Appendix A: Forecasting the public finances[1]

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This appendix looks at the techniques used to produce the Green Budget public finance forecasts and describes in more detail the forecasts, which are discussed briefly in Chapter 5. Section A.1 compares the forecasts for borrowing in 2011–12 made in the February 2012 Green Budget and in the Office for Budget Responsibility's (OBR's) November 2011 *Economic and Fiscal Outlook* (EFO) with the eventual out-turn. Section A.2 then discusses the techniques used in making our forecasts. Section A.3 provides details of our baseline forecast for 2012–13, while Section A.4 presents the medium-term forecasts under our baseline scenario, under the Oxford Economics central scenario and under two alternative Oxford Economics scenarios.

A.1 The accuracy of our previous forecasts

The February 2012 Green Budget forecast was for a slightly lower level of current receipts than was forecast by the OBR in the November 2011 EFO and also for lower current spending, but for the same level of investment spending. Taken together, this meant that the IFS Green Budget forecast was for a smaller current budget deficit and a lower level of overall borrowing than was forecast at the time by the OBR.

The out-turn for current spending was £6.4 billion lower than we had forecast and £9.7 billion lower than the OBR had forecast. Meanwhile – as shown in Table A.1 – receipts came in £6.0 billion lower than the OBR had forecast in its 2011 EFO and £5.6 billion lower than we forecast in the February 2012 Green Budget.

Table A.1. Comparisons of forecasts for government borrowing, 2011–12

£ billion	OBR forecast, November 2011	IFS Green Budget forecast, February 2012	OBR out-turn estimate, December 2012
Current receipts	575.5	575.1	569.5
Current expenditure[a]	673.9	670.6	664.2
Surplus on current budget	–98.5	–95.6	–94.7
Net investment	28.6	28.6	26.7
Total managed expenditure	702.6	699.3	690.9
Public sector net borrowing	127.1	124.2	121.4

[a] In line with the National Accounts, depreciation has been included as current expenditure.
Source: Out-turn figures from Office for Budget Responsibility, *Economic and Fiscal Outlook*, December 2012 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-december-2012/). Forecasts from Office for Budget Responsibility, *Economic and Fiscal Outlook*, November 2011 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-november-2011/) and R. Crawford, C. Emmerson and G. Tetlow, 'Green Budget public finance forecasts', in C. Emmerson, H. Miller and P. Johnson (eds), *The IFS Green Budget: February 2012* (http://www.ifs.org.uk/budgets/gb2012/12chap4.pdf).

[1] The Green Budget 2013 is funded by the Nuffield Foundation

Table A.2 shows the breakdown of the errors in the forecasts for tax receipts contained in the November 2011 EFO and the February 2012 Green Budget. The OBR overestimated National Accounts taxes by £4.8 billion, while the Green Budget (which had the benefit of access to two months' additional out-turn data) overestimated them by £4.4 billion. The forecasting errors in the Green Budget were smaller for income tax and VAT than those made by the OBR, but larger for National Insurance contributions and fuel duties. The largest errors made by both the OBR and last year's Green Budget were for forecast income tax receipts. The OBR overestimated these by £2.7 billion, while the Green Budget overestimated them by a slightly smaller £2.2 billion. Outside of National Accounts taxes, there was a relatively small absolute error in both the OBR and Green Budget forecasts for non-tax receipts (which were overestimated by £1.2 billion in both forecasts).

Table A.2. IFS Green Budget and OBR errors in forecasting government receipts, 2011–12

£ billion	**OBR forecast, November 2011**	**IFS Green Budget, February 2012**
Income tax (net of tax credits)	+2.7	+2.2
National Insurance contributions	+0.8	+1.3
Value added tax[a]	–1.0	+0.6
Corporation tax (net of tax credits)	+1.0	+1.0
Fuel duties	+0.2	–0.6
Stamp duties	+0.1	–0.4
Other taxes	+1.0	+0.3
National Accounts taxes	+4.8	+4.4
Non-tax receipts[b]	+1.2	+1.2
Total current receipts	**+6.0**	**+5.6**

[a] Includes VAT refunds

[b] Includes interest and dividends, gross operating surplus, rent, and transfers to central government from households; net of business rate payments by local authorities, the own resources contribution to the EU budget and public corporations' onshore corporation tax payments.

Notes: Figures shown are the difference between the relevant forecast and the latest estimated out-turn for receipts in 2011–12; figures for tax receipts in this table are on a cash, rather than accruals, basis.

Source: As for Table A.1.

Lower-than-anticipated receipts were more than offset by current spending turning out to be much lower than the OBR had expected. As a result, the current budget deficit was ultimately £3.8 billion smaller than the OBR had forecast. Our forecasts for both receipts and current spending were lower than the OBR's; together, this led to a smaller error in our forecast for the current budget deficit, at just £0.9 billion. Investment spending came in £1.9 billion below both the OBR's and our forecast, and so total borrowing for 2011−12 was £5.7 billion lower than the OBR forecast and £2.8 billion lower than we forecast.

A.2 Techniques used in our forecasts

To forecast revenues for the current financial year, we examine three different sources of information for each element of government revenue before coming to a judgement. In addition to the latest OBR forecast from the December 2012 EFO, we use information on the revenues implied by a current receipts method and by the IFS modelled approach.[2] For future years, our judgement is based on the IFS model and the latest OBR forecasts.

Our judgement about spending in the current year is informed by looking at the OBR's latest forecast and by examining how spending has grown over the year to date, using a similar approach to the current receipts method used for revenues. For future years, we make a judgement based on stated government policy as well as taking into account additional pressures on social security and debt interest spending when we use economic scenarios that differ from the OBR's forecasts – these judgements are described in more detail in Sections A.3 and A.4.

