighting areas that require attention by policymakers.

Such analysis will improve as the government extends its financial track record beyond the current four years of financial data embodied in the Whole of Government Accounts to date and as it starts to develop its long-term financial plans and projections on a financial accounting basis. Even with only four years of data, as shown in Table 6.7, it is possible to see that the net liabilities reported in the balance sheet have increased substantially since 2009–10, with a one-off benefit from reducing pension entitlements in 2010–11 more than offset by the significant accounting deficits recorded each year over the period.

Table 6.7. Four years of Whole of Government Accounts to 2012–13

	2009–10 £bn	2010–11 £bn	2011–12 £bn	2012–13 £bn
Income and expenditure				
Operating revenue	583	614	617	620
Operating expenditure[a]	(667)	(625)	(715)	(717)
Operating loss	(84)	(11)	(98)	(97)
Net finance costs	(79)	(83)	(88)	(79)
Net gain / (loss) on revaluations or disposals	–	–	1	(3)
Accounting deficit for the year	(163)	(94)	(185)	(179)
Balance sheet				
Property, plant and equipment	713	710	745	747
Other assets and investments	537	518	526	516
Public sector pensions	(1,135)	(960)	(1,006)	(1,172)
Debt and bank deposits	(988)	(1,097)	(1,233)	(1,330)
Other liabilities	(355)	(364)	(379)	(391)
Net liabilities	(1,228)	(1,193)	(1,347)	(1,630)

[a] Operating expenditure in 2010–11 was reduced by a £126 billion one-off benefit primarily as a consequence of changing the terms of pension arrangements for public sector employees.
Source: Whole of Government Accounts 2009–10, 2010–11, 2011–12 and 2012–13.

The Whole of Government Accounts compiled so far provoke some significant questions on the government's finances. How does the government plan to address an accounting deficit of almost 30% of total revenue? How will long-term public sector pension obligations and nuclear decommissioning costs be funded?

Analysis of capital expenditure should also be improved, as the inclusion of assets within the balance sheet provides a method for monitoring the level of infrastructure spending over time, as well the requirement to record impairments when assets are no longer useable or otherwise lose value. Financial accounting treats capital expenditure as the creation of an asset to be reported in the balance sheet, providing a different approach for monitoring how assets are utilised by the government from the treatment in the National Accounts of capital expenditure as just a different category of spending.

There are also significant benefits in preparing internal financial reports, budgets, forecasts and long-term plans on a consistent basis with the external financial reports that are used to hold an organisation accountable, placing those charged with oversight in a better position to review and challenge decisions made.

Financial analysis based on Whole of Government Accounts has the potential to change the public debate on the government's finances from a narrow focus on balancing the public finance deficit in the National Accounts to a more comprehensive discussion around how the government plans to deal with its longer-term financial challenges.

Multi-year spending reviews have proved to be a successful innovation in improving government financial management, providing a more stable environment within which to make financial decisions and providing departments with a better ability to manage their costs across several years. Whole of Government Accounts can support the government in developing from spending reviews focused on the cost of providing public services over a three- to five-year period into wider and more comprehensive financial reviews,

considering the impact of financial decisions on the government's balance sheet as well, and supporting financial planning over a much longer-term time horizon.

For example, Whole of Government Accounts can be used as a framework for long-term planning, enabling enhancements to financial forecasts such as the projections included in the Office for Budget Responsibility's Fiscal Sustainability Report. Preparing projected balance sheets into the future to complement cash flow forecasts would provide significant additional information for policymakers to use in making decisions and for parliament in scrutinising the government's financial plans.

Government borrowing in the future

Investors in government debt and credit rating agencies do not require the same level of financial information to be provided by governments as they insist on from private companies issuing debt. Perhaps this is not surprising, given the sovereign ability of countries to raise taxes in the future that makes them very different from commercial enterprises.

However, debt investors know that lending to sovereign states has not always proved to be risk free and, as an increasing number of countries start to publish financial statements based on accounting standards, there is the potential for much more to be requested from governments about their balance sheets. The UK government is well positioned for this, with its development of the Whole of Government Accounts ahead of many other countries.

As many finance teams in businesses know, responding to the requests for information from lenders and credit rating agencies can be demanding. But, as they also know, that process can be helpful in improving the quality of their own understanding of their risk profile and of the robustness of their future plans. Replicating that process could offer an opportunity to improve the quality of financial planning by governments in the future.

Preventing financial engineering by government

One of the most significant developments in accounting standards over the past few decades has been in restricting the ability of companies and other preparers of financial statements to utilise financial engineering techniques to manipulate their reported financial performance and position – for example, by moving liabilities off-balance-sheet.

Successive governments in the UK have been criticised for leaving both Network Rail and PFI contracts off-balance-sheet for the public finances under ESA95. This has led to concerns that these transactions might have been entered into in order to achieve a particular reporting outcome rather than to achieve the best financial outcome for the taxpayer.

The requirement to record these arrangements on the balance sheet within the Whole of Government Accounts means that any perceived financial reporting benefit is removed under this approach, enabling those making decisions on whether to enter into such transactions to focus principally on whether they provide value for money.

Improving transparency and accountability

Listed companies are required to provide regular financial reports to investors on their financial performance under rules established by legislators and regulators to ensure the accountability of management teams to the owners of the businesses that they run. Financial information provided to investors throughout the year must be in accordance

with accounting standards or, where alternative financial measures are considered helpful, they must be reconciled to the numbers used in the accounts and given no more prominence.

The discipline on companies to base their reported numbers on financial accounting in accordance with a set of independently established accounting standards is critical to the operation of financial markets, providing a way for market participants to communicate with each other and to hold companies to account.

Listed companies report on their financial performance at least twice a year, with some reporting quarterly. They will also typically hold in-depth sessions with investors and financial analysts on their strategy and financial performance. Internally, management teams will report to their boards and audit committees (and regulators where appropriate) on their budgets, forecasts and long-term financial plans. As the government accelerates the production of the Whole of Government Accounts, it will increasingly be able to provide similar briefings on its financial performance and position both to parliament and to the public.

The development of financial accounting as the primary basis for accounting by government gives an opportunity to improve the financial reports and analysis provided to parliament and the public using tools developed in the private sector, strengthening the dialogue between the government and those responsible for holding it to account. We look forward to the day, in the not too distant future, that it will be possible for the Budget to be presented on a financial accounting basis and for there to be an end-of-year financial presentation by the Chancellor of the Exchequer to the public on the Whole of Government Accounts.

6.4 Conclusion

Financial accounting in accordance with international generally accepted accounting standards provides robust useful financial information that goes beyond what is provided in the National Accounts. This is because financial performance as reported in the Whole of Government Accounts reflects expenditure on long-term obligations not included in public finance reporting within the National Accounts and the balance sheet gives a more comprehensive view of the government's financial position than public sector net debt alone.

The government is therefore to be congratulated for the progress it has made in developing Whole of Government Accounts and should be further encouraged to continue to make progress towards adopting financial accounting as the primary basis for monitoring its financial performance and position and for communicating with parliament and the public.

The increased use of financial accounting should also support the government in developing comprehensive financial reviews that use balance-sheet information as an integral part of the analysis used in making financial decisions.

In adopting the same financial language as that used by millions of people outside of government, we believe that there is a real opportunity to improve significantly the public understanding of the nation's finances. And, if financial accounting comes to be recognised and used widely by government, it has the potential to provide stronger incentives to account properly for the nation's long-run financial health when making policy.

7. Options for further departmental spending cuts

Rowena Crawford and Soumaya Keynes (IFS)

Summary

- Coalition government plans imply real departmental spending cuts of 9.5% between 2010–11 and 2015–16. Real health, official development assistance and day-to-day schools spending has been protected, leaving other departments to face cuts averaging 20.6% over this period.
- Departmental spending between 2010–11 and 2014–15 has differed from the original coalition plans. Resource (non-investment) spending has been cut more than originally intended in cash terms, but inflation has turned out lower than forecast, so it has still been cut less than originally expected in real terms (7.8% compared with 8.3%). Real capital spending cuts have turned out much lower than originally planned (13.6% rather than 25.9%) due to lower-than-forecast inflation and decisions since 2010 to top up these spending plans.
- The 2014 Autumn Statement plans imply real cuts to departmental spending between 2015–16 and 2019–20 of 14.1%. This would take the total cut since 2010–11 to 22.2% and return real departmental spending to around its 2002–03 level.
- The Office for Budget Responsibility forecasts that these cuts to departmental spending would entail significant reductions in general government employment: a cut of 900,000 between 2015–16 and 2019–20, on top of a cut of 500,000 between 2009–10 and 2015–16. This would reduce the size of the government workforce, and its share of total employment, to its lowest level since at least 1971.
- However, departmental spending cuts after 2015–16 will be implemented by the next government, and all three main UK political parties have announced fiscal rules that would allow them to increase spending relative to the Autumn Statement plans. Given their fiscal rules and stated policy intentions, the Conservatives' plans could imply cuts to departmental spending of as little as 6.7% between 2015–16 and 2019–20, the Liberal Democrats as little as 2.1% and Labour as little as 1.4%.
- Smaller cuts to spending and further restrictions on public sector wage growth could both reduce future government employment cuts relative to current forecasts. A real wage freeze between 2015–16 and 2019–20 would imply cuts to government employment of around 750,000 if departmental spending is cut by 14.1%, 400,000 if it is cut by 6.7%, 150,000 if it is cut by 2.1% or 100,000 if it is cut by 1.4%.
- A 2015 spending review would allocate departmental budgets for beyond April 2016. There is apparent consensus between the three main UK parties that spending on health and official development assistance will remain protected from cuts. However, other departments face considerable uncertainty about their budgets between 2015–16 and 2019–20. What seems certain is that some will face large cuts – on top of those already delivered – regardless of the outcome of the general election.

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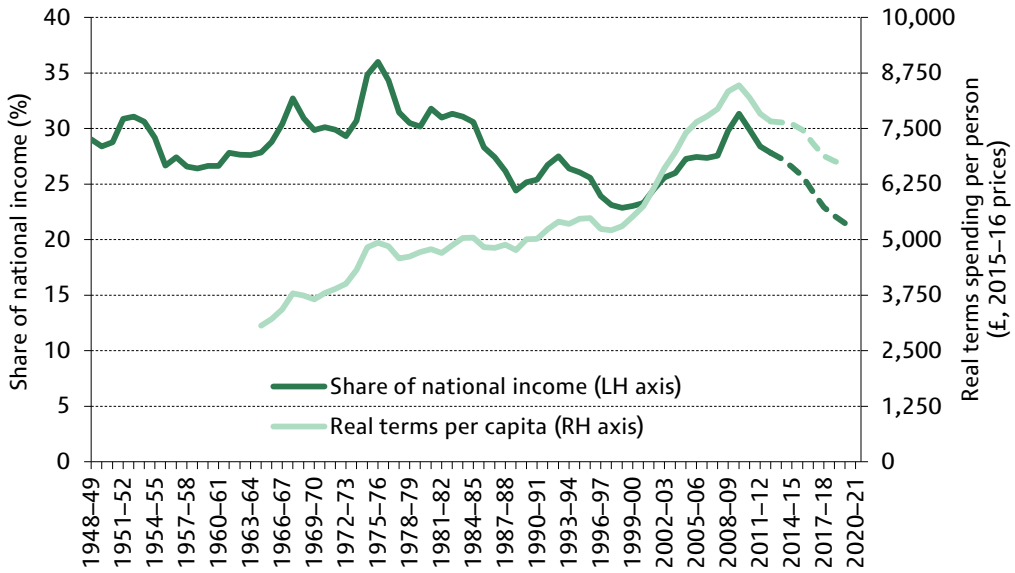
7.1 Introduction

Current coalition plans from the 2014 Autumn Statement imply deep cuts to public service spending beyond the next general election, on top of large cuts over this parliament. Around 60% of the government's overall fiscal consolidation is planned to come from cuts to public service spending. Figure 7.1 illustrates how spending on public services has changed over time, and how it is forecast to change on the basis of current plans through to 2019–20.[1] Public service spending in 2019–20 is forecast to be at its lowest share of national income since at least 1948 (when data on this measure of spending are available from), though only slightly below its level at the end of the 1990s.[2]

It is important to bear in mind, however, that national income has grown considerably since the 1930s or 1940s. Therefore spending the same *share* of national income in 2019–20 as in the 1930s still implies a much greater *amount* of spending in pounds – even after controlling for inflation and population growth. Figure 7.1 also shows real-terms public service spending per person (in 2015–16 prices) over time. Over the period from 1964–65 to 1996–97, real public service spending per person grew by an average 1.7% per year, while over the period 1996–97 to 2009–10 it grew by an average 3.8% per year. Public service spending is forecast to be reduced from around £8,500 per person in

Figure 7.1. Spending on public services as a share of national income and in real terms per person over time



Note: Population figures are mid-year population estimates for the UK.
Source: ONS; DWP benefit expenditure tables, 2014, https://www.gov.uk/government/statistics/benefit-expenditure-and-caseload-tables-2014; OBR, *Economic and Fiscal Outlook: December 2014*, http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/.

[1] Public service spending is defined here as total spending less social security less debt interest spending.

[2] The Office for Budget Responsibility (OBR) has also shown that on a slightly different measure of public service spending ('government consumption of goods and services') for which a longer time series is available, public service spending in 2019–20 will be at its lowest share of national income since the 1930s. See chart 3.36 of OBR, *Economic and Fiscal Outlook: December 2014*, http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/.

2009–10 to around £6,700 in 2019–20 (an average cut of 2.4% per year and a total cut of 21.3%), which is around the level it was at in the early 2000s.

This is not to deny that the cuts to public service spending planned over this and the next parliament are very large. Real public service spending per capita has not been cut for more than two consecutive years at any point since the series began in 1964–65, whereas current plans imply 10 consecutive years of cuts. The size of the cuts ultimately planned is also large, at 21.3% (or £1,800 per person, 2015–16 prices); the largest cut previously was between 1975–76 and 1977–78 when real public service spending per capita was cut by 7.3% (£400 per person, 2015–16 prices).

However, it is the next government which will be responsible for implementing any cuts to public service spending after 2014–15, and further cuts may not be as deep as the coalition plans set out in the 2014 Autumn Statement imply. The three main UK political parties have all announced fiscal rules that would allow them to increase spending relative to current plans if they wanted to.[3] In addition, they could decide to implement a combination of further tax rises and further benefit cuts in order to lighten the load of deficit reduction on public service spending.

This chapter sets out the context for the spending choices the next government will have to make. We focus on 'departmental expenditure limits' (DELs), the sum of which is spending by Whitehall departments on the delivery and administration of public services. This is an important measure of spending as it is the budget that is allocated to departments by HM Treasury. However, data on this basis are only available back to 1997–98 (when the Treasury started planning spending using this definition).[4]

In Section 7.2, we describe the overall cuts to resource (non-investment) DEL and capital (investment) DEL that the coalition government has planned between 2010–11 and 2015–16 and how these plans – and the implied cuts – have changed over time. We also discuss how these cuts have been allocated between Whitehall departments over this period. In Section 7.3, we consider the period beyond the general election. We describe the evolution of total DEL through to 2019–20 under the coalition's 2014 Autumn Statement plans, and also the possible outlook for DEL given the three main UK political parties' proposals and fiscal rules. We then illustrate how spending for different departments could look over the next parliament given these spending totals. Section 7.4 concludes.

7.2 Choices made so far: 2010–11 to 2015–16

Departmental spending

When the government plans public spending, it splits the total into two major categories: annually managed expenditure (AME) and departmental expenditure limits (DELs). AME includes areas of spending such as debt interest payments and social security, which HM

[3] For more detail, see R. Crawford, C. Emmerson, S. Keynes and G. Tetlow, 'Fiscal aims and austerity: the parties' plans compared', IFS Briefing Note BN158, 2014, http://www.ifs.org.uk/publications/7495.

[4] DEL is a narrower definition of spending on public services than that used in Figure 7.1 since it excludes from total public spending not just social security and debt interest spending but also some other components of spending including net public service pension payments, transfers to the EU and local authority self-financed expenditure.

Treasury has previously argued are hard to plan in advance.[5] The Office for Budget Responsibility (OBR) produces forecasts for AME through to the end of the forecast horizon at each Budget and Autumn Statement. DELs are spending by departments on administration and public services and are planned in advance, typically every two or three years in spending reviews.

The coalition government allocated DELs between departments for the years 2011–12 to 2015–16 in the 2010 and 2013 Spending Reviews. In this section, we focus on these decisions made by the coalition. Technically, the next government could change spending plans in 2015–16 since the financial year will have only just started.[6] However, the two governing parties have signed up to the existing allocations, and Labour has signed up to the current spending allocations.[7]

Table 7.1 summarises the latest forecasts for total public spending, DEL and AME between 2010–11 and 2015–16. Total spending is planned to fall by just 3.2% in real terms between 2010–11 and 2015–16, but this rather small average annual fall of 0.6% in headline spending masks some very different trends in the components of spending. AME, of which around three-fifths is spending on social security, will have increased in real terms by a cumulative 3.7% between 2010–11 and 2015–16. Departmental spending, on the other hand, will have been cut by 9.5% in real terms.

Table 7.1. Latest plans for spending, 2010–11 to 2015–16

	£ billion, 2015–16 prices		*Average annual real growth rate*	*Cumulative real growth*
	2010–11	**2015–16**	**2010–11 to 2015–16**	
Total managed expenditure	£770.9	£746.2	–0.6%	–3.2%
of which:				
AME	£368.0	£381.5	0.7%	3.7%
DEL	£402.9	£364.7	–2.0%	–9.5%
of which:				
Resource DEL (excluding depreciation)	£348.5	£316.8	–1.9%	–9.1%
Capital DEL	£54.4	£47.9	–2.5%	–11.9%

Note: Resource DEL and DEL adjusted for business rates retention scheme. Total managed expenditure and AME adjusted to include negative tax credits as spending in years before 2015–16, and to exclude 50% of retained non-domestic rates revenues prior to 2013–14 to account for a reform allowing local authorities to retain 50% of business rates raised locally (not making this adjustment would overstate the cut to DEL).
Source: HM Treasury, *Public Expenditure Statistical Analyses 2014* (PESA 2014), available at https://www.gov.uk/government/statistics/public-expenditure-statistical-analyses-2014; HM Treasury, *Autumn Statement 2014*, available at https://www.gov.uk/government/topical-events/autumn-statement-2014; DCLG, *Local Government Financial Statistics*, 24, 2014, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/316772/LGFS24_web_edition.pdf.

[5] It is worth noting, however, that a relatively large proportion of AME spending can be forecast reasonably accurately in advance (e.g. spending on child benefit, the state pension and public service pensions). For more detail on the method for planning public spending, see S. Keynes and G. Tetlow, 'A survey of public spending in the UK', IFS Briefing Note BN43, 2014, http://www.ifs.org.uk/publications/1791.

[6] This happened after the 2010 election, when the new coalition government announced £5 billion of in-year spending cuts prior to its June 2010 'emergency budget' (see footnote 10 in Chapter 1).

[7] Source: http://labourlist.org/2014/01/full-text-ed-balls-commits-labour-to-budget-surplus-and-announces-50p-tax-rate-plan/ and http://www.telegraph.co.uk/news/politics/labour/10095595/Labour-will-work-within-George-Osbornes-spending-plans-Ed-Balls-says.html.

Table 7.1 also makes the distinction between departmental capital and resource spending. Capital spending typically includes investment in things such as building schools and roads, whereas resource spending covers current spending on things such as public sector pay. Between 2010–11 and 2015–16, capital spending by departments (CDEL) is planned to have been cut by slightly more than resource spending (RDEL) in percentage terms, by a cumulative 11.9% in real terms compared with 9.1% (though less in absolute terms, by £6.5 billion compared with £31.7 billion). However, this is not how the cuts to capital and resource DEL were originally planned to compare.

Changes to departmental spending since 2010

Resource and capital DELs for each department for the three years up to 2014–15 were first set in the October 2010 Spending Review. The first column of Table 7.2 sets out the real cuts to spending that were planned at the time: overall DEL was planned to be cut by 10.6%, with capital DEL being cut by 25.9% and resource DEL being cut by 8.3%. Originally, then, capital DEL was forecast to be cut to a much greater extent than resource DEL.

Departments' budgets are set in spending reviews in nominal terms, and therefore the real cut to DEL can deviate from that originally planned for two reasons: because the government changes its nominal spending plans and/or because inflation turns out to be higher or lower than originally expected.

The second column of Table 7.2 illustrates the real change in DEL that would now be expected given the latest inflation forecasts if the government had kept to its original nominal spending plans. At the time of the 2010 Spending Review, the latest OBR forecasts were that economy-wide prices were expected to increase by an average 2.4% per year between 2010–11 and 2014–15 (measured by the GDP deflator). The latest OBR forecasts from December 2014 are that economy-wide inflation would average just 1.8% per year over this period. Since inflation has turned out lower than forecast in 2010, in

Table 7.2. Plans for spending: as made in the 2010 Spending Review, and updated for inflation and policy changes

	Real change in DEL, 2010–11 to 2014–15			***Latest planned real change in DEL, 2010–11 to 2015–16***
	Original plans, original inflation	**Original plans, actual inflation**	**Out-turns & latest plans, actual inflation**	
Percentage				
DEL	–10.6%	–8.8%	–8.6%	–9.5%
Resource DEL	–8.3%	–6.4%	–7.8%	–9.1%
Capital DEL	–25.9%	–24.4%	–13.6%	–11.9%
£ billion (2015–16 prices)				
DEL	–£56.7bn	–£35.4bn	–£34.7bn	–£38.2bn
Resource DEL	–£42.1bn	–£22.2bn	–£27.3bn	–£31.7bn
Capital DEL	–£14.6bn	–£13.2bn	–£7.4bn	–£6.5bn

Note: Spending Review 2010 plans are calculated using the latest out-turns for spending in 2010–11, combined with plans as described in PESA 2011, adjusted for Machinery of Government and classification changes that have taken place since. Original inflation taken as forecast in June 2010.

Source: Past editions of Public Expenditure Statistical Analyses; Office for Budget Responsibility June 2010 forecast; latest inflation from ONS series ABMI and YBHA; forecasts from the OBR's December 2014 Economic and Fiscal Outlook.

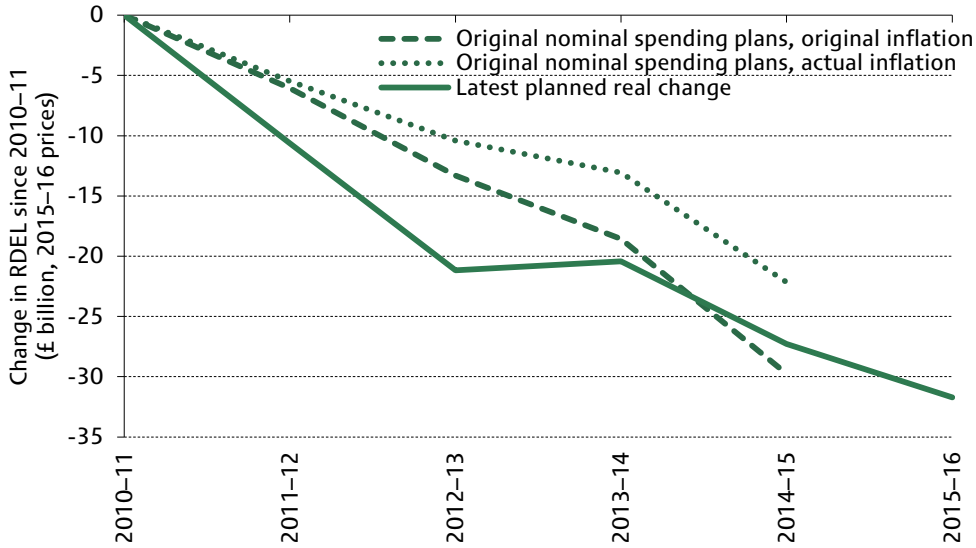
the absence of other changes the real cut to DEL would have been smaller than originally planned, at 8.8% for total DEL, 6.4% for resource DEL and 24.4% for capital DEL.

However, the government did not stick to its nominal 2010 spending plans. This can be seen by the difference between the second and third columns in Table 7.2, where the latter shows the latest plans for the real change in DEL (i.e. taking the latest nominal spending plans and the latest inflation out-turns/forecasts). Since 2010–11, the government has reduced nominal spending on resource DEL further (for example, in the 2012 Autumn Statement, the government announced a 1% cut to unprotected departments' resource budgets in 2013–14 and a 2% cut in 2014–15), increasing the planned real cut to 7.8%. This is still a smaller real cut than the one originally expected, though, due to the lower inflation out-turn).

In contrast, nominal spending on capital DEL has been increased relative to the original plans, with 'capital packages' announced in the 2011 and 2012 Autumn Statements resulting in sizeable increases in CDEL for departments such as the Department for Transport and the Department for Business, Innovation and Skills.[8] These increases in capital spending have nearly halved the planned real cut to capital DEL, to 13.6%. As described in Chapter 1, this has led to the investment cuts implemented by the coalition over the period to 2014–15 being less than those implied by the spending plans it inherited from the previous Labour government.

When did these changes to the planned real cuts emerge? Figures 7.2a and 7.2b show the *profile* of real cuts to resource DEL and capital DEL (respectively) since 2010–11. They show how these profiles differ when we compare the original plans from 2010, the original plans but adjusted for the latest inflation figures, and the latest plans.

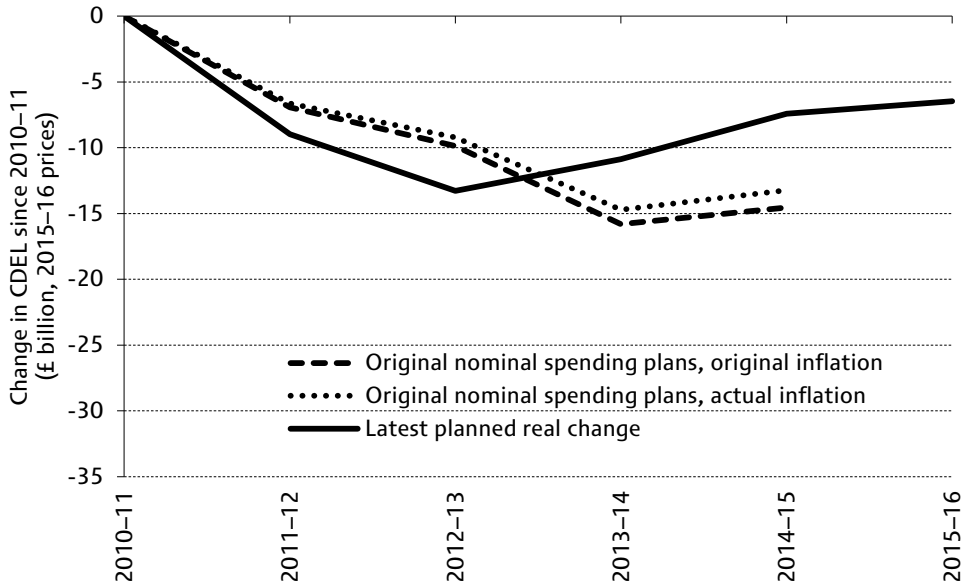
Figure 7.2a. Real change in resource DEL (£ billion, 2015–16 prices)



Note: As for Table 7.2.
Source: As for Table 7.2.

[8] Other departments benefiting most include the Department for Education, the Ministry of Defence and the Department for Communities and Local Government.

Figure 7.2b. Real change in capital DEL (£ billion, 2015–16 prices)



Note: As for Table 7.2.
Source: As for Table 7.2.

Probably the most striking feature of Figure 7.2a is the difference between the actual fall in resource DEL between 2010–11 and 2012–13 and what was originally planned (using the latest inflation estimates). The much larger cut to resource DEL than originally planned was the result of particularly large underspends by departments in 2012–13 and unusually large transfers of spending from 2012–13 to 2013–14 via the system of 'budget exchange'. The spending restraint applied in 2012–13 was so much larger relative to that in 2013–14, that it now seems that underlying RDEL saw a small real-terms increase between 2012–13 and 2013–14. The reason for this particularly high restraint in 2012–13 is likely political. Towards the end of 2012–13, it became clear that there was a significant chance that borrowing would increase slightly in nominal terms between 2011–12 and 2012–13. Anxious to avoid such an (economically meaningless but politically awkward) event, it would seem that departments came under pressure either to reduce spending or to shift it into the 2013–14 financial year.[9] Beyond 2013–14, the latest plans are for RDEL to continue to fall at a similar rate to what was originally planned.

For capital DEL, the coalition government spent slightly less than it had planned for the two years up to 2012–13. However, the 'capital packages' announced in the 2011 and 2012 Autumn Statements increased CDEL budgets in 2013–14, 2014–15 and 2015–16, and therefore reduced the real cut in capital DEL relative to what was originally planned. These packages were not enough to reverse the overall decline in capital spending: in real terms CDEL is implied to be around £6.5 billion lower in 2015–16 than it was in 2010–11.[10]

[9] Table 2.5 in the 2013 Budget (available at https://www.gov.uk/government/publications/budget-2013-documents) summarises the underspends and budget exchange that contribute to lower spending in 2012–13, and which slightly increase spending in 2013–14 and 2014–15. Note the row titled 'Exceptional inter-period flexibility', which apparently shifted £0.4 billion of spending from 2012–13 into later years, after the window for making such transfers had theoretically closed.

[10] Furthermore, capital DEL is forecast to decrease between 2015–16 and 2017–18, before starting to increase again as total public sector gross capital expenditure is increased in line with national income from 2018–19.

To summarise, there are two main differences between the out-turn/latest plans for DEL and what was originally planned in the 2010 Spending Review. First, nominal resource DEL has been lower each year than was planned in 2010. However, since inflation has also turned out lower than was expected at that time, the real cut to resource DEL between 2010–11 and 2014–15 is actually slightly smaller than originally envisaged. Second, nominal capital DEL has been increased from 2012–13 onwards relative to what was allocated in the 2010 Spending Review, and therefore the real cut to capital DEL between 2010–11 and 2014–15, while still large, is now forecast to be much smaller.

Cuts by department

The cuts to DEL over the period 2010–11 to 2015–16 have been distributed very unequally between departments. In the 2010 and 2013 Spending Reviews, large areas of spending were protected. The government pledged to increase real spending on the National Health Service (NHS) and non-investment spending on schools, and to increase spending significantly on official development assistance (which makes up the bulk of the budget of the Department for International Development) so that it reaches at least 0.7% of gross national income.

These protections for such large areas of spending meant much bigger cuts to the other, 'unprotected', departments. Between 2010–11 and 2015–16, a real cut of 9.5% to overall departmental spending means a cut of 20.6% for unprotected departments.

The latest plans for cuts by department

Figure 7.3 summarises the latest estimates of the real cuts to total, capital and resource spending by department between 2010–11 and 2015–16. The only departments planned to see real increases in their overall DELs are the Department of Health, the Department for International Development and the Department of Energy and Climate Change, which are currently expected to see increases in their overall budgets of 6.2%, 35.3% and 9.5% respectively. The first two of these are not surprising given the government's commitments to protect spending on the NHS and official development assistance. The third is slightly more surprising, but is explained by a package of 'green' policies announced at the 2013 Autumn Statement and a re-profiling of some funding intended for investment in carbon capture and storage technology that has been delayed.[11]

In contrast, despite pledging to protect non-investment spending on schools, the budget for the Department for Education is planned to be cut in real terms by 7.4% between 2010–11 and 2015–16. In large part, this is due to a reduction in capital spending, which is forecast to be cut by 41.2%. However, there are also cuts to total non-schools resource spending, which includes spending on further education, sixth forms and early years services.[12]

The Department for Transport and the Ministry of Defence have also fared relatively well, with cuts to their budgets of 6.5% and 10.7% respectively (compared with the average cut of 9.5%).[13] Other departments such as the Department for Business, Innovation and Skills, the Home Office, the Ministry of Justice and the Department for Work and Pensions

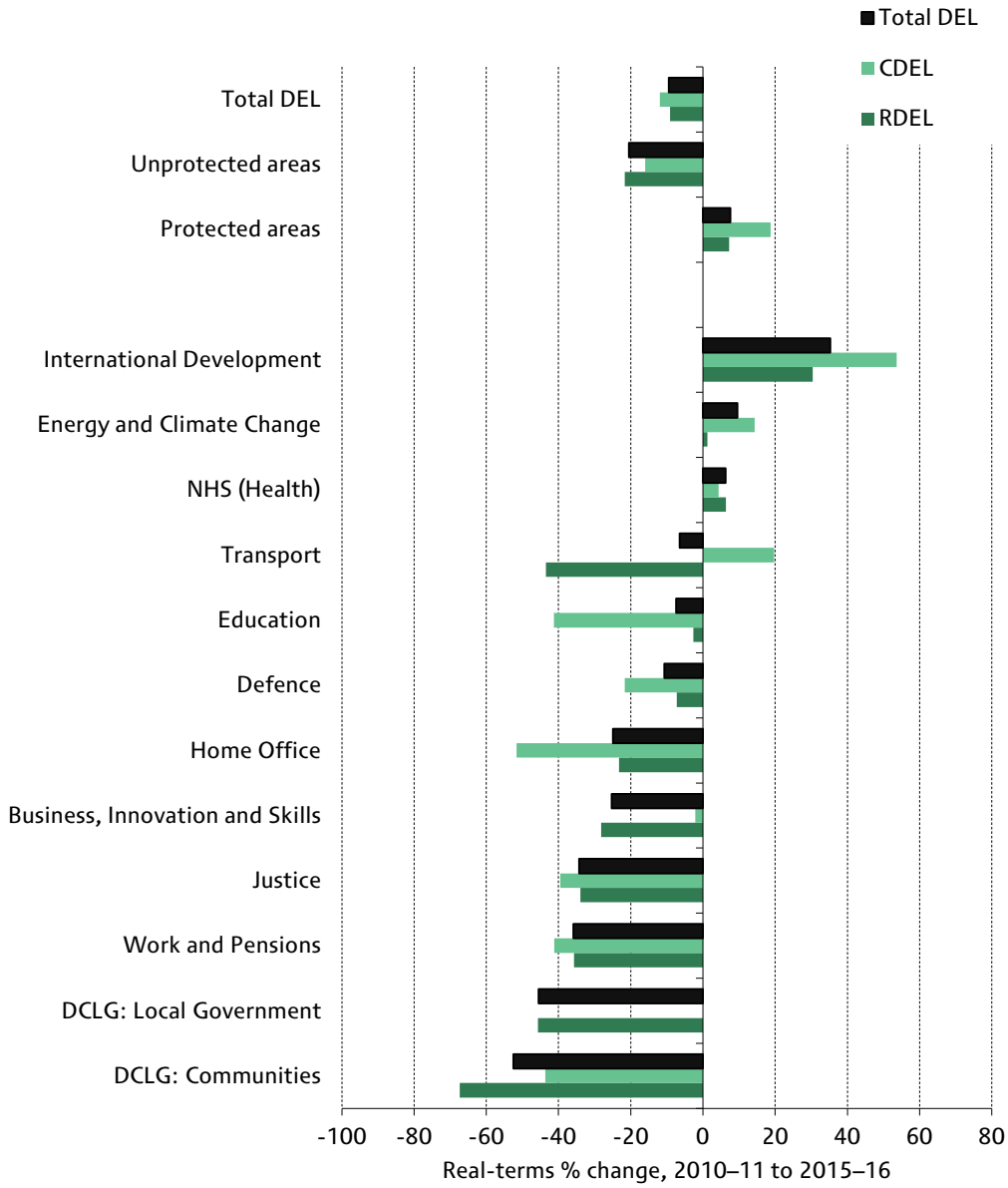
[11] For more details, see table S3.2 in the Energy and Climate Change Select Committee Memorandum available at https://www.gov.uk/government/publications/main-estimate-2014-15-select-committee-memorandum.

[12] For more information on schools spending and the Department for Education budget, see http://election2015.ifs.org.uk/schools.

[13] Figures for the Ministry of Defence exclude the cost of operations.

face relatively tight settlements, with cuts to their budgets of between 20% and 40%. However, the Department for Business, Innovation and Skills has perhaps fared better than its headline budget suggests: it is planned to face lower-than-average cuts to its capital DEL (of around 2.2%), and a large proportion of its 28.2% cut to resource DEL reflects a major reform to how higher education is financed in England.[14]

Figure 7.3. Real-terms cuts to DELs from 2010–11 to 2015–16, by department, ranked by size of overall cut



Note: Figures for the Ministry of Defence exclude the cost of operations and the special reserve. Department for Transport 2015–16 RDEL is adjusted to include £0.9 billion transferred from RDEL to CDEL in 2015–16. £1.6 billion has been removed from the Department for Business, Innovation and Skills CDEL to adjust for financial transactions. Not shown are the Law Officers' departments, the Foreign and Commonwealth Office, the Department for Environment, Food and Rural Affairs, the Department for Culture, Media and Sport, the devolved administrations, the Chancellor's departments, the Cabinet Office, and small and independent bodies.
Source: PESA 2014, Autumn Statement 2014.

[14] For more details, see C. Crawford, R. Crawford and W. Jin, *The Outlook for Higher Education Spending by the Department for Business, Innovation and Skills*, IFS Report R86, 2013, http://www.ifs.org.uk/comms/r86.pdf.

Box 7.1. The shifting role of the state

During the current period of austerity, public spending on official development assistance, health and some aspects of education has been protected. This means that these areas will account for an increasing proportion of public service spending over time. Table 7.3 shows that UK health and international services spending accounted for 27.4% and 2,1% (respectively) of all public service spending in 2013–14, compared with 24.5% and 1.6% in 2007–08 (respectively); the proportion of public service spending on education was maintained at 19.1% over the same two years. In contrast, the proportion of public service spending accounted for by most other service areas has declined over this period – and particularly so for public order and safety and transport.

Table 7.3. Composition of public service spending over time

Function	1999–2000	2007–08	2013–14
Health	21.9%	24.5%	27.4%
Education	18.7%	19.1%	19.1%
Defence	11.1%	8.2%	7.7%
Public order and safety	8.2%	7.7%	6.4%
Transport	3.5%	5.0%	4.3%
Recreation, religion and culture	3.4%	2.9%	2.5%
International services	1.6%	1.6%	2.1%
Other	31.5%	31.1%	30.5%
Memo: Real public service spending per capita (2015–16 prices)	£5,500	£7,900	£7,600

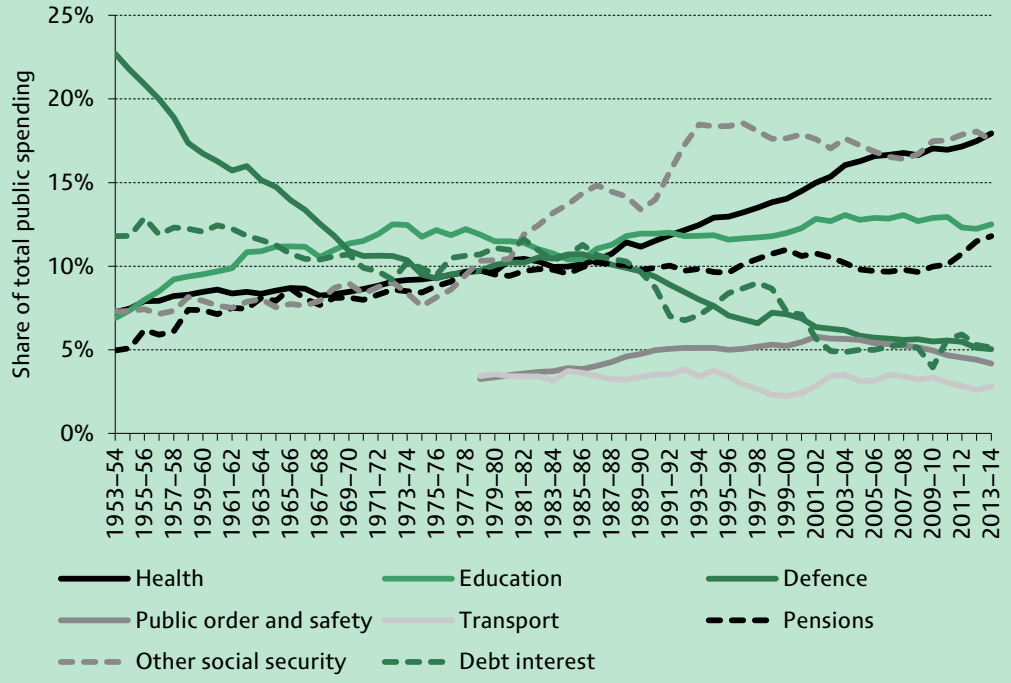
Source: HM Treasury, 'Public spending statistics release: November 2014', https://www.gov.uk/government/statistics/public-spending-statistics-release-november-2014.

Table 7.3 also sets out the composition of public service spending in 1999–2000. The period between 1999–2000 and 2007–08 stands in contrast to the subsequent period in that the relative importance of international services was stable, the relative importance of transport increased and the relative importance of defence fell sharply. However, the share of public service spending going on health and education increased between 1999–2000 and 2007–08 (though the difference was much less spectacular for the latter). In other words, for more than the past decade an enduring trend has been an increasing focus of public service spending on health services.

This change in the composition of state spending is even more apparent looking over a longer period of time and also considering how spending on social security has changed. This is illustrated in Figure 7.4. The increase in health spending has been a very long-run trend, with health spending increasing from 7% of total public spending in 1953–54 to 18% of total spending in 2013–14 (this is discussed in more detail in Chapter 8). Social security has also steadily been accounting for an increasing proportion of spending over time: spending on the state pension and other social security accounted for 5% and 7% (respectively) of total spending in 1953–54, but 12% and 18% (respectively) of total spending in 2013–14.[a] The state has therefore become increasingly focused on the provision of health and social security, which together accounted for nearly half of all public spending in 2013–14.

[a] More detail on the long-term trends and recent changes to benefit spending can be found in A. Hood and L. Oakley, 'The social security system: long-term trends and recent changes', IFS Briefing Note BN156, 2014, http://www.ifs.org.uk/publications/7438.

Figure 7.4. Composition of total public spending over time



Source: Long-run spending data by function on the IFS website, available at http://www.ifs.org.uk/uploads/publications/bns/bn34_spending_August_14-1.xlsx, and authors' calculations based on DWP benefit expenditure tables, 2014, https://www.gov.uk/government/statistics/benefit-expenditure-and-caseload-tables-2014.

The department facing the largest budget cuts is the Department for Communities and Local Government (DCLG). DCLG is unique in that it has two separate DELs: the 'DCLG: Local Government' budget includes general and specific grants to local authorities, while the 'DCLG: Communities' budget includes the department's main programme expenditure and administration costs (including, for example, central government spending on social housing). The DCLG: Communities budget is forecast to be cut by 52.5% in real terms, while the DCLG: Local Government budget is forecast to be cut by 45.5%. This latter figure, however, overstates the cut to local authority spending power over this period, since local authorities also have other sources of revenue – including council tax, retained business rates and user charges – which have typically fallen less over this period than central government grants. In its December 2014 Economic and Fiscal Outlook, the OBR forecast that local authority spending would fall in real terms by between 15% and 20% from 2010–11 to 2015–16.[15]

Cuts to the budgets of the devolved administrations of Scotland, Wales and Northern Ireland are not shown in Figure 7.3. The budgets of the devolved administrations are determined by the Barnett formula on the basis of cuts being applied to spending in England. This is discussed in more detail in an IFS Briefing Note,[16] which also illustrates that flaws in the way the Barnett formula interacts with devolved taxes mean that, at the

[15] Authors' calculations based on chart 4.5, Office for Budget Responsibility, *Economic and Fiscal Outlook: December 2014*, http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/.

[16] D. Phillips, 'Business as usual? The Barnett formula, business rates and further tax devolution', IFS Briefing Note BN155, 2014, http://www.ifs.org.uk/publications/7442.

moment, Scotland and Northern Ireland are facing smaller cuts to their funding than are being applied to comparable spending in the rest of the UK.

The cuts to spending since 2010–11 are large and have not been shared equally between departments. However, as described in Section 7.1, these cuts come after a decade of rapid spending increases, which were also not shared equally. Box 7.1 provides some additional long-run context by illustrating the implications of the recent cuts for the composition of public service spending over time.[17]

Changes to departments' plans since 2010–11

As shown earlier in Table 7.2, further cuts to nominal spending on top of the 2010 plans have been more than offset by the fall in inflation relative to what was expected in 2010, and so the real-terms cut to overall DEL is expected to be 8.6%, rather than the 10.6% cut expected at the time of the 2010 Spending Review. Table 7.4 shows the revisions to DEL by department.

Up to 2014–15, the Department of Health has seen no change to its cash budget relative to that announced in the 2010 Spending Review. It is therefore now expected to see a real increase in its budget of 4.6% between 2010–11 and 2014–15, rather than the 2.5% expected in 2010, as a result of lower-than-forecast inflation. The Department for Education, the Department for Business, Innovation and Skills and the Department for Transport are also now expected to see smaller real-terms cuts to their budgets over this period than was planned in the Spending Review – as a result of both lower inflation *and*

Table 7.4. Real change in departments' overall DEL, as originally planned and according to the latest plans

	Real change in DEL, 2010–11 to 2014–15			***Latest planned real change in DEL, 2010–11 to 2015–16***
	Original plans, original inflation	**Original plans, actual inflation**	**Out-turns & latest plans, actual inflation**	
Health	2.5%	4.6%	4.6%	6.2%
Education	–10.5%	–8.7%	–5.5%	–7.4%
Defence	–6.8%	–4.9%	–7.5%	–10.7%
Home Office	–18.7%	–17.0%	–19.4%	–24.9%
Ministry of Justice	–26.7%	–25.2%	–28.9%	–34.3%
Business, Innovation & Skills	–29.4%	–27.9%	–21.7%	–25.3%
Transport	–19.0%	–17.3%	–5.7%	–6.5%
Memo: Total DEL	–10.6%	–8.8%	–8.6%	–9.5%

Note: Spending Review 2010 plans are calculated using the latest out-turns for spending in 2010–11, combined with plans as described in PESA 2011, adjusted for Machinery of Government and classification changes that have taken place since. Original inflation taken as forecast in June 2010. Ministry of Defence DEL excludes the cost of operations and the special reserve (£1.1 billion in 2015–16). Department for Transport 2015–16 RDEL is adjusted to include £0.9 billion transferred from RDEL to CDEL in 2015–16. £1.6 billion has been removed from the Department for Business, Innovation and Skills CDEL to adjust for financial transactions.
Source: Past editions of Public Expenditure Statistical Analyses; Office for Budget Responsibility June 2010 forecast; latest inflation from ONS series ABMI and YBHA; forecasts from the OBR's December 2014 Economic and Fiscal Outlook.