Information from current receipts

The current receipts method uses information on receipts received so far in the current financial year compared with those received up to the same point in the previous financial year. An estimate for the whole of the current year's receipts is then calculated using the following formula:

$$\textit{2012-13 forecast} = \frac{\textit{Receipts received so far this year}}{\textit{Receipts received to the same point last year}} \times \textit{2011-12 receipts}$$

While this is useful when forecasting revenues in the current financial year, it obviously cannot provide projections for revenues in future years. Also, particular caution must be used when revenues are cyclical or changes have been made that may affect the timing of payments.

The IFS modelled receipts approach

The IFS public finance model estimates growth in a range of taxes (shown in Table A.3) using forecasts for the growth in the relevant tax base, combined with an estimate of the elasticity of revenue with respect to the growth in the tax base. Information from previous Budgets, Pre-Budget Reports and Autumn Statements on the revenue effects of pre-announced tax changes is then added in order to reach a forecast. Modelled receipts can be summarised by the following formula:

$$\textit{2012–13 forecast} = (\textit{2011–12 receipts} \times \textit{Tax-base change} \times \textit{Elasticity}) + \textit{Tax changes}$$

This technique also enables forecasts to be made for future years, given the expected structure of the tax system. It should be noted that these forecasts become considerably less accurate for later years, since forecasts for changes in tax bases, estimates of elasticities and the impact of tax changes all become less accurate.

The elasticities for income tax and National Insurance contributions (NICs) are estimated from TAXBEN, the IFS tax and benefit model. Corporation tax is assumed to have an elasticity of 1, as virtually all profits are taxable at the main rate. Fuel duties are forecast using an elasticity calculated from previous IFS research.[3] Beer, spirits, wine and tobacco duties are forecast using the median elasticity found in a range of UK studies.[4] Elasticities

[2] For a more detailed explanation of both these techniques, see C. Giles and J. Hall, 'Forecasting the PSBR outside government: the IFS perspective', *Fiscal Studies*, 1998, 19, 83–100.

[3] L. Blow and I. Crawford, *The Distributional Effects of Taxes on Private Motoring*, IFS Commentary 65, 1997 (http://www.ifs.org.uk/publications/1887).

[4] M. Chambers, 'Consumers' demand and excise duty receipts equations for alcohol, tobacco, petrol and DERV', Government Economic Service, Working Paper 138, August 1999.

for air passenger duty and insurance premium tax are estimated from an OBR projection for revenues from these taxes.[5]

This approach is not dissimilar from the broad approach taken by the OBR in its forecasts for revenues from individual taxes.[6] To our knowledge, we are the only institution other than the OBR to produce a detailed bottom-up forecast for the UK's public finances.

A.3 Forecasts for 2012–13

The Green Budget baseline forecast is a judgement based on the OBR's latest forecast (from the December 2012 EFO), the current receipts method and the IFS modelled approach. Each of these is presented in Table A.3, and we discuss below how we have used these pieces of information to come to our judgement.

Our forecast for total receipts in 2012–13 is £3.3 billion lower than the OBR's forecast from December 2012. This comprises a more pessimistic forecast for revenues from income tax, VAT and corporation tax, somewhat offset by more optimistic forecasts for revenues from NICs, excise duties and stamp duties. We forecast that current departmental spending will be £1.4 billion lower than the budgets set by the Treasury at the start of the year, which is £3.1 billion higher than the figure assumed by the OBR in December 2012. We assume that net investment will be the same as forecast by the OBR.

Revenues

Receipts from major taxes

We forecast that **income tax** receipts in 2012–13 will be £146.6 billion, which is the figure implied by the current receipts model. This is £3.5 billion below the OBR's forecast of £150.1 billion and considerably below the IFS model forecast. Income tax receipts in January 2013, which are typically higher than in other months due to self-assessment payments and income tax on bonuses paid in January, are particularly uncertain this year. In particular, the reduction in the top rate of income tax rate from 50p to 45p in April 2013 might lead some people to defer their income from 2012–13 to 2013–14, which could depress PAYE income tax revenues in the first three months of 2013 relative to 2012. On the other hand, self-assessment income tax receipts during the last three months of the 2011–12 tax year (which related to income received during the 2010–11 tax year) were depressed by individuals having brought forward their income to avoid the introduction of the 50p tax rate in April 2010. These one-off factors make forecasting revenues over the remaining months of this year difficult, but the trends over the year to date lead us to judge that revenues for the year as a whole will undershoot the OBR's latest forecast.

[5] We take the nominal growth in receipts projected between 2011–12 and 2016–17 by the OBR in its November 2011 Autumn Statement for these taxes and relate this to the nominal growth in consumer spending, after adjusting for the estimated impact of any policy changes.

[6] Full details of the OBR's approach can be found in OBR, *Forecasting the Public Finances*, Briefing Paper 1, January 2011 (http://budgetresponsibility.independent.gov.uk/wordpress/docs/obr_briefing1.pdf).

Table A.3. Forecasts for government borrowing in 2012–13: OBR macro scenario

£ billion	OBR, December 2012	Current receipts method[a]	IFS forecasting model	IFS forecast judgement
Income tax (net of tax credits)	150.1	150.3[b]	155.0	146.6
National Insurance contributions (NICs)	104.1	104.8	106.4	104.5
Value added tax (VAT)[c]	115.1	114.3	116.6	114.3
Corporation tax (net of tax credits)	38.9	38.9	41.7	38.2
Petroleum revenue tax	2.2	n/a	1.8	2.2
Fuel duties	26.2	n/a	26.3	26.3
Business rates	25.7	n/a	24.4	25.7
Council tax	26.3	n/a	26.0	26.3
Capital gains tax	3.7	–	4.3	3.7
Inheritance tax	3.1	n/a	3.1	3.1
Stamp duties	8.9	n/a	10.0	9.3
Tobacco duties	9.8	n/a	10.2	10.2
Spirits duties	2.8	n/a	3.0	3.0
Wine duties	3.5	n/a	3.5	3.5
Beer and cider duties	3.8	n/a	3.9	3.9
Air passenger duty	2.9	n/a	2.9	2.9
Insurance premium tax	3.1	n/a	3.0	3.0
Customs duties	2.9	n/a	3.0	3.0
Betting and gaming taxes	1.7	n/a	1.7	1.7
Landfill tax	1.1	n/a	1.1	1.1
Climate change levy	0.7	n/a	0.7	0.7
Aggregates levy	0.3	n/a	0.3	0.3
Vehicle excise duties	5.9	n/a	5.9	5.9
Bank levy	1.8	n/a	2.9	1.8
Swiss capital tax	0.3	n/a	0.3	0.3
Other taxes[d]	12.2	n/a	12.2	12.2
National Accounts taxes	**557.2**	**553.6**	**570.3**	**553.8**
Less Own resources contribution to EU budget	–5.3	n/a	–5.3	–5.3
Interest and dividends	17.6	n/a	17.6	17.6
Other receipts[e]	24.4	n/a	24.4	24.4
Current receipts	**593.8**	**590.2**	**607.0**	**590.5**
Current spending	**682.9**	**687.3**	**684.5**	**684.5**
Current balance	**–89.1**	**–97.1**	**–77.5**	**–94.0**
Net investment	–8.5	–8.5	–8.5	–8.5
Public sector net borrowing	**80.6**	**88.6**	**69.0**	**85.5**

a. Current receipts figures for income tax, NICs and VAT are on an accruals basis. Other current receipts figures are on a cash basis.
b. Current receipts figures for income tax include receipts of capital gains tax.
c. Includes VAT refunds.
d. Includes licence fees and environmental levies.
e. Includes gross operating surplus of public corporations.
Notes: With the exception of the 'current receipts method' (see note a), all figures are on an accruals basis. Current receipts figures for total receipts assume the OBR is correct in its forecasts for the taxes where the current receipts data are not available; 'current receipts' forecasts for current spending assume that the OBR's forecasts for current spending by local government and public corporations and for central government debt interest spending are correct.
Source: Authors' calculations. Office for Budget Responsibility, *Economic and Fiscal Outlook*, December 2012 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-december-2012/). Office for National Statistics, *Public Sector Finances, December 2012* (http://www.ons.gov.uk/ons/rel/psa/public-sector-finances/december-2012/index.html).

Our judgement, based on assessing the OBR's forecast and the information available from current receipts so far this year, is that **NICs** will raise £104.5 billion. This is £0.4 billion higher than the OBR's December 2012 forecast of £104.1 billion, it is slightly below the figure implied by the current receipts method (of £104.8 billion) and is £1.9 billion lower than the IFS model forecast of £106.4 billion.

For **VAT** receipts, we judge that receipts will be equal to the figure implied by the current receipts method (£114.3 billion). This is lower than the OBR's forecast for total VAT receipts (£115.1 billion); new data available since the OBR published its latest forecast show that VAT revenues grew less quickly in November and December 2012 than the OBR's forecast implied for the final five months of this year, leading us to judge that revenues will undershoot the OBR's forecast this year.

We forecast that **corporation tax** receipts will be £38.2 billion. This judgement is arrived at by taking the IFS model forecast for onshore corporation tax receipts (£33.9 billion) and the OBR's forecast for offshore corporation tax receipts (£5.2 billion) and tax credits (–£0.9 billion). This combined forecast is slightly below both the OBR's forecast for total corporation tax receipts and the figure implied by the current receipts method.

We forecast that revenues from **fuel duties** will be £26.3 billion, as forecast by the IFS model, which is only slightly above the £26.2 billion forecast by the OBR.

Other government receipts

Our forecast for **stamp duties** (of £9.3 billion) is higher than the OBR's forecast (£8.9 billion) but below the IFS model forecast (£10.0 billion). This judgement is based on the current receipts figures for stamp duty land tax, which imply that cash revenues this year will be £6.9 billion (or £0.4 billion higher than forecast by the OBR), while we assume that stamp duty on shares will come in as forecast by the OBR (at £2.4 billion).

For **petroleum revenue tax**, we take the OBR's forecast of £2.2 billion, which is slightly above the £1.8 billion forecast by the IFS model and exactly the same as implied by the current receipts method. We also take the OBR's forecasts for revenue from **business rates** (£25.7 billion) and **council tax** (£26.3 billion), which are slightly above our model forecasts (£24.4 billion and £26.0 billion respectively).

We assume that the OBR's forecast for the revenue that will be raised from the **bank levy**, the **Swiss capital tax** and the EU Emissions Trading Scheme in 2012–13 is correct. For all other tax receipts, we take the forecast from our model.

Government expenditure

We forecast that **current spending** in 2012–13 will be £684.5 billion. This is £2.3 billion lower than was forecast by the OBR in March 2012 and £1.6 billion higher than it forecast in December 2012 (as shown in Table A.4).

Between March and October 2012, central government spending grew less quickly than the OBR had forecast for the year as a whole at the time of the March Budget. In particular, this was driven by low growth in spending on the delivery and administration of public services, somewhat offset by higher growth in spending on net social benefits. In light of these trends, the OBR revised down its forecast for current spending in 2012–13 by £3.9 billion. This included a judgement that government departments would underspend their allocated resource budgets by £4.5 billion this year.