[17] The division of spending into different service areas in Box 7.1 differs from that used in Figure 7.3 because the mapping between service areas and government departments changes over time, and long-run data are only available on a 'functional' rather than a 'departmental' basis.

increases in nominal spending plans. Moreover, the real cuts to these departments' budgets now planned up to 2015–16 will still not be as large as those originally planned in the 2010 Spending Review for the period up to 2014–15. Other departments have not fared so well. The Ministry of Defence, the Home Office and the Ministry of Justice are all now expected to see larger cuts to their budgets between 2010–11 and 2014–15 than was originally expected – they have experienced cuts to their nominal budgets since 2010 that more than offset the beneficial impact of lower-than-forecast inflation.

Table 7.5 gives more detail on how departments' budget allocations have changed since the 2010 Spending Review, breaking down budgets into capital DEL and resource DEL (excluding depreciation). The Department of Health has seen no change to either its

Table 7.5. Real change in departments' resource DEL (excluding depreciation) and capital DEL, as originally planned and according to the latest plans

	Real change in DEL, 2010–11 to 2014–15			*Latest planned real change in DEL, 2010–11 to 2015–16*
	Original plans, original inflation	**Original plans, actual inflation**	**Out-turns & latest plans, actual inflation**	
Health				
Resource DEL	2.5%	4.6%	4.6%	6.3%
Capital DEL	1.9%	4.0%	4.0%	4.3%
Education				
Resource DEL	–4.0%	–2.0%	–1.4%	–2.7%
Capital DEL	–56.9%	–56.0%	–34.4%	–41.2%
Defence				
Resource DEL	–12.3%	–10.4%	–5.1%	–7.2%
Capital DEL	–2.9%	–0.9%	–15.0%	–21.6%
Home Office				
Resource DEL	–17.3%	–15.6%	–18.0%	–23.3%
Capital DEL	–42.6%	–41.4%	–41.4%	–51.6%
Ministry of Justice				
Resource DEL	–25.4%	–23.9%	–27.7%	–33.9%
Capital DEL	–48.3%	–47.2%	–47.2%	–39.5%
Business, Innovation & Skills				
Resource DEL	–26.5%	–24.9%	–24.6%	–28.2%
Capital DEL	–53.0%	–52.0%	1.6%	–2.2%
Transport				
Resource DEL	–36.9%	–35.6%	–38.7%	–43.4%
Capital DEL	–6.3%	–4.3%	17.7%	19.7%
Memo: Total DEL	–10.6%	–8.8%	–8.6%	–9.5%
Memo: Total RDEL	–8.3%	–6.4%	–7.8%	–9.1%
Memo: Total CDEL	–25.9%	–24.4%	–13.6%	–11.9%

Note: Figures for the Ministry of Defence exclude the cost of operations and the special reserve. Department for Transport 2015–16 budget adjusts for a reclassification of £0.9 billion from resource to capital DEL. £1.6 billion has been removed from the Department for Business, Innovation and Skills CDEL to adjust for financial transactions.

Source: Past editions of Public Expenditure Statistical Analyses; Office for Budget Responsibility June 2010 forecast; latest inflation from ONS series ABMI and YBHA; forecasts from the OBR's December 2014 Economic and Fiscal Outlook.

resource budget or its capital budget, and so both have benefited fully from the lower-than-expected inflation.

The Department for Education has benefited from increases in both its resource and capital budgets, and so the real cut to each is lower than originally planned, and by more than just the beneficial impact of lower-than-forecast inflation. These budget increases were the result of specific policy action, such as the extension of free school meals, grants for apprenticeships and additional funding for extra school places.

The Department for Business, Innovation and Skills and the Department for Transport are both now expected to see smaller real cuts than originally planned, and Table 7.5 illustrates that this is driven by increases in their capital budgets – which are both now forecast to increase in real terms between 2010–11 and 2014–15 rather than being cut as originally intended. This is the result of extra funding allocated in Autumn Statements and Budgets since 2010. Specific examples of increases in funding for the Department for Business, Innovation and Skills include £0.2 billion of funding for the Regional Growth Fund (announced in the 2012 Budget) and £0.3 billion of funding for 'Research Council infrastructure'. The Department for Transport also did relatively well from the capital package announced in the 2012 Autumn Statement, receiving £0.8 billion extra funding for long-term investment for new roads in 2014–15.

The Home Office, the Ministry of Justice and the Ministry of Defence are all facing larger real-terms cuts than originally planned (despite lower-than-forecast inflation), largely due to the extra spending restraint announced in the 2012 Autumn Statement, the 2013 Budget and the 2013 Autumn Statement. Table 7.5 indicates that for the Home Office and Ministry of Justice these greater cuts are driven by greater-than-planned cuts to resource DEL; their capital DEL allocations are unchanged since the 2010 Spending Review. The Ministry of Defence budget has seen big changes to its resource and capital budgets, with cuts to its resource budget decreased and cuts to its capital budget increased. Some of the extra capital cuts have come through lower-than-planned spending on single-use military equipment (SUME).[18] Whereas departments are typically not allowed to cut capital DELs to ease the burden on resource DELs, the Ministry of Defence has transferred part of its SUME budget to its resource budget (having received appropriate permission from HM Treasury). Since 2010–11, the Ministry of Defence has increasingly used this as a way of easing the pressure on resource spending, transferring £1.5 billion in 2014–15, compared with £0.7 billion in 2010–11.

To summarise, the 'winners' relative to the 2010 Spending Review allocations are the Department of Health, the Department for Education, the Department for Business, Innovation and Skills and the Department for Transport. These departments either benefited from lower-than-expected inflation or from policies increasing their 2014–15 budgets, or both. The losers include the Home Office and the Ministry of Justice. These departments have faced the full brunt of the extra cuts to resource spending implemented by the coalition government since the 2010 Spending Review.

[18] Single-use military equipment is military assets that cannot be used by civilian organisations for the production of goods and services (i.e. they have a single use: in the military). This includes weapons systems (planes, tanks, guns etc.) and ammunition (bullets, bombs etc.).

7.3 Options for the 2015 Spending Review

The outlook for total DEL: 2015–16 onwards

Autumn Statement plans

The coalition government has not explicitly planned DEL for the years after 2015–16. However, it has pencilled in plans for total spending (DEL plus AME) through to 2019–20, and since the OBR has forecast AME for the same years, DEL is the implicit residual after AME has been subtracted from total spending.

The latest plans published in the 2014 Autumn Statement suggest that there are still large cuts to come and that there may even be an acceleration of the cuts seen over this parliament. Table 7.6 describes these plans, which are for total public spending to be cut at an average 0.6% per year in real terms between 2015–16 and 2019–20. Within the total, there is a similar trend to the one seen over this parliament – namely, increasing AME and falling DEL. Given the OBR forecast for AME to increase at an average annual rate of 2.2%, the implied real cut to DEL is an average 3.7% per year between 2015–16 and 2019–20. This is nearly twice the 2.0% per year average real cut to DEL over the period 2010–11 to 2015–16. Taking the whole period 2010–11 to 2019–20, DEL is implied to be cut by a cumulative 22.2% in real terms. By the end of this period, this would take DELs back to around the same level in real terms in 2019–20 as they were in 2002–03.

Within departmental spending, the outlook is quite different for resource and capital DEL.[19] Capital DEL is implied to increase by an average 1.8% per year in real terms from 2015–16 to 2019–20, as a result of the coalition government's plan to increase public sector gross investment in line with national income from 2017–18 onwards. This would not be enough to reverse entirely the cuts to capital spending over this parliament; overall between 2010–11 and 2019–20, there is still forecast to be an overall cut, of 5.4%. On the other hand, the implied real cut to resource DEL is 4.6% per year between 2015–16 and 2019–20 – a large acceleration from the average annual real cut of 1.9% between

Table 7.6. Planned departmental spending, 2015–16 to 2019–20

	Real change, 2015–16 to 2019–20		*Real change, 2010–11 to 2019–20*	
	Average annual	**Cumulative**	**Average annual**	**Cumulative**
Total managed expenditure	–0.6%	–2.3%	–0.6%	–5.4%
of which:				
Annually managed expenditure	2.2%	9.0%	1.4%	13.0%
Departmental spending limits	–3.7%	–14.1%	–2.8%	–22.2%
of which:				
Resource DEL	–4.6%	–17.3%	–3.1%	–24.8%
Capital DEL	1.8%	7.3%	–0.6%	–5.4%

Note: Resource DEL excludes depreciation. DEL, resource DEL and AME are adjusted for the business rates retention scheme. TME and AME adjusted to include negative tax credits as spending in years before 2015–16.
Source: PESA 2014; Autumn Statement 2014.

[19] We can estimate implied totals for resource DEL and capital DEL because within total spending the government has also pencilled in plans for public sector gross investment up to 2019–20.

2010–11 and 2015–16. Over the four years, this would amount to a total cut of 17.3%, bringing the real cut between 2010–11 and 2019–20 to 24.8%.

How these plans might differ under a new government

After the general election in May 2015, the new government will almost certainly change the plans for departmental spending from those implied in the 2014 Autumn Statement.[20] While the three main political parties have all signed up to the new fiscal mandate to achieve a cyclically-adjusted current budget surplus in 2017–18, they disagree on how they would achieve the necessary fiscal consolidation in 2016–17 and 2017–18. Beyond 2017–18, they also disagree on how much further consolidation is desirable.

In a recent briefing note, we explored how public spending might differ under each of the three main parties, given their fiscal rules and what other plans they had announced so far.[21] Perhaps somewhat surprisingly, all the parties' preferred fiscal rules allow for looser fiscal policy than is currently planned. The Conservatives are aiming for an overall budget surplus, which in 2019–20 could allow up to £21.3 billion of extra spending for departments relative to the 2014 Autumn Statement plans.[22] Labour and the Liberal Democrats are targeting a surplus on the current budget and cyclically-adjusted current budget respectively. These fiscal rules would be consistent with up to £45 billion extra non-investment spending for departments by 2019–20.[23]

Figure 7.5 and Table 7.7 compare the cuts to departmental spending implied in the 2014 Autumn Statement with the most generous DEL settlement that would be consistent with each party's fiscal rules, assuming that Labour and the Liberal Democrats do not increase investment spending over the Autumn Statement plans.[24] Table 7.7 also illustrates how these cuts would differ if we take into account the parties' stated policy intentions (as of December 2014) on welfare spending and taxes.[25] For the Conservatives, these amount to a net tax and benefit takeaway of £5.2 billion (assuming they meet their aspiration to cut £12 billion from welfare spending), and for Labour a net tax and benefit takeaway of

[20] As mentioned previously, technically the incoming government could also change departmental spending in 2015–16. However, the two governing parties have signed up to the existing allocations, and Labour has signed up to the current spending allocations.

[21] R. Crawford, C. Emmerson, S. Keynes and G. Tetlow, 'Fiscal aims and austerity: the parties' plans compared', IFS Briefing Note BN158, 2014, http://www.ifs.org.uk/publications/7495.

[22] The Autumn Statement forecast an overall budget surplus of £21.6 billion in 2019–20 (2015–16 prices; £23.1 billion in 2019–20 prices), but not all of this would be available to spend on departments since increased borrowing relative to the Autumn Statement plans would likely require increased spending on debt interest.

[23] £45.2 billion for the Liberal Democrats, who are targeting a cyclically-adjusted budget balance, compared with £44.6 billion for Labour, which is targeting a headline current budget balance. This extra spending takes into account the extra debt interest spending that would be implied by higher borrowing (and higher debt) in earlier years relative to Autumn Statement 2014 plans.

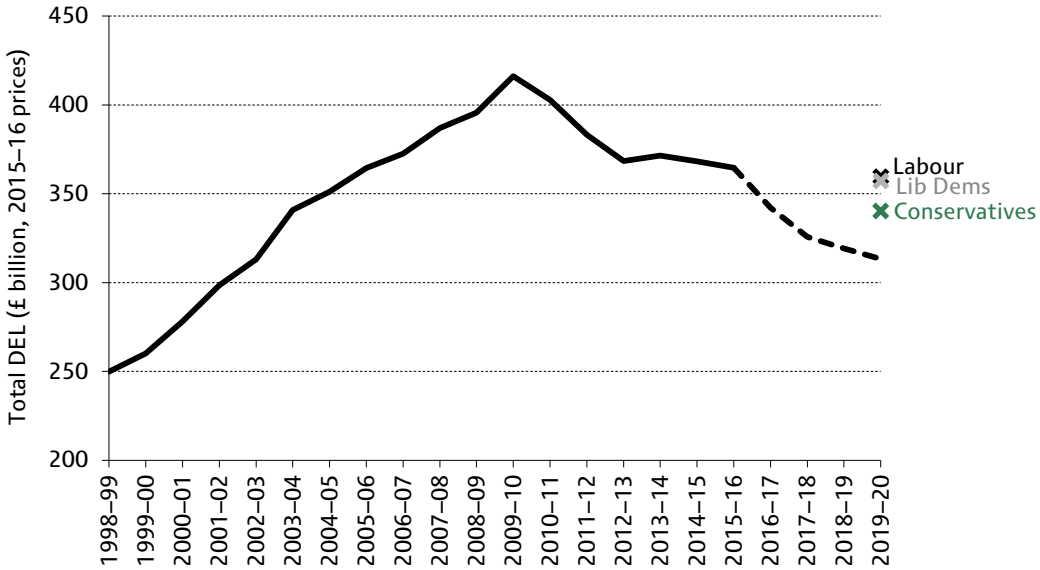
[24] This is perhaps a controversial assumption, given that Labour and the Liberal Democrats are both targeting measures of borrowing that exclude investment, and so they could both increase investment spending and still keep to their fiscal rules. In the absence of specific details to the contrary, for now we assume that they keep to the coalition investment spending plans.

[25] The most significant policies announced by Labour are the decisions to reverse the under-occupancy penalty (otherwise known as the spare room subsidy or the bedroom tax), to increase the top rate of income tax from 45p to 50p, to cap child benefit increases at 1% in 2016–17 and to introduce a 'mansion tax' on homes worth more than £2 million. For the Liberal Democrats, the major policies we include are the mansion tax on homes worth more than £2 million, an increase in the personal allowance to £12,500 by 2020–21, an increase in capital gains tax, limits to pensions tax relief, and an increase in the dividend tax rate for higher-rate taxpayers. For the Conservatives, we include their stated intentions to raise the higher-rate threshold to £50,000 by 2020–21, to increase the personal allowance to £12,500 by the same year, and to implement £12 billion of welfare cuts (of which approximately £9 billion are as yet unspecified). A full description of what policies we have included for each party is available in R. Crawford, C. Emmerson, S. Keynes and G. Tetlow, 'Fiscal aims and austerity: the parties' plans compared', IFS Briefing Note BN158, 2014, http://www.ifs.org.uk/publications/7495.

£1.4 billion (2015–16 prices) – taking these into account would slightly reduce the cuts implied to departmental spending. The Liberal Democrats have announced specific net tax and benefit policies that imply a small net giveaway of £1.2 billion (2015–16 prices), which would need to be offset by slightly greater cuts to departmental spending.

The Conservatives' fiscal rules, combined with their policy announcements so far and their stated intention for welfare spending cuts, imply that they could cut total DEL by 6.7% between 2015–16 and 2019–20, i.e. by less than the 14.1% implied by the 2014

Figure 7.5. Real total departmental spending: Autumn Statement plans and potential spending under alternative parties' proposals



Note: Potential departmental spending under the alternative parties' proposals assume that they all stick to the Autumn Statement 2014 plans for investment, that they borrow the maximum amount their fiscal rules allow, and that they implement their specific tax and benefit reforms and stated intentions as of December 2014.
Source: Spending Review 2010; various editions of Public Expenditure Statistical Analyses; the OBR's 2014 Economic and Fiscal Outlook.

Table 7.7. Potential departmental spending, 2015–16 to 2019–20, under alternative parties' proposals

	Real change, 2015–16 to 2019–20		*Real change, 2010–11 to 2019–20*	
	%	**£ billion**	**%**	**£ billion**
2014 Autumn Statement plans	–14.1	–51.4	–22.2	–89.5
Given parties' fiscal rules:				
Conservatives	–8.3	–30.1	–16.9	–68.3
Labour	–1.9	–6.8	–11.2	–44.9
Liberal Democrats	–1.7	–6.2	–11.0	–44.4
Given parties' fiscal rules and stated intentions:				
Conservatives	–6.7	–24.9	–15.5	–53.1
Labour	–1.4	–5.2	–10.8	–43.3
Liberal Democrats	–2.1	–7.5	–11.3	–45.7

Note: As for Figure 7.5.
Source: As for Figure 7.5.

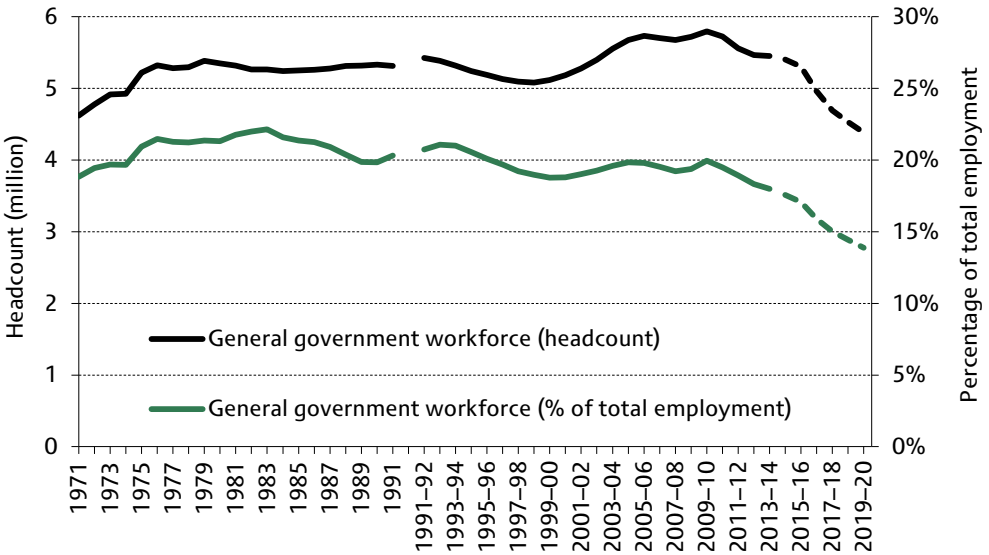
Autumn Statement. Labour's fiscal rule and announced policies would allow a cut of just 1.4% and the Liberal Democrats' announcements are consistent with a 2.1% cut.

The implications for government employment

On the basis of the spending cuts pencilled in by the 2014 Autumn Statement, the OBR has forecast that general government employment will fall by around 900,000 between 2015–16 and 2019–20. This would be on top of cuts of around 500,000 between 2009–10 and 2015–16.[26]

Figure 7.6 illustrates how the OBR's forecasts for general government employment compare with historical levels.[27] General government employment is projected to fall to below 4.4 million in 2019–20, which would be the lowest level seen over the period since 1991–92 for which consistent data are available and would probably be the lowest level since at least 1971.[28] The 10 years since 2009–10 would be the longest period of consecutive annual cuts to general government employment since 1971, and the average cut to employment, forecast at around 140,000 per year, would be considerably greater

Figure 7.6. General government employment over time



Note: The discontinuity in the data at 1991 is caused by changes in the methodology for calculating general government employment post-1991 that mean the series are not fully consistent with each other. Headcount for 1971 to 1991 is measured at mid-year. Community Programme employees, who were in the public sector from 1983 to 1988 before being transferred from general government to the private sector in 1988Q3, are excluded. Polytechnic staff were transferred out of general government into the private sector in 1988, but are included in general government from 1989 to 1991 to remove this discontinuity. Figures exclude the reclassification of workers in further education and sixth-form colleges in England to the private sector in 2012.

Source: Authors' calculations using Office for National Statistics, *Economic Trends Annual Supplement 2004* (for 1971 to 1991 figures), Office for National Statistics, *Public Sector Employment Statistics* (for 1991–92 to 2013–14 figures) and Office for Budget Responsibility, *Economic and Fiscal Outlook December 2014* (for forecasts). Total employment is measured using ONS series MGRZ.

[26] Numbers in this section exclude the effects of the reclassification of 196,000 workers in further education and sixth-form colleges in England to the private sector in 2012. In order to compare the general government workforce consistently over time, we classify them to the public sector in all years.

[27] A more detailed discussion of the changes in public sector employment over time is available in J. Cribb, R. Disney and L. Sibieta, 'The public sector workforce: past, present and future', IFS Briefing Note BN145, 2014, http://www.ifs.org.uk/publications/7113.

[28] Figures exclude employees of nationalised financial corporations.

than the average employment cut during the 1990s (which was around 50,000 per year between 1991–92 and 1998–99).

Furthermore, it is worth bearing in mind that the size of the labour force has grown over time, not least due to population growth. Figure 7.6 therefore also illustrates general government employment as a share of total employment over time. In 2013–14, general government employment was 18% of total employment – already a lower percentage than at any point since 1971. Current OBR forecasts imply that the share of the total workforce working in general government would shrink to 14% in 2019–20.

The cuts to general government employment after 2015–16 are forecast by the OBR, on the basis of public spending plans laid out in the 2014 Autumn Statement, to be at a greater rate than has been experienced since 2009–10: an average 230,000 per year over the four years up to 2019–20 compared with an average 80,000 per year over the six years up to 2015–16. This is caused by two factors. First, as described above, the Autumn Statement plans imply acceleration in the cuts to departmental spending after 2015–16, which all else equal would imply a greater rate of cuts to government employment in future. Second, government employment has been protected to some extent over the period up to 2015–16 by coalition government policies to restrain public sector pay growth. The OBR employment forecasts do not assume that such policies continue, and so greater wage growth over the period beyond 2015–16 would result in greater forecast employment cuts even if the average cut to departmental spending were the same.

These forecasts for general government employment are all based on the coalition government's plans for departmental spending that were pencilled in by the 2014 Autumn Statement. However, as discussed above, future levels of departmental spending will be the responsibility of the new government, and the three main parties' plans all differ from one another and from the Autumn Statement plans. Table 7.8 therefore illustrates how the potential DEL levels implied by the parties' fiscal rules and policy plans described above might result in different cuts to general government employment. All the parties' proposals could enable lower cuts to departmental spending than implied by the Autumn Statement plans, and therefore projected cuts to general government employment are lower – at around 550,000 on the basis of what departmental spending

Table 7.8. Cuts to general government employment

		Change in general government employment, 2015–16 to 2019–20	
	Real change in DEL, 2015–16 to 2019–20	**OBR forecast for public sector pay growth**	**Public sector pay grows in line with CPI**
2014 Autumn Statement plans	–14.1%	–900,000	–750,000
Given parties' fiscal rules and stated intentions:			
Conservatives	–6.7%	–550,000	–400,000
Labour	–1.4%	–300,000	–100,000
Liberal Democrats	–2.1%	–300,000	–150,000

Note: Potential reductions in general government employment are calculated by IFS replications of OBR forecasts, given the different potential changes to resource DEL between 2015–16 and 2019–20. Changes in general government employment are rounded to nearest 50,000.
Source: Authors' calculations based on parties' stated policies and the OBR's 2014 Economic and Fiscal Outlook.

might look like under the Conservatives and at around 300,000 on the basis of what departmental spending might look like under Labour or the Liberal Democrats.

The future cuts to general government employment may be mitigated if the government continues with policies to restrain public sector pay. The employment cuts described so far are calculated using the OBR's assumption that paybill per head in the public sector grows by an average of 2.9% per year in nominal terms between 2015–16 and 2019–20 (0.9% per year relative to the consumer price index). If pay growth were lower than this, the cuts to government employment would be reduced (since a given total paybill could finance the employment of more workers). For example, if public sector pay grew in line with consumer prices between 2015–16 and 2019–20 (forecast to be 1.9% per year), then the cuts to general government employment under the Autumn Statement plans for departmental spending would fall to 750,000 (illustrated in the final column of Table 7.8). However, this would entail a four-year freeze to real pay in the public sector, over a period in which the OBR forecasts imply that private sector wages are expected to grow by around 8% in real terms.

The 2015 Spending Review

The total cut to departmental spending over the next parliament will be decided by the next government. Within that total, the allocation of departmental budgets for 2016–17, and potentially subsequent years, will be decided in a spending review, which is expected to be held by the end of 2015.

Which years should it cover?

The spending review will set departments' budgets for a number of years, but there is no fixed rule that sets how many. Between 1998 and 2004, spending reviews occurred every two years and covered three years, with the last year's spending plans being reviewed in the following spending review. The 2007 review covered the three years from 2008–09 to 2010–11. Under the coalition government, the 2010 Spending Review covered four years (from 2011–12 to 2014–15), while the 2013 Spending Review covered just one year (2015–16).

The advantage of covering a longer period is that it gives departments a better indication of the resources they are likely to receive in future. This gives them more time to plan, and more information on which to base potential investment or other long-run decisions, which ought to lead to better policy-making. It also makes it harder for the government to publish borrowing projections that depend on spending cuts in future years without specifying which departments would be required to cut their spending. The disadvantage of covering a longer period is that economic, fiscal and/or societal circumstances can change (or better information can emerge), and it is valuable for the government to have the option to respond to such changes through altering overall spending or departmental allocations.

At the start of this parliament, we recommended that the government hold a four-year spending review, with a 'mini review' to reassess plans half way in light of any changes.[29] The coalition government did hold a four year review, but while it has subsequently tweaked these initial plans (described above), it did not appear to do so on the basis of a

[29] Source: C. Emmerson, 'UK public finances: fiscal repair needed', 2010, http://www.ifs.org.uk/docs/ifs_ifg0510.pdf.

systematic 'mini review' taking into account overall and department-specific changes in circumstances. This invites the concern that the plans set out in four-year reviews may become more fixed than they perhaps should be.

Given this, we suggest that whoever forms the next government conducts a full four- or five-year spending review in 2015, setting fixed plans for the first two full years of the next parliament (2016–17 and 2017–18) and indicative plans for the following two or three years. The next government should also commit to a 'mini review', which would report no later than Autumn 2017 and which would firm up the indicative plans for 2018–19 onwards. This is along the same lines as the recommendations of others, including a Fabian Society commission and the Institute for Government.[30]

How might the cuts be allocated between departments?

Over this parliament, the government has protected the NHS, schools (non-investment) spending and official development assistance (ODA) from real cuts. This has meant an increase in the fraction of departmental spending going towards these protected areas, from 39.3% in 2010–11 to 46.7% in 2015–16, and larger-than-average cuts to the other 'unprotected' areas.

Going forwards, much of this protection looks set to remain. The three main UK parties have pledged to protect NHS spending in real terms: the Liberal Democrats have promised to increase annual spending on the NHS by £8 billion in 2020–21, the Conservatives have suggested they would also seek to do this,[31] and we assume Labour would do the same. This is discussed in more detail in Chapter 8. There also appears to be a broad consensus regarding the target to spend at least 0.7% of gross national income on ODA.

There is less certainty over whether schools spending will be protected going forwards. The Liberal Democrats' pre-manifesto states – and Nick Clegg has been reported to have vowed – that they would protect the whole education budget (i.e. going further than the coalition government went over this parliament).[32] However, while Labour has hinted that it might protect spending on schools,[33] neither Labour nor the Conservatives appear to have explicitly signed up to real-terms protection of schools spending.

Table 7.9 shows the implied real-terms cuts to other departments' spending if the NHS and ODA are protected beyond 2015–16, and if non-investment spending on schools is also protected. Under coalition plans for total spending, such protection would mean the unprotected areas would face a further cut of 27.0% by 2019–20, taking the cumulative total between 2010–11 and 2019–20 to 42.0%.

However, each of the parties has the scope to reduce the spending squeeze for these unprotected areas significantly whilst still complying with their proposed fiscal rules. The columns for the different parties take the total DEL settlements from Table 7.7 – i.e. the

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[30] Source: Fabian Society, *2030 Vision: The Final Report of the Fabian Society Commission on Future Spending Choices*, 2013, available at http://www.fabians.org.uk/spendingchoices/ and the Institute for Government, *Preparing for the Next Spending Review*, 2014, available at http://www.instituteforgovernment.org.uk/publications/preparing-next-spending-review.

[31] As reported by, for example, *The Telegraph*, http://www.telegraph.co.uk/news/nhs/11331265/David-Cameron-hints-Tories-prepared-to-give-NHS-8bn-boost.html.

[32] The pre-manifesto is available at http://www.libdems.org.uk/policy_paper_121. See also http://www.theguardian.com/education/2015/jan/18/nick-clegg-protect-education-budget-end-illiteracy.

[33] See https://www.tes.co.uk/article.aspx?storycode=6454228 and http://www.theguardian.com/politics/2014/dec/11/ed-balls-attacks-george-osborne-cuts-depression-era.

Table 7.9. Real-terms changes to DEL under illustrative scenarios for each party

	Autumn Statement	Conservatives	Labour	Liberal Democrats
2015–16 to 2019–20				
Total DEL	–14.1%	–6.7%	–1.4%	–2.1%
Total less Dept Health and ODA:				
If Dept Health gets real freeze	–22.3%	–10.8%	–2.7%	–3.7%
If Dept Health gets '£8bn'	–23.8%	–12.4%	–4.3%	–5.3%
Total less Dept Health, ODA, schools:[a]				
If schools not protected	–22.3%	–10.8%	–2.7%	–3.7%
If schools (resource) frozen	–27.0%	–13.1%	–3.3%	–4.5%
2010–11 to 2019–20				
Total DEL	–22.2%	–15.5%	–10.8%	–11.3%
Total less Dept Health and ODA:				
If Dept Health gets real freeze	–35.4%	–25.9%	–19.2%	–20.0%
If Dept Health gets '£8bn'	–36.7%	–27.2%	–20.5%	–21.3%
Total less Dept Health, ODA, schools:[a]				
If schools not protected	–38.2%	–29.1%	–22.7%	–23.5%
If schools (resource) frozen	–42.0%	–31.0%	–23.1%	–24.1%

[a] Assumes the Department of Health gets a real freeze from 2015–16 to 2019–20.
Note: The columns for each party are the most generous possible DEL settlement consistent with their proposed fiscal rules, given their stated intentions on net tax and benefit policies as of December 2014, and assuming that they stick to the Autumn Statement plans for capital spending.
Source: Authors' calculations based on the parties' announcements and the OBR's 2014 Economic and Fiscal Outlook.

most generous possible DEL settlement consistent with each party's proposed fiscal rules, given its stated intentions on net tax and benefit policies as of December 2014, and assuming that it sticks to the Autumn Statement plans for capital spending. For example, the Conservatives would only need to cut total DEL by 6.7%, and so protecting the NHS, ODA and non-investment spending on schools as over this parliament would require unprotected departmental spending to be cut by a further 13.1% (rather than the 27.0% under the Autumn Statement plans). Labour could afford this protection with only 3.3% cuts to other unprotected areas, while the Liberal Democrats would need cuts of 4.5%.

Alternatively, the next government could choose *not* to maintain the protections seen over this parliament. If the next government decided to cut schools spending at the same rate as unprotected areas, then this would imply larger cuts to other areas. For example, if the Conservatives were not to protect schools spending beyond 2015–16, then the implied cut to departmental spending on areas other than the Department of Health, official development assistance and schools (non-investment) could be 10.8% (rather than 13.1%).

How spending will be allocated between other departments is clearly not yet known and will depend to a large extent on the preferences of whoever forms the next government. However, in Table 7.10, we illustrate the real cut each department would face in its budget between 2015–16 and 2019–20 if the cuts between 'unprotected' departments were shared 'equally'. By 'equally', we mean that all departments see the same percentage cut to their resource DEL as each other and the same percentage cut to their capital DEL as each other. Since the capital intensity of departments varies, the percentage cut to total

DEL will vary across departments. We also assume that the devolved administrations of Scotland, Wales and Northern Ireland receive budgets calculated on the basis of the spending settlements of other departments using the Barnett formula.

For example, in the first column, we take the 2014 Autumn Statement plans for DEL and assume that NHS spending will be frozen in real terms, ODA spending increased in line with national income and (non-investment) schools spending frozen in real terms. Sharing out the proportional cuts to resource DEL and capital DEL equally between other departments and the residual part of the education budget (and taking into account the Barnett consequential of those decisions) implies that departments such as the Home Office, Ministry of Justice and Business, Innovation and Skills would face budget cuts of 40% or more. The Department for Transport, which is relatively capital intensive, would only see its budget cut by less than 6%.

Table 7.10. Real-terms changes to departments' DEL, 2015–16 to 2019–20, under illustrative scenarios for each party

	Autumn Statement	Conservatives	Labour	Liberal Democrats
Total DEL	–14.1%	–6.7%	–1.4%	–2.1%
Resource DEL	–17.3%	–8.8%	–2.7%	–3.5%
Capital DEL	+7.3%	+7.3%	+7.3%	+7.3%
Assumed 'protected':				
ODA	+9.7%	+9.7%	+9.7%	+9.7%
Health	0.0%	+3.2%	+3.2%	+3.2%
Education	–	–	–	0.0%
Assumed not 'protected':				
Education	–9.0%	–17.6%	–6.7%	–
Defence	–36.2%	–13.8%	–4.6%	–10.2%
Home Office	–46.3%	–18.7%	–7.4%	–14.6%
Ministry of Justice	–45.3%	–18.3%	–7.2%	–14.1%
Business, Innovation and Skills	–40.1%	–15.7%	–5.7%	–11.9%
Transport	–5.7%	+1.1%	+4.1%	+3.2%
Devolved administrations	–9.0%	–5.8%	–2.2%	–1.7%
All other departments	–34.8%	–13.1%	–4.2%	–9.5%
Memo: What is 'protection'?	ODA: increase with GDP	ODA: increase with GDP	ODA: increase with GDP	ODA: increase with GDP
	Dept of Health: real freeze	Dept of Health: 0.8% a year real increase	Dept of Health: 0.8% a year real increase	Dept of Health: 0.8% a year real increase
	Education: schools (resource) real freeze	Education: none	Education: none	Education: real freeze

Note: For 'protected' departments, we assume that both their capital and resource budgets are increased at the same rate. For 'unprotected' departments, we assume that their resource budgets are cut by the same percentage as each other and that their capital budgets are cut by the same percentage as each other, with the exception of the devolved administrations, where we calculate their budgets using the Barnett formula and the settlement for other departments. Total DEL cuts for each party are from Table 7.7, and we assume that no party deviates from the 2014 Autumn Statement plans for total capital spending. 2015–16 departmental budgets are consistent with Figure 7.3.
Source: Authors' calculations based on parties' policy announcements and the OBR's 2014 Economic and Fiscal Outlook.

These cuts across departments would differ under the alternative parties' proposals because their fiscal rules and stated intentions on net tax and benefit policies could imply quite different levels of resource and/or capital DEL over this period, and they have pledged to protect different areas of spending. In the final three columns of Table 7.10, we illustrate the possible implications of different levels of resource DEL spending and different areas of protection, but we maintain the assumption that all parties stick to the 2014 Autumn Statement capital spending plans. For all parties, we assume that they increase official development assistance spending in line with national income and increase real NHS spending by £8 billion by 2020–21 (in 2020–21 prices). We assume that the Liberal Democrats protect the total education budget, while we assume no protection to any part of the education budget for the Conservative and Labour parties.

The differences between the cuts implied by the scenarios highlight the uncertainty that departments now face regarding their budgets beyond 2015–16. The Department for Education, for example, could face no overall cut (as pledged by the Liberal Democrats). Or, under the assumptions outlined in the 'Conservatives' column, its budget could be cut by 17.6%. Even departments for which there is not the same explicit difference between the parties over their protection face considerable uncertainty.

The figures in Table 7.10 all assume that the cuts to resource DEL and the cuts to capital DEL are spread evenly between unprotected areas. Obviously, if this were not the case, then the cuts across departments could look very different. And, of course, if any of the parties wanted any room for manoeuvre against their fiscal rules, then this would imply larger cuts to overall departmental spending than the figures set out for them in this section (closer to the figures described for the Autumn Statement 2014 plans).

7.4 Conclusion

The coalition government's fiscal consolidation package has entailed large cuts to public spending, and particularly large cuts to spending on public services – the latter cuts are planned to contribute around 60% of the government's total fiscal consolidation package. Between 2010–11 and 2015–16, the government plans to have cut spending by Whitehall departments on administration and the delivery of public services by 9.5%. Since some areas of spending have escaped real-terms cuts – specifically, spending on health and official development assistance and non-investment spending on schools – the cuts to some areas have been much greater than this. The average cut to departmental spending excluding the aforementioned protected areas will reach 20.6% by 2015–16.

Further cuts to departmental spending of 14.1% were implied by the 2014 Autumn Statement between 2015–16 and 2019–20. This would take the total real-terms cut to departmental spending since 2010–11 to 22.2%. If the protection afforded to health, official development assistance and non-investment spending on schools were continued through to 2019–20, then, under the Autumn Statement plans for total departmental spending, other 'unprotected' areas of spending would need to be cut by 27.0% after 2015–16. This would take the total cut since 2010–11 to 42.0%.

Even figures of this magnitude disguise some additional pressures on spending that departments face. The UK population is growing – expected to be by around 0.7% per year between 2015–16 and 2019–20 – which would imply the cuts to departmental spending *per head* are even greater than those described above. The implications of this

for the NHS are discussed in Chapter 8. There are also some government policies that increase the cost to departments from 2016–17 onwards – for example, the ending of contracting out into defined benefit pension schemes, which will increase employer National Insurance contributions in the public sector by £3.3 billion per year (around 1% of total departmental spending in 2016–17).[34] These additional commitments will exacerbate the squeeze on departments' budgets.

However, it will be up to the next government to implement further cuts to departmental spending cuts after 2015–16, and all three main UK political parties have announced fiscal rules that would in principle allow them to increase spending relative to the plans set out in the 2014 Autumn Statement. The parties' proposed fiscal rules and their policy announcements up to December 2014 suggest that the Conservatives could reduce the cut to departmental spending over this period to 6.7%, the Liberal Democrats to 2.1% and Labour to 1.4% – if they chose to increase borrowing to the full extent allowed by their rules and implemented their stated policy intentions as of December 2014.

Departments will have their budgets set for 2016–17, and potentially later years, in a spending review in 2015. We suggest that this sets firm budgets for departments for two years and indicative budgets for the remainder of the parliament, and that whoever forms the next government commits to holding a mini spending review no later than Autumn 2017 to firm up those indicative plans. So far, there seems to be consensus between the three main UK parties that official development assistance will continue to be protected going forwards and that NHS spending will be increased in real terms. However, all other departments face considerable uncertainty over how their budgets might evolve between 2015–16 and 2019–20. What seems certain is that some will face large cuts – on top of those already delivered – regardless of the outcome of the general election.

[34] Table 2.1 of HM Treasury, *Budget 2013*, 2013, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221885/budget2013_complete.pdf.

8. Challenges for health spending

Rowena Crawford and George Stoye (IFS)

Summary

- The Department of Health (DH), which funds the National Health Service (NHS) in England, has been protected from the large ongoing cuts to departmental spending. The DH budget is currently planned to increase in real terms by an average of 1.2% per year between 2010–11 and 2015–16, compared with a real cut of 3.3% per year to other departmental spending over the same period.
- The NHS, however, faces a number of pressures that tend to increase demand for healthcare over time. The population is both growing and ageing, and older individuals on average demand more, and more expensive, healthcare. Real increases in health spending of 1.2% per year could be required to keep pace with population growth and the changing age structure of the population.
- Demand will also increase over time as a result of the rising prevalence of some chronic conditions, improvements in access to care, and improvements in technology combined with government policy increasing the range of healthcare treatments available. NHS England and the Nuffield Trust estimate that the combined impact of demographic and other pressures could increase demand by around 3% per year.
- The NHS also typically faces pressures from rising costs – in particular from wages and high-cost drugs. The DH has been assisted in dealing with its small real budget increases since 2010–11 as government policies have been able to restrain public sector pay. Low private sector earnings growth will probably have helped to contain any adverse effects of this pay restraint on the recruitment, retention and motivation of high-quality NHS workers. However, as private sector wages recover, continuing pay restraint without adverse effects is likely to be harder.
- NHS England estimates that demand pressures and rising costs could create real financial pressures of around 3.5% per year and that it needs real budget increases or improvements in productivity amounting to around £30 billion (2020–21 prices) annually by 2020–21 to meet these pressures without a decline in service quality.
- These factors may argue for a more favourable spending settlement for the DH in future than it received over the current parliament, but such a choice cannot be made lightly. There will almost certainly be further real cuts to overall departmental spending in the years after 2015–16, regardless of who forms the next government. A more beneficial outcome for the DH would mean more spending overall or harder budgetary pressures for other departments.
- The Autumn Statement forecasts, for example, imply departmental spending cuts averaging 3.7% per year between 2015–16 and 2019–20. Even if the NHS achieves the productivity improvements of 2.4% per year it is aiming for (reducing the financial pressures from around £30 billion to £8 billion), the DH budget would still need to increase by 0.8% a year in real terms to meet demand and cost pressures. This would imply the cuts to other departments need to average 6.1% per year.

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8.1 Introduction

Spending on health accounted for around 18% of all public spending in the UK in 2013–14 and 31% of spending on public services. Despite the government's fiscal consolidation entailing large-scale cuts to departmental spending (averaging 9.5% in real terms between 2010–11 and 2015–16; see Chapter 7 for more detail), to date the National Health Service (NHS) has been relatively protected. The budget of the Department of Health (DH), which pays for the NHS in England, is forecast to increase by 6.2% in real terms between 2010–11 and 2015–16 (an average increase of 1.2% per year).

The period beyond 2015–16 will be one of continued austerity for departmental spending, with real cuts expected regardless of who forms the next government.[1] The next government will have to make difficult decisions about how to allocate a tight spending settlement between departments. These decisions will be made in the next Spending Review, which will presumably occur sometime in 2015 and will set departments' budgets for 2016–17 and potentially subsequent years.

The settlement for the DH will be a contentious decision. On the one hand, the NHS faces a considerable challenge in providing high-quality healthcare in the face of rapid demographic changes, while at the same time containing overall spending. NHS England recently estimated that, compared with 2013–14, it would face additional demand and cost pressures amounting to an annual £27 billion in real terms by 2020–21 (in 2015–16 prices; around £30 billion in 2020–21 prices).[2] To satisfy rising demand without reducing quality would require increases in real funding or increases in productivity or both. On the other hand, a relatively generous settlement for the NHS would either require higher spending overall or significantly reduce the funds available for other departments.

In this chapter, we discuss both sides of this debate. However, one potential way of increasing NHS funding that we do not consider is to increase existing user charges or introduce new charges for some NHS services. This is an option, but since none of the main political parties has proposed introducing or increasing such charges as a way of boosting NHS funding, we do not consider it here.

We start in Section 8.2 by describing trends in health spending. In Section 8.3, we examine some of the potential pressures on NHS spending, in particular from demographic change and rising costs. In Section 8.4, we take some of the scenarios published by NHS England for meeting demand and cost pressures through different combinations of productivity growth and real funding increases, and highlight the implications of these choices for other departments' budgets given a set overall spending envelope. Section 8.5 concludes.

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[1] R. Crawford, C. Emmerson, S. Keynes and G. Tetlow, 'Fiscal aims and austerity: the parties' plans compared', IFS Briefing Note BN158, 2014, http://www.ifs.org.uk/publications/7495.

[2] The exact figure in the NHS England calculations is £29 billion in 2020–21 prices, but this is presented rounded to £30 billion. Source: NHS England, 'The NHS belongs to the people: a call to action', 2013, http://www.england.nhs.uk/wp-content/uploads/2013/07/nhs_belongs.pdf and NHS England, 'The NHS belongs to the people: a call to action – the technical annex', http://www.england.nhs.uk/wp-content/uploads/2013/12/cta-tech-Annex.pdf.

8.2 Past and current health spending

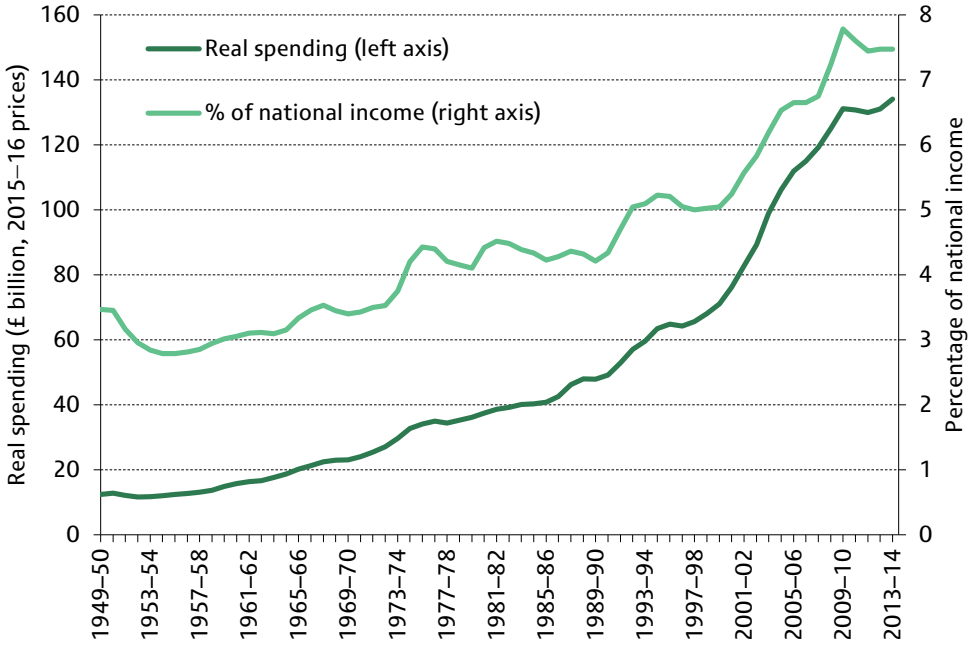
Historical health spending

Figure 8.1 shows annual UK public health spending between 1949–50 and 2013–14.[3] It presents spending both in real terms (adjusting for economy-wide inflation using the GDP deflator) and as a share of national income. Real health spending has grown significantly over the last 65 years, rising from £12.5 billion in 1949–50 to £134.1 billion in 2013–14 (in 2015–16 prices). This is equivalent to an average real increase of 3.8% in each year. This is much larger than the growth in the size of the economy over the same period, so health spending as a share of national income has more than doubled, growing from 3.5% of national income in 1949–50 to 7.5% in 2013–14.