Since the OBR's last forecast was published, new figures show that growth in current spending on the delivery and administration of public services has picked up. This component of central government spending was 5.4% higher in November and December 2012 than in the same months in 2011; this compares with the OBR's December 2012 forecast that this component of spending would grow by just 1.1% over the last five months of the 2012–13 financial year. These trends lead us to judge that current spending will be £1.6 billion higher this year than the OBR forecast in December, at £684.5 billion. This implies an underspend by Whitehall departments of £2.9 billion (compared with the OBR's assumption of £4.5 billion) along with us assuming that the OBR is correct in its forecast for all other spending.

Table A.4. Comparisons of forecasts for government borrowing, 2012–13

£ billion	OBR March 2012	OBR December 2012	Green Budget February 2013	Difference between Green Budget forecast and: March	December
Current receipts	591.5	593.8	590.5	–1.0	–3.3
Current expenditure[a]	686.8	682.9	684.5	–2.3	1.6
Surplus on current budget	–95.3	–89.1	–94.0	1.3	–4.9
Net investment	–3.4	–8.5	–8.5	–5.1	0.0
Total managed expenditure	683.4	674.3	676.0	–7.4	1.6
Public sector net borrowing	91.9	80.5	85.5	–6.4	4.9

a. In line with the National Accounts, depreciation has been included as current expenditure.
Note: Figures shown in this table exclude the temporary effects of financial interventions.
Source: Authors' calculations. Office for Budget Responsibility, *Economic and Fiscal Outlook*, March 2012 and *Economic and Fiscal Outlook*, December 2012 (both available http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-december-2012/).

We assume that the OBR's forecast for **public sector net investment** (PSNI) spending of –£8.5 billion in 2012–13 (or +£18.9 billion after stripping out the impact of the transfer of Royal Mail Pension Plan, Bradford & Bingley and Northern Rock Asset Management on the public sector balance sheet) is accurate. Over the period from April 2012 to December 2012, public sector net investment spending (excluding the transfer of Royal Mail Pension Plan assets) was 18% lower than it was over the same period in 2011, compared with a 37% fall implied by the OBR's December 2012 forecast for the year as a whole. Nonetheless, our judgement is that PSNI this year will be in line with the OBR's forecast. This judgement is based on two factors: first, investment spending is inherently lumpy and therefore is less likely to evolve smoothly over the financial year than other components of spending. This will be particularly true this year, as the OBR's forecast for net investment includes an estimate that the sale of 4G mobile phone licences will raise £3.5 billion between now and April 2013; this figure will be scored in the National Accounts as negative investment spending. Second, PSNI last year came in below the OBR's November 2011 forecast (as shown in Table A.1),[7] despite the fact that by this

[7] The latest out-turn data for PSNI suggest that PSNI in 2011–12 was actually £28.0 billion – somewhat higher than the figure published by the OBR in December (and shown in Table A.1). However, this out-turn is still below the OBR's forecast from November 2011.

point last year investment spending had fallen by less relative to the previous year than had been forecast for the year as a whole in November 2011.

Government borrowing

Taken together, the IFS baseline forecast is therefore for the **current budget deficit** (that is, the difference between receipts and non-investment spending) to be £94.0 billion in 2012–13, which is £4.9 billion higher than the OBR's forecast of £89.1 billion. Because the IFS baseline forecast is for the same level of public sector net investment spending as the OBR forecasts, **public sector net borrowing** (that is, the gap between revenues and total spending, including investment) is also projected to be £4.9 billion higher than the OBR's forecast, at £85.5 billion.

A.4 Medium-term forecasts

The major risk factor for the UK's public finances over the medium term is how the economy evolves – although obviously this is a symbiotic relationship. To show some of the risks around the OBR's projection for the public finances over the next five years, we have produced four sets of public finance forecasts based on four different sets of economic forecasts.

Alternative macroeconomic scenarios: summary details

Table A.5 presents summary details of the macroeconomic forecasts and Figure A.1 summarises the forecast paths for real growth in actual and potential gross domestic product (GDP) in each case.

The Green Budget baseline scenario uses the OBR's latest macroeconomic assumptions. As detailed in its December 2012 forecast, the OBR estimates that the UK economy is operating 3.2% below its trend level in 2012–13 (that is, there is an output gap of –3.2%). The OBR expects actual GDP to grow by just 0.1% in real terms in 2012–13. After that, it projects growth of 1.5% in 2013–14, rising to between 2.1% and 2.8% per year thereafter. This path for growth leads to the estimated output gap widening between 2012–13 and 2013–14 and not being closed until after 2017–18.

Under the Oxford Economics central forecast, real GDP growth is almost exactly the same over the next five years as forecast by the OBR in December 2012 (as shown in Figure A.1). Within this, nominal growth in earnings, consumer spending and employment are very similar in the two forecasts, while price inflation is expected to be somewhat lower in the Oxford Economics central case and equity price growth is expected to be considerably higher. Since the two sets of economic forecasts are so similar, our overall forecast for growth in tax receipts and spending under the Oxford Economics central case is very similar to our baseline forecast. However, Oxford Economics judges that there is a significantly larger output gap in 2012–13 than the OBR does, at 5.2% of potential output rather than 3.2%. This implies that there is greater scope for the economy to bounce back in the Oxford Economics central case than under the OBR's forecast and thus a greater part of borrowing will reflect a temporary, rather than a structural, problem.

Table A.5. Alternative macroeconomic assumptions underlying medium-term public finances forecasts

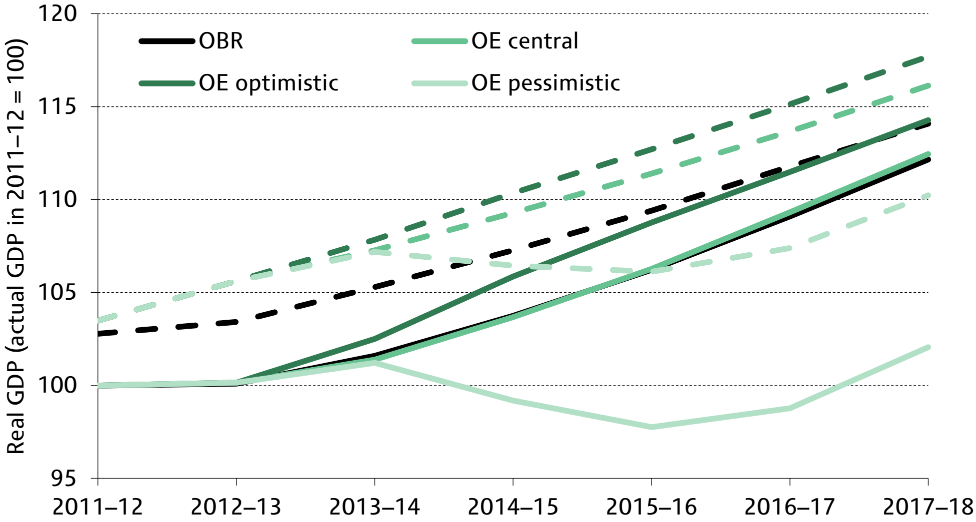
Annual % change unless otherwise stated	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18
Green Budget baseline: OBR						
Gross domestic product (GDP)	0.1	1.5	2.1	2.4	2.7	2.8
Real consumers' expenditure	1.1	0.7	1.0	0.8	1.1	1.2
Employment	1.4	0.0	0.7	0.7	0.7	1.0
Real wages	0.0	–0.9	0.3	0.8	0.6	0.3
GDP deflator	2.5	2.0	2.0	2.0	2.0	2.0
Output gap (% of potential GDP)	–3.2	–3.5	–3.3	–2.9	–2.4	–1.7
Oxford Economics, central						
Gross domestic product (GDP)	0.1	1.2	2.3	2.5	2.9	2.9
Real consumers' expenditure	1.1	0.1	1.3	1.8	2.1	1.3
Employment	1.2	0.1	0.6	0.7	0.8	0.9
Real wages	–0.8	–0.6	0.0	0.9	1.5	0.8
GDP deflator	1.8	1.7	1.7	1.8	1.8	1.9
Output gap (% of potential GDP)	–5.2	–5.5	–5.1	–4.6	–3.8	–3.2
Oxford Economics, 'corporate reawakening'						
Gross domestic product (GDP)	0.1	2.4	3.3	2.8	2.5	2.5
Real consumers' expenditure	1.1	1.1	1.8	1.9	2.1	1.6
Employment	1.2	0.5	1.4	0.9	0.6	0.7
Real wages	–0.8	0.0	0.4	0.8	1.2	0.6
GDP deflator	1.8	1.6	1.7	1.4	1.4	1.4
Output gap (% of potential GDP)	–5.2	–4.9	–4.1	–3.5	–3.2	–2.9
Oxford Economics, 'eurozone break-up'						
Gross domestic product (GDP)	0.1	1.1	–2.0	–1.4	1.0	3.3
Real consumers' expenditure	1.1	0.2	–3.3	–0.8	1.0	3.5
Employment	1.2	0.2	–0.8	–2.0	–0.2	1.2
Real wages	–0.8	–0.6	–1.3	0.7	2.1	2.0
GDP deflator	1.8	1.7	1.2	0.5	0.6	1.2
Output gap (% of potential GDP)	–5.2	–5.6	–6.8	–7.9	–8.0	–7.4

Source: Oxford Economics. Office for Budget Responsibility, *Economic and Fiscal Outlook*, December 2012 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-december-2012/).

The Oxford Economics 'corporate reawakening' forecast is more optimistic about growth in GDP in 2013–14, 2014–15 and 2015–16 than the Oxford Economics central forecast – with, in particular, higher forecast growth in real earnings and employment and somewhat lower inflation. As a result, our public finances forecast under OE's more optimistic macro scenario suggests that receipts will grow more strongly than under the central case – in particular, receipts from income tax, VAT, stamp duties and capital gains tax. The Oxford Economics 'corporate reawakening' scenario is also more optimistic than the central case about growth in the potential level of GDP. As a result, the forecast output gap in 2017–18 is similar under the 'corporate reawakening' scenario (at –2.9%) to that under the Oxford Economics central scenario, despite higher real growth in the meantime.

A far less comfortable outlook for the UK economy for the next four years is presented under the Oxford Economics 'eurozone break-up' scenario. In particular, both actual and potential GDP are forecast to fall in 2014–15 and 2015–16. In 2017–18, the economy is projected to bounce back strongly, with growth of 3.3%, but this would still leave the output gap at −7.4% by the end of the forecast period.

Figure A.1. Forecasts for actual and potential GDP



Note: Solid lines show the evolution of actual GDP under each scenario; dotted lines show the corresponding evolution of potential GDP.
Source: Authors' calculations. Oxford Economics. Office for Budget Responsibility, *Economic and Fiscal Outlook*, December 2012 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-december-2012/).

Public finance forecasts under alternative scenarios

IFS baseline

Borrowing in 2013–14 and 2014–15

As mentioned above, our baseline forecast is that borrowing in 2012–13 will be £4.9 billion higher than the OBR's forecast, at £85.5 billion. In 2013–14 and 2014–15, as shown in Table A.6, the gap between borrowing under the IFS baseline and the OBR remains roughly constant, with the IFS baseline forecast for £4.1 billion more borrowing in 2013–14 and for £4.7 billion more borrowing in 2014–15.