Growth in health spending has varied over time. This variation reflects both differences in the objectives of different governments and differences in the wider economic situation:

- From the inception of the NHS in 1948 until the late 1990s, real spending increased gradually, with large rises in some years often followed by a slowdown in others. Between 1949–50 and 1978–79, health spending grew by an average of 3.7% each

Figure 8.1. Annual UK public health spending in real terms and as a share of national income, 1949–50 to 2013–14



Source: Nominal health spending data from Office of Health Economics (1949–50 to 1990–91) and HM Treasury Public Expenditure Statistical Analyses (1991–92 to 2013–14). Real spending refers to 2015–16 prices, and uses a GDP deflator. Nominal (realised and forecast) GDP and GDP deflators from the Office for Budget Responsibility, *Economic and Fiscal Outlook December 2014*, http://cdn.budgetresponsibility.independent.gov.uk/December_2014_EFO-web513.pdf.

[3] Long-run data on UK NHS spending is not easily obtainable. 'Health spending' is somewhat broader than 'NHS spending' as it includes public spending on health delivered outside the NHS – for example, a small amount of spending done by local authorities – and some publicly-funded medical research conducted by non-NHS bodies. However, it is reasonable to assume the series are very similar – in 2008–09, 99% of 'health spending' was conducted by the Department of Health and the devolved administrations of Scotland, Wales and Northern Ireland.

year. This was followed by the period between 1978–79 and 1996–97 under the Conservative governments of Margaret Thatcher and John Major, during which health spending grew by an average of 3.4% a year.

- Under the last Labour government, real health spending grew at an average rate of 5.6% between 1996–97 and 2009–10. Spending as a share of national income increased from 5.0% in 1996–97 to 6.7% by 2007–08 (and further to 7.8% in 2009–10 as national income fell during the recession). These increases were in part driven by the explicit goal set in 2000 to close the gap between total health spending (as a share of national income) in the UK and in the remainder of the EU15 (see Box 8.1 for further international comparisons),[4] while the conclusion of the Wanless Review in 2002 further supported increases in health spending (the then Labour government initially approved these recommendations for five years up to 2007–08 in the 2002 Budget).[5]
- In contrast, the three-year period between 2010–11 and 2013–14 presents a very different pattern, with average real growth in health spending of just 0.8% per year. Aside from the three-year period 2009–10 to 2012–13 (over which average growth in UK health spending was 0.0% per year), this is the tightest three-year period of real UK health spending since the period 1951–52 to 1954–55 (when it was cut by an average of 0.3% per year as a result of the introduction of prescription charges and dental fees in 1952).

Table 8.1 summarises the average annual growth of health spending over these periods.

These increases in real spending have led to spending on health accounting for an increasingly large proportion of total UK public spending (and of spending on UK public services) over time. This is illustrated in Figure 8.3. Shortly after the inception of the NHS, spending on health accounted for around 15% of all spending on public services in the UK and under 10% of all public spending. By 1985–86, health spending amounted to around 18% of UK public service spending and 10% of total public spending. The rapid real increases in health spending that followed saw these shares increase markedly: by 2013–14, health spending amounted to 18% of all public spending in the UK and over 30% of public service spending.

Table 8.1. Average annual real change in UK public health spending

Time period	Years	Average annual real growth
Whole period	1949–50 to 2013–14	3.8%
Previous governments	1949–50 to 1978–79	3.7%
Last Conservative government	1978–79 to 1996–97	3.4%
Last Labour government	1996–97 to 2009–10	5.6%
Coalition government	2009–10 to 2013–14	0.6%
Spending Review 2010 period	2010–11 to 2013–14	0.8%

Source: Authors' calculations. See Figure 8.1 for further details.

[4] This goal was set by Tony Blair in 2000, with his original comments made when interviewed on the BBC in January 2000, and repeated in *Hansard*, 19 January 2000, column 837.

[5] D. Wanless, *Securing Our Future Health: Taking a Long-Term View*, HM Treasury, London, 2002, http://www.yearofcare.co.uk/sites/default/files/images/Wanless.pdf.

Box 8.1. International comparisons of health spending

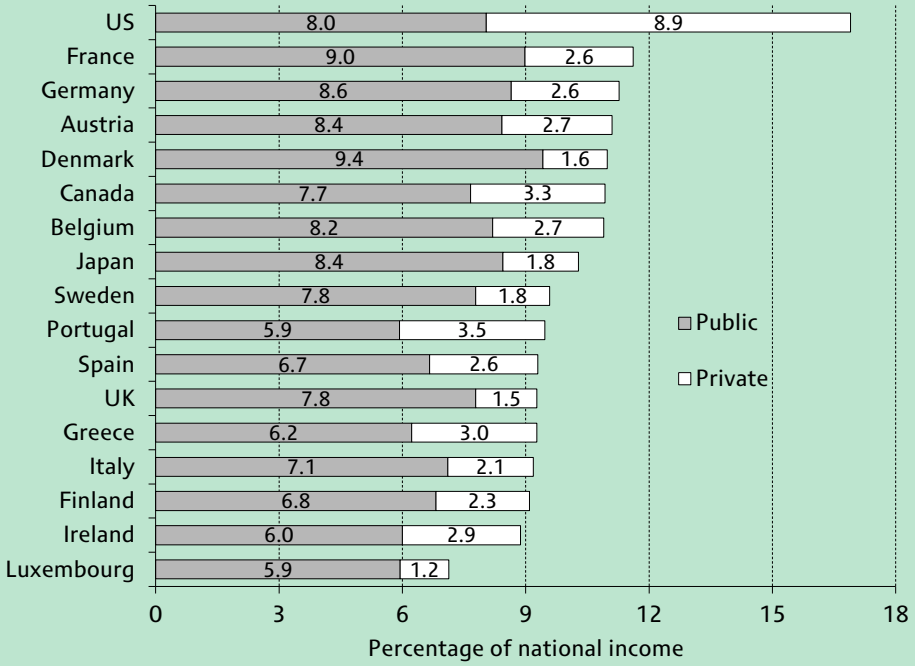
In 1998, UK health spending (measured on an internationally comparable basis, including both public and private spending), at 6.8% of national income, was lower than health spending in all other G7 countries and 12 of the EU15 states (only Luxembourg and Ireland had smaller shares). This compared with an unweighted EU15 average (excluding the UK) of 8.0%.[a]

Figure 8.2 shows how total health spending (as a share of GDP) varied across the EU15 and G7 countries in 2012. Considerable variation exists across countries, both in the overall share spent on healthcare and in the proportion spent through public channels.

UK health spending has grown significantly since 1998, reaching 9.3% of national income in 2012. The UK spent a larger share of GDP on healthcare than five other EU15 countries. The UK remains considerably below France (11.6%), Germany (11.3%) and the unweighted EU15 average excluding the UK (10.0%). It is important to note that comparisons in spending do not take account of the quality of care provided in each country. Rather than aiming for parity in spending, a more important priority is to focus on the standard of healthcare delivered and the efficiency with which it is provided.

In 2012, 84% of the UK's health spending was comprised of public spending – the second-highest share, behind Denmark.

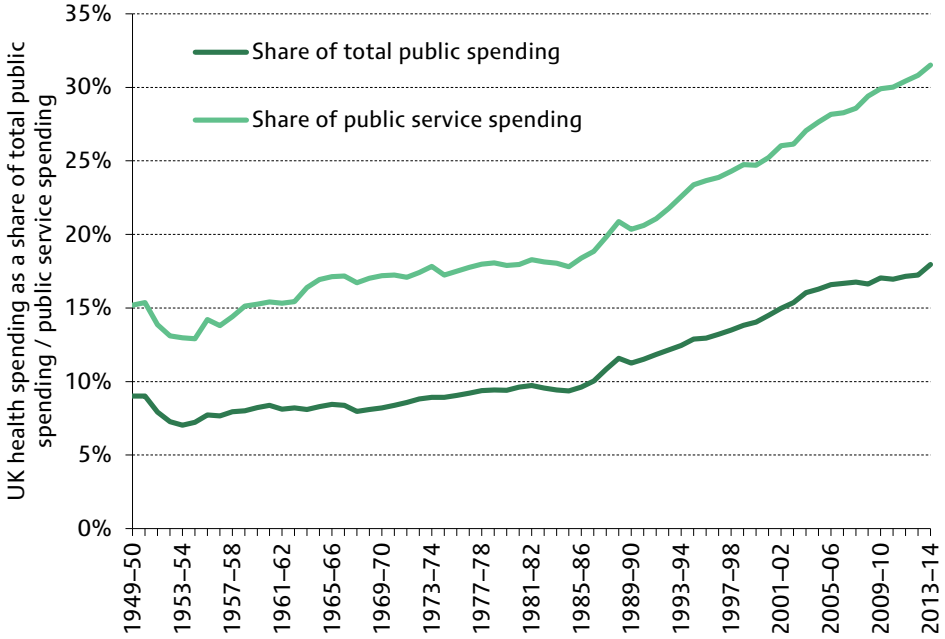
Figure 8.2. Public and private health spending as a percentage of national income across the EU15 and G7 countries, 2012



Source: OECD Health Statistics (database available at http://www.oecd.org/els/health-systems/health-data.htm). Figures for the UK differ from those in Figure 8.1 as health spending (as reported by the OECD) is measured on an internationally comparable basis. The Netherlands is omitted from the figure as the public–private split is not available, but is included in the calculation of average EU15 total health spending.

[a] C. Emmerson, C. Frayne and A. Goodman, 'How much would it cost to increase UK health spending to the European Union average?', IFS Briefing Note BN21, 2001, http://www.ifs.org.uk/bns/bn21.pdf.

Figure 8.3. UK health as a share of total public spending and public service spending, 1949–50 to 2013–14



Note: Public service spending defined here as total public spending less spending on gross debt interest and benefits and tax credits.
Source: Health spending data as Figure 8.1. Public spending and public service spending calculated from Office for Budget Responsibility, *Public Finances Databank* and Department for Work and Pensions, *Benefit Expenditure Tables*.

Recent spending on health in England

In England, spending on the NHS is the responsibility of the Department of Health. Table 8.2 sets out how the DH budget for the period 2010–11 to 2015–16 has changed since allocations for these years were first given.[6] The department did not spend its entire allocated budget in 2010–11, 2011–12, 2012–13 or 2013–14. The DH underspend was particularly large in 2012–13, which makes the DH budget appear to increase by a comparatively large amount in 2013–14. The only explicit policy change HM Treasury has made to the overall DH budget is to the 2015–16 settlement (originally set in the July 2013 Spending Review). In the Autumn Statement 2014, the government announced it was reallocating £1.2 billion from the reserve to NHS spending, and allocating additional spending of £0.3 billion per year over the four years 2015–16 to 2018–19 to investment in GP services. No new departmental budget figures were published, but we estimate that in 2015–16 around £1.3 billion of that is likely to be allocated to the DH (the rest being allocated to the devolved administrations).

Given the estimated latest plans, over the five years up to 2015–16 the DH budget is forecast to increase by 6.2% in real terms, equivalent to an average increase of 1.2% per

[6] The NHS in England accounts for around 90% of the budget of the Department of Health. The rest is comprised of DH programme and administration expenditure, spending by Health Education England, spending by special health authorities, spending by Public Health England and non-departmental public bodies, and grants to local authorities. Source: Department of Health, *Annual Report and Accounts 2013–14*, 2014.

Table 8.2. Department of Health budget, 2010–11 to 2015–16

	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16
Nominal, £ billion						
Spending Review 2010[a]	101.5	104.5	107.0	110.0	113.0	
Pre-Autumn Statement 2014	100.4	102.8	105.2	109.7	113.0	115.1
Estimated latest plans[b]	100.4	102.8	105.2	109.7	113.0	116.4
Estimated latest plans						
Real, £ billion, 2015–16 prices	109.6	110.2	110.9	113.6	114.6	116.4
% real increase on previous year		0.6%	0.6%	2.4%	0.9%	1.5%
Cumulative % real increase since 2010–11		0.6%	1.3%	3.7%	4.6%	6.2%

[a] The Spending Review 2010 figure for 2010–11 is the actual DH budget for that year at the time of the Spending Review, not the '2010–11 baseline' used in the Spending Review which excludes 'one-off and time-limited' expenditure'. Spending Review 2010 settlements reported here are £1.4 billion per year lower than those published at the time to be consistent with later DH budget figures, which exclude this amount to reflect the movement of the Learning Disability and Health Reform Grant to the Department of Communities and Local Government.
[b] The DH budget in 2015–16 is estimated post-Autumn Statement 2014 by assuming that 84.3% of the £1.5 billion cost to HM Treasury of the additional UK NHS spending is allocated to the DH.
Source: HM Treasury – *Spending Review 2010*, *Spending Review 2013*, *Autumn Statement 2014* and *Public Expenditure Statistical Analyses 2011 to 2014*.

year. (In the absence of the additional money allocated in the 2014 Autumn Statement, these figures would be 5.1% and 1.0% respectively.) This is considerably greater growth than for virtually all other departments over this period; the average change in departmental spending excluding the DH is a cut of 15.3% over the five years (an average cut of 3.3% per year) – see Chapter 7 for more details.

However, 1.2% per year real increase in spending is lower than the average growth in UK health spending in the past, and much lower than the average growth in UK health spending under the previous Labour governments. On the one hand, this might make the current period of funding restraint feel tough for the NHS if it has got used to working with large real increases in funding each year. On the other hand, one could argue that the previous spending increases have left the NHS relatively well placed to deal with a period of small budget increases. Part of the motivation for the large funding increases under the last government was explicitly that the NHS needed to 'catch up', increase activity and increase quality, with the intention that funding increases would be lower once the NHS only had to maintain service levels. The Wanless Review concluded that, under its 'solid progress' scenario for productivity, real UK health spending would need to increase by 7.1% per year between 2002–03 and 2007–08, but by only 4.7% per year over the following five years and only 3.1% per year over the 2012–13 to 2017–18 period.[7] The NHS could therefore be reasonably expected to operate without a continuation of the largesse of the previous Labour government. However, there are pressures on the NHS budget that mean it might be difficult to maintain existing levels of service quantity or quality with increases in real spending averaging 1% per year. These are discussed in the next section.

[7] D. Wanless, *Securing Our Future Health: Taking a Long-Term View*, HM Treasury, London, 2002, http://www.yearofcare.co.uk/sites/default/files/images/Wanless.pdf.

8.3 Pressures on English NHS spending

The NHS faces a number of pressures that would tend to require increasing real health spending over time in order to maintain current service levels and quality. These include both pressures that increase demand for healthcare (and would therefore, all else equal, increase the total cost of providing the same proportion of demanded healthcare) and pressures that increase the cost of providing a given level of healthcare.

Demand pressures

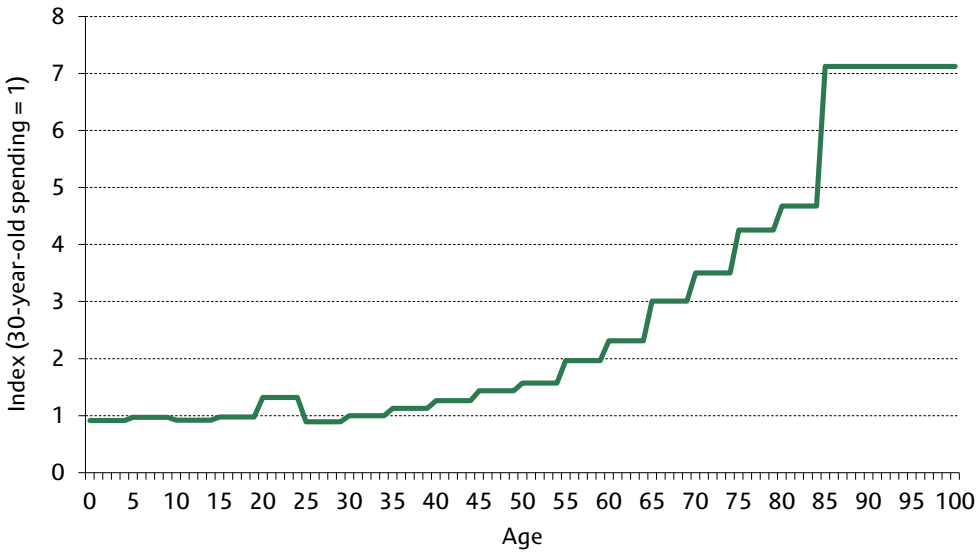
Demographic change

The most obvious pressure increasing demand for healthcare is that presented by demographic change: the growing and ageing of the UK population.

An increasing population means that for a given amount of health spending, resources must be divided among a greater number of individuals. For example, between 1996–97 and 2009–10, the population increased by an average 0.5% per year. Therefore while real spending increased by an average 5.6% per year, real spending *per capita* increased by an average 5.1% per year.

Furthermore, the ageing of the population also puts additional pressure on healthcare, since older people on average demand more, and more expensive, healthcare services than younger people. Figure 8.4 shows estimated public health spending on individuals of different ages (expressed as a ratio relative to spending on an average 30-year-old) in 2011. Spending on an average individual aged between 60 and 65 was over twice the amount spent on an average 30-year-old in 2011. This rises to over three times higher for an individual aged between 70 and 75, and seven times higher for individuals aged 85

Figure 8.4. Age profile of English health spending, 2011



Note: The age profile for health spending is aggregated from age profiles for Hospital and Community Health Services, Primary Care and prescriptions, weighted according to the share of each of these components of spending within total health spending. The age profiles for the components of spending are based on data published by the Department of Health and therefore relate to healthcare use in England.
Source: Authors' calculations based on Department of Health, *Resource Allocation: Weighted Capitation Formula*, 7th edition, 2011, https://www.gov.uk/government/publications/resource-allocation-weighted-capitation-formula.

and over. This suggests that as the proportion of elderly patients within a given total increases, the demand for spending on healthcare will increase.

Exactly how much pressure the changing size and composition of the population will place on the NHS is difficult to estimate. In part, the ageing of the population is the result of past variation in birth rates. For example, between 1946 and 1950 the total fertility rate in England and Wales was an average 2.4 children per woman, compared with an average 1.8 children per woman over the period 1971 to 2013.[8] This 'baby-boomer' generation are now in their mid to late 60s, and there are therefore an unusually large number of people starting to reach a relatively expensive period of life from the point of view of the health service. However, the ageing of the population is also arising from improvements in life expectancy meaning that people are living for longer, and the impact of this on demand for health services is much less certain. If individuals are enjoying more years in good health then, for example, the average 70-year-old in 2018 may be healthier than the average 70-year-old in 2011 – in which case using the age profile of spending in Figure 8.4 to estimate the impact of the changing age structure of the population on demand for health services would *overstate* the future increase in demand. On the other hand, if improvements in life expectancy mean that people who would previously have died have now not done so, but are alive in relatively poor health, then average health at older ages may decline over time – in which case using the age profile in Figure 8.4 would *understate* the future increase in demand for health services.

To keep pace with the changing size of the population (i.e. to keep real spending per person constant), real health spending would need to increase by 0.7% per year between 2015–16 and 2019–20, or 2.7% in total over the four years. In Table 8.3, we also set out how much health spending would need to increase in order to keep pace with both the changing size and age composition of the population, under the assumption that the relative levels of spending by age remain as set out in Figure 8.4. To maintain the current levels of average real spending per person at each age would require real increases in spending of 1.2% per year, or 4.9% in total over the four years up to 2019–20.

Table 8.3. Spending increases required to keep pace with demographic change

	Real increase in health spending required to keep pace with:	
	Population growth	**Population growth and changing age structure**
2010–11 to 2015–16	3.5% (0.7% per year)	5.8% (1.1% per year)
2015–16 to 2019–20	2.7% (0.7% per year)	4.9% (1.2% per year)
2010–11 to 2019–20	6.3% (0.7% per year)	11.0% (1.2% per year)

Note: These figures are calculated assuming that the real level of spending per person does not change over time and that the age profile of spending does not change from that estimated in 2011 (described in Figure 8.4). To the extent that older individuals become relatively more (less) costly over time, these figures will understate (overstate) the required spending increases.
Source: Authors' calculations based on 2012-based UK population projections from the Office for National Statistics and the age profile of spending described in Figure 8.4.

[8] Authors' calculations based on Office for National Statistics, 'Births in England and Wales 2013', Statistical Bulletin, 2014, http://www.ons.gov.uk/ons/dcp171778_371129.pdf. The boom in the birth rate can be seen in figure 1.

Other demand pressures

The demand for healthcare also changes over time for reasons other than the changing size and age structure of the population. In particular, there is evidence that the prevalence of some chronic conditions is on the increase, even after controlling for demographic change. For example, the proportion of the adult population with diabetes is forecast to grow from 7.4% in 2013 to 9.5% by 2030.[9]

Changes in healthcare technology may improve the treatments that exist for certain conditions, and changes in government policy may change the availability of certain treatments through the NHS. These factors, combined with rising expectations, would also increase demand for healthcare, even in the absence of demographic change or changing prevalence of disease.

Estimating the likely impact of these factors on health demand is difficult, and studies that have done so have typically based projections on historic growth rates in healthcare use after demographic factors have been controlled for. Using this approach, the Nuffield Trust (2012) estimates that the increase in hospital admissions for patients with chronic conditions would increase demand for acute services in England by 1–2% per year between 2010–11 and 2021–22.[10] NHS England (2013) estimates that non-demographic demand pressures could amount to 1.6% per year between 2013–14 and 2020–21.[11] However, this is a difficult exercise and there are limitations to using the approach of extrapolating historical trends that need to be borne in mind. In particular, increases in NHS activity over the last decade may have been partly or largely *the result of* increased funding, rather than driven by demand pressures that are independent of funding levels. Therefore, in the absence of such large real increases in funding going forwards, demand pressure may turn out to be lower than the estimates of the Nuffield Trust and NHS England suggest.

Summary

Demand for healthcare services is increasing as the size of the population increases, the age structure of the population changes, and the prevalences of many chronic conditions increase. We have not produced new estimates of the total impact of all these pressures on the demand for healthcare. Existing estimates from the Nuffield Trust (2012) and NHS England (2013) suggest the combined impact of demographic changes and other pressures could increase demand by around 3% per year. For this rising demand to be satisfied without the quality of the care provided deteriorating, either the NHS would need an associated increase in its budget or productivity would need to increase in order to reduce the average cost of providing healthcare (or some combination of the two). Alternatively, the increased demand could not be satisfied, in which case careful consideration would need to be given to the most appropriate form of rationing.

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[9] Adults are classified as 16 years and older. Public Health England (2014), *Adult Obesity and Type 2 Diabetes*, 2014, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/338934/Adult_obesity_and_type_2_diabetes_.pdf.

[10] Nuffield Trust, *A Decade of Austerity? The Funding Pressures Facing the NHS from 2010/11 to 2021/22*, 2012, http://www.nuffieldtrust.org.uk/sites/files/nuffield/121203_a_decade_of_austerity_full_report_1.pdf.

[11] Note that this includes an estimate of demand growth due to the Integration Transformation Fund (which may effectively reallocate some NHS funds to activity not previously funded by the NHS) and seemingly an estimate of cost pressure from the revaluation of pensions. In the absence of these, the non-demographic demand pressures would be estimated at around 1.2%. Source: NHS England, 'The NHS belongs to the people: a call to action – the technical annex', 2013, http://www.england.nhs.uk/wp-content/uploads/2013/12/cta-tech-Annex.pdf.

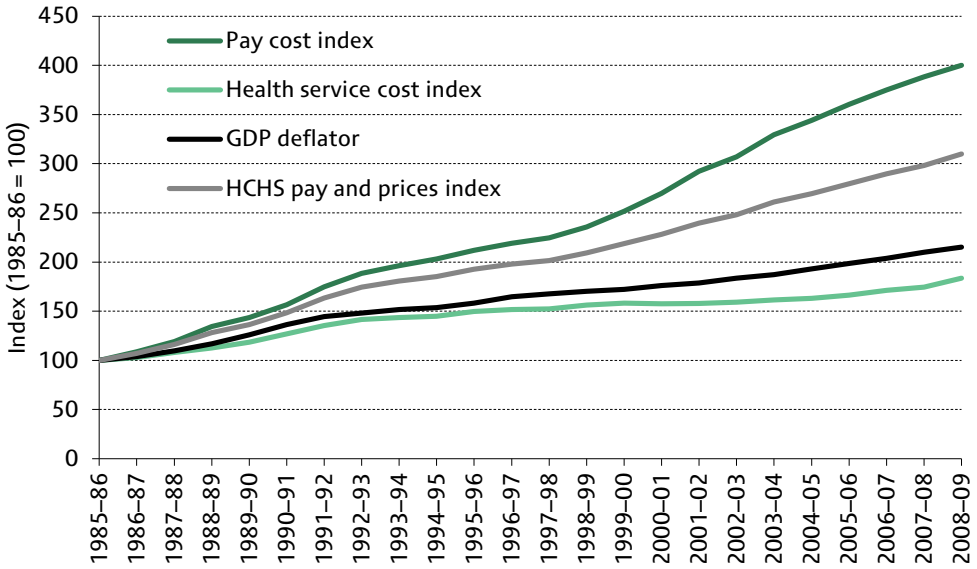
Cost pressures

The NHS also faces a number of pressures that tend to increase the real cost of providing a given level of healthcare over time. Figure 8.5 shows how the cost of NHS Hospital and Community Health Services (HCHS) in England has changed since 1985–86, compared with economy-wide inflation (as measured by the GDP deflator).[12] The health service cost index (HSCI) is an index that measures the change in the price of non-labour goods and services, the pay cost index (PCI) is an index that measures the change in the price of labour, and the HCHS pay and prices index is the weighted average of the two (taking into account the relative proportions of HCHS spending on non-labour and labour inputs).

In general, the change in the cost of non-labour goods and services purchased by the NHS has not been very dissimilar from the change in economy-wide prices. In contrast, the cost of HCHS labour has increased significantly faster than economy-wide inflation – by an average 2.7% per year in real terms between 1985–86 and 2008–09 (and 3.0% per year over the decade 1998–99 to 2008–09).

However, to the extent that these increases in the average cost of labour reflect improvements in the average productivity of the HCHS workforce, they do not really reflect a *pressure* on the NHS budget (since the increase in cost will be offset by an increase in productivity). But if, for example, these pay increases are driven by improvements in productivity elsewhere in the economy not matched in the NHS, with the NHS simply having to increase wages in order to recruit and retain a sufficient

Figure 8.5. NHS (Hospital and Community Health Services) pay cost index and health service cost index, 1985–86 to 2008–09



Note: The pay cost index is a weighted average of increases in unit staff costs for each of the staff groups within the Hospital and Community Health Services sector. Pay cost inflation tends to be higher than pay settlement inflation because of an element of pay drift within each staff group (that is, there is a tendency for there to be a gradual shift up the incremental pay scales). The health service cost index measures the price change for 41 sub-indices of goods and services purchased by the NHS Hospital and Community Health Services, weighted according to the proportion of total expenditure that they represent.
Source: Department of Health.

[12] Note that the HCHS excludes primary care services (GPs).

number and quality of workers, then rising wages would represent a pressure for the NHS.

For example, over the period 1998–99 to 2008–09, the average increase in the real cost of labour was 3.0% but the average basic pay settlement set by the Department of Health was around 1% in real terms.[13] Therefore around 2 percentage points of the average increase in pay observed arose from compositional changes in the workforce (e.g. increased average seniority and substitution between different types of workers). This may have reflected improvements in average productivity – i.e. increases in the relative prevalence of more productive workers – in which case a better estimate of the financial pressure faced by the NHS over this period from wage pressures may be around 1% per year rather than 3% per year.

Assuming pay accounts for 70% of the NHS budget, each 1% increase in pay would imply upward pressure on average real costs across the NHS of 0.7%.[14] Over the period 2015–16 to 2019–20, the Office for Budget Responsibility (OBR) is forecasting average earnings growth across the whole economy of 2.0% per year in real terms (deflated using the GDP deflator). To the extent that the NHS has to keep pace with this wage growth but there is no associated increase in productivity of NHS workers, this could result in cost pressure for the NHS of around 1.4% per year.

NHS England has also pointed to the rising real cost of high-cost drugs for specialist services (such as cancer treatment) adding to the financial pressures facing the NHS. These cost increases would reflect a financial pressure, rather than being perfectly offset by a productivity improvement, if the average increase in the cost of the drugs is greater than the improvement in the quality-adjusted health outcomes arising from use of the drugs. Furthermore, even if the rise in the cost of drugs did reflect an improvement in health outcomes (and therefore cost pressure was theoretically matched by an increase in productivity), this may still result in pressure for additional financial resources. For example, consider a more expensive drug that improves the quality of life of someone with a given condition relative to an existing drug. The new drug would improve productivity (since the quality-adjusted health outcome is better), but would still require greater financing to be devoted to treating that particular condition – either requiring funding to be transferred from elsewhere or increasing financial pressures overall.[15]

Productivity

Increases in demand and/or pressure from rising costs could be met without increases in the budget of the NHS if productivity were increased, i.e. if more efficient use of inputs could result in improved health outcomes for the same level of inputs.

Productivity in the NHS is notoriously difficult to measure, in particular because quantifying the 'output' of the health service, and particularly the *quality* of that output, is very difficult. The estimates that exist vary – highlighting the uncertainty about NHS

[13] This is calculated as a weighted average of the settlements for the component staff groups that make up the HCHS workforce. See NHS England, 'The NHS belongs to the people: a call to action – the technical annex', 2013, http://www.england.nhs.uk/wp-content/uploads/2013/12/cta-tech-Annex.pdf.

[14] In 2013–14, pay accounted for 71% of the cost of acute NHS care. Source: NHS England, 'The NHS belongs to the people: a call to action – the technical annex', 2013, http://www.england.nhs.uk/wp-content/uploads/2013/12/cta-tech-Annex.pdf.

[15] By contrast, a more expensive drug that reduced the need for some other intervention would improve productivity (since the same health outcome could be achieved with fewer inputs), and also the higher cost of the drug could be met by reallocating spending from the intervention that is no longer required.

productivity – but in general suggest productivity improvements have proved hard to come by in the past. The latest Office for National Statistics (ONS) estimate is that NHS productivity increased by an average 0.4% per year between 1995 and 2010 (0.6% between 2004 and 2010).[16] On the other hand, recent analysis from the Centre for Health Economics estimates that NHS productivity increased by an average 1.3% per year between 2004–05 and 2010–11.[17] There are limited data on NHS productivity prior to 1995 – this is discussed in more detail by the OBR in appendix B of its 2012 Fiscal Sustainability Report – but the estimates that do exist suggest productivity growth of less than 1% per year over the longer term.[18]

Even if productivity improves over a given time period, this does not necessarily imply that the average cost of healthcare declines over that period, since the productivity improvement may not be enough to offset the pressure from rising costs. For example, the ONS estimates that over the period 1995 to 2010 the average real cost of providing healthcare output increased by 0.2%, despite productivity increases of an average 0.4% per year.

Pressures since 2010–11

As early as 2009, the NHS in England was looking ahead to the period from 2010–11 onwards when tight financial settlements were expected as part of the government's overall fiscal consolidation. In his 2008–09 NHS Chief Executive's Annual Report, the then Chief Executive of the NHS in England, Sir David Nicholson, challenged the NHS to find £15–20 billion of annual efficiency savings by 2014 (compared with 2011).[19] This resulted in the 'QIPP (Quality, Innovation, Productivity and Prevention)' initiative that planned to find such savings while at the same time improving quality of care. The intention is that efficiency savings will be sufficient for the NHS both to meet increased demand and to improve quality, despite the small increase in real spending since 2010.

The NHS has been considerably assisted over this period by the fact that, in stark contrast to the period illustrated in Figure 8.5, since 2010–11 the real cost of labour has been declining. The government has restrained pay across the public sector: in 2011–12 and 2012–13, the government froze the level of public sector pay scales (in nominal terms) for all but the lowest-paid workers (those earning a full-time equivalent wage of £21,000 or less received a pay rise of £250 over the two years – an increase of at least 1.2% per year). In both 2013–14 and 2014–15, the average increase was constrained to 1%, and this is planned to be repeated in 2015–16. Furthermore, the Department of Health decided not to accept the 1% increase in the pay scales recommended by the NHS Pay Review Body for 2015–16. Originally, DH planned to freeze pay scales (with the proviso that those who would not receive a pay rise through incremental progression would receive a pay rise of 1%); however, recent reports suggest negotiations between the government and the unions representing NHS workers will result in increases to some

[16] Office for National Statistics, 'Public service productivity estimates: healthcare, 2010', 2012, http://www.ons.gov.uk/ons/dcp171766_289768.pdf.

[17] C. Bojke, A. Castelli, K. Grasic, A. Street and P. Ward, *NHS Productivity from 2004/05 to 2010/11*, Centre for Health Economics, Research Paper 87, 2013, http://www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP87_NHS_productivity.pdf.

[18] Office for Budget Responsibility, *Fiscal Sustainability Report July 2012*, 2012, http://budgetresponsibility.org.uk/fiscal-sustainability-report-july-2012/.

[19] NHS, *The Year: NHS Chief Executive's Annual Report 2008–09*, 2009, http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_099700.pdf.

parts of the pay scales.[20] Over the period September 2010 to September 2015, household inflation – as measured by the consumer price index – is expected to average 2.5% per year.

These reductions in the real pay of the NHS HCHS workforce do not appear to have made it harder for the NHS to recruit or retain high-quality workers: the 2014 report of the NHS Pay Review Body reported 'We do not see any current signs of general recruitment and retention issues, and staff turnover is generally low'.[21] This is most likely because real wages have been declining on average across the economy since 2008,[22] and therefore the relative attractiveness of working in the NHS compared with other occupations has not declined in the way that a decline in real NHS earnings in isolation would suggest. For example, in 2013, full-time nurses were on average at the 68th percentile of the hourly earnings distribution of full-time employees, compared with the 66th percentile in 2008.[23]

As real wages recover in the rest of the economy going forwards (the OBR forecasts this will be the case from 2014), it will probably become increasingly difficult for the Department of Health to restrain the growth of NHS wages without there being a detrimental impact on morale and the quality of labour input. If the employment composition remained as it was in 2013 but nurses' wages increased by 1% (nominal) each year from 2013 while all other employee wages increased by the average earnings growth forecast by the OBR (1.8% in 2014, 2.0% in 2015 and 3.1% in 2016), then the average position of full-time nurses in the earnings distribution would fall below the 2008 level in 2016. Wages are therefore more likely to put upward cost pressure on the NHS budget in future.

NHS England is optimistic about the prospects for increasing NHS efficiency going forwards. In its 'Five Year Forward View' published in October 2014, it stated: 'A 1.5% net efficiency increase each year over the next Parliament should be obtainable if the NHS is able to accelerate some of its current efficiency programmes. … Our ambition, however, would be for the NHS to achieve 2% net efficiency gains each year for the rest of the decade – possibly increasing to 3% over time'.[24] Such productivity increases are likely to be crucial if the NHS is to maintain levels of service quality and quantity going forwards, given the demand pressures it faces and the continued reductions in overall public spending that the government is planning.

Indicators of performance

Estimates of NHS productivity are not available for the period since 2010. An alternative way of trying to understand how the NHS is coping with its financial pressures is to examine indicators of NHS performance directly. Unsurprisingly, there has been considerable attention paid to such indicators in recent years. For example, 'QualityWatch' run by the Nuffield Trust and the Health Foundation tracks a range of

[20] http://www.bbc.co.uk/news/health-31009233.

[21] Page xii of NHS Pay Review Body, *Twenty-Eighth Report 2014*, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/288690/NHS_Pay_Review_28th_repot.pdf.

[22] Office for National Statistics, 'Annual Survey of Hours and Earnings, 2014 provisional results', Statistical Bulletin, 2014, http://www.ons.gov.uk/ons/dcp171778_385428.pdf.

[23] Authors' calculations using the Annual Survey of Hours and Earnings, 2008 and 2013. Note that these figures do not control for changes in the composition of the workforce.

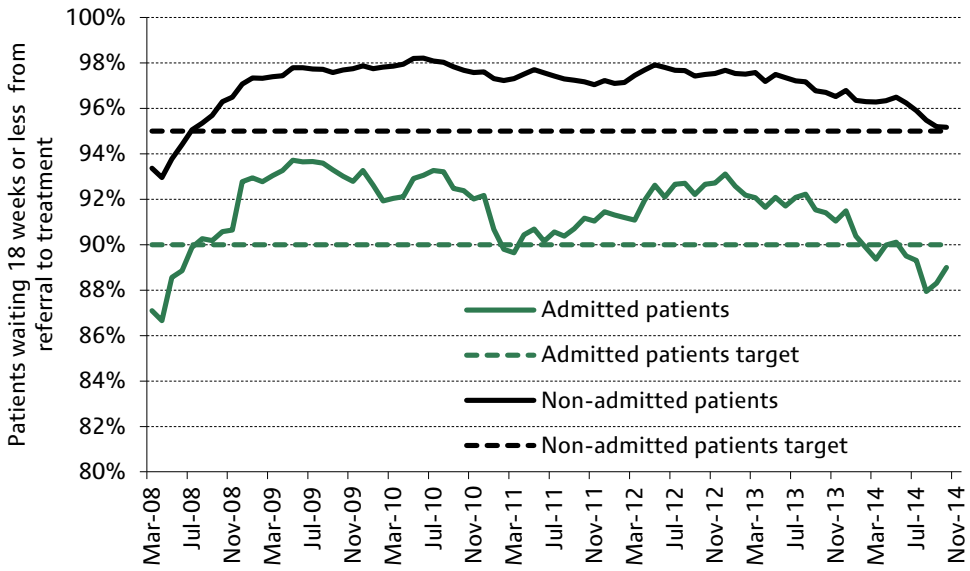
[24] Pages 35–36 of NHS England, *Five Year Forward View*, 2014, http://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf.

indicators to assess how quality in the health and social care sector is changing over time, while the King's Fund produce a Quarterly Monitoring Report that collates and comments on a range of NHS performance data.[25]

It is worth pointing out that many measures of NHS performance – particularly those for which the government has set explicit targets – have the disadvantage that they potentially inappropriately distort activity towards the outcome being measured, and away from other aspects of performance that are not measured but which might be as, or even more, important. Performance indicators should therefore be interpreted with caution, particularly when targets have been introduced, changed or removed, and as wide an array of indicators as possible should be considered.

Two often-cited indicators of NHS performance are described in Figures 8.6 and 8.7. Waiting times for elective procedures have attracted much attention over the last 15 years. Since 2008, there have been targets that 90% of admitted patients ('inpatients'), and 95% of non-admitted patients ('outpatients'), should wait a maximum of 18 weeks between referral and treatment.[26] Figure 8.6 compares the proportions of inpatients and outpatients who have waited no more than 18 weeks for treatment each month between March 2008 and October 2014. Since December 2012, the proportion of both inpatients and outpatients treated within 18 weeks has fallen. Moreover, the percentage of inpatients treated within 18 weeks was below the 90% target in March 2014 and between July 2014 and October 2014 (the latest data available at the time of writing). However, it is important to note that despite these recent declines in performance,

Figure 8.6. Percentage of inpatients and outpatients waiting no more than 18 weeks following referral



Source: NHS England, 'Consultant-led referral to treatment waiting times data', http://www.england.nhs.uk/statistics/statistical-work-areas/rtt-waiting-times/rtt-data-2014-15/.

[25] QualityWatch can be accessed at http://www.qualitywatch.org.uk. The NHS performance data from the King's Fund's Quarterly Monitoring Report, October 2014, can be accessed at http://qmr.kingsfund.org.uk/2014/13/data.

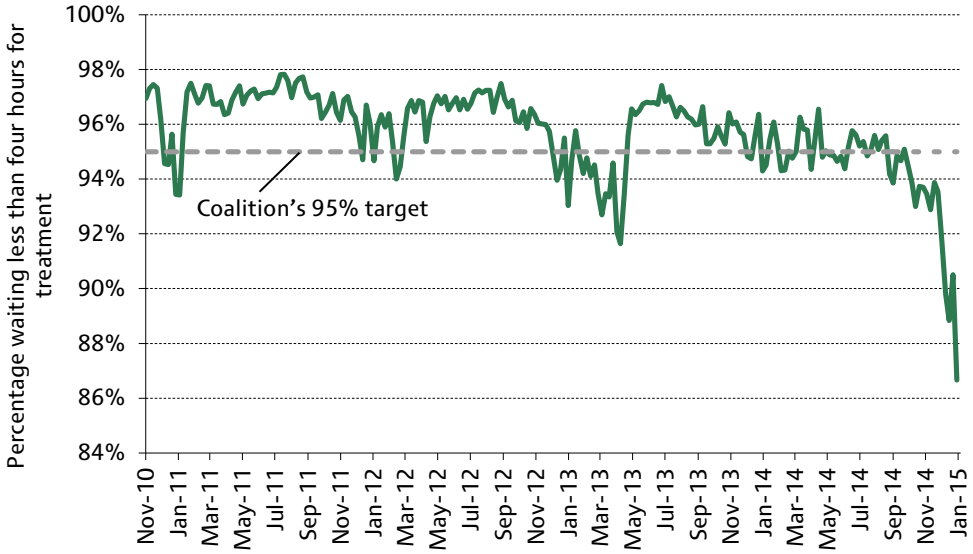
[26] The maximum 18-week wait refers to the period between the initial referral by a GP and either an inpatient admission (for admitted patients) or an outpatient appointment with a consultant (for non-admitted patients). These targets were introduced by the NHS Improvement Plan (2004), and replaced the (gradually strengthening) waiting times targets that had been first introduced by the Labour government in 2001.

waiting times for elective procedures are still performing well by historical standards, and remain vastly below waiting times prior to the introduction of the 18-week target in 2008.

A second target that has received much attention is waiting times for Accident and Emergency (A&E) care. In 2003, a target was set that 98% of patients should spend no longer than four hours waiting for admission, treatment or discharge in A&E, with this target coming into force at the end of 2005.[27] Performance on this measure improved with the introduction of this target, and the target was largely met throughout the period between January 2006 and April 2010.

This target was relaxed somewhat in 2010–11, with the new coalition government setting a target of 95%.[28] Figure 8.7 shows how waiting times have evolved on a weekly basis since November 2010.[29] The 95% target was generally achieved until December 2012, although the decrease in the proportion of patients treated within four hours is noticeable. Between December 2012 and April 2013, the target was frequently breached, before performance subsequently improved. However, recent months have seen a significant decline in the proportion of patients treated within four hours. The 95% target was breached in every week between the end of September 2014 and the beginning of January 2015, with only 86.7% of patients treated within four hours in the week ending 4 January 2015.

Figure 8.7. Percentage of patients who are treated, discharged or transferred within four hours of arrival at an Accident and Emergency department



Source: NHS England, 'A&E attendances and emergency admissions', http://www.england.nhs.uk/statistics/statistical-work-areas/ae-waiting-times-and-activity/weekly-ae-sitreps-2014-15/.

[27] The target is set at less than 100% to allow for a small number of patients with clinical needs requiring more than four hours in A&E. For more details, see http://www.nhs.uk/NHSEngland/thenhs/nhshistory/Pages/NHShistory2000s.aspx.

[28] I. Blunt, *Focus on: A&E Attendances: Why Are Patients Waiting Longer?*, QualityWatch, 2014, http://www.nuffieldtrust.org.uk/sites/files/nuffield/publication/140724_focus_on_ae_attendances.pdf.

[29] Weekly waiting times data are unavailable before this date. Quarterly data are available from April 2004 at http://www.england.nhs.uk/statistics/statistical-work-areas/ae-waiting-times-and-activity/weekly-ae-sitreps-2014-15/.

These data suggest that NHS performance initially held up reasonably well despite the budget freeze, but that recently performance – at least on these measures – has started to decline.

8.4 The outlook for English health spending

The combination of pressures illustrated above led NHS England to estimate that it faces combined demand and cost pressures of about 3.5% per year in real terms between 2013–14 and 2020–21, which would amount to real-terms funding pressures of an annual £27 billion (2015–16 prices) in 2020–21 (around £30 billion in 2020–21 prices).[30] To meet these pressures without reducing quality would require either increases in real funding or increases in productivity or both. The NHS England 'Five Year Forward View' published in October 2014 set out a number of different scenarios for how this could be achieved, including an increase in productivity of 0.8% per year and an annual real funding increase of £21 billion by 2020–21, and an increase in productivity of 1.5% per year and a funding increase of £16 billion by 2020–21.[31] The combination of productivity improvements and real funding increases championed by NHS Chief Executive Simon Stevens is an increase in the annual NHS England budget of £8 billion by 2020–21 and implied productivity improvements averaging 2.4% per year.[32]

Table 8.4 sets out for each of these scenarios the increase in the Department of Health budget that would be needed between 2015–16 and 2019–20, assuming that aspects of DH spending other than the NHS England budget are frozen in real terms over this period.[33,34] These figures are calculated assuming that the real budget for NHS England increases by £2.4 billion (2015–16 prices) between 2013–14 and 2015–16; this is equal to the real increase in the total NHS England budget over that period that was set out in the November 2014 Mandate to NHS England (£0.7 billion in 2015–16 prices) plus £1.7 billion that appears to have been allocated to NHS England in the 2014 Autumn Statement.[35] In other words, we are assuming that £2.6 billion (2020–21 prices) of the required increase in NHS England spending is already being planned to be achieved by 2015–16.