Our baseline forecast suggests slightly higher growth in receipts over these two years than projected by the OBR, in particular coming from faster growth in VAT and corporation tax, offset somewhat by slower growth in income tax, capital gains tax and stamp duties. The shortfall between our forecast and the OBR's declines from £3.3 billion in 2012–13 to £1.5 billion in 2014–15. Further details of the differences in growth of individual tax revenues between the IFS baseline forecast and the OBR's forecast can be found in Figure A.2.

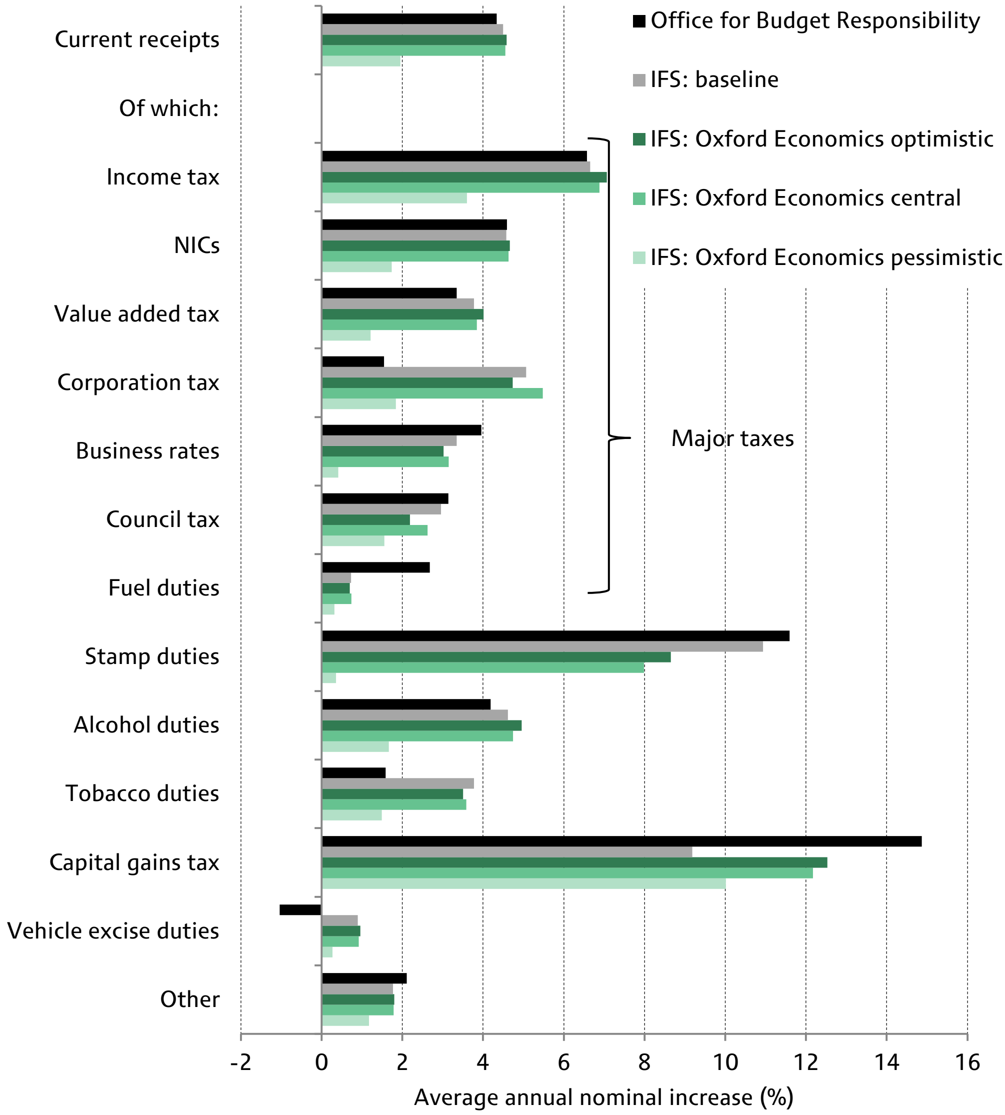
Table A.6. Medium-term public finance forecasts – £ billion

£ billion	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18
IFS: baseline						
Current budget						
Current receipts	590.5	620.1	641.5	671.9	707.4	735.8
Current expenditure[a]	684.5	697.1	707.1	722.3	732.5	742.9
Surplus on current budget	**–94.0**	**–77.0**	**–65.6**	**–50.4**	**–25.2**	**–7.2**
Capital budget						
Net investment	–8.5	26.4	27.1	22.6	22.8	22.8
Public sector net borrowing	**85.5**	**103.4**	**92.7**	**73.0**	**48.0**	**30.0**
IFS: Oxford Economics central						
Current budget						
Current receipts	590.1	617.2	638.8	668.9	706.6	737.3
Current expenditure[a]	685.3	698.6	709.0	722.9	731.8	741.6
Surplus on current budget	**–95.2**	**–81.4**	**–70.2**	**–54.0**	**–25.2**	**–4.4**
Capital budget						
Net investment	–8.5	26.4	27.1	22.5	22.6	22.6
Public sector net borrowing	**86.7**	**107.8**	**97.3**	**76.5**	**47.8**	**27.0**
OBR forecasts						
Current budget						
Current receipts	593.8	620.6	643.0	671.4	706.1	734.2
Current expenditure[a]	682.9	695.0	705.4	722.1	732.4	742.6
Surplus on current budget	**–89.1**	**–74.4**	**–62.4**	**–50.7**	**–26.3**	**–8.4**
Capital budget						
Net investment	–8.5	24.9	25.6	22.6	22.7	22.9
Public sector net borrowing	**80.5**	**99.3**	**88.0**	**73.3**	**49.0**	**31.3**
Difference in borrowing forecasts (IFS:B – OBR)	**4.9**	**4.1**	**4.7**	**–0.3**	**–1.0**	**–1.3**
Difference in borrowing forecasts (IFS:OE – OBR)	**6.1**	**8.5**	**9.3**	**3.2**	**–1.2**	**–4.4**

[a] In line with the National Accounts, depreciation has been included as current expenditure.
Source: Authors' calculations. OBR forecasts from the Office for Budget Responsibility, *Economic and Fiscal Outlook*, December 2012 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-december-2012/).

We expect spending to diverge further from the OBR's forecast over the next two years. This is largely driven by a different assumption about spending by central government departments: whereas the OBR assumed in its December 2012 forecast that Whitehall departments will underspend their budget allocations by £3.5 billion in 2013–14 and £3.0 billion in 2014–15, we assume that departments will spend all of their allocations. This is in line with the assumption we have made in previous IFS Green Budgets – and, indeed, in line with the assumption underpinning the official public finance forecasts made for years beyond the current financial year by the OBR (and, under the previous Labour government, by the Treasury) prior to Autumn Statement 2012. While there have often been underspends in recent years, these could become less common as the spending cuts become much deeper. The remainder of the difference in projections for spending under the IFS baseline forecast in 2013–14 and 2014–15 is due to slightly higher borrowing in previous years feeding into slightly higher spending on debt interest payments.

Figure A.2. OBR and IFS forecasts for revenue growth, 2012–13 to 2017–18



Notes: Income tax net of tax credits; corporation tax net of company tax credits. VAT includes VAT refunds. Taxes ranked in descending order of the December 2012 Economic and Fiscal Outlook forecasts of what they will raise in 2017–18, with all taxes that are forecast to raise less than vehicle excise duties (£5.6 billion in 2017–18) grouped together in 'other'.

Borrowing in 2015–16 and beyond

Beyond 2014–15, the gap in borrowing between the IFS baseline forecast and the OBR's forecast reverses. Part of this change reflects higher expected growth in corporation tax receipts and excise duties. The remainder is due to the fact that both we and the OBR assume that public spending beyond 2014–15 follows the profile stated in official government policy. Government policy is that, after economy-wide inflation, total public spending should be cut at the same rate in real terms between 2014–15 and 2017–18 as over the period from 2010–11 to 2014–15, ignoring the impact of any assumed underspend in 2014–15. Since our forecast is for a slightly higher level of debt interest spending in 2014–15 than the OBR expects, our forecast for total public spending remains slightly above the OBR's through to 2017–18, but the gap (at just £0.2 billion) is much smaller than in 2014–15.

Taking these projections for receipts and spending together, the IFS baseline forecast is for total borrowing to fall from £92.7 billion in 2014–15 (or 5.5% of GDP) to £30.0 billion in 2017–18 (or 1.5% of national income), which is £1.3 billion lower than the OBR forecast for 2017–18. This fall in borrowing (of 4.0% of national income) is projected to come from a cut to current spending of 3.6% of national income (from 41.9% to 38.3%) and a cut to public sector net investment of 0.4% of national income (from 1.6% to 1.2%), with total receipts broadly stable (and equal to 37.9% of national income in 2017–18).

Our baseline forecast for the current budget deficit (that is, borrowing that is not used to finance investment spending) in 2017–18 is £7.2 billion, compared with the OBR forecast of a deficit of £8.4 billion. As shown in Table A.7, the Chancellor's fiscal mandate (which requires that the cyclically-adjusted current budget must be forecast to be in balance or surplus at the end of the rolling five-year forecast horizon) would be met with a slightly smaller margin than suggested by the OBR's forecast.

Debt

Because our baseline forecast is for borrowing to be slightly higher until 2014–15 than forecast by the OBR, public sector net debt is forecast to peak at 80.6% of national income in 2015–16 (0.7 percentage points above the peak forecast by the OBR) before falling to 77.9% of national income in 2017–18. This means that, just as under the OBR's forecast, the Chancellor would be on course to miss his supplementary target.

Oxford Economics central case

Borrowing in 2013–14 and 2014–15

As shown above, the Oxford Economics central scenario has slightly weaker economic growth in 2013–14 than forecast by the OBR (1.2% compared with 1.5%), which feeds into slightly lower tax receipts and slightly higher spending on social security benefits. The Oxford Economics central forecast is, in particular, for lower property price growth and lower growth in property transactions, which results in significantly lower forecast revenues from stamp duty land tax than under our baseline forecast.

Combined with our assumption (as in our baseline forecast) that Whitehall departments do not, on average, underspend their budget allocations in 2013–14 and 2014–15, this leads to borrowing being projected to be £9.3 billion higher in 2014–15 under this scenario than under the OBR's forecast. This is due to receipts under the Oxford Economics central scenario being forecast to be £4.2 billion lower and total managed expenditure forecast to be £5.1 billion higher than the OBR forecast (or £2.7 billion lower and £1.9 billion higher, respectively, than our baseline forecast).

Borrowing in 2015–16 and beyond

Beyond 2013–14, the Oxford Economics central scenario is for slightly stronger economic growth, with particularly strong growth in nominal consumer spending. This boosts growth in forecast tax revenues and reduces growth in forecast social security benefits relative to the OBR's forecast. As was the case with the IFS baseline forecast, different assumptions made by us and the OBR about the size of any underspend by Whitehall departments in 2013–14 and 2014–15 do not feed through into differences in spending beyond 2014–15. As a result, the gap between borrowing as forecast under the Oxford Economics central scenario and that forecast by the OBR narrows and then reverses in 2016–17. In 2017–18, the forecast under the Oxford Economics scenario is for borrowing to be 1.4% of national income in 2017–18, which is £4.4 billion lower in nominal terms than forecast by the OBR.