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[30] The figure in the NHS England calculations is £29 billion in 2020–21 prices, but this is presented rounded to £30 billion. Source: NHS England, 'The NHS belongs to the people: a call to action', 2013, http://www.england.nhs.uk/wp-content/uploads/2013/07/nhs_belongs.pdf and NHS England, 'The NHS belongs to the people: a call to action – the technical annex', http://www.england.nhs.uk/wp-content/uploads/2013/12/cta-tech-Annex.pdf.

[31] NHS England, *Five Year Forward View*, 2014, http://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf.

[32] As reported by, for example, *The Telegraph*: http://www.telegraph.co.uk/news/nhs/11181496/NHS-needs-8-bn-funding-boost-and-major-reforms-says-health-chief.html.

[33] The NHS in England accounts for around 90% of the budget of the Department of Health. The rest is comprised of DH programme and administration expenditure, spending by Health Education England, spending by special health authorities, spending by Public Health England and non-departmental public bodies, and grants to local authorities. Source: Department of Health, *Annual Report and Accounts 2013–14*, 2014.

[34] The DH budget would need to continue to increase at the same average annual rate for a further year (2020–21) in order to achieve the full funding increase that NHS England estimates it needs by 2020–21. We focus only on the period up to 2019–20 because this is the end of the current government forecast horizon.

[35] Department of Health, *The Mandate – A Mandate from the Government to NHS England: April 2014 to March 2015*, 2014, http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/383495/2902896_DoH_Mandate_Accessible_v0.2.pdf. Secretary of State for Health, Jeremy Hunt, announced the additional £1.7 billion for the NHS in a statement on the NHS 'Five Year Forward View', *Hansard*, 1 December 2014, column 47.

Table 8.4. Increases in Department of Health budget required for NHS England funding scenarios

Demand pressures met by: NHS productivity improvement of:	Real increase in NHS England budget by 2020–21 of: *(2020–21 prices)*	*(2015–16 prices)*	Implied annual % real change in DH budget needed from 2015–16
0.0% per year	£30 billion[a]	£27 billion	3.9%
0.8% per year	£21 billion	£19 billion	2.7%
1.5% per year	£16 billion	£15 billion	2.0%
2.4% per year	£8 billion	£7 billion	0.8%

[a] This is £29 billion in the NHS England calculations.

Note: Annual increase in DH budget from 2015–16 assumes that the DH budget in 2015–16 already encompasses a £2.4 billion real increase in NHS England spending relative to 2013–14 levels (in 2015–16 prices; £2.6 billion in 2020–21 prices).

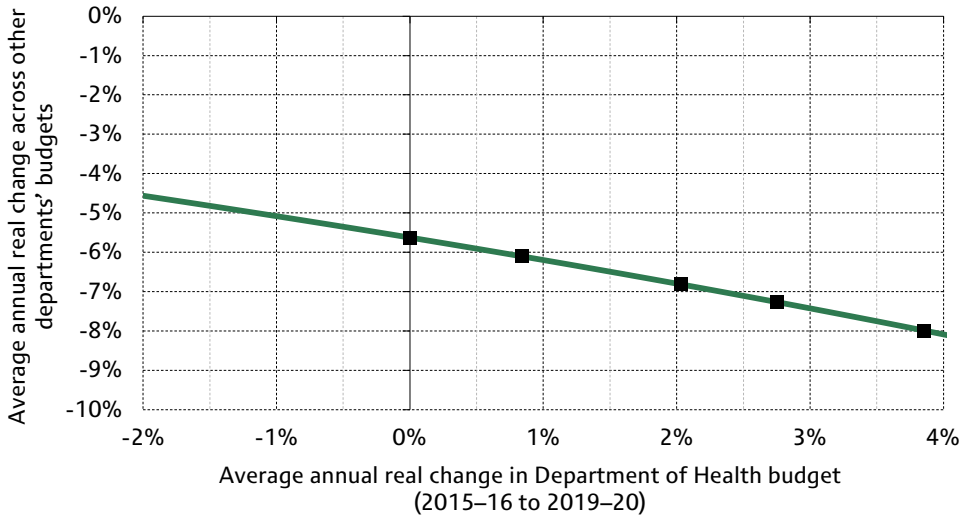
Some of the scenarios set out in Table 8.4 imply large increases in NHS productivity by historical standards (long-run productivity growth in the NHS has been estimated at less than 1% per year, while productivity growth over the latter half of the 2000s has been estimated to be less than 1.5% per year). To the extent that achieving such productivity increases is not deemed plausible, this might argue for larger real increases in the DH budget in the next Spending Review than over the current parliament (1.2% per year on average between 2010–11 and 2015–16). However, it is important to be clear what the implications of this would be for other public services.

Over the period 2015–16 to 2019–20 (which might form the period covered by the next Spending Review), overall departmental spending will almost certainly be cut in real terms. Under the coalition government's plans set out in the 2014 Autumn Statement, total departmental spending would be cut by an average of 3.7% per year (14.1% over the whole period). Increasing spending on the NHS, at a time when overall departmental spending is falling, would mean the cuts to other departments' budgets would need to be greater. This effect is particularly acute given the size of spending on the NHS – the DH budget is currently expected to take up almost one-third (32%) of all departmental spending in 2015–16.

Figure 8.8 illustrates the trade-off the next government would face between spending on the Department of Health and spending on other departments, assuming it sticks to the coalition's plan for total departmental spending. If the DH budget were frozen in real terms over this period, then the cuts to other departments would need to average 5.6%. Increasing the DH budget by 0.8% a year in order to be on course to spend £8 billion (2020–21 prices) extra on NHS England in 2020–21 would require the cuts to other departments to average 6.1%. If NHS productivity disappointed and greater increases in the DH budget were required to satisfy demand in the NHS, the cuts to other departments would be still greater (figures are provided in the first row of Table 8.5).

Of course, plans for overall departmental spending over this period are likely to change after the general election in May 2015, as the new government may have different preferences over borrowing, taxation and spending from the current coalition government. The three main UK parties have announced fiscal rules that would mean that they do not necessarily have to cut departmental spending as dramatically as the coalition government's plans imply. However, even the Labour and Liberal Democrat parties (whose fiscal rules allow for greater spending than the Conservative Party's) look likely to cut departmental spending to some extent. A recent IFS briefing note looked at

Figure 8.8. Trade-off between spending on the Department of Health and spending across other departments



Note: Based on 2014 Autumn Statement plans for total departmental spending.

Table 8.5. Trade-off between spending on the Department of Health and spending on other departments, given alternative party proposals

	Real change in other departments' budgets 2015–16 to 2019–20 if the Department of Health gets:				
	0.0% p.a. (real freeze)	**0.8% p.a.**	**2.0% p.a.**	**2.7% p.a.**	**3.9% p.a.**
	Average annual change				
Coalition plans	–5.6%	–6.1%	–6.8%	–7.3%	–8.0%
Parties:					
Conservatives	–2.6%	–3.0%	–3.6%	–4.0%	–4.7%
Labour	–0.5%	–0.9%	–1.5%	–1.9%	–2.5%
Liberal Democrats	–0.8%	–1.2%	–1.8%	–2.2%	–2.8%
	Cumulative change				
Coalition plans	–20.7%	–22.3%	–24.6%	–26.1%	–28.3%
Parties:					
Conservatives	–9.8%	–11.4%	–13.8%	–15.2%	–17.5%
Labour	–2.1%	–3.7%	–6.0%	–7.4%	–9.7%
Liberal Democrats	–3.1%	–4.7%	–7.0%	–8.5%	–10.7%
Change in DH budget:	*(2015–16 prices)*				
2015–16 to 2019–20	*£0bn*	*£4bn*	*£10bn*	*£13bn*	*£19bn*
Change in NHS budget:					
2015–16 to 2019–20[a]	*£0bn*	*£4bn*	*£10bn*	*£13bn*	*£19bn*
2013–14 to 2019–20[b]	*£3bn*	*£6bn*	*£12bn*	*£16bn*	*£21bn*
2013–14 to 2020–21[c]	*£3bn*	*£7bn*	*£15bn*	*£19bn*	*£27bn*

[a] Assumes all aspects of DH spending other than the NHS England budget are frozen in real terms between 2015–16 and 2019–20.
[b] Assumes NHS England budget increased by £2.4 billion (2015–16 prices) between 2013–14 and 2015–16.
[c] Assumes DH budget continues to grow at the same average annual real rate for a further year in 2020–21, and that aspects of DH spending other than the NHS England budget continue to be frozen in real terms in that year.
Note: The overall cut to departmental spending assumed for the Conservatives is 1.7% per year, for Labour is 0.4% per year and for the Liberal Democrats is 0.5% per year.

the parties' proposed fiscal rules and their policy announcements up to the time of its publication, and found that the Conservatives could reduce the cut to departmental spending over this period to 1.7% per year, the Liberal Democrats to 0.5% per year and Labour to 0.4% per year – if they chose to increase borrowing to the full extent allowed by their rule and they implemented the net tax rises and social security cuts announced as of December 2014.[36] If they aimed for a surplus rather than balance on their various targeted measures of borrowing, then the cuts to departmental spending would need to be greater.

Table 8.5 summarises some of the possible alternative choices between spending on the Department of Health and spending on other departments that would be possible given the overall budget constraint potentially implied by each party's plans. The plans of the Labour and Liberal Democrat parties suggest that they could increase NHS spending with considerably lower cuts to other departments than the Conservative Party could, but it is worth reiterating that this comes at the cost of higher borrowing and slower declines in public debt. This is discussed in more detail in the aforementioned briefing note.

8.5 Conclusion

The budget of the Department of Health is planned to increase by an average of 1.2% per year in real terms between 2010–11 and 2015–16. This is considerably more favourable than the average real cut of 3.3% per year experienced across other departmental spending, but it also much lower than the historical average increase in UK health spending of nearly 4% per year.

The NHS faces pressures on its budget over and above those posed by the general increase in prices. A 0.7% per year increase in spending would be required just to keep real spending per person constant between 2010–11 and 2019–20. The population is also ageing. Since older individuals on average consume more, and more expensive, healthcare, this will also tend to increase demands on the health service. A 1.2% per year increase in real spending would be needed to keep pace with both the changing size and the changing composition of the population. Demand will also increase over time as a result of the rising prevalence of some chronic conditions, improvements in access to care, and improvements in technology combined with government policy increasing the range of healthcare treatments available through the NHS. Estimates from the Nuffield Trust (2012) and NHS England (2013) suggest the combined impact of demographic changes and other pressures could increase demand by around 3% per year.

The NHS also typically faces pressure from rising costs – in particular from wage pressures and high-cost drugs. However, over the period since 2010–11, the NHS has been considerably assisted in its attempts to meet demand pressures despite small real increases in funding by the ability of the government to restrain pay growth across the public sector, which has reduced the real cost of labour. As private sector wages recover, however, it is unlikely that NHS wages can continue to be restrained without having adverse impacts on the recruitment, retention or motivation of the workforce, and therefore cost pressures are likely to be more important going forwards.

[36] Note that here we assume the Conservatives achieve their aspiration to reduce welfare spending by £12 billion even though they had not announced specific policies that would amount to that sum by December 2014. R. Crawford, C. Emmerson, S. Keynes and G. Tetlow, 'Fiscal aims and austerity: the parties' plans compared', IFS Briefing Note BN158, 2014, http://www.ifs.org.uk/publications/7495.

This all suggests that the NHS may struggle to continue providing high-quality healthcare in future in the absence of either significant improvements in productivity or greater real budget increases than have been provided over the current parliament. However, given the cuts to overall departmental spending that are still likely to be required in the years after 2015–16, real budget increases for the NHS would imply even greater cuts to other departments.

One way of increasing NHS spending without increasing the pressure on the public finances or other government departments would be to increase NHS funding from private sources – for example, by increasing existing charges or introducing new charges for some NHS services. The UK is unusual in an international context in that such a large proportion of total health spending is financed from public sources (84% in 2012). However, while increasing income from private sources could be one way of boosting the NHS's finances, it is not being proposed by any of the main UK political parties.

There are therefore no easy choices for whoever forms the next government. Difficult decisions will need to be made between now and the next Spending Review about the appropriate balance between the level of public and private financing of the NHS and between levels of borrowing, taxation, public spending on the NHS and other public spending.

The NHS for its part needs to focus on improving productivity, so that smaller funding increases are required. This point has been well understood by the current and former NHS Chief Executives, Simon Stevens and Sir David Nicholson, who have both challenged the NHS to improve quality whilst making efficiency savings. The extent to which the NHS is able to meet this challenge remains to be seen.

9. Options for reducing spending on social security

James Browne and Andrew Hood (IFS)

Summary

- Total social security spending is forecast to be £220 billion in 2015–16, around 30% of total government expenditure. It is therefore possible that whoever forms the next government will look at cutting spending in this area as part of a deficit reduction strategy.
- Pensioners are expected to receive 55% of social security spending in 2015–16. This proportion has been growing as a result of increased numbers of pensioners, greater state pension entitlements among those who recently reached the state pension age, and the fact that pensioners have so far been largely protected from the cuts to social security. Continuing to protect pensioners would require much larger cuts to working-age social security for a given reduction in public spending.
- The Conservatives have said that they would seek to make further cuts of £12 billion to annual social security spending were they to form the next government. To give an idea of scale, freezing all benefits and tax credits other than state pensions for five years would cut spending by £13 billion, taking an average of £800 a year from 16 million families. To cut spending on this scale while protecting pensioners entirely would require more severe cuts to working-age benefits; even continuing the Conservatives' proposed freeze of most working-age benefits for five years would only reduce spending by £6.9 billion.
- Other options that could save substantial sums include making all tenants pay at least 10% of their rent (£2.5 billion), abolishing child benefit and increasing universal credit to compensate low-income families (£4.8 billion), reducing the generosity of means-tested support for children to its 2003–04 level (£5.1 billion) and restricting benefits for families with children to the first two children (which would save around £4 billion a year in the long run).
- Many of the policies suggested by the Conservative and Labour parties – withdrawing winter fuel payments from higher- and additional-rate taxpayers, cutting housing benefit for young people, reducing the benefit cap, and increasing child benefit by 1% for a further year – would reduce spending by relatively little.
- The social security system not only gives support to vulnerable groups but also affects incentives around how much paid work to do, where to live and with whom, and even the number of children to have. Giving exemptions from cuts for groups deemed more vulnerable can weaken work incentives and strengthen incentives for people to have children or claim disability benefits. When considering possible changes to the social security system in the coming years, policymakers should bear these trade-offs in mind, have a clear vision for what they want the social security system to achieve and ensure that the overall system of support is coherent.

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9.1 Introduction

Between 2010–11 and 2015–16, a deficit reduction package of £115 billion has been introduced, of which £17 billion has comprised cuts to social security benefits and tax credits (more details are contained in Chapter 1). The structural deficit is forecast to be 3.6% of national income in 2015–16. Different political parties have different views about how much further fiscal tightening is desirable in the next parliament, but all three main UK parties would require some further tax rises or spending cuts in order to meet their stated targets for borrowing.

Given that spending on social security benefits and tax credits will make up around 30% of total government spending in 2015–16, it is likely that any government taking office after the general election later this year will consider making further cuts to social security spending. The current Chancellor of the Exchequer, George Osborne, has said that the Conservatives would seek to introduce £12 billion of further cuts to annual social security spending were they to form the next government.[1] And calculations by IFS researchers have shown that meeting the plans for public borrowing outlined by the current government without raising taxes or accelerating the pace of public spending cuts would require a reduction in social security spending of £21 billion per year.[2] The outlook for spending on public services is discussed in Chapter 7, while Chapter 10 sets out options for increasing tax.

Despite discretionary reductions in the generosity of social security benefits and tax credits, total spending in this area is expected to be roughly the same in 2015–16 as it was in 2010–11 in real terms (adjusted for CPI inflation). This is because other developments – including an ageing society, a growing private rented sector pushing up the housing benefit caseload, and lower-than-expected earnings growth – have put upward pressure on spending, and some reforms to disability benefits have not delivered the reduction in spending that had been expected.[3] As a share of national income, spending has fallen since 2010–11 and, under current policies, it is forecast to fall from 11.9% in 2014–15 to 11.2% in 2017–18, when the structural current budget is expected to move into surplus.[4] If a further £12 billion of cuts to social security spending were implemented in 2017–18, this would fall a further 0.6 percentage points to 10.6% of national income, around its average level from 1997–98 to 2007–08, the decade before the crisis.

There are inevitable trade-offs associated with spending on social security. Benefits obviously increase the incomes of those who receive them. But the system can also impact on people's incentives to work or save, on their decisions about where to live and with whom, and even on choices about how many children to have (and when to have them). As well as considering which groups one wishes to support, it is important that

[1] http://www.telegraph.co.uk/news/politics/georgeosborne/10553228/George-Osborne-warns-of-12bn-cuts-in-Government-welfare-spending-after-next-general-election.html.

[2] See R. Crawford, 'Alternative choices over the future spending squeeze', presentation at IFS post-Autumn Statement briefing, 2014, http://www.ifs.org.uk/publications/7467.

[3] For further details, see A. Hood and D. Phillips, 'Benefit spending and reforms: the coalition government's record', IFS Briefing Note BN160, 2015, http://www.ifs.org.uk/publications/7535.

[4] Source: Authors' calculations using DWP, HMRC, OBR and DSDNI data. This chiefly arises because most benefits and tax credits increase in line with inflation by default, so they are forecast to grow less quickly than national income.

these factors are borne in mind when designing a social security system. Time-limited social-insurance-type benefits have smaller disincentive effects, but may not be targeted at the most vulnerable groups. By contrast, reducing benefits for less vulnerable groups – such as those who are in work, those without children or those who are not recognised as having a disability by the benefits system – weakens work incentives and introduces (or strengthens) perverse incentives for individuals to have children or to claim disability benefits. In this chapter, we examine ways in which further reductions could be made to the social security budget, noting how different options would affect these trade-offs.

Section 9.2 examines the current composition of social security spending and how spending has evolved over recent years. In Section 9.3, we analyse different options for reducing expenditure on social security benefits. Section 9.4 concludes.

9.2 Social security spending: evolution and composition

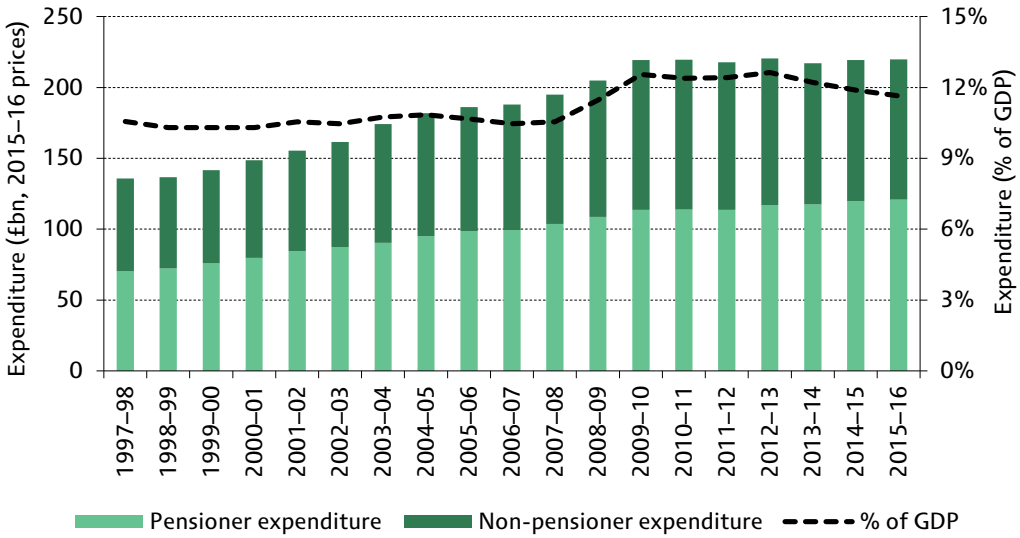
When thinking about future options for reducing spending on social security, it is useful to first understand how and why spending levels have changed in recent years, which groups have gained and lost the most from recent discretionary changes to the system, and who gets the most support at the moment. This section provides some of that important context.

The evolution of social security spending

Figure 9.1 shows total social security spending (spending on cash benefits, tax credits and state pensions) in each year from 1997–98 to 2015–16. Between 1997–98 and 2007–08, spending on social security grew roughly in line with national income, remaining at around 10.5% of GDP. Since real GDP was growing strongly for most of this period, this meant a 44% increase in real-terms (CPI-adjusted) spending across the decade. The Great Recession then led to a sharp increase in social security spending as a share of national income (to 12.5% by 2009–10), as national income fell and spending rose. This is not surprising: social security spending is always likely to rise sharply as a share of national income in recessions. The implication is that if spending does not fall as a share of national income when the economy is growing relatively quickly (as was the case from 1997–98 to 2007–08), social security will take up an ever larger share of the economy's resources over time.

Spending was stable over the first half of the current parliament, before declining to a forecast 11.6% of national income by 2015–16. This is lower than at the start of the parliament but higher than in the decade before the recession: while national income is expected to be 26% higher in cash terms in 2015–16 than in 2007–08, non-pensioner spending is expected to be 34% higher and pensioner spending 44% higher. As can be seen from the figure, the decline in social security spending as a share of national income across the course of the parliament is the result of the return of economic growth rather than a real-terms fall in spending. Spending on pensioners is actually expected to be 6.2% higher in real terms in 2015–16 than it was in 2010–11, while non-pensioner spending is expected to be 6.5% lower. In other words, over this parliament, rising pensioner spending has cancelled out the reduction in expenditure on those of working age.

Figure 9.1. Expenditure on social security benefits and tax credits, 1997–98 to 2015–16



Note: Figures exclude spending on council tax benefit. Pensioner expenditure is all spending directed at pensioners, including benefits that also go to those of working age.
Source: Authors' calculations using DWP, HMRC, OBR and DSDNI data.

Discretionary changes made by the Labour and coalition governments over the last 20 years are important in explaining these trends. In particular, lower-income families with children and pensioners saw large real increases in benefit entitlements under Labour (particularly in the period up to 2003–04). In the case of families with children, this increase was delivered primarily through the introduction and expansion of tax credits. In 1997–98, spending on the benefits that were replaced by tax credits[5] was £7.1 billion (in 2015–16 prices). By 2010–11, spending had more than quadrupled in real terms, with spending on child and working tax credit at £33.2 billion (again in 2015–16 prices).[6] Pensioners not only benefited from discretionary changes under Labour, such as the introduction of pension credit, but have also been broadly protected from the cuts to social security implemented by the coalition. In fact, the introduction of the 'triple lock' has led to increases in the generosity of the basic state pension relative to both prices and earnings over recent years. Meanwhile, working-age households without children, who benefited little from the changes made by Labour, have seen real-terms cuts to entitlements under the coalition.

Table 9.1 shows the effect of these changes on the real-terms (CPI-adjusted) generosity of benefit entitlements for particular example families. Entitlements for a couple with two children, both if they are unemployed and if one adult is on median full-time earnings, increased dramatically over the period from 1997 to 2010, and remained well above their 1997 real-terms level in 2015. Similarly, the benefit entitlement of a pensioner with no private income or state pension entitlement is much higher in real terms than in 1997. By contrast, the entitlement of a single unemployed person with no children has been roughly unchanged over the past two decades.

[5] That is to say, family credit, disability working allowance and child additions to income support and jobseeker's allowance.

[6] Source: Authors' calculations using DWP and DSDNI data. Note that some of this additional tax credit spending will have reduced entitlement to (and hence spending on) housing benefit and council tax support.

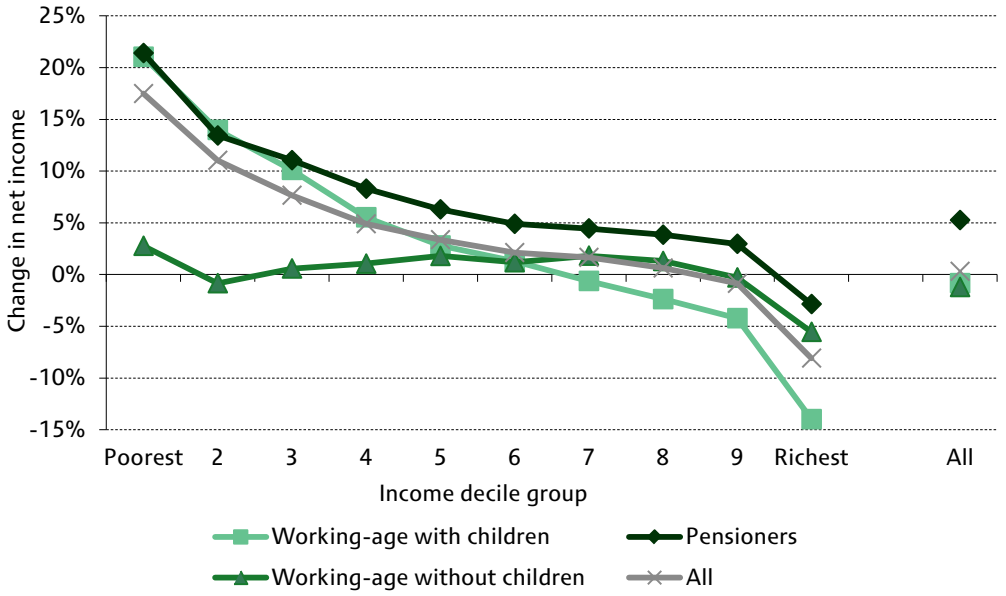
Table 9.1. Real weekly benefit entitlement by household type, 1997–2015

Family type	April 1997	April 2010	April 2015	1997–2010	2010–2015	1997–2015
Unemployed couple with 2 children	£210	£277	£281	32%	1%	34%
Couple, one with median full-time earnings, with 2 children	£29	£84	£74	191%	–12%	155%
Pensioner with no private income or state pension entitlement	£104	£154	£155	49%	0%	49%
Single unemployed person, no children	£71	£74	£73	4%	–1%	3%

Note: Figures in 2015–16 prices, CPI-adjusted. These figures do not include housing benefit or council tax support.
Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 Family Resources Survey. Median earnings from Annual Survey of Hours and Earnings, various years.

Of course, looking at example families cannot tell us the overall impact of discretionary changes on different groups or on the population as a whole. It is also important to set these figures alongside tax changes, which affect household incomes too. To that end, we use the IFS microsimulation model of the tax and benefit system to estimate the mechanical effects of tax and benefit changes across the income distribution between 1997–98 and 2015–16, as shown in Figure 9.2.[7]

Figure 9.2. Distributional impact of tax and benefit changes introduced between 1997–98 and 2015–16



Note: Income decile groups are derived by dividing all households into 10 equal-sized groups according to income adjusted for household size using the McClements equivalence scale.
Source: J. Browne and W. Elming, 'The effect of the coalition's tax and benefit changes on household incomes and work incentives', IFS Briefing Note BN159, 2015, http://www.ifs.org.uk/publications/7534.

[7] The effects of changes are estimated by comparing incomes under the 2015–16 tax and benefit system with those under the system that would have been in place in 2015–16 if there had been no discretionary changes since 1997–98.

Looking first at the population as a whole, the figure shows that changes have acted to increase household incomes at lower income levels. Some of this is explained by changes in tax policy, such as the raising of the income tax personal allowance, but most is the result of increases in the generosity of the social security system. Pensioners have benefited the most from tax and benefit changes over the period as a whole, gaining around 5% of household income on average. Although households with children have actually lost close to 1% of income on average, the large gains towards the bottom of the income distribution reflect the fact that cuts to social security entitlements for this group under the coalition government have only partly reversed the increase in generosity under Labour. However, working-age people without children at low income levels benefited significantly less from Labour's reforms and they are therefore now little better or worse off compared with where they would have been under an 'unreformed' 1997 system.

Some of the most important reasons for increases in real spending on social security are economic and demographic changes, rather than the policy reforms analysed in Figure 9.2. Most importantly, state pension spending rose by 3.8% a year (or 2.7% per pensioner) under the Labour government and by 2.7% a year (1.9% per pensioner) under the coalition. This long-run trend towards higher state pension spending per pensioner reflects *historic* policy changes that mean that the entitlements of younger cohorts of pensioners are determined by more generous rules and the fact that more women in those cohorts were in paid work. There have also been secular increases in spending on housing benefits and disability benefits, not explained by explicit discretionary increases in generosity. The near-doubling of real-terms spending on housing benefit over the last two decades reflects rising private rents and the growth of the private rented sector, as well as reductions in other government subsidies for housing.[8] And spending on disability living allowance and attendance allowance increased by over 90% in real terms between 1997–98 and 2015–16, despite no discretionary increases in the levels of these benefits.

Between 1997–98 and 2010–11, discretionary giveaways can be thought of as being responsible for nearly all of the increase in spending on social security.[9] In contrast, recent years have seen a striking divergence between the size of the cuts to social security implemented and the actual change in real social security spending.[10] Despite nearly £17 billion of discretionary cuts to the social security budget (relative to the plans the government inherited),[11] economic and demographic trends have acted to increase expenditure, particularly on state pensions, such that the level of real (CPI-adjusted) spending in 2015–16 will be similar to its level in 2010–11 (as shown in Figure 9.1). Some of these factors are likely to continue to exert upwards pressure on social security spending in future.

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[8] A. Hood and L. Oakley, 'The social security system: long term trends and recent changes', IFS Briefing Note BN156, 2014, http://www.ifs.org.uk/publications/7438.

[9] This is not to say that economic and demographic trends were unimportant during this period, but that they had roughly offsetting effects. For example, the ageing population increased spending on state pensions and other pensioner benefits but employment rates among lone parents increased and the incapacity benefit caseload fell, reducing the cost of working-age benefits.

[10] For a fuller explanation of this divergence, see A. Hood, 'What is happening to spending on social security?', IFS Observation, 2014, http://www.ifs.org.uk/publications/7447.

[11] Source: A. Hood and D. Phillips, 'Benefit spending and reforms: the coalition government's record', IFS Briefing Note BN160, 2015, http://www.ifs.org.uk/publications/7535.

The current composition of social security spending

Before discussing options for reductions in the generosity of the system for certain groups, it is important to understand the composition of current social security spending and the characteristics of recipients. We look here at expected spending on major benefits and tax credits in 2015–16, alongside the position of families entitled to each of those benefits in the income distribution. This provides a sense of the likely distributional consequences of reductions in the generosity of different elements of the social security system. We begin by looking at the composition of pensioner spending, before turning to examine non-pensioner spending.

Spending on pensioners

Table 9.2 shows spending on state pensions and other benefits going to pensioners in 2015–16. Unsurprisingly, the vast majority of spending goes on state pensions, with £70.2 billion spent on the basic state pension and a further £21.8 million spent on additional state pensions.[12] Altogether, spending on state pensions is 41.8% of total social security, up from 36.6% in 2010–11. Given the public discourse in this area, it is also important to note the composition of other benefit spending on pensioners. Spending on pension credit is less than £7 billion, and the cost of the much-discussed universal pensioner benefits – winter fuel payments and TV licences – is less than £3 billion. Together, they cost less than disability benefits for pensioners (£10.7 billion).

Figure 9.3 shows how entitlements to these benefits are distributed. Because the state pension is not means tested, the distribution of entitlements to it broadly reflects the position of pensioner households in the overall distribution – more prevalent in the middle, and relatively sparse at the top and bottom. Entitlement to the means-tested pension credit (and, to a lesser extent, housing benefit) is concentrated towards the bottom of the distribution. More surprisingly, over two-thirds of pensioner entitlements to disability benefits are held by families in the top half of the overall income distribution. In part, this is because these benefits themselves intentionally move people up the

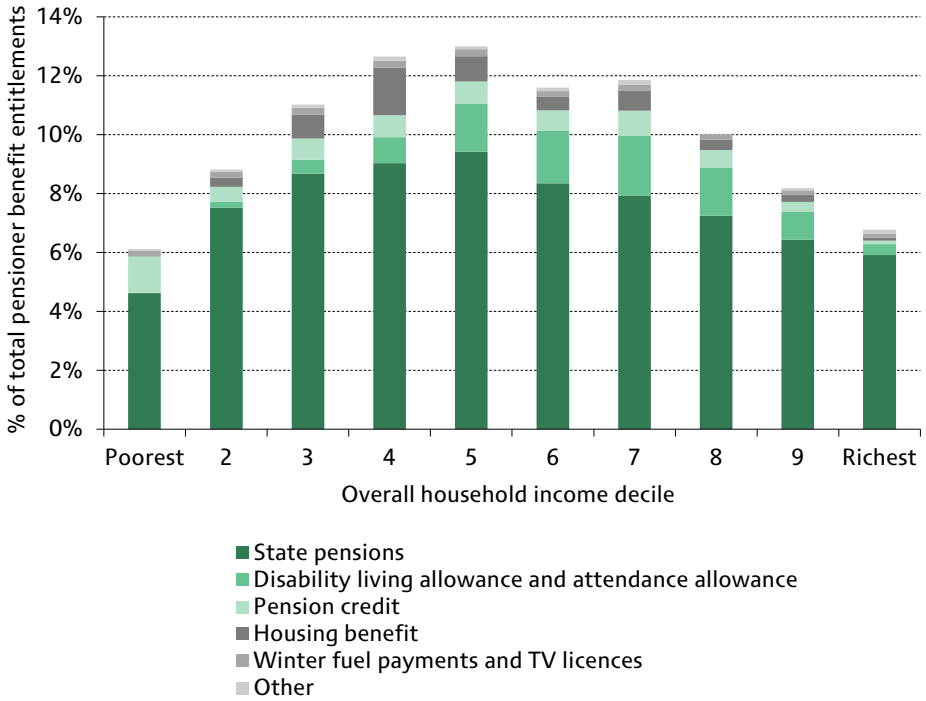
Table 9.2. Social security spending on pensioners, 2015–16

	£ billion	% of total social security spending
State pensions	92.1	41.8
of which:		
Basic state pension	*70.2*	*31.9*
Additional state pensions	*21.8*	*9.9*
Disability living allowance and attendance allowance	10.7	4.9
Housing benefit	6.8	3.1
Pension credit	6.5	3.0
Winter fuel payments and TV licences	2.8	1.3
Other	2.1	1.0
Total	**121.0**	**55.0**

Note: Columns may not sum due to rounding. 'Other' includes the Christmas bonus, financial assistance scheme, industrial injuries benefits, war pensions and others.
Source: Authors' calculations using DWP, HMRC, OBR and DSDNI data.

[12] The latter figure includes spending on the graduated retirement benefit, State Earnings-Related Pension Scheme and state second pension.

Figure 9.3. Pensioner benefit entitlements by whole population income decile group, 2015–16



Note: Income decile groups are derived by dividing all households into 10 equal-sized groups according to income adjusted for household size using the McClements equivalence scale.
Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 Family Resources Survey.

distribution in an attempt to compensate for the costs of disability. Any single pensioner receiving attendance allowance (AA) has sufficient benefit income (from AA and pension credit) to be in at least the fifth income decile group.

Spending on those of working age

In 2015–16, 45% of total social security spending will be directed at non-pensioners. Table 9.3 shows how that spending is allocated across the major benefits for this group. Around half of all working-age social security spending is accounted for by tax credits (child and working tax credit) and housing benefit. In both cases, a large share of expenditure goes to low-income working families, rather than being exclusively targeted at out-of-work families – for example, less than a third of tax credit spending goes to out-of-work families.[13] A further quarter of the spending on working-age people is directed at disabled individuals, mostly through employment & support allowance (included in incapacity benefits in Table 9.3) and disability living allowance. Out-of-work benefits for the non-disabled (jobseeker's allowance and income support) are expected to cost just £5.2 billion in 2015–16, or less than 3% of total social security spending (although total spending on that group is significantly higher, as some are also entitled to tax credits and/or housing benefit).

The difference in the allocation of entitlements across the income distribution between pensioners and non-pensioners is immediately visible in Figure 9.4 compared with Figure

[13] Source: HMRC Child and Working Tax Credit Statistics, available from https://www.gov.uk/government/statistics/child-and-working-tax-credits-statistics-finalised-annual-awards-2012-to-2013.

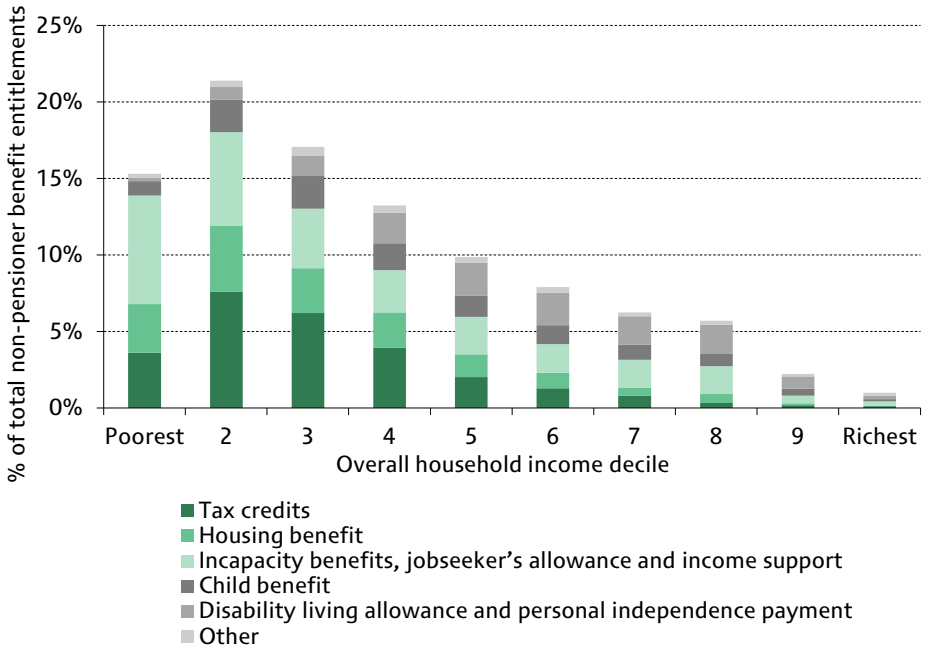
Table 9.3. Social security spending on non-pensioners, 2015–16

	£ billion	% of total social security spending
Tax credits	29.9	13.6
Housing benefit	19.2	8.7
Incapacity benefits	15.1	6.9
Child benefit	11.7	5.3
Disability living allowance and personal independence payment	10.9	5.0
Jobseeker's allowance and income support	5.2	2.4
Other	6.6	3.0
Total	**98.8**	**45.0**

Note: Columns may not sum due to rounding. Incapacity benefits are incapacity benefit, employment & support allowance, severe disability allowance and income support on grounds of disability. 'Other' includes bereavement benefits, carer's allowance, statutory maternity pay, industrial injuries benefits and others. Figure for child benefit is the total amount paid out, not net of spending later recovered in tax through the high-income child benefit charge.
Source: Authors' calculations using DWP, HMRC, OBR and DSDNI data.

9.3: the means-tested character of most support available to non-pensioners means that entitlements are greatest towards the bottom of the income distribution. For example, families in the bottom half of the overall income distribution have 90% of all entitlement to tax credits and 86% of all entitlement to housing benefit. One similarity with pensioner entitlements is that, again, much of the entitlement to disability benefits (in this case largely disability living allowance) is held by families further up the overall income distribution, reflecting the absence of a means test for these benefits.[14]

Figure 9.4. Non-pensioner benefit entitlements by whole population income decile, 2015–16



Note and source: See Figure 9.3.

[14] Note that tax credits also include disability premiums, which are specifically designed to support the income of low-income families containing someone with a disability.

9.3 Options for future cuts

We now look at some options for making further reductions in spending on particular areas, bearing in mind the trade-offs that are at the heart of designing a social security system. Table 9.7 (at the end of this chapter) summarises the estimated savings from the options we consider.

An obvious way to reduce expenditure would be to simply reduce the levels of benefits, tax credits and state pensions across the board. Spending has been cut by a significant sum over the course of the current parliament by first switching most benefits and tax credits from RPI to CPI indexation and then increasing most working-age benefits by 1% per year in nominal terms for three years from 2013–14 to 2015–16. The Conservatives want to continue along these lines, by freezing most working-age benefit rates for the first two years of the next parliament. These are all policies that have left the basic structure of the benefit system for working-age people broadly intact, maintaining existing choices over the balance between supporting different groups and the extent to which it distorts individuals' decisions.[15]

Alternatively, one can reduce spending, and target benefits more precisely at the poorest, by means testing more aggressively. But this will tend to weaken the incentive for individuals to enter paid work (since it means that they lose more of their benefits if they do so) or to increase their earnings.

It is also possible, of course, to make cuts to the generosity of benefits for particular groups of people where the current system is thought to be overly generous or to produce unacceptable distortions to individuals' behaviour. However, as this section shows, such changes do not necessarily yield significant spending reductions, often because the groups in question are small; and dealing with some distortions can generate others.

Another way in which spending on social security benefits and tax credits can be reduced is by imposing tighter restrictions on eligibility criteria, in particular for disability benefits. It is harder to calculate the amount by which these sorts of changes could reduce spending compared with other changes to monetary levels of entitlement, as the current government has found to its cost. Neither the introduction of employment & support allowance nor that of personal independence payment has as yet reduced spending by as much as had been hoped for (and they may never do).

Finally, larger structural reforms to the social security system can, though need not, be designed in ways that reduce total expenditure. Rationalising the system of support for a particular group can be done in a way that reduces the total amount of support given or better focuses support on the most needy (though, again, this may lead to weaker work incentives).

In the remainder of this section, we first show by how much spending can be cut by making across-the-board cuts to social security benefits and tax credits, before examining cuts to benefits for different groups. In each case, we will point out the distributional and

[15] Of course, by making the benefit system 'smaller', these reforms reduce the extent to which it weakens work incentives and any other perverse incentives. However, if some benefits are 'protected' from real cuts (as most disability benefits have been from the 1% uprating from 2013–14 to 2015–16), this can make some perverse incentives (such as the incentive to claim employment & support allowance rather than jobseeker's allowance in this case) stronger.

incentive impacts of the changes. Our baseline is the social security system expected to be in place in April 2015, but given that we are interested in how cuts to spending could be made in the long run, we assume that universal credit is fully in place.[16]

Across-the-board cuts

There have been significant changes to the way in which benefits are uprated over time under the current government. Most benefits now go up in line with CPI inflation each year (as opposed to RPI or Rossi inflation).[17] Furthermore, for the three years from 2013–14 to 2015–16, most working-age benefits have increased by only 1% – they would have increased by 2.2%, 2.7% and 1.2% in April 2013, April 2014 and April 2015 respectively in the absence of this policy.

Restricting future nominal increases in benefits would be an obvious way of reducing spending. Table 9.4 indicates how much spending could be cut by for a series of different options depending on which benefits are affected, by how much and for how long. (The estimates are, of course, sensitive to the forecast level of inflation.) The scope of benefits subject to below-inflation uprating ranges in the table from only child benefit (in line with the Labour Party's policy to increase it by 1% in 2016–17[18]), through the same benefits that are currently subject to 1% uprating (broadly, all working-age benefits and housing benefit but not disability benefits) and all benefits other than those specifically aimed at pensioners (i.e. including disability benefits), to everything other than state pensions (here we are adding in pension credit and disability benefits for older people) and finally all social security payments including state pensions. We consider three options for each

Table 9.4. Annual reductions in spending from changes to uprating policy, given current inflation forecasts (£ billion, 2015–16 prices)

Benefits in scope	1% uprating for two years	Two-year freeze	Five-year freeze	Number of families affected (million)
Child benefit only	0.1	0.3	0.9	6.9
All working-age benefits excluding disability benefits	0.8	2.4	6.9	11.4
All working-age benefits	1.1	3.2	9.4	13.1
All except state pension	1.7	4.4	13.2	16.1
All benefits, tax credits and state pensions	3.3	7.0	20.1	19.8

Note: Numbers affected are numbers affected at any given point in time, not at any point over the two- or five-year period.

Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 Family Resources Survey. Based on OBR inflation forecasts of 1.2% in September 2015, 1.8% in September 2016 and 2% in subsequent years.

[16] More precisely, we assume that all households are subject to the universal credit regime rather than the current regime and that no households receive any transitional protection to compensate them for any losses they may experience as a result of being moved across to universal credit.

[17] The big exception to this is the basic state pension, which is subject to a 'triple lock' whereby it increases in line with the highest of CPI inflation, average earnings growth and 2.5%.

[18] Since child benefit is expected to increase by 1.2% in 2016–17 in the absence of this policy, this change would only reduce expenditure by £30 million a year. Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 Family Resources Survey. Expected increase is OBR forecast for September 2015 CPI inflation.

of these groups of benefits: increasing them by 1% in 2016–17 and 2017–18, freezing them in those two years, and freezing them for the duration of the next parliament (five years).

We can see that uprating by 1% for two years would not yield substantial reductions in spending unless it were applied to state pensions as well as other benefits and tax credits. This largely arises because inflation is not forecast to be substantially higher than 1% in 2016–17 and 2017–18 – the forecasts of the CPI inflation number to be used to increase most benefits and tax credits in these two years are 1.2% and 1.8% respectively, meaning that this change would represent only a cumulative 1% fall in the value of most benefits but a more substantial fall in the value of the triple-locked basic state pension. Freezing benefits for two years would lead to a more substantial cut in spending (here, most benefits and tax credits are being cut by around 3% rather than 1%). Note, though, that our estimate of the reduction in spending from the Conservatives' proposal to freeze all non-disability benefits for those of working age for two years is now substantially lower than was estimated by HM Treasury when first announced (£2.4 billion rather than £3.2 billion[19]). This is because inflation in these two years is now expected to be lower than it was previously.[20] We now estimate that 11.4 million households would lose an average of around £200 a year from this policy. Freezing all benefits and tax credits but not state pensions for five years would reduce spending by £13.2 billion – i.e. slightly more than the Conservatives have said they would seek to achieve, if current CPI inflation forecasts are correct. The 16.1 million families who receive the benefits that would be affected by this freeze would, on average, lose around £800 a year as a result of this policy.

It is important to note that setting future benefit rates in nominal terms (as opposed to, say, uprating benefits by 1% less than CPI inflation) means that the size of the real cut, and hence the amount by which spending has been cut, depends on inflation out-turns. By specifying future benefit rates in this way, the government's policy of 1% uprating of benefits has cut spending by considerably less than had been intended: CPI inflation in September 2014, which would have been used to uprate most benefits and tax credits in April 2015 in the absence of the 1% rule, turned out to be 1.2%, rather than the 2.2% forecast when the 1% rule was announced at Autumn Statement 2012. Specifying future increases in benefits in nominal terms rather than in relation to a measure of inflation also means that recipients are exposed to inflation risk.

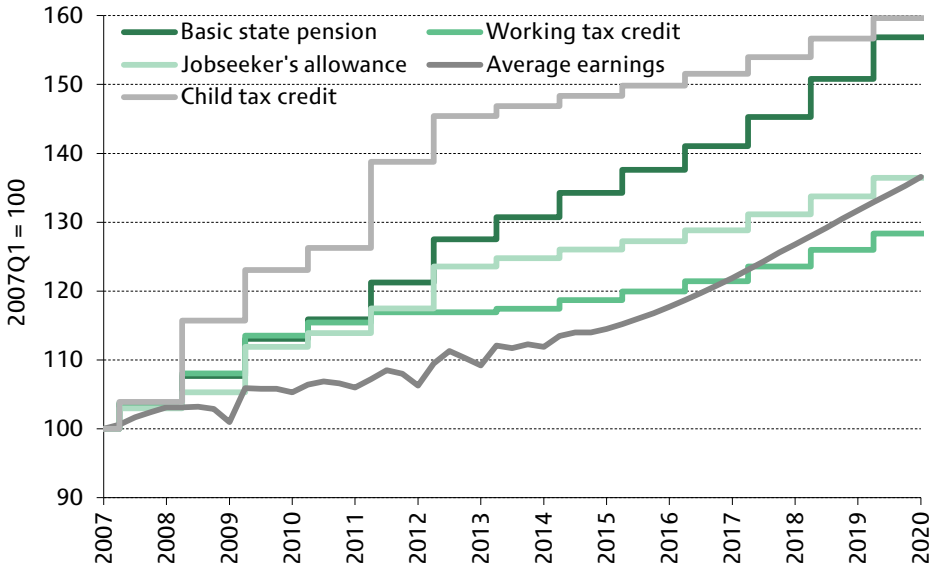
A justification proposed by the Chancellor for these types of policy in the past[21] has been that benefits for those who are not working have increased more quickly than earnings, as a result of falling real earnings since the recession. Figure 9.5 shows that this is the case for benefits received by out-of-work working-age families – jobseeker's allowance (and income support) increased in line with prices up to 2013 and have since increased by 1% a year, while there were significant discretionary increases in child tax credit

[19] http://www.telegraph.co.uk/news/politics/georgeosborne/11128133/George-Osborne-Freeze-benefits-to-make-Britain-fairer.html.

[20] Under the OBR's latest inflation forecast, this policy would represent a 3% cut to the benefits and tax credits in question rather than a 4% cut under the previous set of forecasts (the OBR forecasts from March 2014).

[21] In his 2012 Autumn Statement speech, the Chancellor said that 'average earnings have risen by around 10% since 2007. Out of work benefits have gone up by around 20%. That's not fair to working people who pay the taxes that fund them. Those working in the public services, who have seen their basic pay frozen, will now see it rise by an average of 1%. A similar approach of a 1% rise should apply to those in receipt of benefits.' See https://www.gov.uk/government/speeches/autumn-statement-2012-chancellors-statement.

Figure 9.5. Benefit levels and average earnings



Note: Child tax credit is for a family with two children. Working tax credit is for a couple where at least one member works at least 30 hours a week.
Source: Earnings and inflation forecasts from Office for Budget Responsibility (http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/). Past benefit levels from Department for Work and Pensions, various years.

between 2008 and 2011.[22] It is also true for the basic state pension, which has risen more quickly than earnings because of the triple lock, and for working tax credit, received by low-income working families, despite the fact that it has been increased by less than inflation each year from 2011–12 to 2015–16.

Under current policy and current OBR forecasts for inflation and earnings, working tax credit will fall back to its pre-crisis level relative to average earnings early in 2016, but most out-of-work benefits (with the notable exception of child tax credit) will not do this until 2020. Increasing jobseeker's allowance by 1% in 2016–17 and 2017–18 would only bring this date forward to the end of 2019. A two-year freeze would bring it forward further to the beginning of 2019, whereas freezing these benefits for longer than this would bring it forward to the middle of 2018.

In the remainder of this section, we examine cuts that could be made to specific groups of benefit claimants. We begin by examining the potential reduction in spending from means-testing universal credit more aggressively, which would reduce the amount received by low-income working families. We then look at cuts to the benefits received by particular demographic groups.

Means-testing universal credit more aggressively

Over the next few years, universal credit is planned to become the main programme of means-tested support for working-age people, replacing six existing means-tested

[22] Note, however, that over the previous 30 years, benefits tended to grow less quickly than earnings as earnings grew in real terms and most benefits tended to be increased only in line with prices. It is only true that benefits grew more quickly than earnings over this specific recent period. If benefits were increased in line with earnings over the longer term, this would lead to a big increase in forecast future social security spending as earnings growth is projected to be greater than inflation in the future.

benefits and tax credits[23] on which a total of £64 billion is forecast to be spent in 2015–16.[24] Broadly speaking, the way universal credit works is that there is a maximum amount of universal credit that each family is entitled to and families can earn a certain amount (the so-called 'work allowance') before universal credit starts to be withdrawn but then lose 65p of entitlement for each pound of earnings above their 'work allowance'. Therefore, two ways of making cuts to universal credit without affecting the most vulnerable – those who have no private income or financial assets – would be to reduce the work allowances or to increase the taper rate. Both involve means-testing support more aggressively. Reducing the work allowances by 10% would reduce spending by £700 million annually. Alternatively, universal credit could be withdrawn at a steeper rate above the work allowances. Increasing the taper rate from 65% to 70% could reduce spending by £1.3 billion a year.[25]

Both of these reforms would weaken the incentive for a family to have one person in paid work (as opposed to none), since the amount of in-work support would be reduced whereas the amount received by workless families would be unchanged. Those who remained on the universal credit taper would also see their incentive to earn a little more weakened as they would lose more of each additional pound earned in benefit withdrawal.

These policies would not weaken work incentives across the board, however. Some families would lose entitlement to universal credit altogether as a result of a higher taper rate, meaning that they would no longer face withdrawal of universal credit if they increased their earnings. We estimate that 3.4 million workers would see their effective marginal tax rates (the percentage of each additional pound earned lost in either higher taxes or lower benefit entitlements) increase by an average of 4 percentage points as a result of increasing the universal credit taper rate to 70% and that 0.4 million would see their effective marginal tax rates fall by an average of 50 percentage points. And as families would have less in-work support to lose by increasing their earnings, both of these policies could strengthen the incentive for families to increase their earnings more substantially. One way in which families could do this is if both members of a couple worked rather than just one. In effect, these reforms would make it less attractive to be a single-earner couple, both relative to neither member of the couple working and relative to both being in paid work.

The OECD recently recommended reforms along these lines, in combination with a stricter regime of out-of-work benefit conditionality.[26] It points out that the current design of universal credit, with substantial entitlements for low-income working families, encourages part-time work at the expense of full-time work. However, moving to a system where the taper rate was closer to 100%, as the OECD recommends, would rely heavily on the effectiveness of strict out-of-work benefit conditionality (monitoring of job-search behaviour, compulsory participation in labour market programmes etc.) to

[23] Income support, income-based jobseeker's allowance and employment & support allowance, housing benefit, child tax credit and working tax credit.

[24] Source: Authors' calculations using DWP, OBR and DSDNI data. The figure excludes housing benefit spending on pensioners, since that is not included in universal credit

[25] Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 Family Resources Survey. Note that this estimate assumes full take-up of universal credit; in reality, since some families will not take up their universal credit entitlement, the saving will be less than this.

[26] See OECD, *Connecting People with Jobs: Activation Policies in the United Kingdom*, OECD Publishing, 2014.

ensure that individuals choose to work full time rather than not working at all (given that the financial incentive to move off benefits and into paid work would be weaker). There would therefore be risks associated with moving in this direction, though the OECD points out that similar systems in Germany and Austria have not led to large numbers of families opting out of the labour market altogether. This would also be a reversal in the direction of policy in the UK, where support for working families has been gradually expanding over the last half-century.

Young adults

It has been suggested that the social security system is overly generous to some young adults. The Conservatives have proposed removing entitlement to housing benefit from some of those aged 18–21,[27] and the Prime Minister has in the past suggested removing housing benefit entitlement from at least some of those aged under 25. In addition, both the Conservative and Labour parties have suggested tightening the system of entitlement to jobseeker's allowance for those aged under 21.

Table 9.5 shows current spending on housing benefit for different groups of young adults. As of August 2014, the government was spending an average of around £100 a week on housing benefit for 310,000 individuals aged under 25, adding up to £1.6 billion a year.[28] Simply abolishing the benefit (or making the equivalent change to universal credit entitlements) for that group would therefore reduce spending by about £1.6 billion. However, in practice, it is likely that exemptions would apply – for example, the majority of housing benefit spending on under-25s goes to individuals who themselves have children, and it may not be realistic to expect them to live with their own parents. If instead housing benefit were abolished only for under-25s not living with children, the reduction in spending would fall to around £700 million. If entitlement were only removed from those aged 21 and under, it would reduce housing benefit (or universal credit) expenditure by around £700 million, but the spending cut would fall to around half that if those with children were exempted. And families with children are not the only group that might be protected. For example, those leaving the care system might not see their entitlement to housing benefit removed.

The Prime Minister recently announced that a future Conservative government would remove housing benefit eligibility from those aged 21 and under who were claiming jobseeker's allowance (JSA).[29] This would affect less than a quarter of housing benefit

Table 9.5. Spending on housing benefit for young adults

		Spending (£ billion, 2015–16 prices)	
		Not employed	**All**
21 and under	Without children	0.3	0.4
	All	0.6	0.7
Under 25	Without children	0.6	0.7
	All	1.3	1.6

Note: Figures are housing benefit spending as of August 2014.
Source: Authors' calculations using DWP Tabulation Tool.

[27] See http://www.theguardian.com/society/2014/sep/28/david-cameron-welfare-youth-unemployment and http://www.bbc.co.uk/news/uk-politics-30998212.

[28] All figures in this paragraph are authors' calculations using the DWP Tabulation Tool.

[29] See, for example, http://www.bbc.co.uk/news/uk-politics-30998212.

claimants aged 21 and under who were not employed (and less than 20% of this group as a whole). Other out-of-work claimants are entitled to either employment and support allowance or income support because they are disabled, carers or lone parents with children aged under 5. However, it would affect some couples with children and lone parents with older children. We estimate that this change would affect around 24,000 families and reduce spending by £120 million a year.[30]

Beyond reducing or removing housing benefit entitlements, further spending cuts could be sought by restricting the eligibility of young adults to jobseeker's allowance (or the equivalent component of universal credit). The Labour Party has suggested replacing JSA for 18- to 21-year-olds with a 'youth allowance', which would have the same cash value as jobseeker's allowance but be means tested against parental income.[31] It suggests the initial cuts to spending from such a policy would be around £65 million a year. Indeed, the revenue effect of any policy restricting eligibility to jobseeker's allowance is likely to be small: total spending on JSA for under-25s is just over £700 million a year.[32]

In summary, total spending on housing benefit and jobseeker's allowance for those aged under 25 is less than £2.5 billion a year, or around 1% of the total social security budget. This means that even dramatic changes, such as the removal of entitlements for sections of this group, would deliver only a small reduction in spending.

Of course, changes in this area of the system need not be motivated by a desire to reduce expenditure – cutting or removing entitlements would have a significant impact on the incentives facing some young adults as they make important decisions around work, training and where to live beyond the end of compulsory education. But again there would be real trade-offs. Big reductions in entitlements could leave those whose parents were unable to support them without any means of support, and any exemptions could create new distortions to individuals' incentives. For example, if those with children were exempted, there would be a stronger incentive for young people to have children. And if, as the Conservatives have recently proposed, only those housing benefit recipients claiming JSA were affected, there would be a stronger incentive for young people to claim employment and support allowance instead, or be a lone parent (with a child under 5) in order to qualify for income support. These issues would have to be borne in mind when making changes to the benefit entitlements of this group.

Families with children

As Section 9.2 showed, one of the areas where the generosity of the social security system has increased the most over recent decades is the support provided to low-income families with children. Indeed, the cuts to tax credits and other benefits for this group implemented over the course of the current parliament have only partially reversed the real-terms increases in generosity under Labour. Further cuts to entitlements for this group could be an option.

[30] Source: Authors' calculations using DWP Tabulation Tool data relating to August 2014.

[31] http://www.theguardian.com/politics/2014/jun/18/labour-welfare-plan-benefits-means-testing-training-ed-miliband.

[32] Source: DWP Tabulation Tool. DWP does not provide this figure separately for under-21s.

Incorporating child benefit in universal credit

One high-profile change has been the introduction of a means test for child benefit. From January 2013, child benefit was withdrawn from families containing an individual with a taxable income over £50,000, and removed completely for those families containing an individual with a taxable income over £60,000.

Whether or not all support for children should be means tested, the high-income child benefit charge is not a well-designed policy. It means that there are two very different forms of means-tested support for families with children existing in parallel, without any clear rationale behind this. It creates very high effective tax rates between £50,000 and £60,000 which vary with the number of children, it involves significant compliance costs for those affected (HMRC expects that half a million more individuals will have to submit a self-assessment tax return as a result of it[33]), and the way that the charge is assessed (against the *individual* income of the highest-earning adult rather than the joint income of a couple) creates significant inequities between couples where the two members have roughly equal incomes and those where one earns more than the other.[34]

If child benefit is to be considered as just one more part of the means-tested benefit system, then a more sensible form of means-tested support for families with children already exists through the child tax credit system, which will be subsumed into universal credit in the future. It would be possible to abolish child benefit and increase the appropriate components of universal credit such that those receiving universal credit did not lose out. We calculate that this policy would reduce benefit entitlements by around £4.8 billion a year, since there are over 4.3 million families who receive child benefit at the moment but who will not be entitled to universal credit in the future, each of whom would lose over £1,000 a year.[35] This would be a radical change to the structure of the benefits system, but would mean that the system of support for families with children was much more coherent. However, this rationalisation of the system need not be accompanied by such a large reduction in entitlements – it would be possible to incorporate child benefit within universal credit but to withdraw it from a higher threshold (as used to be the case with the family element of child tax credit).[36] By choosing the level of this threshold, one can alter the distributional impact of this reform, with concomitant implications for the amount by which spending is reduced.

Cutting benefits for large families

An alternative way of reducing the generosity of the social security system for families with children would be to limit the number of children for which families can claim support. Some Conservatives, including the Secretary of State for Work and Pensions,

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[33] Source: HMRC, 'Child benefit: income tax charge for those on higher incomes', Tax Impact and Information Note, Budget 2012, available from http://webarchive.nationalarchives.gov.uk/20141007023213/http://www.hmrc.gov.uk/budget2012/tiin-0620.pdf.

[34] For example, a couple where one parent earns £60,000 and the other earns £40,000 lose all their child benefit but a couple where both parents earn £50,000 are unaffected.

[35] This calculation is made on the basis of changes to entitlements. To the extent that take-up of universal credit is lower than that of child benefit, the savings would be larger.

[36] Note that this would involve significant administrative costs. Some families who currently receive child benefit without having to go through a full means test would have to do so in order to claim universal credit.

Table 9.6. Reduction in spending from limiting benefits for families with children by family size

	Estimated cut (£ billion, 2015–16 prices)	
	Two-child limit	**Three-child limit**
Child benefit	1.0–1.1	0.3
Child benefit for non-working families	0.3	0.1
Child element of universal credit	2.8–3.3	0.8–1.1
Child element of universal credit for non-working families	1.2–1.5	0.4–0.5

Note: Upper bounds are calculated using administrative data, lower bounds using TAXBEN.
Source: Authors' calculations using HMRC data (https://www.gov.uk/government/statistics/child-benefit-statistics-geographical-analysis-august-2013, https://www.gov.uk/government/statistics/child-and-working-tax-credits-statistics-finalised-annual-awards-2012-to-2013) and TAXBEN run on uprated data from the 2012–13 Family Resources Survey.

have, for example, suggested that child benefit could be limited to the first two children in a family.[37]

Table 9.6 shows the estimated reduction in spending from a number of different reforms that limit state support to a given number of children. Looking first at reforms to child benefit, limiting payments to the first two children would reduce spending by around £1 billion a year, with 1.2 million families losing a little less than £1,000 a year. If payments were instead limited to the first three children, the reduction in spending would fall to around £300 million a year, as only around 300,000 families would then be affected. Much bigger reductions would be possible if the limit on the number of children eligible were also applied to the child element of universal credit (currently the child element of child tax credit). Limiting payment of the child element to the first two children in a family would reduce spending by around £3 billion (with 900,000 families losing an average of over £3,500 a year), and limiting it to three children would reduce spending by £1 billion (in both cases, these reductions in spending are in addition to those from limiting child benefit).

One of the rationales that have been provided for this kind of policy is that, while most working families have to incorporate financial considerations into decisions around having children, child-contingent benefits mean that non-working families do not face the same incentives (or disincentives).[38] On that logic, one might want to implement the limit on the number of children eligible only for non-working families. Table 9.6 shows how this restriction would affect the likely reduction in spending from such a policy. Limiting child benefit for non-working families only (something that would be administratively difficult) would reduce spending by around £300 million if payments were limited to the first two children and by around £100 million if payments were limited to the first three children. Again, those affected would lose around £1,000 a year on average, but only 300,000 (or 100,000) families would be affected. Implementing the same policies for the child element of universal credit would reduce spending by between £1.2 billion and £1.5 billion and around £500 million respectively, with those affected losing an average of £4,000 a year.

[37] http://www.theguardian.com/society/2014/dec/14/child-benefit-limited-two-children-iain-duncan-smith. Note that the benefit cap already has this effect for some families with very high rents.

[38] See, for example, http://www.huffingtonpost.co.uk/2013/12/15/two-child-limit-benefits_n_4446773.html.

To the extent that the purpose of limiting benefits by family size is to change the incentives facing non-working families, it would seem to follow that any limit would apply only to those families who had (or conceived) an additional child after the implementation of the policy. In that case, the figures above would represent the potential long-run cut to spending; the initial reduction would be much smaller.

Some large working-age families, particularly those living in high-rent areas, have already been affected by the introduction of a 'benefit cap' – a restriction on the total weekly amount of benefit a family can receive, set at £350 per week for childless single adults and £500 per week for other families (with some exemptions, notably for those receiving certain disability benefits). This has led to significant reductions in the amount of benefit these families receive (DWP estimates that the average loss among those affected in November 2013 was £70 a week) and appears to have led to some of those affected moving into work. It does not seem to have led to many claimants moving to cheaper accommodation (at least so far).[39]

Currently, only around 27,000 families are subject to the cap, and even fairly sizeable reductions in its level would not deliver a significant reduction in spending. The Conservatives have proposed to reduce the cap for couples and lone parents from £26,000 to £23,000 a year (£500 per week to about £440 per week), which would reduce spending by only £135 million a year.[40] Those who would be affected by this change would be those who are subject to the cap at the moment – who would all lose a further £3,000 per year – and 70,000 other workless families[41] who have a benefit income of between £23,000 and £26,000 – who would lose less than £3,000 per year.

The benefit cap is not a coherent way of reducing the benefits of larger families or those living in high-rent areas. If the government felt that the benefits system was too generous to these groups, a more coherent response would be to change the underlying benefit entitlements of these families directly by reducing the amount of support given to large families (as we discuss above) and/or limiting the amount of support for housing costs, rather than layering an overall cap on a system designed to allow higher payments.

Reversing discretionary increases in tax credits

As discussed in Section 9.2, the past two decades have seen large increases in the generosity of tax credits for low-income families with children, with spending on tax credits (and their predecessors) more than quadrupling in real terms between 1997–98 and 2010–11. More specifically, the child element of child tax credit (which will become the child element of universal credit) has risen by 44% in real terms (relative to CPI inflation) since the introduction of the current system of tax credits in 2003.[42]

One way to reduce social security spending on families with children would be simply to reverse that increase in generosity, returning the child element to its 2003–04 real-terms level. We estimate that doing so would reduce spending by around £5.1 billion a year.

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[39] Source: Department for Work and Pensions, *Benefit Cap: Analysis of Outcomes of Capped Claimants*, DWP ad-hoc research report, 2014, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/385970/benefit-cap-analysis-of-_outcomes-of-capped-claimants.pdf. For more discussion, see C. Emmerson and R. Joyce, 'Coping with the cap?', IFS Observation, 2014, http://www.ifs.org.uk/publications/7482.

[40] Source: http://www.dailymail.co.uk/news/article-2927561/New-welfare-crackdown-workshy-100-day-election-countdown-begins-PM-vows-slash-cap-3-000-days-Tory-election-victory.html.

[41] Source: ibid.

[42] The child element has risen by 33% relative to RPI (used for uprating until 2011–12) since 2003.

This significant reduction in spending reflects a large impact on the 3.7 million families with children entitled to universal credit, who would lose nearly £1,400 a year on average. We estimate that this would increase relative child poverty by about 300,000 children, or 2.5 percentage points. This would mean that the government was on course to miss its supposedly legally-binding 2020 child poverty targets by an even larger margin.[43]

The above reform would reduce the incomes of both non-working and working low-income families with children, as both groups are entitled to universal credit. If instead one wanted to reverse the increase in generosity only for non-working families, it would be possible to compensate fully 1.9 million of the 2.4 million working families through higher work allowances (the amount they can earn before universal credit starts to be withdrawn).[44] This combination of a reduction in the child element back to its 2003 level and an offsetting increase in work allowances would affect 1.8 million families and reduce spending by around £2.5 billion a year (i.e. the compensation of working families halves the number affected and the cut to spending). By reducing the incomes of non-working families while protecting in-work families, a reform of this nature would also strengthen the incentives for families with children to be in work.

One could, of course, take an entirely different approach to reducing social security spending on low-income families with children. As well as increasing the generosity of support for non-working families with children, changes since 1997–98 have increased the level of in-work support available to such families. Rather than reducing the entitlements of non-working families, one could instead reduce the generosity of the system for low-income working families with children, by reducing their work allowances. This would represent the continuation of a policy direction already taken by the coalition government, which has made changes to the work allowances expected to reduce spending by over £1 billion a year. If the work allowances of families with children were cut to the same level as those for families without children, we estimate that social security spending would fall by £3.3 billion a year (with over 2 million families losing an average of almost £1,500 a year). This reform has the advantage of protecting the families with the lowest incomes (those with no one in work) but, by reducing the amount families can earn before universal credit can be withdrawn, it weakens their incentive to have someone in paid work.[45]

Disability benefits

As we saw in Section 9.2, a substantial proportion (18%) of total benefit spending goes on benefits for those with disabilities and those who care for them. In 2015–16, it is forecast that £13.6 billion will be spent on employment & support allowance, £14.7 billion will be spent on disability living allowance (DLA) and personal independence payment (PIP, which will ultimately replace DLA), £5.6 billion will be spent on attendance allowance (AA) and £2.4 billion on carer's allowance (CA). We also saw that spending on DLA and

[43] IFS researchers have repeatedly argued that it is impossible that these targets will be hit under any plausible scenario – for the latest projections and more discussion, see J. Browne, A. Hood and R. Joyce, 'Child and working-age poverty in Northern Ireland over the next decade: an update', IFS Briefing Note 154, 2014, http://www.ifs.org.uk/publications/7448.

[44] Note, however, that those with earnings below the work allowance would not be compensated by doing this.

[45] Though, as we noted earlier, policies such as these strengthen the incentive for both members of a couple to work rather than just one, and for those in work to increase their earnings.

AA has increased very significantly over time, having risen by over 90% in real terms since 1997–98 despite no real policy changes in this area. Reforms to constrain these rising costs are therefore likely to be an important area for future governments to look at.

Means-testing disability benefits

Disability living allowance and attendance allowance exist to compensate those with disabilities for the additional costs that they face in terms of additional care and mobility costs, irrespective of how much other income they have or whether they are in work. Thus, these benefits are claimed by households at all income levels: as we saw in Section 9.2, the largest concentration of claimants of DLA and AA is in the upper-middle of the income distribution, at least in part because the income received from these benefits pushes recipients further up the distribution. Carer's allowance exists to support those who provide care to someone on one of these benefits, and covers both pensioners and those of working age. These are all benefits that are worth the same cash amount to all recipients as they are neither means tested nor taxable.

There are good reasons to keep things this way: these benefits are intended to compensate disabled people for the additional costs that they face and provide support for those who provide care for disabled people that might otherwise have to be paid for out of the public purse. Even so, a government looking to reduce the deficit might consider taxing these benefits or replacing them with means-tested benefits so that support only went to those without other means of support (such as income from earnings or other sources or a partner in paid work). A government considering changes such as these would have to think carefully about the aims of disability and carers' benefits before making any such changes.

Making DLA and PIP taxable would raise about £915 million a year; doing the same for AA would reduce spending by £550 million in 2015–16.[46] Spending cuts could also be achieved by scrapping these benefits and introducing new disability premiums in universal credit and pension credit. While it is hard to be precise about how much spending could be cut through such a policy, we estimate that around one-third of DLA and AA claimants would not be entitled to either universal credit or pension credit. Although this does not imply that spending would be reduced by a full third of the cost of the benefits, it does suggest that a radical policy such as this could lead to a significant reduction in spending. Scrapping CA and allowing claimants to claim universal credit instead would reduce spending by around £300 million a year.[47] The reduction in spending is relatively small as most claimants of CA would be entitled to claim another means-tested benefit to offset the loss of CA.

Tightening disability tests

Another way of reducing expenditure on these benefits would be to make the disability tests more stringent. The introduction of employment & support allowance (ESA) and PIP are examples of policies in this area that have already been introduced. In both cases, the roll-out has not gone smoothly. There is a big backlog of ESA claimants waiting for a medical assessment and more of those who have been assessed have been found to be

[46] Source: 2014–15 figures from table 1.5 of HMRC Statistics, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/302317/20140109_expenditure_reliefs_v0.4published.pdf, uprated in line with nominal GDP to 2015–16 values.

[47] Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 Family Resources Survey.

entitled than the government had previously expected. Meanwhile, the roll-out of PIP has been significantly delayed.

Notwithstanding these issues, it may be possible to go further by applying these changes more widely. For example, the government could also reassess DLA claimants aged 65 and over for entitlement to PIP – we estimate that this could reduce spending by around £½ billion a year in the short run assuming that DLA claimants aged 65 and over are as likely to be entitled to PIP as the government expects equivalent claimants aged under 65 to be. (Note that in the longer run there will be no DLA claimants aged 65 and over anyway, since DLA could only be claimed by those aged under 65, who now have to claim PIP, meaning that this reform would not reduce expenditure in the long run.) These figures are based on assumptions about how many claimants would lose entitlement – given the experience from the introduction of ESA, it is far from guaranteed that the introduction of PIP would reduce spending by as much as the government is currently expecting – and therefore the amounts that could be saved from applying the policy to those aged 65 and over could be commensurately lower too.

A related reform would be to stop giving additional support to those in the Work-Related Activity Group of ESA (those who are less disabled and are expected to engage in 'work-related activity' with a view to returning to work in future) over and above that given to JSA claimants. The current government apparently recently considered introducing such a policy.[48] We estimate that this change could reduce spending by upwards of £1 billion a year once ESA is fully in place and the current backlog of ESA claims is cleared, though there remains considerable uncertainty around how large the Work-Related Activity Group will be in steady state.[49] Eliminating the additional support given to those placed in the Work-Related Activity Group would give a stronger incentive to those currently in that group to appeal in an attempt to get into the Support Group.

Support for rents

Housing benefit accounts for almost 12% of total social security spending, costing the exchequer £26 billion a year. And despite discretionary cuts in generosity of over £2 billion a year made by the coalition government, real-terms spending is expected to be £1 billion higher in 2015–16 than it was in 2010–11 as higher private rents, the growth of the private rented sector, and weak earnings growth combined to push up spending.

Of the £26 billion expected to be spent on housing benefit in 2015–16, around 60% (£16 billion) will go to tenants in the social rented sector, with the remaining 40% (£10 billion) going to tenants in the private rented sector. Therefore, any attempt to cut housing benefit spending significantly may well involve reforms affecting social tenants, most of whom currently pay no net rent (i.e. their housing benefit covers all rent). We consider social tenants first and then look at further restrictions to entitlements in the private sector.

[48] See http://www.bbc.co.uk/news/uk-politics-29821696.

[49] There were around 475,000 members of the Work-Related Activity Group in May 2014 (source: DWP Tabulation Tool), but there were a further 500,000 individuals claiming ESA who had not yet been assessed, and a further 61,000 claimants of incapacity benefit waiting to be assessed for ESA eligibility. A rough calculation from these figures suggests that around £700 million could be saved by removing the Work-Related Activity Group component from those already assessed as being entitled to it (since the 474,000 individuals in question would each lose around £29 a week), with possible further savings coming in the future once more people are assessed for eligibility for ESA and put in the Work-Related Activity Group.

Social tenants

Until recently, the housing benefit entitlement of all social sector claimants (subject to a means test) was simply their rent. This is no longer true for around 660,000 of the 3.3 million social sector claimants, who have had their entitlements reduced on the basis that they are deemed to be under-occupying their property (a policy sometimes referred to as a 'bedroom tax' or the removal of a 'spare room subsidy').[50] One way to reduce housing benefit spending would be to subsidise less than 100% of the rents of other social tenants too. For example, one could reduce the subsidy for social tenants from 100% to 90% of their rents, reducing spending by around £1.6 billion a year (or £2.5 billion a year if private tenants were also included).[51] Alternatively, one could subject all social sector claimants to the local housing allowance (LHA) rules that govern the maximum entitlements of most private sector claimants.[52] We estimate that this would reduce spending by around £700 million a year, with around 750,000 social sector families with rent greater than the LHA rate losing an average of nearly £1,000 a year.

Cuts to spending from subjecting social tenants to the same LHA rules as private tenants are limited by the fact that their rents are subsidised, making them less likely to be above the relevant LHA rate at which support is capped. Estimates suggest that the gross cost to the government of this rent subsidy was around £7 billion in 2007–08.[53] By allowing social rents to rise towards those in the private sector, the government could reduce the cost of this subsidy, but under the current system this would be mostly offset by higher spending on housing benefit.[54] If, however, social sector entitlements were not allowed to rise in line with increased rents, but were subject to the LHA rules, a government could remove some or all of the subsidy while seeing a smaller increase in housing benefit spending. Such a package of changes would actually increase social security spending, but reduce total public spending. Of course, any government looking at making changes of this type should take into account the weaker work incentives that would result from raising social rents, and the fact that new social tenants are (depending on allocation criteria) likely to be among the most disadvantaged. More broadly, reforms in this area need to be considered in the light of the overall purpose of maintaining a social sector distinct from the private housing market.

Private tenants

The simplest way to reduce the generosity of private sector housing benefit is to lower the maximum amount of rent that housing benefit will cover (the LHA rate). The coalition government reduced LHA rates from the 50th percentile of rents in a local area to the 30th percentile of rents, a change that was expected to reduce spending by £505 million in

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[50] Source: DWP Impact Assessment, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214329/social-sector-housing-under-occupation-wr2011-ia.pdf.

[51] Source: Authors' calculations using TAXBEN run on uprated 2012–13 Family Resources Survey data.

[52] Those who have been continuously renting the same property without a change in their family circumstances since April 2008 are not subject to the LHA rules.

[53] Source: http://webarchive.nationalarchives.gov.uk/20120919132719/http:/www.communities.gov.uk/documents/housing/pdf/1290130.pdf. To our knowledge, this is the most recent estimate available.

[54] It would not be entirely offset, because some social tenants do not receive housing benefit, and those affected by the under-occupancy rules would not see their entitlement rise by the full amount of any rent increase.

2015–16.[55] Early evidence suggests that this resulted in most claimants paying more rent, with a small increase in the proportion moving house.[56] We estimate that a further reduction in LHA rates to the 20th percentile of local rents would reduce spending by roughly £400 million a year, with 1.5 million claimants having their entitlements reduced, by an average of around £300 a year.[57] This would of course represent a significant change, from a system where housing benefit claimants could afford half of all properties of the appropriate size in their area, to one where they could afford only two in ten of those properties.[58]

Regardless of generosity, the link between LHA rates and local rents should relate to current levels of local rents rather than historic ones. This is no longer government policy; in 2013, the coalition moved to indexing LHA rates, previously determined by local rents, with CPI inflation.[59] In the long run, this will create an absurd situation whereby geographical relativities in rent subsidies in the distant future will depend on geographical differences in rent levels in 2012 rather than their current relativities.[60] Restoring a link with current rents would cost the government money if private rents continue to rise in real terms, though it is questionable whether the current system of CPI indexation would be sustainable in this case, as it would mean that private sector rents became less and less affordable over time for housing benefit claimants. Allowing housing benefit entitlements to bear increasingly little relation to levels of housing costs would call into question the whole point of its existence as a distinct benefit.

A reform to private sector housing benefit that could improve incentives for a larger share of tenants would be the introduction of partial subsidies above a certain threshold. Currently, rents of housing benefit claimants are subsidised at 100% up to the LHA rate (approximately the 30th percentile of local rents) and 0% above that. This leaves many tenants with no immediate incentive to find or negotiate a rent lower than their LHA rate, since they face none of the additional cost of higher rent up to that point. Rather than further reducing LHA rates, one could, for example, reduce the subsidy for rent between the 10th and 30th percentiles to 50%. This would be likely to reduce spending by slightly more than reducing LHA rates to the 20th percentile, and would give more tenants an incentive to reduce their rent.[61] More generally, the introduction of partial subsidies over certain bands of rent would allow the government to trade off incentives and the generosity of support with greater precision.

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[55] Source: HM Treasury, *Budget 2011*, http://webarchive.nationalarchives.gov.uk/20130129110402/http:/www.hm-treasury.gov.uk/2011budget.htm.

[56] M. Brewer, C. Emmerson, A. Hood and R. Joyce, *Econometric Analysis of the Impact of Local Housing Allowance Reforms on Existing Claimants*, DWP Research Report, 2014, http://www.ifs.org.uk/publications/7277.

[57] This is the long-run saving, i.e. assuming all private sector tenants are subject to the LHA regime. If entitlements for social tenants were also capped at the 20th percentile, we estimate the long-run saving would rise to £1.3 billion (relative to the current system).

[58] Strictly speaking, LHA rates are based on the percentile of the private rent distribution excluding those properties rented by housing benefit claimants (not all properties).

[59] Technically, LHA rates are now the lower of the CPI-indexed 2012 rate and the 30th percentile of rents. This will matter less and less over time if rents grow in real terms. In the short run, the nominal increase in LHA rates was limited to 1% in April 2014 and April 2015, with some exemptions for areas with high rent growth.

[60] For further discussion of the problems with the CPI indexation of LHA rates, see A. Hood and D. Phillips, 'Benefit spending and reforms: the coalition government's record', IFS Briefing Note BN160, 2015, http://www.ifs.org.uk/publications/7535.

[61] Although it would weaken the incentive for some tenants (those with rents between the 20th and 30th percentiles).

There are of course other ways to reduce the generosity of private sector housing benefit. For example, the coalition government has abolished five-bedroom LHA rates (reducing the entitlements of some very large families), introduced national caps on LHA rates (affecting claimants in some parts of central London) and extended the shared accommodation rate to single people under 35. However, further changes to the rules governing room entitlements, or a reduction in the national caps, are unlikely to cut spending significantly since they would only affect a small subset of private sector housing benefit claimants.

Contributory benefits for those of working age

The benefits system for working-age people has become increasingly means tested over the last 35 years. Over 80% of spending on working-age people was means tested in 2013–14, compared with only a quarter in 1978–79.[62] Given that the social insurance element of the benefits system for working-age people has decayed so much already, one option for further cuts would be to remove its remnants entirely by scrapping contributory JSA and ESA. Total expenditure on these benefits is projected to be £5.1 billion in 2015–16, though abolishing them would not cut spending by this amount since many claimants would be entitled to claim means-tested support. Our modelling suggests that spending would be reduced by only around £600 million if these benefits were abolished, since the majority of claimants would be entitled to claim the same support through universal credit – we estimate that only around a quarter of claimants would lose out as a result of this change.

However, there have been calls to move back towards a system of social insurance against unemployment and disability – for example, Labour has proposed a more generous rate of contributory JSA for those who have made at least five years of National Insurance contributions.[63] Although means-testing ensures that support is targeted at the most vulnerable at any point in time, social security contributions that give entitlement to higher benefits can have less of a disincentive effect than an equivalent tax on earned income. Contributory benefits also provide a degree of insurance against unemployment and disability shocks that cannot be provided by private insurance markets because of problems of adverse selection and moral hazard.[64] It may also be seen as fair to relate the amount an individual receives from the social security system when they suffer an adverse shock to the amount they have contributed to the system. And contributory benefits give those who are unemployed or disabled some *individual* income in their own right that they might not receive under a purely means-tested system.[65]

There is certainly still room for a substantial debate to be had about the role of the contributory principle.

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[62] Source: A. Hood and L. Oakley, 'The social security system: long-term trends and recent changes', IFS Briefing Note BN156, 2014, http://www.ifs.org.uk/uploads/publications/bns/BN156.pdf.

[63] See http://www.bbc.co.uk/news/uk-politics-27911518.

[64] Adverse selection occurs when those who know they are more likely to lose their job or become disabled purchase insurance but those who think they are less likely to become unemployed or disabled do not, meaning that the cost of insurance increases and the pool of people who wish to purchase insurance shrinks. Moral hazard occurs when those who have purchased unemployment put less effort into keeping their job as a result of knowing they will be partially compensated if they lose it.

[65] For more on this, see F. Bennett and H. Sutherland, 'The importance of independent income: understanding the role of non-means-tested earnings replacement benefits', Institute for Social and Economic Research (ISER), Working Paper 2011-09, 2011, https://www.iser.essex.ac.uk/files/iser_working_papers/2011-09.pdf.

State pensions and other benefits for pensioners

We saw in Section 9.2 that the total amount of social security spending received by pensioners has been rising rapidly in recent years. This is both because of an increase in the size of the population aged over the state pension age and because average entitlements have been increasing. Discretionary policy changes, higher entitlements to state pensions among those who have reached state pension age more recently resulting from past changes to state pension rights accrual, and higher female labour force participation have all been important drivers of this rise.

We also saw that more than three-quarters of total social security spending on pensioners goes on state pensions. This implies that if spending in this area is to be reduced significantly, it is likely that state pension expenditure will have to be reduced. There are two obvious ways in which this could be done: the number of people entitled to claim state pensions could be reduced by increasing the state pension age; or the generosity of state pensions could be reduced – for example, by increasing the basic state pension in line with CPI inflation or average earnings growth rather than the 'triple lock'.[66] It seems unlikely that either of these could be achieved in the next five years: all the main political parties have pledged to retain the triple lock for the duration of the next parliament,[67] and changing individuals' state pension ages at short notice would disrupt the plans of those approaching state pension age. In any case, state pension ages for both men and women are already set to increase over the course of the next parliament. Making frequent changes to pension policy is undesirable – if governments frequently backtrack on promises made, people will have less confidence about how much they will receive from the state in retirement, making it difficult for them to plan for retirement.

On the other hand, if there are concerns about the costs implied by current promises to pensioners, it makes sense to announce a move to a more sustainable path sooner rather than later. And working-age benefit recipients will have already seen three years of below-inflation increases by the end of this parliament. We have seen that including state pensions and other pensioner benefits in a two-year freeze more than doubles the amount by which spending would be reduced, from £3.2 billion to £7.0 billion, with £2.6 billion of this coming from freezing state pensions. A less severe option would be to suspend the triple lock for a number of years and increase the basic state pension in line with CPI inflation instead. We estimate that this could reduce spending by £900 million a year if it were done for two years from 2016–17 or £2.9 billion a year if it were sustained for the whole of the next parliament.[68]

The other benefits received by pensioners are relatively small by comparison – even pension credit, the main means-tested benefit received by those aged over the female state pension age, represents only around 5% of total social security spending on this group. A way of reducing spending without affecting those on the lowest incomes would be to abolish the savings credit component (the part received by those with a small

[66] Note that the 'triple lock' involves the basic state pension increasing more quickly than earnings over the long term, meaning that state pension spending would take up an increasing share of national income over time, which could not be sustainable in the very long run.

[67] See http://www.bbc.co.uk/news/uk-25609485, http://www.bbc.co.uk/news/uk-politics-25614562 and http://www.ft.com/cms/s/0/4532b902-8aa3-11e3-9465-00144feab7de.html#axzz3OiltISCU.

[68] Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 Family Resources Survey.

amount of state or private income above the basic state pension). We estimate that this would reduce spending by around £900 million a year if it were introduced immediately in 2015–16. However, this reduction in spending would not persist into the long term: there is already an intention to close savings credit to pensioners who reach the state pension age after April 2016 and who will receive the single-tier pension, meaning that it will eventually disappear in any event. A small reduction in spending could be found by abolishing savings credit for all new claimants.

One frequently-discussed option is means-testing the universal benefits that are received by pensioners, namely free TV licences for those aged 75 and over and winter fuel payments. These are only a very small part of the total cash support received by pensioners – around 2% of the £121 billion received by pensioners in 2015–16. Abolishing both completely would reduce spending by £2.8 billion a year, but would lead to low-income losers.

Designing a new system simply to assess entitlement for these benefits would be highly inefficient from an administrative point of view. However, it might be possible to assess entitlement using an existing piece of the tax and benefit system. The Labour Party has proposed removing winter fuel payments from higher- and additional-rate taxpayers, which would affect between 600,000 and 700,000 families and reduce spending by around £150 million a year, a trifling amount in the context of total pensioner social security spending. A more substantial cut to spending could be made in this area if these payments were only given to those claiming pension credit. Our modelling suggests that, under the assumption of full take-up of pension credit, this would reduce spending by around £1.2 billion a year in winter fuel payments, with a further £350 million reduction in spending if this were also applied to free TV licences for those aged 75 and over. Allowing for non take-up of pension credit might increase the reduction in spending by a further £100–£200 million, meaning that the total cut would be somewhere between £1½ billion and £2 billion a year. Non-take-up would also, of course, mean that some of the lowest-income pensioners – those who do not take up the means-tested support to which they are entitled – would lose out from these changes.

Although this cut is not a trivial sum, it still represents scarcely 1% of total social security spending on pensioners. The debate around winter fuel payments seems to have become totemic rather than a serious discussion about whether less can be spent on supporting the elderly through the benefits system.

9.4 Conclusion

Social security spending – including all benefits, tax credits and state pensions – is forecast to be around £220 billion in 2015–16, which is around 30% of total government expenditure. More than half of this money goes to pensioners, and this proportion has been rising over the course of this parliament as the number of pensioners has increased, entitlements to state pensions among those who have recently reached state pension age have risen, and pensioners have been largely protected from the cuts to benefits and tax credits that have affected working-age households. Given the ongoing structural budget deficit, it is possible that whoever forms the next government will look at cutting the social security budget. Meanwhile, an ageing society, lower levels of homeownership and weak earnings growth may continue to put upward pressure on spending.

In this chapter, we have examined various options for reducing expenditure. Broadly speaking, there is a choice between making cuts across the system as a whole and reducing benefit entitlements for particular groups. But all such decisions should be made with a clear view of the aims of the social security system. For example, we currently have a highly means-tested system for working-age people but more universal provision for pensioners. There is still a debate to be had around whether there is a role for a social insurance system for those of working age, to what extent support for disabled people should be means tested, and whether we have the balance right between support for housing costs through the benefits system and the provision of social housing at subsidised rates to poorer households. Reforms that change the fundamental nature of the social security system would require bigger structural changes than we have considered in this chapter.

Even if one thought that the balance between universal and means-tested support were broadly correct at the moment, the system could be rationalised in ways that could (but need not) involve reductions in total expenditure. The introduction of universal credit, combining six means-tested benefits into a single payment, should help rationalise the system. But the decisions to leave support for council tax outside universal credit and to introduce a new mechanism for withdrawing child benefit from higher-income families through the tax system will not. For pensioners, state pensions combined with means-tested top-ups represent a coherent system of support for older people, but it is less clear that additional universal benefits such as winter fuel payments and free TV licences should also form part of this. Again, rationalising the system could lead to reductions in expenditure (for example, if these additional payments were only given to those on pension credit) but need not do so.

The Conservatives have said that they would wish to cut £12 billion from the social security budget if they were to form a majority government after the general election. To give an idea of the scale of cuts this would require, freezing all benefits and tax credits but not state pensions for the entirety of the next parliament would cut spending by a little more than this amount. Protecting pensioner benefits from these cuts entirely would require more severe cuts for those of working age – freezing all working-age benefits (including disability benefits) for five years would cut spending by only £9.4 billion, requiring additional spending cuts to be found from other areas such as support for families with children or housing benefit. Such decisions could increase the extent to which those on benefits face the same incentives and costs as those in work when deciding where to live or how many children to have. But they could also leave some vulnerable groups with no means of support or introduce new perverse incentives into the system – for example, if housing benefit were withdrawn from most young people but an exemption were given for those who had children, this would strengthen the incentive for young people to have a child.

These trade-offs are an inevitable part of designing a social security system. But they can be ameliorated by ensuring that the system as a whole is properly designed to give support in the most efficient way. It is important that whoever forms the next government has a clear sense of what the social security system is for, and seeks to design a system that achieves this objective in the most coherent way, even as that government aims to reduce its cost.

Table 9.7. Estimated reductions in spending from different cuts to social security

Policy	Estimated saving (£ billion, 2015–16 prices)
Across-the-board cuts	
Increase child benefit by 1% for 2 years / Freeze for 2 years / Freeze for 5 years	0.1/0.3/0.9
Increase all working-age benefits except disability benefits by 1% for 2 years / Freeze for 2 years / Freeze for 5 years	0.8/2.4/6.9
Increase all working-age benefits by 1% for 2 years / Freeze for 2 years / Freeze for 5 years	1.1/3.2/9.4
Increase all benefits and tax credits but not state pensions by 1% for 2 years / Freeze for 2 years / Freeze for 5 years	1.7/4.4/13.2
Increase all benefits, tax credits and state pensions by 1% for 2 years / Freeze for 2 years / Freeze for 5 years	3.3/7.0/20.1
Increase child benefit by 1% in 2016–17	0.03
Means-test universal credit more aggressively	
Reduce universal credit work allowances by 10%	0.7
Increase universal credit taper rate to 70%	1.3
Cuts to benefits for young adults	
Abolish housing benefit for those aged 21 and under without children / only those who are not employed	0.4/0.3
Abolish housing benefit for all those aged 21 and under / only those who are not employed	0.7/0.6
Abolish housing benefit for those aged under 25 without children / only those who are not employed	0.7/0.6
Abolish housing benefit for all those aged under 25 / only those who are not employed	1.6/1.3
Means-test jobseeker's allowance for 18- to 21-year-olds against parental income	0.1[a]
Cuts to benefits for families with children	
Abolish child benefit and incorporate with universal credit	4.8
Restrict child benefit to 2/3 children	1.0–1.1[b]/0.3
Restrict child benefit to 2/3 children for non-working families	0.3/0.1
Restrict child element of universal credit to 2/3 children	2.8–3.3[b]/0.8–1.1[b]
Restrict child element of universal credit to 2/3 children for non-working families	1.2–1.5[b]/0.4–0.5[b]
Reduce benefit cap from £26,000 to £23,000 a year	0.2
Reduce child element of universal credit to 2003–04 level in real terms	5.1
Reduce child element of universal credit to 2003–04 level in real terms with offsetting increase in work allowances to protect working families	2.5
Reduce work allowances for families with children to level for families without children	3.3

Policy	Estimated saving (£ billion, 2015–16 prices)
Cuts to disability benefits	
Make DLA and PIP taxable	0.9[c]
Make AA taxable	0.6[c]
Scrap carer's allowance	0.3
Reassess DLA claimants aged 65 and over for entitlement to PIP	0.5
Abolish Work-Related Activity Group element of ESA	1.0
Cuts to support for rents	
Reduce maximum housing benefit for social tenants from 100% to 90% of rent	1.6
Reduce maximum housing benefit for all tenants from 100% to 90% of rent	2.5
Reduce maximum housing benefit entitlements for social sector tenants to LHA rates	0.7
Reduce LHA rates to 20th percentile of rent distribution	0.4
Abolish contributory benefits for those of working age	
Abolish contributory JSA and ESA	0.6
Cuts to state pensions and other pensioner benefits	
Increase basic state pension with CPI inflation rather than 'triple lock' for 2/5 years	0.9/2.9
Abolish savings credit component of pension credit	0.9
Abolish free TV licences for those aged 75 and over and winter fuel payments	2.8
Remove winter fuel payments from higher- and additional-rate taxpayers	0.2
Restrict winter fuel payments to those on pension credit	1.2
Restrict free TV licences to those on pension credit	0.4

[a] Source: Labour Party costing.
[b] Source: Authors' calculations using administrative data.
[c] Source: 2014–15 figures from table 1.5 of HMRC Statistics, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/389539/20141231_expenditure_reliefs_v0.3.pdf, uprated in line with nominal GDP to 2015–16 values.
Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 Family Resources Survey unless otherwise stated.

10. Options for increasing tax

Stuart Adam and Barra Roantree (IFS)

Summary

- The last five general elections have all been followed by net tax rises of more than £5 billion per year in today's terms. Although just 2% of the remaining fiscal consolidation is currently planned to come from tax rises, and none of the main political parties is proposing significant tax rises, it would not be surprising to see an incoming government increase taxes in order to limit the scale of public spending cuts required to meet its fiscal targets.

- Of the big three taxes:
  - a 1 percentage point rise in all rates of income tax would raise £5.5 billion;
  - a 1 percentage point rise in all employee and self-employed National Insurance contribution (NIC) rates would raise £4.9 billion; and
  - a 1 percentage point rise in the main rate of VAT would raise £5.2 billion.

- Increasing any of these would weaken work incentives and hit the rich harder than the poor. The main differences between them are that the VAT rise would be less progressive than the others (as it would affect poor, non-income-tax-paying households) and that the retired and savers would not be affected by a rise in NICs (which only tax the earnings of those below state pension age).

- Increasing rates of corporation tax, council tax, business rates or fuel duties could also raise significant sums, though the recent trend has been to reduce the rates of these taxes.

- Politicians from all main parties have indicated that they think the burden of fiscal consolidation should be focused on the better-off – though tax payments are already highly concentrated: for example, a quarter of income tax comes from just 0.5% of the adult population and around half comes from 3% of adults. As well as increasing rates of income tax or NICs for high-income individuals, options include increasing inheritance tax or capital gains tax – though in both cases reducing thresholds might have greater revenue-raising potential than increasing rates. Introducing a separate 'mansion tax' would be unnecessarily complicated when council tax could be brought up to date and refocused on higher-value properties.

- All these taxes include costly reliefs. In many cases, removing these reliefs would leave the tax system simpler and more efficient than increasing tax rates – though policymakers must also decide where they want the burden of tax increases to fall.

- Which, if any, possible tax increases are the best to pursue would depend on a government's distributional goals and wider priorities, on which we take no stance. But some tax rises should definitely be avoided. Stamp duty land tax is particularly damaging and recent governments' tendency to turn to it for more revenue should be resisted. And while there are sensible ways to raise more revenue from the taxation of pension saving, the widespread proposal to restrict income tax relief on pension contributions to the basic rate is misguided.

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10.1 Introduction

The UK's public finances are still in a weakened state. In 2015–16, the government expects to borrow 3.6% of national income over and above the borrowing that can be expected to disappear as the economy recovers, leading all three main political parties to commit to further fiscal consolidation over the next parliament, albeit to varying extents. As discussed in Chapter 1, the plans set out in the Autumn Statement imply 98% of the remaining fiscal consolidation (from now until 2019–20) coming from net spending cuts and 2% coming from net tax rises. To date, none of the parties has proposed significant further net tax rises. But in the absence of tax rises all the parties' targets imply a combination of large cuts to spending on social security benefits (discussed in Chapter 9) and/or public services (discussed in Chapter 7).

To limit the scale of such cuts, it would not be surprising if an incoming government were to contemplate raising taxes following the May 2015 general election. Nor would such a scenario be at all unusual. As Figure 10.1 shows, there is a tendency for elections to be followed by substantial tax increases: every general election since 1992 has been followed within 12 months by an announcement of more than £5 billion (in 2015–16 terms) of net tax rises.

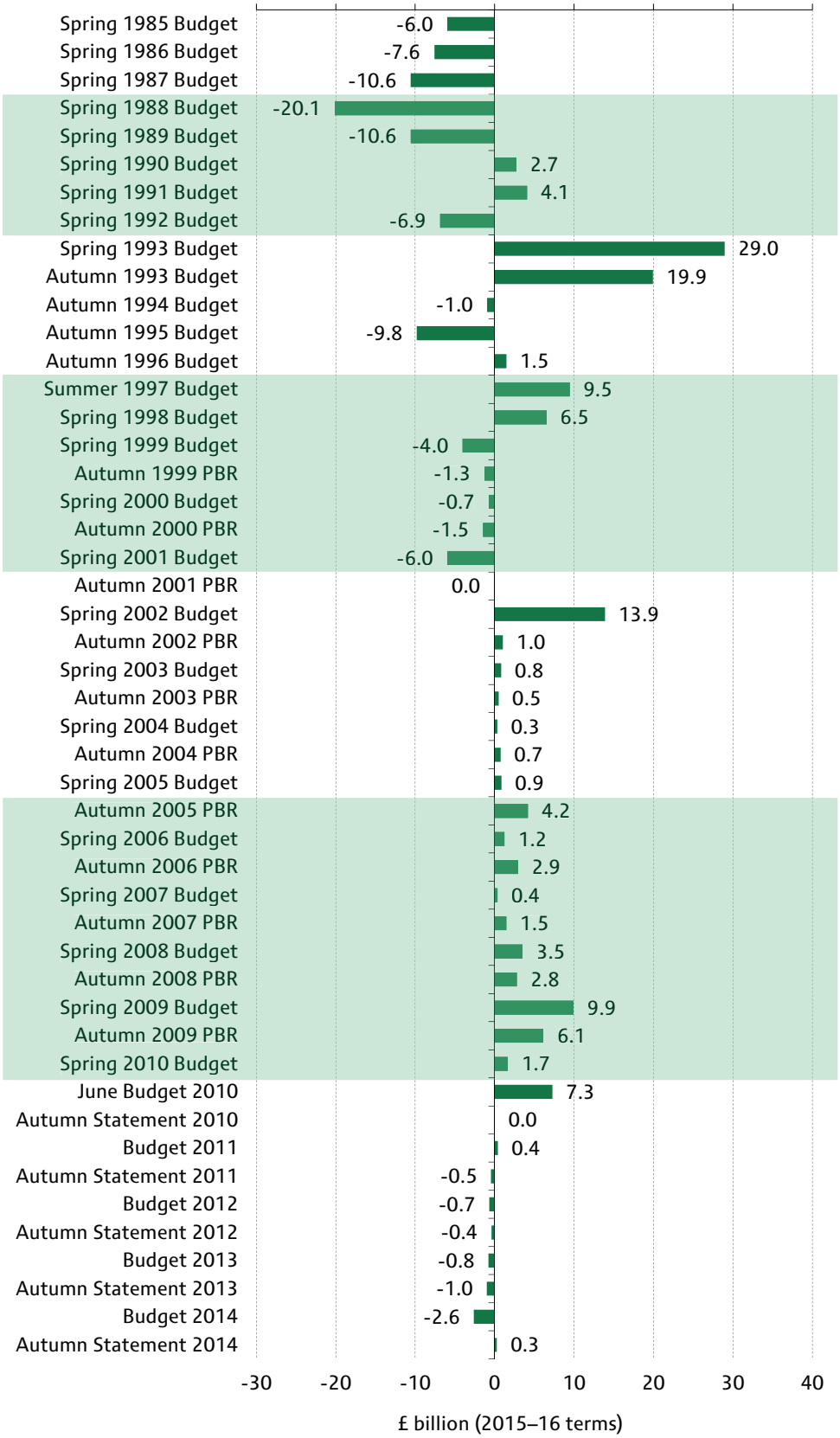
This chapter discusses a wide range of options that a future tax-raising government might consider, assessing how much revenue they would raise, who would bear the burden and what economic effects they might have. We draw on the findings of the Mirrlees Review of taxation[1] to consider whether the reforms would move the UK towards a more rational tax system. Ultimately, however, we cannot advocate any particular tax-raising measures: who should bear the burden of fiscal consolidation is a value judgement we are not in a position to make. Which, if any, reforms to pursue would depend on a government's distributional goals and wider priorities.

By way of background, Section 10.2 briefly outlines the level and composition of government revenues. Section 10.3 examines increases in the biggest taxes that would affect large sections of society. Section 10.4 focuses on tax increases that target the well-off and Section 10.5 turns to the potential for raising revenue by scaling back tax reliefs to broaden the base on which taxes are levied. The final set of measures discussed, in Section 10.6, are 'temptations to resist' that would increase revenues in particularly damaging ways. Section 10.7 draws all of these strands together, summarises the revenue and distributional effects of the different options and concludes.

Unless otherwise stated, in this chapter reforms' revenue effects are annual and relate to 2015–16. Where full-year costings are available only for other years, they are adjusted in line with nominal growth in national income to express them in 2015–16 terms.

[1] J. Mirrlees, S. Adam, T. Besley, R. Blundell, S. Bond, R. Chote, M. Gammie, P. Johnson, G. Myles and J. Poterba, *Tax by Design: The Mirrlees Review*, Oxford University Press for the Institute for Fiscal Studies, Oxford, 2011, http://www.ifs.org.uk/publications/5353.

Figure 10.1. Taxes and the electoral cycle



Source: Authors' calculations using HM Treasury Budgets and Pre-Budget Reports between March 1985 and March 2010, and Office for Budget Responsibility 'Policy measures database' (available at http://budgetresponsibility.org.uk/data/) subsequently.

10.2 Taxation in the UK

Total UK government revenue is forecast to be £670.3 billion in 2015–16, or 35.5% of national income. As Figure 10.2 shows, in recent years this share has fluctuated slightly but not dramatically; there is perhaps a slight downward trend, but forecast revenues in 2015–16 look little different (as a share of national income) from their level when the coalition came to office in 2010–11, despite the net effect of discretionary reforms implemented by the coalition government being to increase taxes by £16.4 billion.[2] A slight increase in revenues is expected over the course of the next parliament.

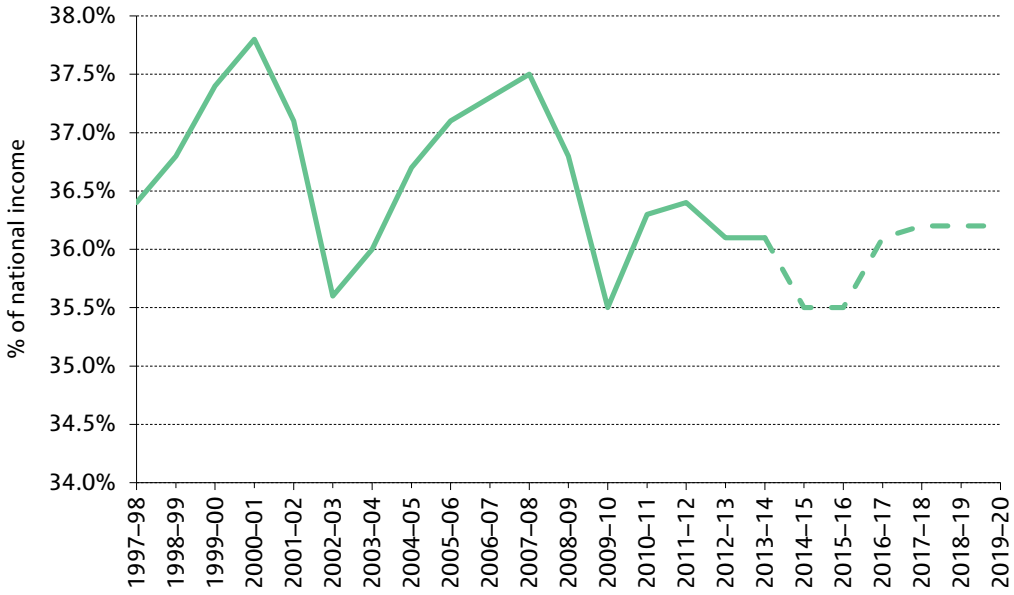
As Figure 10.3 shows, three-fifths of government revenue comes from just three taxes: income tax, National Insurance contributions (NICs) and value added tax (VAT). Not all government revenue comes from taxes: taxes as defined in the National Accounts are forecast to raise £622.9 billion, equivalent to roughly £11,800 for every adult in the UK, or £9,600 per person;[3] the remainder is provided by surpluses of public sector industries, rent from state-owned properties and so on.

Figure 10.4 shows that the tax burden in the UK is middling by international standards: similar to the OECD average, it is lower than in most Western European and Scandinavian countries but higher than is typical in Eastern Europe, North America, Ireland, Japan and Australia.

[2] See http://election2015.ifs.org.uk/taxes.

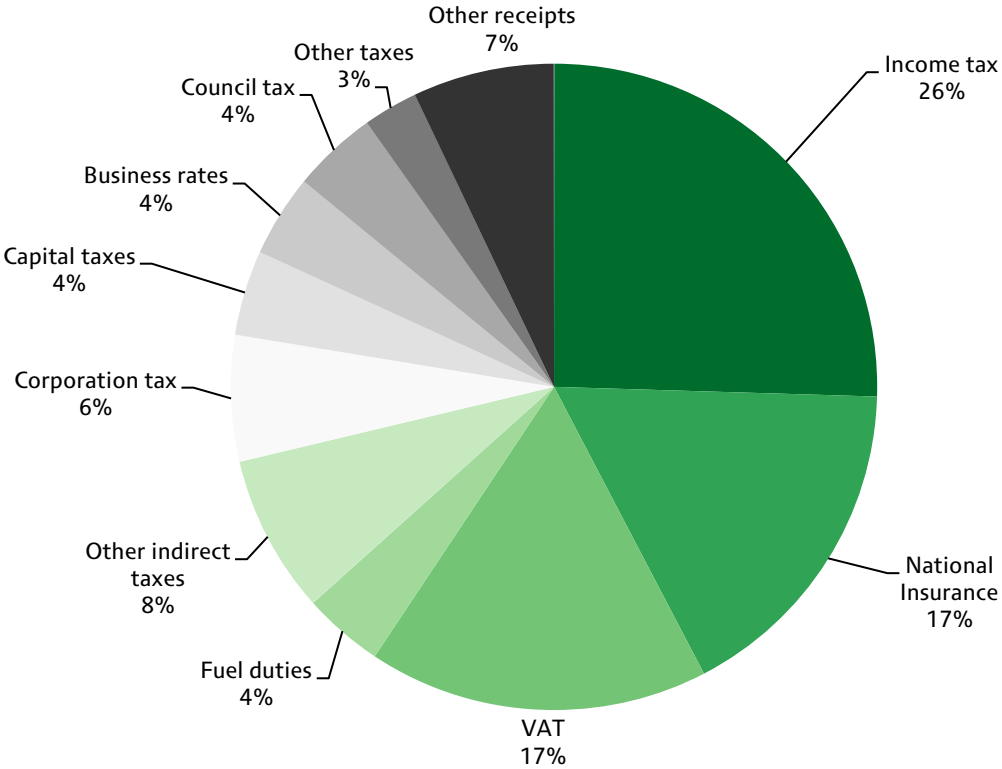
[3] Source: Office for Budget Responsibility, *Economic and Fiscal Outlook December 2014*, http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/ and table A1-1 of Office for National Statistics, *Principal Population Projections (2012-Based)*.

Figure 10.2. Total government revenue over time



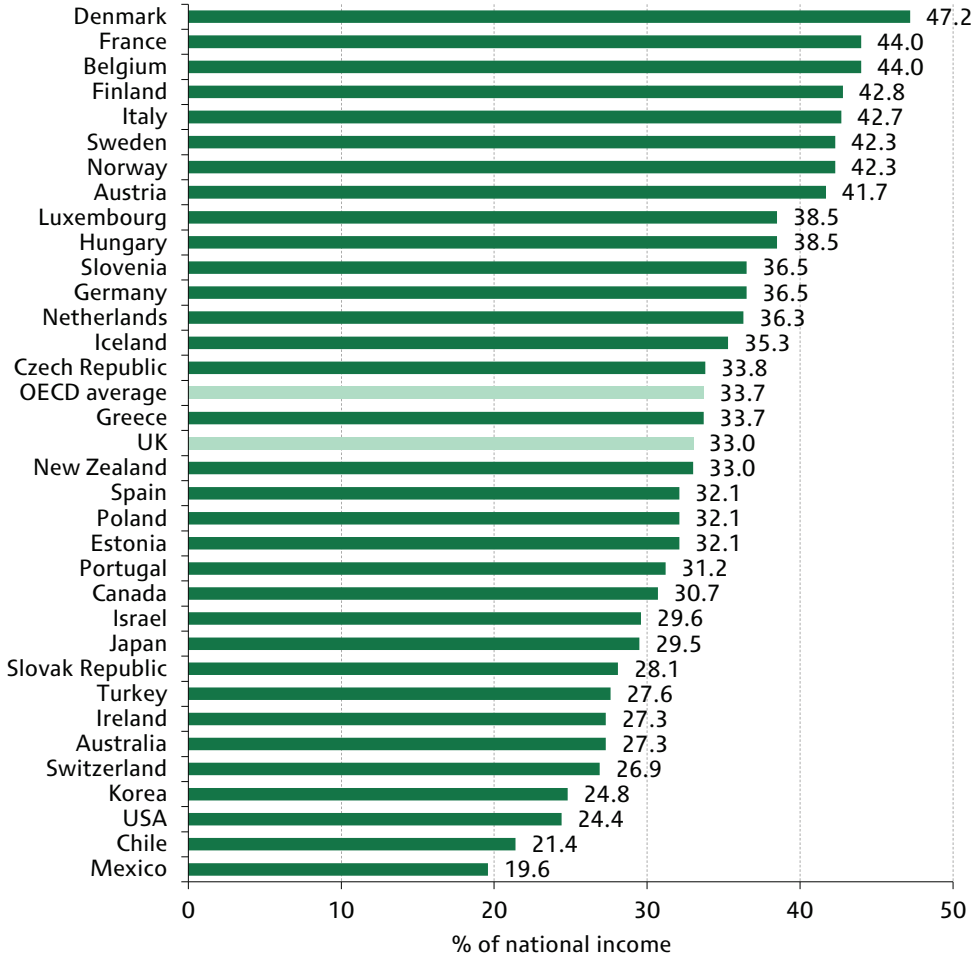
Source: Office for Budget Responsibility 'Public finances databank (January 2015)', available at http://budgetresponsibility.org.uk/data/.

Figure 10.3. Composition of UK government revenue, 2015–16



Note: 'Capital taxes' includes capital gains tax, inheritance tax, stamp duties and the bank levy. 'Other [non-tax] receipts' includes surpluses from publicly-owned companies, interest and dividends, less own resources contribution to the EU.
Source: Office for Budget Responsibility, *Economic and Fiscal Outlook December 2014*, http://budgetresponsibility.org.uk/economic-fiscal-outlook-december-2014/.

Figure 10.4. Tax revenues in OECD countries, 2012



Source: OECD.stat, Revenue statistics comparative tables (http://stats.oecd.org/).

10.3 Broad-based tax increases

The simplest way for the government to raise a large amount of additional revenue would be to increase the rates of one of the three taxes that account for most of its revenue: income tax, NICs or VAT.

The four other taxes that stand out as substantial sources of revenue are corporation tax (forecast to raise £42.3 billion in 2015–16), council tax (£28.4 billion), business rates (£27.6 billion) and fuel duties (£27.0 billion). Increases to any of these would run counter to the direction of policy over this parliament: the government has cut headline rates of corporation tax, given incentives to local authorities to freeze council tax, announced several business rate cuts (albeit some only temporary) and made large real cuts to fuel duties.

In this section, we discuss increases to the main rates of all these taxes.

Income tax, NICs and VAT

A 1 percentage point rise in all rates of income tax would, after allowing for some behavioural response, raise an estimated £5.5 billion per year: £4.2 billion from the basic

rate, £1.2 billion from the higher rate and £0.1 billion from the additional rate.[4] A 1 percentage point increase in the main rate of VAT would raise only slightly less (£5.2 billion), while increasing all rates of employee and self-employed NICs by 1 percentage point would again raise almost as much as that (£3.9 billion from the main rate and £1.0 billion from the additional rate that applies above the upper earnings limit / upper profits limit).[5] We estimate that a 1 percentage point rise in employer NICs would raise rather less (only £2.5 billion) if employers passed it on to workers via lower wages.[6,7]

All of these reforms would weaken work incentives, reducing the reward for working in terms of the amount of goods and services that additional earnings can buy after tax. Of these three taxes, increases to NICs would typically be the most damaging to work incentives (per pound raised), then increases in income tax, with increases in VAT the least damaging. Increasing NICs weakens work incentives most because all of the revenue comes from taxing future earnings, whereas part of the revenue from increasing VAT or (to a lesser extent) income tax derives from wealth that has already been accumulated and will be payable regardless of future work behaviour. This is because income tax will be levied on the income derived from existing wealth, while VAT will be levied when the wealth comes to be spent. Furthermore, a VAT rise, unlike the others, would reduce the value of out-of-work incomes as well as in-work incomes, so the relative attractiveness of working would not be reduced as much.[8]

Each of the three tax rises would also exacerbate other existing tax-induced economic distortions, in different ways:

- Increasing the marginal rate of income tax would discourage saving and would increase the bias towards putting savings in relatively tax-favoured forms such as pensions, ISAs and owner-occupied housing.

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[4] Revenue from the higher and additional rates of income tax is particularly uncertain and sensitive to behavioural responses. We discuss this further in Section 10.4.

[5] These are all HMRC's estimates of the full-year (2016–17) revenue impacts of reforms introduced in 2015–16, expressed in 2015–16 prices by adjusting in line with forecast nominal GDP growth. Source: HMRC Statistics, https://www.gov.uk/government/statistics/direct-effects-of-illustrative-tax-changes.

[6] Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on uprated data from the 2012–13 Family Resources Survey.

[7] This is significantly less than the revenue from increasing employee NICs since, although both would be initially levied as (broadly speaking) 1% of people's earnings above a threshold, the reduction in gross earnings as the employer NICs rise was shifted on to workers would lead to an offsetting reduction in income tax and employee NICs liabilities and an increase in some people's entitlements to means-tested benefits or tax credits, reducing the net yield from the NICs rise. HMRC (op. cit.) reports a figure of £4.7 billion for the yield from an employer NICs rise, apparently assuming that the extra employer NICs burden is not shifted on to workers. This might be true in the short run, but basic economic theory suggests that in the long run earnings should adjust so that the burden of a tax on earnings is felt by the same people regardless of whether it is formally levied on the employer or the employee. In practice, the burden of both employer and employee NICs (and indeed income tax) is probably shared, but if we are going to assume that income tax and employee NICs are ultimately incident on the worker, then it makes sense to assume the same about employer NICs too. Similar considerations might also apply to other taxes: for example, if a VAT increase feeds through into higher prices, then state benefits and public service pensions that are linked to inflation will increase, protecting the real value of these payments and offsetting the increased VAT revenue.

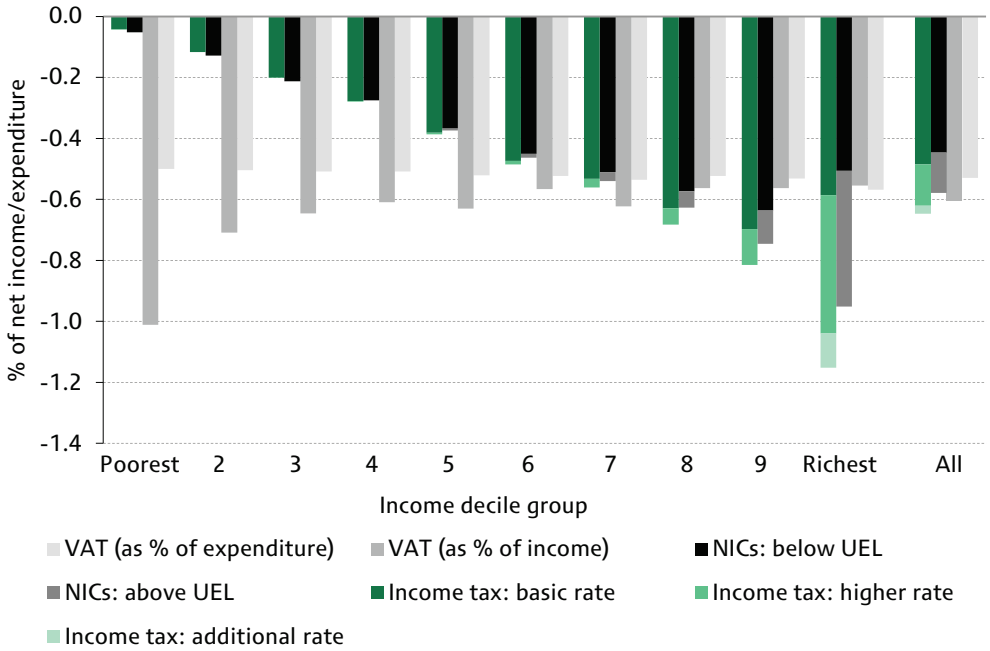
[8] Offsetting this reduction in the *reward* to work (the 'substitution effect') is an increase in the *need* to work (the 'income effect'): people may decide to work harder in order to make up for the income they have lost through the tax rise. Theoretically, therefore, these tax rises could either increase or reduce the amount people work. However, empirically, income effects tend to be small for many groups; they will often be offset (at least roughly) by income effects going in the opposite direction when the revenue is used to make someone better off; and, strictly speaking, the economic inefficiency (or 'deadweight loss') caused by a tax depends only on substitution effects, not on income effects. We therefore ignore income effects in the remainder of this chapter.

- Increasing NICs would not have these effects since NICs are not levied on savings income, but for the same reason it would increase the existing incentive to shift the form in which income is taken away from earnings and towards capital income (for example, through setting up a company and taking income as dividends rather than earnings).
- Increasing the main rate of VAT would increase the scale of the distortion towards buying zero- and reduced-rated goods and services instead of standard-rated ones.

Figure 10.5 illustrates the distributional impact of these measures as a percentage of household income.[9] Increases to income tax and NICs are quite progressive, taking substantially more, even as a percentage of income, from those in the upper parts of the income distribution than from those in the lowest deciles. This is true even if just the basic/main rates of these taxes are increased; the revenue from increasing the higher/additional rates comes overwhelmingly from the highest-income fifth of households.

Increasing the main rate of employee NICs is slightly less progressive than increasing the basic rate of income tax for two reasons. First, increases to the personal allowance over

Figure 10.5. Distributional impact of a 1 percentage point increase in rates of the main taxes



Note: NICs increases are for employee and self-employed rates. Income decile groups are derived by dividing all households into 10 equal-sized groups according to income adjusted for household size using the McClements equivalence scale. Income excludes imputed rental income from owner-occupied housing; expenditure excludes (actual and imputed) housing consumption.
Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on uprated data from the 2012–13 Family Resources Survey and the 2012 Living Costs and Food Survey.

[9] For NICs, only the distributional effect of increasing employee and self-employed rates is shown. The distributional effect of increasing employer NICs is similar, though a slightly smaller share of the revenue from increasing employer NICs comes from the highest- and lowest-income deciles and correspondingly more from the middle of the income distribution. The principal differences giving rise to this are that employer NICs do not apply to the self-employed, that they do apply above state pension age, and that the reduction in gross earnings by which employer NICs rises are passed on to workers leads to offsetting changes in income tax, employee NICs and benefit / tax credit entitlements depending on the worker's circumstances.

this parliament mean that in 2015–16 no income tax will be paid on the first £203 per week of earnings, compared with only £155 per week for NICs. Second, NICs apply only to earned income: income tax is levied on other forms of income as well – notably, savings income, which is found disproportionately in the top half of the income distribution. A further difference is that increases in the rates of income tax (and VAT) would affect both working-age and pensioner households, whereas those aged over the state pension age do not pay employee or self-employed NICs and so would be unaffected by an increase in those.

VAT looks regressive as a percentage of income: the lowest income decile in particular would lose 1.0% of its income from a VAT increase, compared with 0.6% for the population as a whole. This impression is misleading, however. It arises mainly because, at any given point in time, low-income households typically spend a lot (and therefore pay a lot of VAT) relative to their incomes. But households cannot spend more than their income indefinitely. Over a lifetime, income and expenditure must be equal (except for bequests given and received and the possibility of dying in debt); households spending a lot relative to their income at any given point in time are often those experiencing only temporarily low incomes and either borrowing or running down their savings in order to maintain their expenditure smoothly at a level more befitting their lifetime resources.[10]

We can get a clearer picture of the distributional impact of VAT over a lifetime – abstracting from how much people are borrowing or saving at any point in time – by looking at whether VAT is a bigger percentage of expenditure, rather than income, for better-off households. Figure 10.5 therefore shows the impact of a VAT rise as a percentage of expenditure as well as the impact as a percentage of income. On that measure, VAT looks slightly progressive, rising from 0.50% of expenditure for the lowest income decile group to 0.57% of expenditure for the highest income decile group. That arises because the items that are zero- or reduced-rated for VAT, and therefore not affected by a rise in the main rate – food being by far the biggest – take up a larger share of the budgets of poorer households. Over a lifetime, we would expect richer households to devote a larger share of their resources to goods subject to VAT at the main rate and therefore to lose more from such a VAT increase than poorer households: that is what the light grey bars in Figure 10.5 reflect.[11] Nevertheless, while a rise in the main rate of VAT is best thought of as being slightly progressive, it is nowhere near as progressive as an income tax or NICs rise, because there is no VAT-free allowance on the first tranche of household expenditure analogous to the allowances in income tax and NICs.

Instead of (or as well as) increasing the rates of these taxes, the government could raise revenue by changing the thresholds at which different rates apply. In the case of the income tax personal allowance, this is of course the opposite of the current government's direction of travel, and both the Conservatives and the Liberal Democrats are committed to further increasing the allowance to £12,500 by 2020–21. In contrast, reducing the higher-rate threshold would be in keeping with recent and longer-term trends, which (owing to a combination of threshold reductions and income growth) have seen the number of higher- and additional-rate taxpayers increase from 674,000 in 1979–80 to

[10] Such temporarily low incomes can arise for a variety of reasons: people who are temporarily unemployed, people with volatile income from self-employment, students, those taking time out of the labour market to raise children, retirees drawing on past savings, and so on.

[11] For more analysis of VAT payments by income and expenditure and their relationship to lifetime resources, see S. Adam, D. Phillips and S. Smith (in consortium), *A Retrospective Evaluation of Elements of the EU VAT System*, European Commission, 2011, http://www.ifs.org.uk/publications/5947.

3.3 million in 2010–11 and an estimated 5.0 million in 2014–15.[12] At the 2014 Conservative Party conference, the Prime Minister said that he thought this trend undesirable, and proposed to increase the higher-rate threshold to £50,000 by the end of the next parliament rather than reduce it further.[13]

The principles that apply to changing thresholds are similar to those discussed above for changing rates, and we do not discuss each threshold separately; Table 10.2 and Figure 10.9 at the end of the chapter show the revenue and distributional consequences of some possible reforms. But to get an idea of the revenue at stake, note that freezing all income tax and NICs thresholds for two years from 2015–16 to 2017–18 – a 3.7% real-terms cut, on the OBR's current inflation forecasts – would raise about £3.7 billion. This would involve a £390 reduction in the personal allowance, for example, reversing only 14% of the £2,835 discretionary increase introduced by the coalition. A freeze for the full five years of the next parliament would be a 9.2% real reduction, raising £9.9 billion and reducing the personal allowance by £980.

Corporation tax

After income tax, NICs and VAT, the UK's fourth-biggest tax is corporation tax. HMRC estimates that increasing the rate of corporation tax by 1 percentage point would raise £1.5 billion per year – much less than the other main taxes.[14] This is partly because it is a smaller tax, but also because the international mobility of corporate profits means that more of the potential revenue from a tax rise would be lost to a shrinking tax base than is the case with the main rates of the other taxes considered here. Increasing the corporation tax rate would also discourage investment and increase the bias towards companies using debt rather than their own funds (or new equity issues) to finance investment.

For all these reasons, increasing the corporation tax rate might seem an unlikely place to look for significant extra revenue. The Labour Party does, however, propose to cancel the fall in the main rate of corporation tax from 21% to 20%, due in April 2015, to pay for a reduction in business rates. In the short run, such a corporation tax increase would reduce company profits, though in the longer run a large part of the burden might be passed on to workers (if companies respond by reducing the wages they pay) or consumers (if companies respond by increasing their prices).

Keeping different rates of corporation tax for different levels of profits would complicate the tax. Labour's policy now is that it wishes to have – apparently permanently – a rate of 20% on profits below £300,000, a rate of 21.25% on profits between £300,000 and £1,500,000, and a rate of 21% on profits in excess of £1,500,000. Having three separate rates that are so similar to each other simply looks farcical. The simplification of moving to a single rate of corporation tax (whether that is at 20% or some other rate) is a real achievement of the coalition government's tax policy, and it is one that should not be reversed.

[12] HMRC Collection, https://www.gov.uk/government/collections/income-tax-statistics-and-distributions.

[13] See http://press.conservatives.com/post/98882674910/david-cameron-speech-to-conservative-party.

[14] Source: HMRC Statistics, https://www.gov.uk/government/statistics/direct-effects-of-illustrative-tax-changes.

Council tax

A uniform 10% increase in council tax rates would raise £2.3 billion.[15] But the overall level of council tax is not directly within the control of central government, with rates set by individual local authorities. Each residential property in Britain is allocated to a council tax band, based (in England and Scotland) on the assessed 1991 value of the property.[16] Individual local authorities determine the overall level of council tax, while the ratio between rates for different bands is set by central government (and has not changed since council tax was introduced in 1993). Central government can influence local authorities' choices, however, by increasing or reducing the grant it provides to them (leaving them to raise less or more of their revenue themselves) and via its choice of threshold above which council tax increases would require approval in a local referendum under the Localism Act 2011.

Council tax is charged at a much lower percentage of property value for high-value properties than for low-value properties. Consequently, a uniform percentage council tax increase would represent a bigger share of income or expenditure for poorer households. This is strongly mitigated by the existence of means-tested council tax support to protect those with low incomes and financial assets. But high levels of non-take-up, combined with cuts to council tax support introduced by local authorities since it was localised (and funding for it reduced) in 2013, mean that the overall pattern is nonetheless somewhat regressive. It is hard to find a good reason why council tax should be less than proportional to property values, and the Mirrlees Review recommended that it should be transformed into a simple percentage of property value. In the process, it could be brought up to date; council tax in England and Scotland is still ludicrously based on the relative values of different properties in 1991. Short of such a thoroughgoing reform, Section 10.4 explores the possibility of focusing council tax increases on properties in the highest bands and Section 10.5 examines the removal of the existing discount for single-occupancy properties.

Business rates

Business rates are a tax on the estimated market rental values of non-residential properties. As such, they combine one of the worst taxes – a tax on the value of business property – with one of the best – a tax on land values.[17] There is a strong case against levying a tax on buildings used for business purposes. A basic tenet of the economics of taxation is that intermediate inputs to production – that is, inputs that are themselves the result of an earlier production process, such as buildings – should not be taxed.[18] The principal effect of business rates is that economic activity in the UK is artificially skewed away from property development and property-intensive production activities. Land, in contrast, is not the result of a production process: its supply is essentially fixed and taxing

[15] Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on uprated data from the 2012–13 Family Resources Survey.

[16] Since 2005, council tax bandings in Wales are based on assessed 2003 values. Northern Ireland operates a different system, based on point values (subject to a cap) rather than bands.

[17] This is a modified quote from William Vickrey; see W. Vickrey, 'Simplification, progression, and a level playing field', in K. Wenzer (ed.), *Land-Value Taxation: The Equitable and Efficient Source of Public Finance*, M. E. Sharpe, Armonk, NY, 1999.

[18] P. Diamond and J. Mirrlees, 'Optimal taxation and public production I: production efficiency', *American Economic Review*, 1971, 61, 8–27.

it (excluding the value of any buildings on it) would simply make it less valuable to its owners without discouraging any desirable activity.

The Mirrlees Review therefore argued that, if it proved practicable, business rates should be replaced with a land value tax (which could efficiently, though not necessarily fairly, be levied at arbitrarily high rates to raise additional revenue).[19] If such a move is deemed too practically or politically difficult, consideration of increasing business rates must weigh the advantages of increasing tax on the land component against the disadvantages of increasing tax on buildings. Each percentage point added to the tax rate would raise around £280 million.[20] An unusual additional obstacle to increasing the rate of this tax is that it would require primary legislation since the Local Government Finance Act 1988 stipulates that business rate bills cannot increase by more than the retail price index (RPI) each year.[21] Rather than increasing the main rate of the tax, however, the government might consider removing some of the reliefs within business rates; this is discussed in Section 10.5.

Fuel duties

Governments have often cited high oil prices as a justification for reducing fuel duties. It remains to be seen whether precipitous recent falls will be viewed symmetrically as a reason to increase fuel duties, but it is perhaps indicative that in the 2014 Autumn Statement the present government abandoned the 'fair fuel stabiliser' policy that it had itself introduced in the 2011 Budget, under which fuel duties were to increase by 1p per litre if the average daily oil price fell below £45 per barrel at the start of a calendar year – as it now has.[22]

Fuel duties are not regressive overall. Among car owners, fuel duties take up a larger share of poorer households' budgets, but since higher-income households are much more likely to own a car (or even two) in the first place, the average budget share across all households is broadly constant over the income distribution.

Increasing fuel duties by 10% – adding 7p to the price of a litre of petrol – would raise £2.6 billion per year.[23] It would have some environmental benefits, though the evidence is clear that fuel duties are already far higher than can be justified by the carbon emissions from driving and are poorly targeted at reducing congestion, by far the biggest harm done by motoring. The Mirrlees Review argued that it would be better to replace most of fuel duties with a nationwide system of congestion charging. Indeed, without such a shift, revenues from motoring taxation may wither away as cars become ever more fuel-efficient and ultimately, perhaps, electric.[24]

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[19] See chapter 16 of Mirrlees et al. (2011, op. cit.).

[20] Source: Authors' calculations based on HM Treasury, Autumn Statement 2014 policy costings document (https://www.gov.uk/government/publications/autumn-statement-documents).

[21] In years when properties are revalued, this applies to average bills at the point of revaluation.

[22] More precisely, the rise in fuel duties would be triggered if the average daily oil price in both the three months and the week immediately prior to the first working day of February were less than £45 per barrel (*Hansard*, 21 March 2012, column 58WS, http://www.publications.parliament.uk/pa/cm201212/cmhansrd/cm120321/wmstext/120321m0001.htm).

[23] Source: HMRC Statistics, https://www.gov.uk/government/statistics/direct-effects-of-illustrative-tax-changes.

[24] See chapter 12 of Mirrlees et al. (2011, op. cit.).

10.4 Taxing the better-off[25]

A relatively small group of very well-off taxpayers already pays a substantial share of tax revenues, reflecting both the structure of the tax system and the unequal distribution of tax bases. Income tax payments are highly concentrated, with a quarter of revenue coming from just 0.5% of the adult population (a quarter of a million individuals) and around half of revenue coming from 3% of adults in 2014–15.[26] IFS researchers previously looked at a wider range of taxes, which collectively account for over three-quarters of tax revenue, and showed that, for those taxes, 20% of households contributed 54% of the revenue in 2013–14 and the top half of taxpayers contributed 85% of the revenue.[27]

The highest-income tenth of households have also seen the biggest tax rises – £112 per week, on average, or 6.2% of their net income – since the fiscal consolidation began in earnest in April 2010.[28] On top of the rise in the main rate of VAT from 17.5% to 20% – the coalition's biggest tax increase – which affected all households, high-income households have been particularly affected by increased NICs rates, reductions in the higher-rate income tax threshold, the introduction of the additional (now 45%) rate of income tax, the withdrawal of the income tax personal allowance once income exceeds £100,000, and restrictions on tax relief on pension contributions.

The share of tax paid by the better-off could be increased further. We take no stance on whether that would be the right direction of travel. Reasonable people can disagree as to what distribution of the tax burden would be fair, and in very broad-brush terms there is a trade-off between redistribution and incentives: crudely, the more the tax (and benefit) system helps the poor and penalises the rich, the more it erodes the incentive for the poor to become rich. Increasing reliance on a very small number of taxpayers for revenue also leaves the public finances more vulnerable to changes in their behaviour. But politicians of all hues have voiced their support for the proposition that the better-off should bear the greatest share of the burden of fiscal consolidation. For example, the Chancellor of the Exchequer, George Osborne, in his speech to the 2012 Conservative Party conference, pledged that 'the broadest shoulders will continue to bear the greatest burden'. Similarly, Ed Miliband has stated that Labour believes 'those with the broadest shoulders should bear the greatest burden'. Deputy Prime Minister Nick Clegg told the 2012 Liberal Democrat party conference that 'the key question we will all have to answer is who will have to tighten their belts the most? Our position is clear. If we have to ask people to take

[25] This section draws heavily on 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*, 2013, http://www.ifs.org.uk/publications/6562.

[26] Source: Tables 2.4 and 2.5 of HMRC Statistics, https://www.gov.uk/government/collections/income-tax-statistics-and-distributions, with population aged 16 or over at 52.4 million in 2014 from table A1-1 of Office for National Statistics, *2012-Based Principal Population Projections* (http://www.ons.gov.uk/ons/rel/npp/national-population-projections/2012-based-projections/rft-table-a1-1-principal-projection---uk-summary.xls), imply that 0.42% of adults paid 24.6% of income tax while 0.57% paid 27.4%, and 2.85% of adults paid 47.7%.

[27] See Adam, Emmerson and Roantree (op. cit.).

[28] Cuts to benefits, on the other hand, have taken more from low-income households. See J. Browne and W. Elming, 'The effect of the coalition's tax and benefit changes on household incomes and work incentives', IFS Briefing Note BN159, 2015, http://election2015.ifs.org.uk/article/the-effect-of-the-coalition-s-tax-and-benefit-changes-on-household-incomes-and-work-incentives.

less out or pay more in, we'll start with the richest and work our way down, not the other way around'.[29]

It is rarely clear from such statements exactly which types or groups of individuals or households are considered to possess the broadest shoulders: for example, people with high current incomes do not necessarily have a large stock of wealth, and vice versa. In this section, we discuss a range of measures that raise revenue from groups that might be thought of as 'well off' in different senses.

Increasing income tax and NICs rates

If the next government wants to focus tax rises on those with the highest incomes, a straightforward measure would be to increase the additional (45%) or higher (40%) rates of income tax. However, the revenue yield from an increase in the additional rate of income tax, which applies only to taxable incomes in excess of £150,000 per year, is subject to a great deal of uncertainty. The ability of individuals to respond to a change in taxes by, for example, shifting income to another form or time period is likely to be greater for those on high incomes than for those on lower incomes.[30] For this reason, HMRC's estimate – signed off by the Office for Budget Responsibility as reasonable – of the revenue potential of increasing the top rate by 1 percentage point from 45% is only £100 million per year.[31]

Little is known about the responsiveness of higher-rate taxpayers, but it is unlikely to be as high as that of additional-rate taxpayers. HMRC estimates (which do make an allowance for some behavioural response) suggest that each percentage point on the higher rate of income tax would raise £1.2 billion, while each percentage point on the employee NICs rate above the upper earnings limit (UEL, which in 2015–16 will be aligned with the £42,385 per year higher-rate threshold) – and on the self-employed NICs rate above the upper profits limit (UPL) – would raise £1.0 billion.[32] As Figure 10.9 shows, around 80% of the revenue from these increases would come from the highest-income tenth of households, who would also lose the most as a percentage of income.

Increasing the UEL and UPL to £100,000 per year (or the weekly equivalent) would increase employee and self-employed NICs rates on earnings between £42,385 and £100,000 from 2% to 12% and would raise around £10.1 billion – subject to similar uncertainties about behavioural response to those mentioned above. Increases beyond £100,000 would make behavioural response even more of a concern. Once income exceeds £100,000, the income tax personal allowance is reduced by 50p for every £1 of additional income; in combination with higher-rate tax, this in effect creates a marginal income tax rate of 60%. Levying employee NICs at 12% rather than 2% on top of this

[29] See http://www.newstatesman.com/blogs/politics/2012/10/george-osbornes-speech-conservative-conference-full-text, http://press.labour.org.uk/post/107208138389/ed-miliband-speech-in-salford and http://www.libdems.org.uk/nick_clegg_s_speech_to_liberal_democrat_autumn_conference_2012.

[30] For a fuller discussion of the difficulties involved in determining revenue-maximising top tax rates, see M. Brewer and J. Browne, 'Can more revenue be raised by increasing income tax rates for the very rich?', IFS Briefing Note 84, 2009, http://www.ifs.org.uk/bns/bn84.pdf.

[31] The analysis underlying this estimate is presented in HMRC, 'The exchequer effect of the 50 per cent additional rate of income tax', 2012, http://webarchive.nationalarchives.gov.uk/20140109143644/http://www.hmrc.gov.uk/budget2012/excheq-income-tax-2042.htm. For further discussion, see also M. Brewer, J. Browne and P. Johnson, 'The 50p income tax rate: what is known and what will be known?', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2012*, IFS Commentary 122, 2012, http://www.ifs.org.uk/publications/6003.

[32] Source: HMRC Statistics, https://www.gov.uk/government/statistics/direct-effects-of-illustrative-tax-changes.

would yield an eye-watering 72% effective marginal tax rate (or 75.4% if employer NICs are taken into account as well).

Increasing capital gains tax

Capital gains tax (CGT) is charged on the increase in the value of an asset between its acquisition and disposal. It is expected to raise £5.9 billion in 2015–16, though this is highly cyclical and volatile. CGT is highly progressive, disproportionately paid by a small number of taxpayers realising very large gains: in 2012–13, more than half of all individuals' CGT liabilities came from just 3,000 people who realised gains of more than £1 million.[33] This reflects the structure of the tax, which in 2015–16 will exempt the first £11,100 of gains realised each year, in addition to any gains made on people's main homes and on any assets held in pension funds or ISAs. Above the exempt amount, gains that fall into the basic-rate income tax bracket (counting capital gains as the top slice of income) are taxed at 18% (the 'lower rate') while gains above the higher-rate threshold are taxed at 28% (the 'higher rate').

However, increasing the headline rates of CGT would probably yield little if any additional revenue: in fact, HMRC's most recent estimate is that a rise in the lower rate would raise nothing, while any increase in the higher rate would actually *reduce* revenues slightly.[34] As with almost any tax, CGT is subject to a 'Laffer curve' effect. As the tax rate rises, people will take more steps to avoid paying it.[35] This erodes the yield from additional rises until the point where a further increase in the tax rate actually reduces revenue: after all, in the extreme case, with a 100% tax rate it would not be worthwhile to undertake the taxed activity at all and revenue would be zero. The size of the behavioural responses, and thus the revenue-maximising tax rate, are very difficult to estimate, but evidently the government believes that CGT rates are around their revenue-maximising level.

The case for increasing CGT rates – and the revenue yield from doing so – would be stronger if the rate increase were accompanied (or preceded) by other reforms. The Mirrlees Review proposed introducing a 'rate-of-return allowance', a tax allowance for a risk-free rate of return on the purchase cost of an asset that would eliminate the main disincentive effects of CGT. Removing other preferential tax treatments – including, but not limited to, reliefs within CGT itself (discussed in Section 10.5) – would both raise revenue directly and reduce the extent to which people could find tax-efficient ways to rearrange their affairs in response to a rise in CGT rates. In the absence of such wider reforms, HMRC's revenue estimates would imply that a government seeking to increase CGT revenues cannot rely on increasing headline rates to do so.

Reducing the annual exempt amount from its 2015–16 level of £11,100 seems more promising. HMRC estimates that reducing the exempt amount by £500 would raise about

[33] Source: Table 14.2 of HMRC Statistics, https://www.gov.uk/government/statistics/estimated-taxpayer-numbers-gains-and-tax-accruals-by-year-of-disposal-and-size-of-gain.

[34] See HMRC Statistics, https://www.gov.uk/government/statistics/direct-effects-of-illustrative-tax-changes.

[35] In the case of CGT, this could include – among other possibilities – saving less, moving into tax-privileged asset classes, taking income out of a business rather than letting its value build up, spreading out the realisation of gains to take maximum advantage of each year's exempt amount, transferring assets to a lower-taxed spouse, leaving (or not moving to) the UK, or delaying selling an asset in order to postpone the latent tax liability for as long as possible – perhaps in the hope that a future government would reduce CGT rates.

£20 million per year;[36] but larger reductions would raise revenue more than in proportion to this, since small gains are more common than larger gains.[37] The losers from such a reform would be all those realising gains above the (reduced) exempt amount on assets other than their main home, pension or ISA. Provided the exempt amount remains significantly above zero, this would still be a relatively well-off group.

Beyond the narrow question of whether the CGT annual exempt amount should be reduced, a more fundamental question is why CGT and income tax have separate allowances at all. Capital gains are a return to saving just like capital income is, and it would make sense to tax them together. Yet, at present, the CGT allowance cannot be set against income and the income tax allowance cannot be set against capital gains. This separation rewards people who, in a given year, have some income and some capital gain, rather than exclusively one or the other. There seems to be little rationale for having large separate allowances. Beyond a *de minimis* allowance specifically for capital gains (much lower than the current one) to avoid the burden of CGT compliance for those realising trivial gains, it would make much more sense to have a single allowance to set against both income and capital gains.

Increasing inheritance tax

Inheritance tax (IHT) is charged at 40% on transfers of wealth in excess of £325,000 on (or shortly before) death. It was levied on 28,000 estates in 2013–14, representing 4.9% of all deaths.[38] Transfers between spouses or civil partners are exempt, and the inheritance tax threshold is increased by any unused proportion of a deceased spouse's or civil partner's nil-rate band so that married couples and civil partners can collectively bequeath double the inheritance tax threshold (i.e. £650,000) tax-free even if the first to die leaves their entire estate to the surviving partner.

The Conservatives' 2010 general election manifesto – and, as recently as October 2014, the Prime Minister[39] – expressed a desire to increase the inheritance tax threshold. Yet in fact the threshold has been frozen in cash terms at £325,000 since 2009–10 and the 2013 Budget announced that the freeze would continue through to 2017–18. This eight-year freeze represents a cut of 20% or £64,800 relative to inflation as measured by the consumer price index. Because of this and because of rising asset prices, the number of estates liable for inheritance tax is forecast to rise from 4.9% of deaths in 2013–14 (and just 2.6% in 2009–10, before the threshold freeze) to 9.9% in 2018–19 and revenue from this tax is forecast to rise from 0.20% of national income in 2013–14 (and 0.16% in 2009–10) to 0.27% in 2018–19, its highest level since at least 1973–74.[40]

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[36] Source: HMRC Statistics, https://www.gov.uk/government/statistics/direct-effects-of-illustrative-tax-changes.

[37] As an extreme illustration, note that simply multiplying up the £20 million number would imply that removing the exempt amount altogether would raise around £440 million, whereas HMRC estimates that the actual cost of having an £11,000 exemption is £3.5 billion (source: table 1.5 of HMRC Statistics, https://www.gov.uk/government/statistics/main-tax-expenditures-and-structural-reliefs).

[38] Source: Number of taxpaying death estates in 2013–14 from HMRC Statistics, https://www.gov.uk/government/statistics/numbers-of-taxpayers-and-registered-traders; number of deaths in 2013 from ONS Vital Statistics (http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-353343) and ONS Mortality Statistics (http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-327590).

[39] See http://www.theguardian.com/money/2014/oct/15/david-cameron-inheritance-tax-threshold.

[40] 2018–19 forecasts from Office for Budget Responsibility, *Economic and Fiscal Outlook: March 2014*. For a discussion, see S. Adam and C. Emmerson, 'Death to the death tax?', IFS Observation, 2014, http://www.ifs.org.uk/publications/7164.

Further reducing the inheritance tax threshold could raise still more revenue. HMRC estimates that a £5,000 reduction would raise £100 million, but the yield from larger reductions would be more than proportional to that as inheritance tax started to affect more densely populated ranges of estate size.[41]

Increasing the rate of inheritance tax would be more progressive than reducing the threshold, though it probably has less revenue-raising potential. HMRC estimates that each percentage point added to the rate would raise £100 million, so that (say) a rise from 40% to 50% would raise £1.0 billion. A third possibility would be to reduce the threshold but, rather than simply extending the 40% rate downward, impose IHT at a lower rate, say 20%, on an initial band.

However, IHT is ridden with loopholes which, as Kay and King (1990) put it, favour 'the healthy, wealthy, and well-advised'.[42] Removing some of these could raise substantial revenue and is discussed in Section 10.5.

Reducing the limits on tax-free pension saving

Pension saving is tax-privileged, and a simple way to raise money from a well-off group would be to reduce the annual and/or lifetime limits on what can be contributed to a registered pension scheme. This would be very much in keeping with recent reforms, repeating what was done in the June 2010 Budget and the 2012 Autumn Statement. The Liberal Democrats propose a further reduction in the lifetime limit from £1.25 million to £1 million. We are not aware of any estimates of the yield from further reductions in the annual or lifetime limits from the current level; the government estimates that the reduction of the annual limit from £50,000 to £40,000 and the reduction of the lifetime limit from £1.5 million to £1.25 million will together raise £1.1 billion in 2017–18[43] and increasing amounts thereafter, but further reductions of the same size would raise significantly more than that because far more people would be affected.

Tightening limits on what can be saved in tax-privileged forms over a lifetime is not the worst way to reduce the generosity of the pension system; in Section 10.6, we discuss a distinctly inferior proposal. But there are better options available, which we discuss in Section 10.5. In particular, rather than preventing people with very large pension pots from saving any more in a registered pension scheme at all, it would be better to let them save in a pension but without the large subsidies they currently receive through the tax-free lump sum and the NICs exemption of employer contributions.

The lifetime limit is currently more generous for those in defined benefit pension schemes than for those in defined contribution schemes.[44] This differential is hard to justify. If the government was minded to reduce the lifetime allowance again, it should do so in a way that equalises it for members of defined benefit and defined contribution pension schemes.

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[41] As an extreme illustration, note that simply multiplying up the £100 million number would imply that abolishing the nil-rate band completely would raise £6.6 billion, whereas HMRC estimates that the total cost of the nil-rate band is £20.5 billion (in 2015–16 terms). Source: HMRC Collection, 'Tax expenditures, reliefs and ready reckoners statistics', https://www.gov.uk/government/collections/tax-expenditures-and-ready-reckoners.

[42] J.A. Kay and M.A. King, *The British Tax System*, OUP, Oxford, 1990.

[43] Source: table 2.1 of HM Treasury, *Autumn Statement 2012*, http://cdn.hm-treasury.gov.uk/autumn_statement_2012_complete.pdf.

[44] C. Emmerson, 'Taxation of private pensions', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2014*, http://www.ifs.org.uk/publications/7072.

Reducing the annual allowance makes less sense than reducing the lifetime allowance. For a given level of desired lifetime contributions, it is not clear why we would want to penalise making occasional large contributions rather than frequent smaller contributions. In practical terms, too, reducing the annual allowance is more problematic, as valuing annual contributions to defined benefit pension schemes is difficult; the lower the annual limit, the more of these difficult valuations must be done.

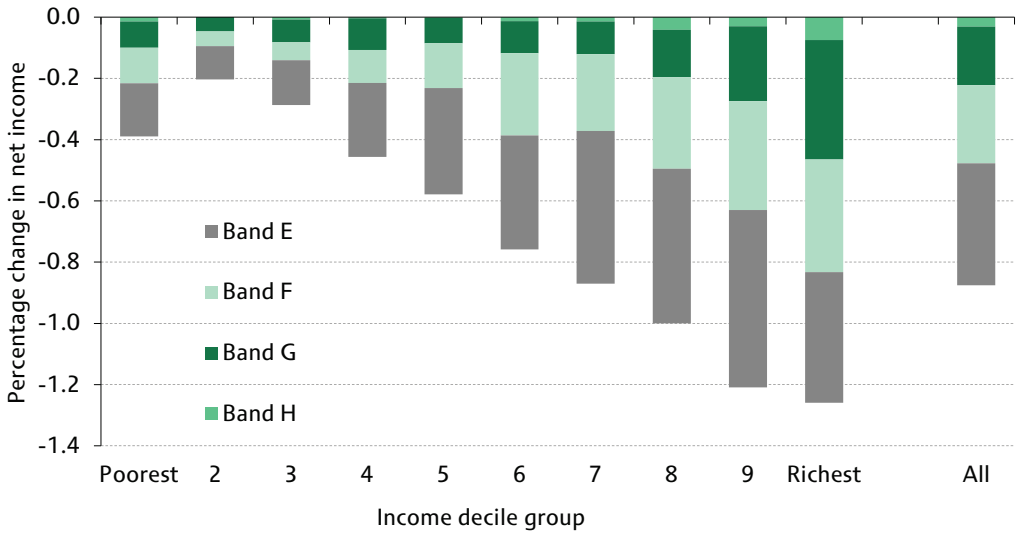
Council tax and a 'mansion tax'

Increasing council tax on high-band properties

As noted in Section 10.3, the council tax rates applied to each band are far from proportional to property value: people occupying more valuable properties pay a smaller percentage of the value of their property than those in less valuable properties. For example, in a local authority setting the 2014–15 average band D rate in England of £1,468,[45] someone with a property at the midpoint of band D (£78,000) will pay 1.88% of its 1991 valuation, while someone with a property at the midpoint of band G (£240,000) will pay £2,447, or 1.02% of its 1991 valuation. This unfairly and inefficiently favours more valuable properties, and in particular the most valuable properties.

A simple reform that would raise revenue from households that are relatively well off on average while making council tax more proportional to property value would be to increase the tax rates applied to high-value properties. Figure 10.6 shows the distributional impact of doubling council tax rates for just band H (which would affect the top 0.6% of properties and raise £0.3 billion), for bands G and H (raising £2.0 billion from the top 4.2% of properties), for bands F, G and H (raising £4.2 billion from the top 9.6% of

Figure 10.6. Distributional impact of doubling council tax rates in certain bands



Note: Income decile groups are derived by dividing all households into 10 equal-sized groups according to income adjusted for household size using the McClements equivalence scale.
Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on uprated data from the 2012–13 Family Resources Survey.

[45] Source: https://www.gov.uk/government/statistics/council-tax-levels-set-by-local-authorities-in-england-2014-to-2015.

properties) and for bands E, F, G and H (raising £7.7 billion from the top 19.6% of properties).[46]

Increasing council tax on high-value properties would certainly hit wealthy households hardest. It would also be progressive across the income distribution, though the losers would also include some who lived in big houses but with low current income and who, for one reason or another, were not protected by means-tested council tax support.[47] Of course, only a small fraction of the losers from these reforms would fall into that category. And how offensive one finds the idea that such people should lose out depends in part on whether one views people with high wealth but low current income as rich or poor.

Adding new council tax bands

Instead of (or as well as) increasing council tax on existing bands, the government could add one or more new bands at the top, to focus tax increases even more tightly on just the very highest-value properties – as the Welsh government did when it added a band I (paying $2^1/_3$ times the band D rate) to its council tax in 2005.

However, with so few properties in band H, the revenue yield from applying higher rates to only a subset of those would be very small unless the tax increase for each affected household were astronomical. There are currently 136,000 properties in England in band H;[48] if, say, half of them were put into a new band H+, those 68,000 properties would have to see their council tax bills increase by nearly £15,000 per year on average (over and above what they are paying already) in order to raise £1 billion from this policy.

A 'mansion tax'

Labour and the Liberal Democrats both propose to introduce a new 'mansion tax' on properties worth more than £2 million.

Like council tax, properties would be put into bands, with all properties in a given band liable for the same tax but properties in higher bands charged more.[49] The Labour Party, for example, has said that all properties worth between £2 million and £3 million would be charged £3,000 per year, with a series of higher bands for properties above £3 million attracting successively more tax.[50]

Nobody knows exactly how many properties in the UK are worth more than £2 million, and therefore how much revenue would be raised by different rates of a mansion tax: the last time all properties in the UK were systematically valued was prior to the introduction of council tax in 1993. However, various estate agents have produced their own

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[46] Source: authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, to apply the 2015–16 tax and benefit system to uprated data from the 2012–13 Family Resources Survey. Number of properties in each band from Valuation Office Agency, council tax valuation lists September 2014, https://www.gov.uk/government/statistics/council-tax-valuation-lists-summary-england-and-wales and Scottish Government, council tax data, http://www.scotland.gov.uk/Topics/Statistics/Browse/Local-Government-Finance/DatasetsCouncilTax. Band H figures include 5,420 band I properties in Wales.

[47] This would include those who do not take up their entitlements (which we do not model in the figure) and those who are not entitled to council tax support despite their low current income because they have substantial financial assets (which we do model) or because they live in a local authority that has cut this group's entitlement since council tax support was localised in 2013 (which we do not model).

[48] Source: Valuation Office Agency, council tax valuation lists September 2014, https://www.gov.uk/government/statistics/council-tax-valuation-lists-summary-england-and-wales.

[49] Note that this banded structure is different from the Liberal Democrats' 2010 general election manifesto proposal, which was to charge 1% per year of the value of properties worth over £2 million, paid on the value of the property above that level.

[50] See http://www.standard.co.uk/comment/comment/ed-balls-a-mansion-tax-will-be-fair-simple-and-pay-to-save-the-nhs-9805924.html.

estimates: Savills suggests the figure is 97,000, Zoopla 108,000 and Knight Frank 110,000; Hometrack, a housing market analyst, puts the figure rather lower, at 58,500.[51]

Regardless of the size of the tax base, the Labour Party has set a revenue target of £1.2 billion,[52] implying that the tax rates on properties worth more than £3 million would be set at whatever levels were required to raise the remainder of this revenue after collecting £3,000 for each £2–3 million property. Thus if there were, for example, a total of 97,000 properties worth more than £2 million and 57,000 of those were worth more than £3 million (Savills's estimates), that would imply that a £3,000 charge on all £2–3 million properties would raise £120 million and properties above £3 million would face an average tax charge of £19,000 to make up the rest of the revenue. Setting a revenue target does not seem like a sensible way to make policy: it is not clear that the appropriate tax rate on high-value properties should be higher if there turn out to be fewer of them than expected, or vice versa.

In practice, the Labour Party's policy – and so the rate calculations – is more complicated than this. Labour has said that 'we will look at asking overseas owners of second homes in the UK to make a larger contribution than people living in their only home'.[53] It also said that only higher- and additional-rate income tax payers would be required to pay the tax immediately: others would be allowed to defer the tax (with interest accruing on the deferred liability, sensibly) until the property were next sold or until the owner's death (at which point the tax would be taken from the deceased's estate alongside any inheritance tax). Again, it is not known exactly how many properties worth more than £2 million are owned by individuals with an income below £42,385 and would therefore have this option to defer paying the tax. And how attractive deferral would be depends on, among other things, the interest rate charged on deferred liabilities (which is yet to be decided) and how likely homeowners thought it was that a future government opposed to the mansion tax might cancel accrued liabilities before they became payable (which is difficult to guess).

As we argued above, there is a strong case for taxing high-value properties more heavily than at present given that they currently attract lower council tax as a proportion of property value. But it is doubtful that adding a new tax on top of the existing system is the best way to achieve that. As noted above, council tax could be reformed to make tax bills more proportional to (1991) property values. Better still, the government could undertake a long-overdue revaluation of all properties and make council tax more proportional to properties' *current* values, as proposed in the Mirrlees Review.[54] Alternatively, a mansion tax could be integrated with the annual tax on enveloped dwellings (ATED), which is already charged (in a similar banded structure) on residential properties worth more than £2 million but is currently restricted to properties held

[51] Savills figure from http://www.savills.co.uk/_news/article/55328/183956-0/11/2014/prime-housing-market---the-ultimate-political-football-; Zoopla from http://blog.zoopla.co.uk/2014/09/23/labours-mansion-tax-proposal-to-place-heavy-burden-on-south-east/; Knight Frank and Hometrack cited in http://www.bbc.co.uk/news/business-29326057. In 2013, the government released its own estimate that there were 55,000 properties worth more than £2 million (Lords Written Answers 25 July 2013, *Hansard*, column WA240, http://www.publications.parliament.uk/pa/ld201314/ldhansrd/text/130725w0001.htm). However, this was based on older data and given rapid house price growth at the top end of the market the number is likely to have increased substantially since then. For example, Knight Frank's estimate at the time was 50,000 (http://content.knightfrank.com/research/500/documents/en/taxing-high-value-homes-mansion-tax-1530.pdf) but a year later its estimate had more than doubled to 110,000.

[52] http://www.labour.org.uk/blog/entry/six-things-you-need-to-know-about-labours-mansion-tax.

[53] http://www.labour.org.uk/blog/entry/six-things-you-need-to-know-about-labours-mansion-tax.

[54] Chapter 16 of Mirrlees et al. (2011, op. cit.).

through certain 'non-natural persons' such as companies and unit trusts.[55] Potentially subjecting high-value properties to three separate annual taxes – council tax, ATED and a mansion tax – seems unnecessarily complicated.

Increasing the remittance basis charge for non-domiciled residents

Since 2008, long-term UK residents who are domiciled elsewhere must pay an annual charge (and give up their income tax personal allowance and CGT annual exempt amount) or else be taxed on foreign income and capital gains kept abroad as well as those brought into the UK.[56] The charge is currently £30,000 if the person has lived in the UK for seven years, rising to £50,000 after 12 years. The 2014 Autumn Statement announced that, from April 2015, the latter rate would increase from £50,000 to £60,000 and a new £90,000 rate would apply to those who have lived in the UK for 17 years. These changes are forecast to raise around £100 million a year, suggesting that further increases of the same magnitude (to £70,000 and £180,000 respectively) might raise a further £100 million – though in practice this revenue might be eroded if people decide that the charge is so high that they would rather elect to be taxed on their worldwide income instead or else stop being UK-resident. It looks unlikely that really large additional sums could be raised in this way.

10.5 Scaling back tax reliefs

Most of the UK's major taxes include a range of exemptions and reliefs with a significant revenue cost. Some of these reliefs exist for good policy reasons, but often they favour some groups or activities over others in ways that are inequitable, distort behaviour and complicate the tax system. This section discusses some of the reliefs that might be promising or high-profile targets for a tax-raising government.

Broadening the VAT base

We noted earlier that increasing the main rate of VAT would increase the scale of the distortion towards buying zero- and reduced-rated goods and services instead of standard-rated ones. Another way for the government to increase VAT revenues that would alleviate this distortion would be to extend its scope to cover those items that are currently zero-rated. Food is by far the biggest of these: the zero-rating of (most) food cost the government £17.5 billion in 2014–15. The other main ones and their costs are listed in Table 10.1. The government could also increase the VAT rate on those items that are currently taxed at the lower 5% rate (principally domestic fuel and power) towards the standard rate. As well as reducing the distortion to households' spending patterns, moving towards a more uniform VAT regime would simplify the system.

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[55] While ATED currently applies only to properties worth more than £2 million, smaller amounts are due to become payable on properties worth more than £500,000 by April 2016. Further increasing ATED itself could itself be a way to increase revenues from high-value property. The 2014 Autumn Statement increased ATED rates by 50% above normal inflation uprating from April 2015, taking the charge on affected properties in the £2–5 million bracket, for example, to £23,350 instead of £15,600 and raising around £100 million per year. A further increase of the same magnitude could raise a similar sum, but it is clear that only modest additional revenue is available from this source.

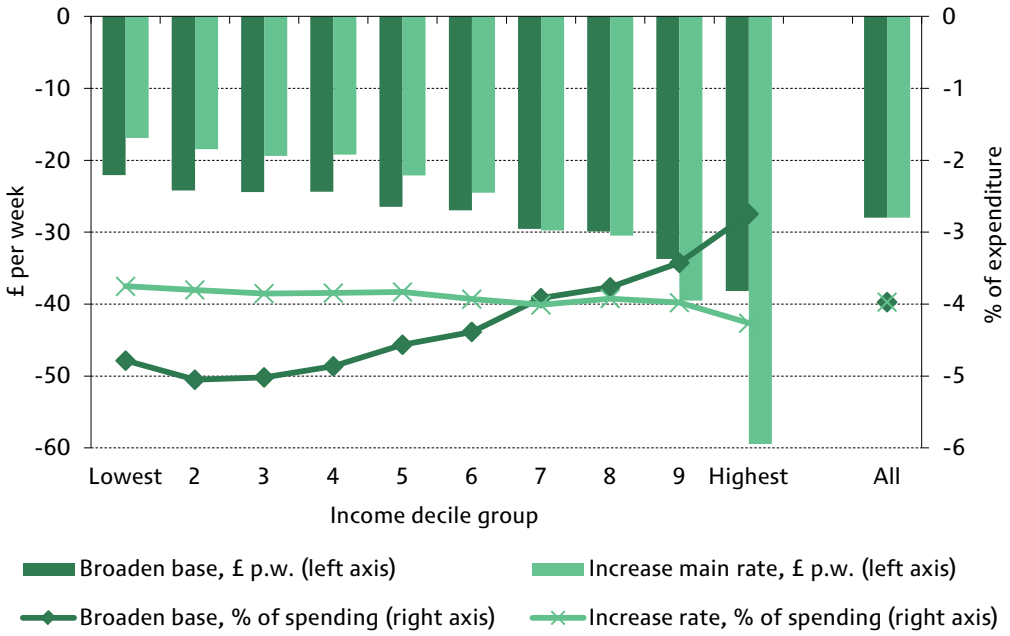
[56] By default, a person's domicile is simply the domicile of his or her father (or mother if they were unmarried at the time of birth), though one can change domicile by settling permanently in another country.

Table 10.1. Estimated costs of zero-rating, reduced-rating and exempting goods and services for VAT, 2014–15

	Estimated cost (£m)
Zero-rating of:	
Food	17,450
Construction of new dwellings*	8,300
Domestic passenger transport	4,450
International passenger transport*	300
Books, newspapers and magazines	1,650
Children's clothing	1,850
Water and sewerage services	2,250
Drugs and supplies on prescription	3,300
Supplies to charities*	300
Certain ships and aircraft	700
Vehicles and other supplies to disabled people	850
Cycle helmets*	10
Reduced rate for:	
Domestic fuel and power	4,800
Women's sanitary products	45
Contraceptive products	10
Children's car seats	20
Smoking cessation products	20
Energy-saving materials*	40
Certain residential conversions and renovations*	300
Exemption of:	
Rent on domestic dwellings*	4,350
Supplies of commercial property*	400
Private education*	3,800
Health services*	2,950
Postal services	200
Burial and cremation	300
Finance and insurance*	4,500
Betting and gaming and lottery duties*	1,850
Exemption for cultural admission charges*	35
Small traders below the turnover limit for VAT registration*	1,900
Total	66,930

* These figures are particularly tentative and subject to a wide margin of error.
Note: The figures for all reduced-rate items are estimates of the cost of the difference between the standard rate of VAT and the reduced rate of 5%.
Source: HMRC Collection, 'Tax expenditures, reliefs and ready reckoners statistics', https://www.gov.uk/government/collections/tax-expenditures-and-ready-reckoners.

Figure 10.7. Distributional impact of extending the main rate of VAT to most zero- and reduced-rated items and of raising the same revenue from increasing the main rate of VAT



Note: Income decile groups are derived by dividing all households into 10 equal-sized groups according to income adjusted for household size using the McClements equivalence scale. Expenditure excludes (actual and imputed) housing consumption.
Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on uprated data from the 2012 Living Costs and Food Survey.

Figure 10.7 shows the distributional impact of extending the main (20%) VAT rate to most of the zero- and reduced-rated goods listed in Table 10.1,[57] alongside the distributional impact of raising the same amount of revenue – some £39.0 billion (in 2015–16 terms), or 2.1% of national income – via an increase in the main rate of VAT from 20% to 27.5%. Unlike increasing the main rate of VAT, levying VAT (or more VAT) on those goods currently zero- or reduced-rated would be regressive: poorer households typically devote a larger share of their budgets to these items. However, as Figure 10.7 shows, it is richer households that lose the most in cash terms: although it is a smaller proportion of their budget, they still spend more on these items in cash terms than poorer households. This implies that it would be possible to use some of the revenue raised to compensate poorer households and still have revenue left over. Since this change would raise 2.1% of national income, the government could spend (say) 1.1% of national income on increasing benefits and tax credits to ensure that the poorest did not lose disproportionately or indeed at all (at least on average), and still have reduced the deficit by 1% of national income.

The main disadvantage of such a policy is its effect on work incentives. As discussed in Section 10.3, increasing VAT weakens work incentives since higher prices reduce the value of additional earnings. If the compensation for poorer households takes the form of

[57] Note that we do not consider extending the standard rate of VAT to new houses, the portion of international passenger transport that takes place in the UK, and ships and aircraft above a certain size. We consider imposing VAT on goods that are currently classified as exempt (such as insurance and financial services) later.

increases to means-tested benefits and tax credits, the negative effects on work incentives would be exacerbated. The Mirrlees Review illustrates one way in which it is possible to broaden the VAT base, protect (on average) households that are poor over their lifetimes, and maintain work incentives; sadly, that reform does not raise any net revenue, but its other advantages mean that it would still be very worthwhile.[58]

Obviously, a move to charging VAT at the full rate of 20% on almost all goods and services would be a huge and controversial change – whether or not accompanied by a substantial compensation package. Clearly, there are smaller steps one could take along the way. For example, imposing a VAT rate of 5% on everything currently zero-rated could raise £8.5 billion (before any offsetting compensation package). Or the government could focus first on one or two cases that look particularly pressing: most notably, recent falls in oil and gas prices might make it an opportune time to end the favourable VAT treatment of domestic fuel and power (again with a suitable compensation package), an effective subsidy which is particularly unwelcome from an environmental point of view.

In addition to the zero- and reduced-rating of goods mentioned above, there are also a number of exemptions from VAT. Exemptions differ from zero rates in that exempt producers cannot reclaim VAT paid on inputs they buy. Exemptions share all the disadvantages of zero rates but are even more damaging because the inability to deduct input tax distorts production patterns in a whole host of ways, from encouraging vertical integration to distorting competition between exempt and non-exempt bodies and between exempt bodies in different countries. Financial services are perhaps the most prominent exemption, costing the exchequer an estimated £4.5 billion in 2014–15. VAT exemptions are mostly mandated at the EU level, so the UK could not unilaterally remove them while remaining an EU member. However, this is an area where reform should be sought at an EU level. In the absence of EU-wide reform, it is less clear whether the UK would be able to impose a regime that is economically equivalent to VAT but levied in a different way.[59]

Abolishing the transferable income tax allowance for married couples

The Conservatives' 2010 election manifesto proposed to make part of the income tax allowance transferable for some married couples and civil partners. In April 2015, such an allowance will be introduced, allowing individuals to transfer up to 10% (£1,050 in 2015–16) of their personal allowance to their spouse or civil partner, provided that neither partner is a higher- (40%) or additional- (45%) rate taxpayer. 4.2 million married couples stand to gain from it: one in three married couples or one in four of all couples. The government expects this to cost £515 million in 2015–16, rising to £820 million by 2018–19 as take-up increases.[60]

A future government could choose to reduce this allowance or to abolish it entirely. This would simplify the tax system, removing the need for taxpayers to understand this relief

[58] See chapter 9 of Mirrlees et al. (2011, op. cit.).

[59] For a discussion of alternative ways to achieve the same economic outcome as applying VAT to financial services, see chapter 8 of Mirrlees et al. (2011, op. cit.).

[60] Number of gainers and costs from pages A5 and A6 of HM Treasury / HMRC, 'Overview of tax legislation and rates', March 2014, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/294190/OOTLAR_19_March_2014__1_.pdf; proportions of married couples and of all couples are authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on uprated data from the 2012–13 Family Resources Survey.

and for HMRC to administer it and removing the £210 jump in tax liability at the higher-rate threshold that means some people can be worse off after a tax rise. The losers would be married couples and civil partners comprising one basic-rate taxpayer and one non-taxpayer. Since couples with two taxpayers or a higher-rate taxpayer do not benefit from the transferable allowance, reducing it would hit low-income families harder on average than a reduction in the personal allowance that raised the same revenue. Indeed, this is the only reform considered in this chapter from which a majority (in fact two-thirds) of the revenue would come from the bottom half of the income distribution – though the losses are not large (at most £210 per year) and are concentrated among lower-middle-income couples rather than the very poorest, since the latter do not have enough income to pay income tax in any case.

Increasing self-employed NICs rates to match rates on employees

The self-employed currently face a far less onerous NICs regime than employees. Whereas employees pay NICs at a rate of 12% on earnings between £153 and £805 per week, the self-employed pay 9% on the corresponding band of earnings plus a flat charge of £2.75 per week.[61] More importantly, earnings from self-employment are not subject to employer NICs (paid at 13.8% on employees' earnings) at all.

This advantage is partly offset by lower entitlements to some state benefits. But HMRC estimates that, even after allowing for these lower entitlements, the net benefit to the self-employed relative to the treatment of employees is some £2.7 billion in 2015–16.[62] Since total self-employed NICs revenue in 2015–16 is expected to be £2.6 billion,[63] the self-employed as a group are paying less than half of what would put them on a par with employees. Furthermore, the disparity is increasing, as a major reason for the self-employed's lower benefit entitlements is being removed: they do not accrue state second pension entitlement under the present system, but from April 2016 the basic state pension and state second pension are to be replaced by the single-tier state pension, to which both employees and the self-employed will accrue entitlement. And the exchequer cost of preferential treatment is probably rising as self-employment becomes more prevalent, a trend discussed in Chapter 2.

Increasing NICs rates on self-employment earnings has obvious advantages. It seems unfair to favour the self-employed as the current system does, and inefficient to distort what should be a personal or commercial decision as to whether to enter employment or self-employment.[64]

On its own, however, it has considerable disadvantages too. It would discourage investment by unincorporated businesses. And it might not be an efficient way to raise

[61] Both employee and the self-employed also pay 2% of earnings above the upper earnings limit / upper profits limit.

[62] Source: HMRC Statistics, https://www.gov.uk/government/statistics/main-tax-expenditures-and-structural-reliefs, uprated to 2015–16 terms in line with nominal growth in national income.

[63] Source: appendix 4 of Government Actuary's Department, *Report by the Government Actuary on the Draft Social Security Benefits Up-Rating Order 2015, the Welfare Benefits Up-Rating Order 2015 and the Draft Social Security (Contributions) (Re-Rating and National Insurance Funds Payments) Order 2015*, 2015, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/396524/46187_GAD_s_Up-rating_Report_accessible_v0.2.pdf.

[64] Arguments for preferential tax rates, and counterarguments, are discussed in S. Adam, 'Taxing employees, the self-employed and small companies', in E. Wallis (ed.), *New Forms of Work*, Fabian Policy Report, 2012, http://www.fabians.org.uk/publications/new-forms-of-work-2/ and in C. Crawford and J. Freedman, 'Small business taxation', in J. Mirrlees et al. (eds), *Dimensions of Tax Design: The Mirrlees Review*, Oxford University Press for the Institute for Fiscal Studies, Oxford, 2010, http://www.ifs.org.uk/publications/7184.

revenue because self-employment income seems relatively sensitive to tax rates, not least because the self-employed can respond by setting up companies and taking most of their income as dividends, which is generally even more tax-advantaged.[65] Increasing tax rates on self-employment would bring them more into line with the taxation of employment, but further out of line with the taxation of companies. Both margins are relevant; their relative importance is an unresolved empirical question.

The Mirrlees Review argued for aligning tax rates between employment and self-employment as part of a wider set of reforms that would also align rates on virtually all sources of income (including, for example, increasing tax rates on dividends and capital gains to bring overall tax rates on corporate-source income into line with those on earnings) and providing more generous allowances for capital investment (a rate-of-return allowance and an allowance for corporate equity) to minimise the discouragement to investment from high tax rates. In the absence of such a wide-ranging reform, increasing tax rates on self-employment income still has considerable appeal but is not unambiguously desirable.

Scaling back pension tax subsidies

A good starting point for the taxation of private pensions would be a system in which contributions to private pensions are free of tax, no tax is levied on any investment returns within the fund, but tax is paid on all pension income when it is received. Such a system would not distort individual decisions over whether to spend or save and would tax income when it was enjoyed rather than when it happened to accrue.

That is very broadly how pension saving (up to the limits discussed in Section 10.4) is currently treated for income tax. But at present, pension saving is subsidised relative to this benchmark in two ways:

- Up to a quarter of a private pension can be withdrawn free of income tax. Since money paid out of a pension fund is generally subject to income tax in return for tax relief on contributions paid into the fund, this quarter of the fund is money that escapes income tax altogether: it is taxed neither when it is earned nor when it is withdrawn from the pension.
- Employer (though not employee) pension contributions are excluded from earnings for both employer and employee NICs, while the pension income they generate is not subject to NICs either. Employer pension contributions are the only major form of employee remuneration that escapes NICs entirely.

The existence of these subsidies is usually defended as being compensation for the fact that pensions are a highly inflexible form of savings, available only after a certain age. If, for reasons of public policy, we want people to lock money away for long periods, we are likely to have to provide them with a good reason for doing so.

This argument looks weaker now that the government is removing many of the restrictions on how accumulated pension savings can be used. But it was never clear that this argument could justify subsidies of this magnitude, or a design that subsidises

[65] From April 2015, the uniform corporation tax rate will be 20%, like the basic rate of income tax, and for higher-rate taxpayers dividend taxation brings the total tax rate on distributed profits into line with the higher rate of income tax; but there are no NICs (or equivalent) at all on remuneration taken as distributed profits, a major tax advantage of corporate form. The analysis is somewhat more complicated where there are capital gains.

additional pension saving among those who already have a £1 million fund, encourages lump-sum withdrawals rather than annuitisation and treats employer contributions much more favourably than employee contributions. There are at least two possible reforms that could help to address these design flaws while raising significant amounts of revenue.[66]

First, there is a powerful case for introducing a cash limit on the amount that can be withdrawn from a pension tax-free, at a level considerably below £312,500 (the current level, simply 25% of the £1.25 million lifetime limit on registered pension saving).[67] Unfortunately, no reliable current estimate exists of the revenue that this would raise.[68]

Second, NICs relief on employer pension contributions could be reduced or eliminated. A lot of revenue is at stake here: roughly three-quarters of pension contributions are made by employers, and the government estimates that NICs relief on these contributions cost it £15.2 billion in 2012–13.[69] It would be more difficult to levy employee NICs than employer NICs on these pension contributions,[70] but an approximation might be attempted; or even levying only employer NICs would have raised an estimated £11.0 billion in 2014–15.[71]

While this reform would be a major improvement on the current system, the Mirrlees Review argued that, in principle, it would be even better to move towards providing NICs relief on all pension contributions and levying NICs on all pension income, so that NICs treated pensions in the same way as income tax does (with the added advantage of moving further towards the integration of income tax and NICs). One step in that direction would be to start levying some NICs on pension income: each percentage point of NICs levied would raise an estimated £350 million.[72] Levying NICs on pension income could compensate retrospectively for the excessively generous NICs relief on employer pension contributions. However, on its own it would imply double taxation of employee pension contributions, levying NICs on both pension contributions and the pension income they generate. This would undermine the legitimate expectations of those who have saved up to now, and would make future employee pension contributions an unattractive option. In the long run, NICs on pension income should be accompanied by NICs relief on employee (as well as employer) pension contributions. The best way to

[66] These reforms are discussed more fully in Mirrlees et al. (2011, op. cit.) and in C. Emmerson, 'Taxation of private pensions', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2014*, http://www.ifs.org.uk/publications/7072.

[67] To prevent charges of retrospective taxation, the government could consider exempting pension savings already in place that would exceed the cap.

[68] The government previously estimated the total cost of the tax-free lump sum at around £2.5 billion (it was formerly in HMRC Statistics table 7.9, as cited in, for example, footnote 20 of M. Lloyd and C. Nicholson, 'A relief for some: how to stop lump sum tax relief favouring the wealthy', Centre Forum, 2011, http://www.centreforum.org/assets/pubs/a-relief-for-some.pdf) but it no longer produces an estimate. Note that this £2.5 billion figure assumed that no one would change their behaviour in response to the reform and that the tax-free lump sums would otherwise be taxed at 20%. Based on this £2.5 billion figure, Lloyd and Nicholson (op. cit.) estimated that restricting the tax-free lump sum to the then higher-rate threshold of £42,475 would raise £0.5 billion per year.

[69] Source: HMRC Statistics table PEN6, https://www.gov.uk/government/statistics/registered-pension-schemes-cost-of-tax-relief.

[70] The difficulty arises because employer pension contributions would need to be allocated to individual employees, which is difficult for defined benefit pension schemes.

[71] Source: HMRC Statistics, 'Main tax expenditures and structural reliefs', https://www.gov.uk/government/statistics/main-tax-expenditures-and-structural-reliefs.

[72] Page 29 of S. Adam, J. Browne and P. Johnson, 'Pensioners and the tax and benefit system', IFS Briefing Note BN130, 2012, http://www.ifs.org.uk/bns/bn130.pdf.

mitigate the double taxation problem would be to start providing relief for employee contributions immediately and gradually increase NICs rates on pension income over an extended period. But while this would generate significant revenue in the long run, it would actually cost money up front.

Eliminating capital gains tax reliefs

There are a number of reliefs and exemptions from CGT that a future government seeking to raise money might look towards.

Entrepreneurs' relief

Entrepreneurs' relief applies a reduced CGT rate of 10% to capital gains (up to a lifetime limit of £10 million) on certain eligible assets:

- shares in a trading company (or holding company of a trading group) of which the shareholder has been a full-time employee or director, owned at least 5% of the shares and had at least 5% of the voting rights, all for at least a year;
- an unincorporated business (or distinct part of a business), or business assets sold after the individual stops carrying on the business.

HMRC estimates that increasing the CGT rate on qualifying gains by 1 percentage point would raise £60 million.[73] In total, entrepreneurs' relief reduces overall tax liabilities by an estimated £3.3 billion per year, although HMRC argues that abolishing it would yield substantially less than this as people would change their behaviour in response.[74] Notwithstanding this caveat, the figure is strikingly large relative to the £200 million estimated cost of entrepreneurs' relief when it was first introduced in 2008[75] – partly because the lifetime limit has been gradually increased to £10 million from its initial level of £1 million.

Entrepreneurs' relief adds complexity to the tax system and creates a range of distortions.[76] It is also arguably unfair.[77] More generally, the justification for applying lower tax rates to people who own their own business than to the rest of the population seems far from clear.[78] In isolation, abolishing entrepreneurs' relief would weaken the

[73] Source: HMRC Statistics, https://www.gov.uk/government/statistics/direct-effects-of-illustrative-tax-changes.

[74] Source: HMRC Statistics, 'Main tax expenditures and structural reliefs', https://www.gov.uk/government/statistics/main-tax-expenditures-and-structural-reliefs.

[75] http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/newsroom_and_speeches/press/2008/press_05_08.cfm.

[76] First, it encourages owner-managers of companies to retain profits in the company rather than take them out as dividends or salary, regardless of whether (in the absence of tax considerations) they would rather spend the money or could invest it more profitably elsewhere. Second, it provides a strong incentive to set up a business in which to retain profits, putting pressure on anti-avoidance rules, which attempt to define when companies are 'artificial' avoidance devices. Third, it gives companies an artificial incentive to ensure that any individual employee shareholdings are above 5%, rather than below that threshold. And fourth, it gives self-employed individuals and partnerships a large incentive not to sell assets of the business until they are ready to stop doing business altogether, regardless of whether the assets could be more profitably used by others and whether the proceeds of a sale could be more profitably used in other ways.

[77] The distortions outlined in the footnote above mean that entrepreneurs' relief discriminates against owner-managers who cannot afford to retain profits in their business, against self-employed people who choose (or need) to sell business assets before giving up the business altogether and against employees who have shareholdings of less than 5% in the company for which they work.

[78] For a fuller development of this argument in a related context, see S. Adam, 'Taxing employees, the self-employed and small companies', in E. Wallis (ed.), *New Forms of Work*, Fabian Policy Report, 2012, http://www.fabians.org.uk/publications/new-forms-of-work-2/.

incentive for people to start a business and invest in it. However, it is doubtful that entrepreneurs' relief is the best way to pursue these goals in any case.[79]

Forgiveness of CGT at death

Another major CGT relief is 'forgiveness' at death. The deceased's estate is not liable for CGT on any increase in the value of assets prior to death, and those inheriting the assets are deemed to acquire them at their market value at the date of death, so any rise in value that occurs before death escapes tax completely. This cost the exchequer an estimated £490 million in 2012–13 and is highly distortionary.[80] It encourages people to hold on to assets that have risen in value, even if in the absence of tax considerations it would be preferable to sell them and use the proceeds in some other way before death. If people expect to be able to bequeath assets on death, it also encourages them to buy assets that yield returns in the form of capital gains and to convert income into capital gains where possible.

Exemption of principal private residences

Rises in the value of principal private residences – people's main homes – are exempt from CGT. This is by far the biggest relief in CGT: it reduces annual CGT liabilities by an estimated £13.8 billion – more than twice total expected CGT revenue – although the government argues that abolishing it would yield substantially less than this as people changed their behaviour in response.[81]

As with CGT in general, CGT on principal private residences involves a trade-off. On the one hand, imposing CGT would discourage people from saving – in this case, buying a (bigger) house. On the other hand, it would enable the government to capture a share of any large capital gains and it would reduce distortions between similar assets.[82]

Like CGT in general, imposing CGT on main homes would generate a 'lock-in' effect: people would be artificially discouraged from selling a home that had risen in value, since only when it was sold would a CGT liability be triggered. Discouraging property transactions that would otherwise be mutually beneficial is undesirable, as we discuss in Section 10.6 in the context of stamp duty land tax. This lock-in effect would be exacerbated by the massive political backlash that would almost certainly follow the introduction of CGT on people's main homes, since if people believed that the policy would be reversed (perhaps by a future government) then they would have an enormous incentive to hold on to the property until this happened. As well as being a distortion in its own right, this could seriously undermine the revenue yield of the reform – further adding to the pressure to reverse the policy.

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[79] The Mirrlees Review argued that investment can be best encouraged by providing relief for amounts invested, rather than reduced tax rates on actual investment returns: see chapter 15 of Mirrlees et al. (2011, op. cit.).

[80] This figure came from a previous version of HMRC Statistics, 'Main tax expenditures and structural reliefs'. However, HMRC has now stopped providing an estimate and has moved CGT forgiveness at death onto its list of 'tax reliefs of unknown cost'.

[81] Source: HMRC Statistics, 'Main tax expenditures and structural reliefs', https://www.gov.uk/government/statistics/main-tax-expenditures-and-structural-reliefs.

[82] Most importantly, in this case, imposing CGT on main homes would reduce – though not eliminate – the current tax bias in favour of owner-occupation versus rental property, since landlords are subject to both CGT on their properties and income tax on the rent (net of costs) they receive. It is hard to find a coherent rationale for levying CGT on main homes without also levying income tax on the imputed rental income from owner-occupation, the other component of the return to buying a house. Only if this imputed rental income were also taxed – as it was under Schedule A income tax until 1963 – would the tax treatment of owner-occupation be brought into line with that of the rental sector.

There is a case for reforming the taxation of housing, and the Mirrlees Review argued that the ideal solution in principle would be to introduce a rate-of-return allowance for all housing and fully tax returns to housing investment that exceeded that allowance. But for owner-occupied housing, even that would be difficult in the short run.[83] For now, the income tax and CGT treatment of owner-occupied housing is probably better left unchanged.

Widening the inheritance tax net

A case can be made for abolishing inheritance tax completely. But there is also a case for taxing transfers of wealth to the next generation, and if we are to levy such a tax it could be better designed than the existing inheritance tax.

At present, agricultural land and unquoted business assets are exempt from inheritance tax, at a cost to the exchequer of £440 million and £590 million per year respectively.[84] While there might conceivably be a case for allowing tax payments to be spread over time where assets received are illiquid and are to be retained by the recipient, it is hard to see any justification for the wholesale exemption of these assets. These reliefs create just the sort of non-neutrality the tax system ought to try to avoid, pushing up the price of agricultural land and of certain offerings on the AIM market, and providing a large incentive to keep businesses going and in the family even if there are good financial reasons for disposing of them sooner – as well as providing an open invitation for people to buy what might otherwise be wholly inappropriate assets purely as a way to avoid inheritance tax (albeit with a minimum holding period of the assets to qualify for relief).

The principal reason that inheritance tax is forecast to raise only £4.2 billion in 2015–16 is that it can be circumvented by the simple expedient of passing on wealth during one's lifetime. Transfers in the seven years before death are taxed on a sliding scale (from zero for transfers more than seven years before death to the full 40% rate for transfers less than three years before death), but gifts made before that are not taxed at all.[85] Those who are able – often the wealthiest – are encouraged to pass on their wealth at a time dictated by the tax system.

A simple option would be to lengthen the seven-year window before death during which lifetime transfers are taxable. For example, in 2007, the Liberal Democrats proposed that only transfers made more than 15 years before death should be exempt, though this was not ultimately adopted for their 2010 general election manifesto.[86] Since there are no data on wealth transfers occurring more than seven years before death, we cannot know how much this would raise.

More radically, this could be taken further and inheritance tax reformed to apply at the same rate to transfers made at any time in life, not just at or near death, and to be levied on individuals' lifetime receipts rather than on the amount an individual gives or bequeaths. The Mirrlees Review argued that, if concern for equality of opportunity justifies taxing transfers to the next generation, a more logical approach than the current

[83] See section 16.2.2 of Mirrlees et al. (2011, op. cit.).

[84] Source: HMRC Statistics, 'Main tax expenditures and structural reliefs', https://www.gov.uk/government/statistics/main-tax-expenditures-and-structural-reliefs. Some types of business and agricultural property are taxed half the normal rate rather than exempt entirely.

[85] Certain lifetime transfers into trusts are taxed.

[86] Liberal Democrats, *Reducing the Burden*, Policy Paper 81, 2007.

one – albeit with practical challenges of its own – would be to tax individuals at progressive rates on the total amount of gifts and inheritances that they receive over their lifetime.

Abolishing the single occupant's council tax discount

At present, one-adult households receive a 25% council tax discount. From an economic efficiency point of view, offering a 25% council tax discount to single-person households is distortionary, leading to inefficient use of the housing stock as single-adult households occupy bigger properties, and other households smaller properties, than they otherwise would.

Abolishing the single person's discount altogether across England, Scotland and Wales (policy on this is a devolved matter) would raise £1.4 billion per year.[87] The revenue from reducing or abolishing it would initially go to local authorities in the form of higher council tax yields, though central/devolved governments could choose to appropriate some or all of that by reducing grants to local authorities at the same time.

Scaling back business rate reliefs for small businesses, empty properties and agricultural property

At the moment, business rates are levied at a lower percentage rate on properties with lower estimated market rental values. This is done through a combination of different tax rates for small and large properties and an explicit small business rates relief scheme.[88]

The rationale for this is not clear. Certainly, there is not a strong distributional argument. Redistributing from firms that occupy large buildings to firms that do not is not necessarily 'progressive' in the way that redistributing from rich people to poor people is. Businesses are not people; ultimately, the burden of all taxes is felt by households, and it is not obvious that businesses owning or occupying more valuable premises have shareholders (or, for that matter, employees or customers) who are individually better off than firms with smaller premises. The people whose pension funds invest in Tesco might not be richer than the owner-manager of a corner shop.

Lower business rates for properties with low rateable values is a distortion towards production patterns involving more low-value properties and fewer high-value properties than commercial considerations would dictate in a free market. One could make an argument that, relative to what a free market might produce, there is an additional benefit to wider society from having lots of small business properties rather than fewer large properties. This could be to promote competition in the local market, or because people simply value the existence of (say) a variety of high-street shops even though they would rather shop in a big supermarket (note that if enough people actually preferred to buy things from smaller businesses, the firms should be commercially viable even without preferential tax treatment). But it is not clear whether such concerns are important in practice and, if they are, whether a tax reduction linked specifically to low-value premises is the appropriate tool to address them. Unless the government has a

[87] Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, to apply the 2015–16 tax and benefit system to uprated data from the 2012–13 Family Resources Survey.

[88] The details vary across Britain and are described in S. Adam and H. Miller, 'Business rates', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2014*, http://www.ifs.org.uk/publications/7072.

clear and powerful argument for preferential taxation of low-value properties, which it has not yet stated, it would be simpler and more efficient to move to a single rate for all properties. Eliminating lower rates and reliefs for low-value properties in England would increase business rates revenues by around £640 million per year.[89]

At the moment, most empty business properties in England are exempt from business rates for three months and charged full business rates thereafter.[90] Empty property relief cost the government £1.0 billion in 2014–15.[91] The three-month exemption reduces the incentive to bring properties back into use, while on the other hand charging business rates thereafter encourages the demolition of empty properties. The problem ultimately arises because land without buildings on it is untaxed. That inevitably creates a boundary where business rates start to be charged, leaving governments with an unpalatable choice between creating an incentive to demolish empty properties (if empty properties are taxed) or a disincentive to use properties (if empty properties are exempt). Faced with this choice, it is debatable whether removing this relief would be a good idea. The ideal long-term solution, as the Mirrlees Review argued, would be to tax land value irrespective of what, if anything, is built on it.[92]

It is hard to see any economic case for exempting agricultural property from business rates. It distorts land use towards agricultural rather than other purposes. The exemption seems to exist for purely political rather than economic reasons and should be ended. But the revenue cost of the exemption is unknown, and the relatively low value of agricultural land means that the tax at stake might not be large.

10.6 Temptations to resist

There are many ill-designed ways in which governments could potentially raise revenue, ranging from an annual wealth tax to a turnover tax, and we do not have space in this chapter to consider them all. In this section, we restrict attention to two possibilities that have been adopted in recent years by the main political parties when in office.

Increasing stamp duty land tax

In 1997, stamp duty was charged on property sales of more than £60,000 at a single rate of 1% (not just the part of the price above £60,000). Both the current coalition government and its Labour predecessor have repeatedly turned to increasing stamp duty land tax (SDLT) as a revenue raiser. Although the restructuring announced in the 2014

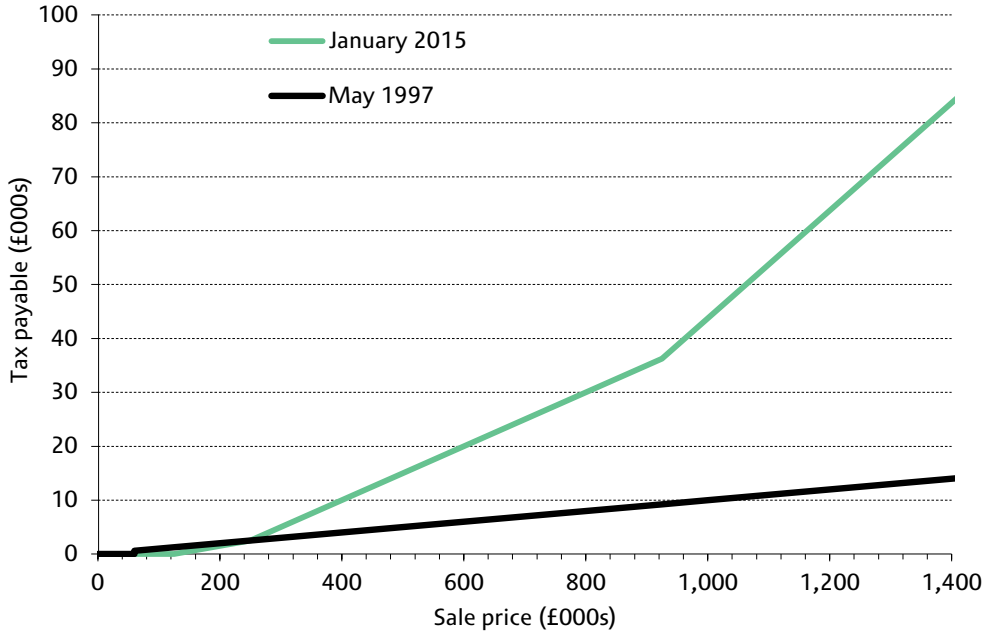
[89] This long-run effect excludes a further £500 million revenue from ending the supposedly temporary doubling of small business relief that was introduced in October 2010 and has been repeatedly extended since (it is currently due to expire in April 2016). Note that these figures are for business rates receipts; since business rates are a deductible expense for corporation tax and (in the case of unincorporated businesses) income tax, the overall revenue impact would be somewhat smaller than this. Source: Authors' calculations based on table 2 of DCLG Statistics, 'Non-domestic rates collected by local councils in England: forecast for 2014 to 2015', https://www.gov.uk/government/statistics/non-domestic-rates-collected-by-local-councils-in-england-forecast-for-2014-to-2015 and Valuation Office Agency, 'Central & local rating lists: non-domestic rating in England & Wales', https://www.gov.uk/government/statistics/central-local-rating-lists-non-domestic-rating-in-england-wales.

[90] Industrial premises are exempt for six months, while listed buildings and those with a rateable value below £2,600 are exempt as long as they are empty.

[91] Source: DCLG Statistics, 'Non-domestic rates collected by local councils in England: forecast for 2014 to 2015', https://www.gov.uk/government/statistics/non-domestic-rates-collected-by-local-councils-in-england-forecast-for-2014-to-2015.

[92] See chapter 16 of Mirrlees et al. (2011, op. cit.).

Figure 10.8. Stamp duty on housing transactions



Autumn Statement was a net giveaway, Figure 10.8 shows that SDLT for high-value transactions in particular is much higher than in 1997.

Turning again to SDLT for more revenue would be a mistake. Reforms adopted for Scotland in the Land and Buildings Transaction Tax (Scotland) Act 2013 and for England in the 2014 Autumn Statement have removed the most obviously anomalous feature of SDLT for housing, whereby a £1 higher purchase price could be associated with a tax bill thousands of pounds higher. (This anomaly remains in place for non-residential property in England and Wales.) Yet the more fundamental problem with SDLT remains. One of the most basic tenets of the economics of taxation is that transactions taxes should be avoided. Assets should be held by the people who value them most; the effect of a transactions tax such as SDLT is to discourage mutually beneficial transactions, so that properties are not held by the people who value them most. If a family in a small house want to move to a larger one (because they are having children, for example) while a neighbouring family in a large house want to move to a smaller one (perhaps because their children have grown up and left home), SDLT might discourage them from buying each other's houses, leaving both families worse off. At a macroeconomic level, one manifestation of this is to reduce labour mobility, as people are discouraged from moving to where suitable jobs are available.

Far from looking to raise more money from SDLT, the government should be looking to reduce SDLT or preferably abolish it altogether and make up the revenue elsewhere – perhaps from a reformed council tax in order to avoid giving out windfall gains to owners of high-value properties.

Restricting tax relief on pension contributions to the basic rate

It is frequently proposed to restrict income tax relief on pension contributions to the basic rate, rather than giving relief at the saver's marginal tax rate. The government says that in 2011–12 this would have reduced the cost of income tax relief on pension

contributions by around one-third and that in 2012–13 the total cost of relief on pension contributions was £28.0 billion, implying a yield of about £9.3 billion.[93] However, as the government notes, this ignores the substantial change in behaviour that this reform would be likely to engender. In fact, if people's main response was to reduce their pension contributions, this would tend to increase the yield in the short run by saving the cost of basic-rate relief as well as higher-rate relief, but in the long run this would be offset by reduced revenue from taxing pension income.

Giving everyone the same rate of relief, rather than giving more relief to higher-rate taxpayers, is superficially attractive but fundamentally misguided. The error stems from looking at the tax treatment of pension contributions in isolation from the tax treatment of the pension income they finance. Pension contributions are excluded from taxable income precisely because pension income is taxed when it is received: in effect, the tax due on earnings paid into a pension is deferred until the money (plus any returns earned in the interim) is withdrawn from the fund. It is hard to see how it can be unfair for higher-rate taxpayers to receive 40% relief when basic-rate taxpayers receive 20% relief, yet at the same time *not* be unfair for higher-rate taxpayers to pay 40% tax on their pension income when basic-rate taxpayers pay only 20%. In more practical terms, restricting the tax relief would also be complicated as it would require the valuation of pension promises made by employers through defined benefit schemes.[94]

Proponents of the restriction point out that many of those receiving relief at the higher rate will only pay basic-rate tax in retirement.[95] The arguments here are more complex. The current system certainly provides an additional incentive for higher-rate taxpayers to save in a pension if they expect to be basic-rate payers in retirement. But, in effect, such individuals are simply smoothing their taxable income between high-income and low-income periods, undoing the 'unfairness' that an annually-assessed progressive tax schedule creates by taking more tax from people whose incomes are volatile than from people whose incomes are stable. But even if receiving higher-rate relief and then paying basic-rate tax is seen as unfair, that does not diminish the case for accompanying any restriction of tax relief on contributions with a restriction of the tax on pension income. The tax system should treat pension contributions and pension income in a symmetric way.

The Labour Party proposes to restrict relief to the basic rate only for people with incomes above £150,000. This has the merit of limiting a bad policy to a smaller group of people, and would raise correspondingly less revenue: roughly £1.5 billion, according to HMRC.[96]

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[93] Source: total cost of pension tax relief from HMRC Statistics table PEN6, https://www.gov.uk/government/statistics/registered-pension-schemes-cost-of-tax-relief; yield from restricting relief from Written Answer by David Gauke MP to a Parliamentary Question, 6 July 2011 – 'If relief on pension contributions were limited to the basic rate of tax, the amount of this relief would fall by approximately one third. This estimate does not take account of behavioural effects, which are likely to be large' (*Hansard*, column 1249W, http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm110706/text/110706w0002.htm).

[94] These arguments are developed in more detail in C. Emmerson, 'Taxation of private pensions', in C. Emmerson, P. Johnson and H. Miller (eds), *The IFS Green Budget: February 2014*, http://www.ifs.org.uk/publications/7072.

[95] Though the snapshot statistics of the income tax rates facing current pension savers and current retirees often used to illustrate the point are somewhat misleading – those currently contributing may not necessarily face the same tax rates in retirement as current retirees, not least because of ongoing fiscal drag.

[96] The Labour Party itself says that the House of Commons Library puts the revenue yield at between £0.9 billion and £1.3 billion (see http://press.labour.org.uk/post/79110402681/next-labour-government-will-guarantee-starter-jobs). HMRC's costing of the policy is at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/391716/Opposition_costing_-_restricting_pensions_tax_relief_for_higher_earners.pdf.

But it has even less of a coherent rationale than a more general limit on tax relief: it is hard to see why it should be unfair for those above £150,000 to get tax relief at their marginal rate, but not for other higher-rate taxpayers to do so. Indeed, these very-highest-income individuals are less likely to be only basic-rate taxpayers in retirement, removing one of the principal arguments for restricting relief.[97]

The Liberal Democrats propose to 'establish a review to consider the case for, and practical implications of, introducing a single rate of tax relief for pensions, which would be designed to be simpler and fairer and which would be set more generously than the current 20% basic rate relief'.[98] The revenue implications of this would obviously depend on the rate of relief chosen. But whatever the rate, it is hard to see how this could be administratively simpler than the current system, and hard to see how it would be fair to give everybody (say) 25% or 30% relief on their pension contributions yet charge some people 20%, some 40% and some 45% income tax on the pension income that is generated.

In summary, then, restricting the rate of income tax relief on pension contributions would be expensive to administer, be unfair and inappropriately distort behaviour. As shown earlier in this chapter, there are far better ways to raise money from well-off people, or to reduce the generosity of pensions taxation, or even to do both at once.

10.7 Conclusion

Table 10.2 summarises the estimated revenue yield (where known) in 2015–16 of the various reforms discussed in this chapter. It also includes a number of other, mostly smaller, measures which space constraints prevent us from discussing fully; these include increases to alcohol and tobacco duties, environmental levies, North Sea taxation and the bank levy, amongst others.

Figure 10.9 shows – for the subset of measures we can model using TAXBEN, the IFS tax and benefit microsimulation model – what share of the revenue raised is contributed by each income decile group, along with each decile group's share of total income (a useful comparator when looking at income-based taxes) and total expenditure (more useful for looking at expenditure tax reforms). We can see, for example, that the top half of the UK income distribution accounts for 70% of all income but would contribute around 85% of the revenue from an increase in the basic rate of income tax. The figure also shows that, for all measures except the abolition of the transferable income tax allowance for married couples, the highest-income 10% of households would provide more than 10% of the revenue and the higher-income half would provide more than half the revenue. This reflects the fact that almost all taxes and tax increases are paid predominantly by better-off households.

[97] This proposal mirrors a policy originally announced in the then Labour government's 2009 Budget, but never implemented because it was dropped by the incoming coalition government in favour of a reduction to annual and lifetime allowances designed to raise the same amount of money. Labour's 2009 proposal is discussed in more detail in C. Emmerson, 'A response to the Treasury consultation on restricting pensions tax relief', IFS Press Release, 1 March 2010, http://www.ifs.org.uk/publications/4773.

[98] See pages 34–5 of https://d3n8a8pro7vhmx.cloudfront.net/libdems/pages/6272/attachments/original/1409941645/Pre-Manifesto_3_Sep_2014.pdf?1409941645.

Table 10.2. Revenue yield of possible tax rises in 2015–16

Measure	Revenue raised (£ million)
Income tax and NICs	
Increase basic rate of income tax by 1 percentage point (ppt)	4,200[a]
Increase higher rate of income tax by 1ppt	1,200[a]
Increase additional rate of income tax by 1ppt	100[a]
Increase main employee and self-employed NICs rates by 1ppt	3,900[a]
Increase upper employee and self-employed NICs rates by 1ppt	1,000[a]
Increase employer NICs rate by 1ppt	2,500[a,b]
Reduce income tax personal allowance by £1,000 p.a.	5,500
Reduce employee and self-employed NICs thresholds by £10 p.w.	1,400
Reduce employer NICs threshold by £10 p.w.	1,400
Reduce personal allowance (and employee NICs threshold) to match employer NICs threshold	14,200
Reduce higher-rate threshold (and UEL) by £5,000 p.a.	3,800
Increase UEL and UPL to £100,000 p.a.	10,100
Freeze all income tax and NICs thresholds for two years	3,700
Freeze all income tax and NICs thresholds for five years	9,900
Apply NICs regime for employees to self-employed	2,700
Apply employee and self-employed NICs above state pension age	890
Abolish NICs employment allowance	1,400
Abolish income tax transferable allowance for married couples	520[c]
Abolish 0% starting rate of income tax for savings income	140
Double April 2015 increase in non-domiciled residents' remittance basis charge	100
Indirect and environmental taxes	
Increase VAT main rate by 1ppt	5,200[a]
Increase VAT reduced rate by 1ppt	310[a]
Increase VAT zero rate by 1ppt	1,700[a]
Apply VAT main rate to most zero- and reduced-rated goods	39,000
Introduce VAT (or equivalent) on financial services	4,700
Increase insurance premium tax rates by 1ppt	500[a]
Increase alcohol and specific tobacco duties by 10%	1,100[a]
Increase fuel duties by 10%	2,600[a]
Increase vehicle excise duty by 10%	390[a]
Increase air passenger duty by 10%	240[a]
Increase climate change levy by 10%	50[a]
Increase landfill tax by 10%	100[a]
Corporation tax	
Increase rate by 1ppt	1,500[a]
Increase North Sea supplementary charge by 1ppt	20[a]
Business rates	
Increase by 1ppt	280[a]
Abolish reduced rates and reliefs for low-value properties	620
Abolish empty property relief	990
Abolish agricultural property exemption	Unknown

Measure	Revenue raised (£ million)
Bank levy	
Double rates	2,800[a]
Pensions taxation	
Reduce annual or lifetime limit	Unknown
Restrict tax relief on pension contributions to the basic rate	10,000
Restrict relief to basic rate for those with incomes >£150,000	1,500
Abolish 25% tax-free lump sum	Unknown[d]
Extend NICs to employer pension contributions	17,300
Charge 1% employee NICs on pension income	350[a]
Capital gains tax	
Increase lower rate by 1ppt	0
Reduce [*sic*] higher rates by 1ppt	30
Reduce annual exempt amount	Up to 3,500[e]
Merge annual exempt amount with income tax allowance	Unknown
Abolish forgiveness of CGT at death	Unknown[f]
Charge CGT on sale of main homes	13,800
Increase entrepreneurs' relief rate by 1ppt	60[a]
Abolish entrepreneurs' relief	3,300
Inheritance tax	
Increase rate by 1ppt	100[a]
Reduce nil-rate band	Up to 20,500[g]
Abolish business assets exemption	590
Abolish agricultural land exemption	440
Extend 7-year rule	Unknown
Housing taxation	
Increase council tax rates by 10%	2,300[a]
Double band H rates	280[a]
Double band G and H rates	2,000[a]
Double band F, G and H rates	4,200[a]
Double band E, F, G and H rates	7,700[a]
Abolish single occupants' council tax discount	1,400
Introduce a 'mansion tax' in line with Labour Party proposal	1,200
Increase ATED on properties worth >£2m by a further 33%	100[a]
Increase all residential SDLT rates by 1ppt	1,600[a]

[a] These revenue estimates can be scaled (within reason) to estimate the yield of larger or smaller changes.
[b] See footnote 7 for details.
[c] Rising to £820 million by 2018–19.
[d] The government previously estimated the yield at £2.5 billion but no longer publishes an estimate.
[e] A £500 reduction raises £20 million but the yield from larger reductions will be more than proportional.
[f] The government previously estimated the yield at £490 million but no longer publishes an estimate.
[g] A £5,000 reduction raises £100 million but the yield from larger reductions will be more than proportional.
Note: Revenue estimates for other years adjusted in line with nominal growth in national income where appropriate to express in 2015–16 terms. Revenue estimates from different sources vary in what, if any, allowance is made for behavioural response. See text for further details.
Source: See the next page.

Source to Table 10.2
Authors' calculations using: HMRC's 'Tax expenditures, reliefs and ready reckoners statistics', https://www.gov.uk/government/collections/tax-expenditures-and-ready-reckoners; various HM Treasury Budget documents; DCLG, 'National non-domestic rates collected by local authorities in England 2014 to 2015', https://www.gov.uk/government/statistics/non-domestic-rates-collected-by-local-councils-in-england-forecast-for-2014-to-2015; Valuation Office Agency, 'Central & local rating lists: non-domestic rating in England & Wales', https://www.gov.uk/government/statistics/central-local-rating-lists-non-domestic-rating-in-england-wales; S. Adam, J. Browne and P. Johnson, 'Pensioners and the tax and benefit system', IFS Briefing Note BN130, 2012, http://www.ifs.org.uk/bns/bn130.pdf; HM Treasury's opposition policy costings, https://www.gov.uk/government/publications/hm-treasurys-opposition-policy-costings; and the IFS tax and benefit microsimulation model, TAXBEN, run on uprated data from the 2012–13 Family Resources Survey.

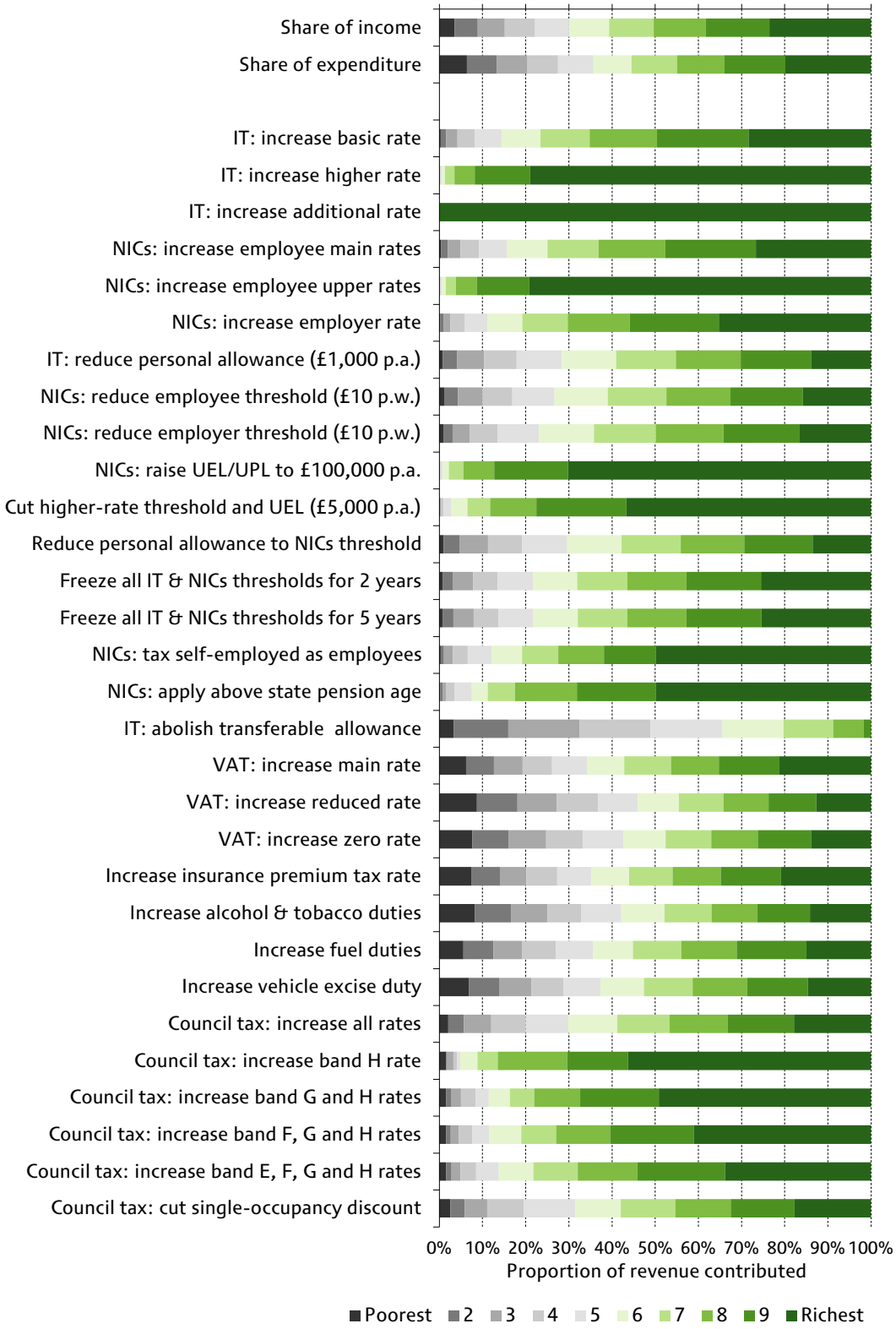
Should the next government decide to follow the well-trodden path of increasing taxes following the general election, the simplest way to raise a large amount of revenue would be to increase rates of the three main taxes – income tax, NICs and VAT. Small increases in these taxes could raise relatively large sums, because they are spread across a lot of people. Of these, increasing VAT would be the least progressive (while still somewhat progressive, contrary to popular perception), but also the least damaging to work incentives. Each of these would also involve exacerbating another existing distortion in the tax system – to savings decisions, to the troublesome labour/capital distinction or to consumption patterns. Increasing rates of corporation tax, council tax, business rates or fuel duties also offers the potential to raise significant sums, though the recent trend has been to reduce rates of these taxes.

A relatively small number of high-income households already provide a large share of tax revenue, reflecting tax structures as well as unequally distributed resources, and have also experienced the biggest tax rises from the fiscal consolidation to date. If the next government wants to continue to target tax increases on the best-off, a straightforward way to do so would be to increase rates of income tax, NICs or CGT for those with high incomes. Yet the fact that these changes affect small and relatively responsive groups of individuals means that raising a given amount of revenue would entail much bigger increases in tax rates – and more damage to incentives – among those affected than increases in broader-based taxes. Extending high tax rates to a broader section of society might therefore have greater revenue-raising potential while still hitting mostly the well-off.

Raising inheritance tax, reducing the limits on tax-free pension saving and introducing a 'mansion tax' on high-value properties would also be options. Yet there exist better alternatives to each of these measures with a similar underlying rationale. If the government believes that bequests ought to be taxed, it is not clear why gifts made throughout life should not be treated in the same way. Further reducing the amount that can be saved in a registered pension scheme is inferior to reducing the large and ill-designed subsidies that pension saving currently receives even among those who already have large pension funds. Finally, introducing a separate 'mansion tax' would be unnecessarily complicated when council tax could be brought up to date and refocused on higher-value properties.

Almost all the UK's major taxes include costly reliefs which often (though not always) favour some groups or activities over others in ways that are inequitable, distort behaviour and complicate the tax system. These include zero and reduced rates of VAT on certain goods; preferential NICs treatment of self-employment income and employer pension contributions; inheritance tax and business rates reliefs for agricultural

Figure 10.9. Distributional impact of possible tax rises



Note: NICs 'employee' rate increases are for employee and self-employed rates. Income decile groups are derived by dividing all households into 10 equal-sized groups according to income adjusted for household size using the McClements equivalence scale. Income excludes imputed rental income from owner-occupied housing; expenditure excludes (actual and imputed) housing consumption. See text for further details.
Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on uprated data from the 2012–13 Family Resources Survey and the 2012 Living Costs and Food Survey.

property; capital gains tax relief for owner-managed businesses and for assets bequeathed at death; reduced business rates for low-value properties; and a council tax discount for sole occupants. In most cases, removing these reliefs would leave the tax system simpler and more efficient than simply increasing tax rates – though policymakers must also decide where they want the burden of any tax increases to fall.

Without making distributional value judgements of our own, we cannot say what would be the best way to raise additional revenue. But we can highlight some tax rises that should definitely be avoided. Stamp duty land tax is a particularly damaging tax and recent governments' tendency to turn to it for more revenue should be resisted. And while there are sensible ways to raise more revenue from the taxation of pension saving, the widespread proposal to restrict income tax relief on pension contributions to the basic rate is misguided.

If a future government does decide to raise taxes, much attention will doubtless focus on the size of the increase. But the design of taxes matters hugely. How the government chooses to raise a given amount of additional revenue would affect both the distribution of the burden across the population and the pattern of economic activity. Tax rises could exacerbate the weaknesses of the current tax system or begin to eliminate them. The consequences of tax increases depend on their quality as well as their quantity.

Appendix A. Headline tax and benefit rates and thresholds

	2014–15	2015–16[a]
Income tax		
Personal allowance: born after 5/4/48	£10,000 p.a.	£10,600 p.a.
born between 6/4/38 and 5/4/48	£10,500 p.a.	£10,600 p.a.
born before 6/4/38	£10,660 p.a.	£10,660 p.a.
Married couple's allowance, restricted to 10%:		
at least one spouse or civil partner born before 6/4/35	£8,165 p.a.	£8,355 p.a.
Basic rate	20%	20%
Higher rate	40%	40%
Additional rate	45%	45%
Tax rates on interest income	10%, 20%, 40%, 45%	0%, 20%, 40%, 45%
Tax rates on dividend income	10%, 32.5%, 37.5%[b]	10%, 32.5%, 37.5%[b]
Starting-rate limit	£2,880 p.a.	£5,000 p.a.
Basic-rate limit	£31,865 p.a.	£31,785 p.a.
Higher-rate limit	£150,000 p.a.	£150,000 p.a.
Income limit for personal allowance	£100,000 p.a.	£100,000 p.a.
National Insurance		
Lower earnings limit (LEL)	£111 p.w.	£112 p.w.
Upper earnings limit (UEL)	£805 p.w.	£815 p.w.
Upper accrual point (UAP)	£770 p.w.	£770 p.w.
Primary earnings threshold (employee)	£153 p.w.	£155 p.w.
Secondary earnings threshold (employer)	£153 p.w.	£156 p.w.
Class 1 contracted-in rate: employee – below UEL	12%	12%
– above UEL	2%	2%
employer – below UEL[c]	13.8%	13.8% / 0%
– above UEL	13.8%	13.8%
Class 1 contracted-out rate: employee – below UAP	10.6%	10.6%
(salary-related schemes) – UAP to UEL	12%	12%
– above UEL	2%	2%
employer – below UAP	10.4%	10.4%
– above UAP	13.8%	13.8%
Corporation tax		
Rates: small profits rate	20%	20%
standard rate	21%	21%
Bank levy		
Rates: equity and long-term liabilities	0.078%	0.078%
short-term liabilities	0.156%	0.156%
Capital gains tax		
Annual exemption limit: individuals	£11,000 p.a.	£11,100 p.a.
trusts	£5,500 p.a.	£5,550 p.a.
Standard rate	18%	18%
Higher rate	28%	28%
Inheritance tax		
Threshold	£325,000	£325,000
Rate for transfer at or near death	40%	40%
Value added tax		
Registration threshold	£81,000 p.a.	£82,000 p.a.
Standard rate	20%	20%
Reduced rate	5%	5%

Continues

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		2014–15	2015–16[a]
Excise duties			
Beer (pint at 3.9% abv)		41.5p	42.4p[d]
Wine (75cl bottle at 12% abv)		205.0p	209.3p[d]
Spirits (70cl bottle at 40% abv)		790.2p	806.7p[d]
20 cigarettes:[e] specific duty		368.2p	385.1p[d]
	ad valorem (16.5% of retail price)	143.6p	147.7p[d]
Ultra-low-sulphur petrol (litre)		57.95p	57.95/59.17p[d]
Ultra-low-sulphur diesel (litre)		57.95p	57.95/59.17p[d]
Air passenger duty			
Band A (up to 2,000 miles):	economy	£13	£13[f]
	club & first class[g]	£26	£26
	higher rate[h]	-	£78
Band B (2,001–4,000 miles):	economy	£69	£71[f]
	club & first class	£138	£142
	higher rate	-	£426
Band C (4,001–6,000 miles):	economy	£85	£71[f]
	club & first class	£170	£142
	higher rate	-	£426
Band D (6,001 or more miles):	economy	£97	£71[f]
	club & first class	£194	£142
	higher rate	-	£426
Betting and gaming duty			
Gaming duty (depends on gross gaming yield)		15–50%	15–50%
Spread betting rate:	financial bets	3%	3%
	other bets	10%	10%
Insurance premium tax			
Standard rate		6%	6%
Higher rate (for insurance sold accompanying certain goods and services)		20%	20%
Stamp duty[i]			
Land and buildings:			
residential threshold		£125,000	£125,000
average/marginal tax rate for house values:		*average rate:*	*marginal rate:*
	up to threshold	0%	0%
	threshold–£250,000	1%	2%
	£250,001–£500,000	3%	5%
	£500,001–£925,000	4%	5%
	£925,001–£1,000,000	4%	10%
	£1,000,001–£1,500,000	5%	10%
	£1,500,001–£2,000,000	5%	12%
	above £2,000,000	7%	12%
non-residential threshold		£150,000	£150,000
average tax rate for property values:		*average rate:*	*average rate:*
	up to threshold[j]	0%	0%
	threshold–£250,000	1%	1%
	£250,001–£500,00	3%	3%
	above £500,000	4%	4%
Stocks and shares: rate		0.5%	0.5%
Vehicle excise duty			
Graduated system (for new cars from 1 March 2001)		£0–£500 p.a.	£0–£510 p.a.[d]
Graduated system (first-year rate from April 2010)		£0–£1,090 p.a.	£0–£1,115 p.a.[d]
Standard rate (for cars registered before March 2001)		£230 p.a.	£235 p.a.[d]
Small-car rate (engines up to 1,549cc)		£145 p.a.	£150 p.a.[d]
Heavy goods vehicles (varies according to vehicle type and weight)		£165–£1,850 p.a.	£165–£1,850 p.a.
Landfill tax			
Standard rate		£80 per tonne	£82 per tonne
Lower rate (inactive waste only)		£2.50 per tonne	£2.50 per tonne

Continues

	2014–15	2015–16[a]
Climate change levy		
Electricity	0.541p/kWh	0.554p/kWh
Natural gas	0.188p/kWh	0.193p/kWh
Liquefied petroleum gas	1.210p/kg	1.240p/kg
Any other taxable commodity	1.476p/kg	1.512p/kg
Business rates		
Rate applicable for low-value properties[k] in: England	47.1%	48.0%
Scotland	47.1%	48.0%
Wales	47.3%	48.2%
Council tax		
Average band D rate in England and Wales	£1,455	Councils to set
Income support / Income-based jobseeker's allowance		
Single (aged 25 or over)	£72.40 p.w.	£73.10 p.w.
Couple (both aged 18 or over)	£113.70 p.w.	£114.85 p.w.
Basic state pension		
Single	£113.10 p.w.	£115.95 p.w.
Couple	£180.90 p.w.	£185.45 p.w.
Winter fuel payment: for those aged 60–79	£200 p.a.	£200 p.a.
for those aged 80 or over	£300 p.a.	£300 p.a.
Pension credit		
Guarantee credit for those over female state pension age:		
single	£148.35 p.w.	£151.20 p.w.
couple	£226.50 p.w.	£230.85 p.w.
Savings credit for those aged 65 or over:		
threshold – single	£120.35 p.w.	£126.50 p.w.
– couple	£192.00 p.w.	£201.80 p.w.
maximum – single	£16.80 p.w.	£14.82 p.w.
– couple	£20.70 p.w.	£17.43 p.w.
withdrawal rate	40%	40%
Child benefit		
First child	£20.50 p.w.	£20.70 p.w.
Other children	£13.55 p.w.	£13.70 p.w.
Threshold[l]	£50,000 p.a.	£50,000 p.a.
Withdrawal rate	1% per £100	1% per £100
Child tax credit		
Family element	£545 p.a.	£545 p.a.
Child element	£2,750 p.a.	£2,780 p.a.
Disabled child element	£3,100 p.a.	£3,140 p.a.
Working tax credit		
Basic element	£1,940 p.a.	£1,960 p.a.
Couple and lone-parent element	£1,990 p.a.	£2,010 p.a.
30-hour element	£800 p.a.	£810 p.a.
Disabled worker element	£2,935 p.a.	£2,970 p.a.
Childcare element:		
maximum eligible cost for one child	£175 p.w.	£175 p.w.
maximum eligible cost for two or more children	£300 p.w.	£300 p.w.
proportion of eligible costs covered	70%	70%
Features common to child and working tax credits		
Threshold	£6,420 p.a.	£6,420 p.a.
Threshold if entitled to child tax credit only	£16,010 p.a.	£16,105 p.a.
Withdrawal rate	41%	41%
Maternity benefits		
Sure Start maternity grant	£500	£500
Statutory maternity pay: weeks 1–6	90% of earnings	90% of earnings
weeks 7–33	£138.18 p.w., or 90% of earnings if lower	£139.58 p.w., or 90% of earnings if lower
Maternity allowance	£138.18 p.w.	£139.58 p.w.

Notes and source to table

[a] 2015–16 figures take pre-announced values where available and estimated results of standard indexation otherwise.

[b] Offsetting tax credits available, which reduce marginal effective tax rates to 0%, 25% and 30.6%.

[c] From April 2015, employers are not liable for National Insurance contributions on the earnings of employees under the age of 21 (and apprentices under the age of 25) below the upper earnings limit.

[d] Assumes RPI inflation of 2.1% in the third quarter of 2015 as per Office for Budget Responsibility, *Economic and Fiscal Outlook: December 2014*. Fuel duty increase in April 2015 delayed until September 2015.

[e] Assumes the December 2014 average pre-tax price of king-size filter cigarettes (series CZMP from table 63 of ONS's consumer price inflation detailed reference tables).

[f] From May 2015, children aged under 12 will not be subject to air passenger duty if they are flying economy class.

[g] If any class of travel provides a seat pitch in excess of 1.016 metres (40 inches), the club and first class (standard) rate is the minimum rate that applies.

[h] The higher rate applies to flights aboard aircraft of 20 tonnes and above with fewer than 19 seats.

[i] New stamp duty schedule was applied from 4 December 2014. From 1 April 2015, stamp duty land tax is replaced by a land and buildings transaction tax in Scotland.

[j] 1% on non-residential properties up to £150,000 with annual rent of £1,000 or more.

[k] Applies to all businesses in Wales, and where rateable values are less than £25,500 in Greater London, £18,000 in the rest of England and £35,000 in Scotland. A supplement is payable on higher-value properties in England and Scotland (rising from 1.1% in 2014–15 to 1.3% in 2015–16), and an additional 0.4% is payable on all properties in the City of London.

[l] The high-income child benefit charge applies to all families containing at least one individual with a taxable income in excess of £50,000.

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Appendix B. Abbreviations

A&E	Accident and Emergency
AA	attendance allowance
AIM	London Stock Exchange's international market for smaller growing companies
AME	annually managed expenditure
AS	Autumn Statement
ASHE	Annual Survey of Hours and Earnings
ATED	annual tax on enveloped dwellings
AWE	average weekly earnings
BBC	British Broadcasting Corporation
bn	billion
BRIC	Brazil, Russia, India and China
CA	carer's allowance
CDEL	capital departmental expenditure limit
CEP	Centre for Economic Performance
CGT	capital gains tax
cl	centilitre
CPI	consumer price index
DCLG	Department for Communities and Local Government
DEL	departmental expenditure limit
DH	Department of Health
DLA	disability living allowance
DSDNI	Department for Social Development in Northern Ireland
DWP	Department for Work and Pensions
ECB	European Central Bank
EFO	Economic and Fiscal Outlook
ESA	employment and support allowance (Chapter 9) European System of National and Regional Accounts (Chapters 1, 5 and 6)
ESDS	Economic and Social Data Service
ESRC	Economic and Social Research Council
EU	European Union
FRS	Family Resources Survey
GCSE	General Certificate of Secondary Education
GDP	gross domestic product
GP	general practitioner
HBAI	Households Below Average Income
HCHS	Hospital and Community Health Services
HM	Her Majesty's
HMRC	Her Majesty's Revenue and Customs
HMT	Her Majesty's Treasury
HSCI	health service cost index
IFRS	International Financial Reporting Standards
IFS	Institute for Fiscal Studies
IHT	inheritance tax

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ILO	International Labour Organisation
IMF	International Monetary Fund
ISA	individual savings account
ISER	Institute for Economic and Social Research
IT	income tax (Chapter 10) information technology (Chapter 6)
JSA	jobseeker's allowance
kg	kilogram
kWh	kilowatt-hour
LCFS	Living Costs and Food Survey
LEL	lower earnings limit
LFS	Labour Force Survey
LHA	local housing allowance
MoD	Ministry of Defence
MPC	Monetary Policy Committee
MWSS	Monthly Wages and Salaries Survey
NAIRU	non-accelerating inflation rate of unemployment
NBER	National Bureau of Economic Research
NHS	National Health Service
NICE	non-inflationary consistent expansion
NIC	National Insurance contribution
OBR	Office for Budget Responsibility
ODA	official development assistance
OECD	Organisation for Economic Cooperation and Development
ONS	Office for National Statistics
p.a.	per annum
PAYE	Pay-As-You-Earn
PBR	Pre-Budget Report
PCI	pay cost index
PESA	Public Expenditure Statistical Analyses
PFI	Private Finance Initiative
PIP	personal independence payment
ppt	percentage point
p.w.	per week
Q	quarter
QIPP	Quality, Innovation, Productivity and Prevention
R&D	research and development
RBS	Royal Bank of Scotland
RDEL	resource departmental expenditure limit
RICS	Royal Institution of Chartered Surveyors
RPI	retail price index
RPIJ	retail price index Jevons
SAR	Special Administrative Region
SDLT	stamp duty land tax
SIC	Standard Industrial Classification
SOC	Standard Occupational Classification

SPA	state pension age
SUME	single-use military equipment
TAXBEN	the IFS tax and benefit microsimulation model
TFP	total factor productivity
TLTRO	targeted long-term refinancing operation
TME	total managed expenditure
TV	television
UAP	upper accrual point
UC	universal credit
UEL	upper earnings limit
UK	United Kingdom
UKDA	UK Data Archive
UPL	upper profits limit
US	United States
VAT	value added tax
VED	vehicle excise duty
WGA	Whole of Government Accounts