As shown in Table A.7, the fall in borrowing between 2014–15 and 2017–18 under the Oxford Economics central scenario (from 5.8% of national income in 2014–15 to 1.4% of national income in 2017–18) comes from a cut to current spending of 3.7% of national income (from 42.6% to 38.9%), a cut to public sector net investment of 0.4% of national income (from 1.6% to 1.2%) and an increase in total receipts of 0.3% of national income (from 38.4% to 38.7%).

Even though, by 2017–18, there is little difference between the headline fiscal aggregates forecast under the Oxford Economics central scenario and the OBR's latest forecast, under the Oxford Economics central scenario trend output is higher than the OBR estimates and therefore there is more spare capacity in the UK economy throughout the forecast horizon. This means that, whereas under the OBR's forecast the headline current budget deficit of 0.4% of national income in 2017–18 translates into a cyclically-adjusted surplus of 0.9%, the deficit headline of 0.2% of national income under the Oxford Economics central scenario translates into a much larger cyclically-adjusted surplus of 2.1% of national income. Therefore, the underlying health of the public finances would be significantly better under the Oxford Economics central scenario than under the OBR's scenario. If the economy and public finances were to follow the path suggested by the Oxford Economics central scenario (and our forecasts for the public finances on that basis), Mr Osborne could reduce the total planned fiscal consolidation from 9.2% of national income to 8.0% of national income by 2017–18 and still leave cyclically-adjusted borrowing the same as projected by the OBR in the December 2012 Autumn Statement – and, therefore, still comply with his fiscal mandate with the same margin as suggested by the OBR's latest forecast.

Debt

Even though the underlying health of the public finances is significantly better under the Oxford Economics central case than under the OBR's forecast, the higher level of total borrowing over the next few years means that we forecast that public sector net debt would peak at 82.7% of national income in 2015–16 (2.8 percentage points above the peak level forecast by the OBR) before falling to 79.7% of national income in 2017–18. Therefore, under this scenario, as under the OBR's forecast and our baseline one, the Chancellor would be on course to miss his supplementary fiscal target.

Table A.7. Medium-term public finance forecasts – % of national income

% of national income	**2012–13**	**2013–14**	**2014–15**	**2015–16**	**2016–17**	**2017–18**
IFS: baseline						
Current receipts	37.8	38.3	38.0	38.1	38.3	37.9
Current expenditure[a]	43.8	43.0	41.9	41.0	39.6	38.3
Surplus on current budget	–6.0	–4.8	–3.9	–2.9	–1.4	–0.4
Cyclically-adjusted surplus on current budget	**–3.9**	**–2.4**	**–1.5**	**–0.7**	**0.4**	**1.0**
Net investment	–0.5	1.6	1.6	1.3	1.2	1.2
Public sector net borrowing	5.5	6.4	5.5	4.1	2.6	1.5
Cyclically-adjusted public sector net borrowing	3.3	4.0	3.1	2.0	0.8	0.2
Public sector net debt	**75.0**	**77.3**	**79.8**	**80.6**	**79.9**	**77.9**
IFS: Oxford Economics central						
Current receipts	38.0	38.6	38.4	38.5	38.9	38.7
Current expenditure[a]	44.1	43.7	42.6	41.6	40.3	38.9
Surplus on current budget	–6.1	–5.1	–4.2	–3.1	–1.4	–0.2
Cyclically-adjusted surplus on current budget	**–2.9**	**–1.3**	**–0.6**	**0.2**	**1.4**	**2.1**
Net investment	–0.5	1.7	1.6	1.3	1.2	1.2
Public sector net borrowing	5.6	6.7	5.8	4.4	2.6	1.4
Cyclically-adjusted public sector net borrowing	2.3	3.0	2.2	1.1	–0.2	–0.9
Public sector net debt	**75.6**	**78.7**	**81.6**	**82.7**	**81.9**	**79.7**
OBR forecasts						
Current receipts	38.0	38.3	38.1	38.1	38.2	37.9
Current expenditure[a]	43.7	42.9	41.8	41.0	39.6	38.3
Surplus on current budget	–5.7	–4.6	–3.7	–2.9	–1.4	–0.4
Cyclically-adjusted surplus on current budget	**–3.6**	**–2.2**	**–1.4**	**–0.8**	**0.4**	**0.9**
Net investment	–0.5	1.5	1.5	1.3	1.2	1.2
Public sector net borrowing	5.2	6.1	5.2	4.2	2.7	1.6
Cyclically-adjusted public sector net borrowing	3.0	3.8	2.9	2.0	0.9	0.3
Public sector net debt	**74.7**	**76.8**	**79.0**	**79.9**	**79.2**	**77.3**
Difference in cyclically-adjusted current budget forecasts (IFS:B – OBR)	**–0.3**	**–0.2**	**–0.1**	**0.1**	**0.0**	**0.1**
Difference in cyclically-adjusted current budget forecasts (IFS:OE – OBR)	**0.7**	**0.9**	**0.8**	**1.0**	**1.0**	**1.2**

[a] In line with the National Accounts, depreciation has been included as current expenditure.

Source: Authors' calculations. OBR forecasts from the Office for Budget Responsibility, *Economic and Fiscal Outlook*, December 2012 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-december-2012/).

Oxford Economics optimistic case

Under the 'corporate reawakening' scenario, stronger economic growth – in particular in employment, consumer spending and real earnings – means that the public finances recover more quickly. As shown in Table A.8, under this macroeconomic scenario we forecast that public sector net borrowing would fall to just 0.7% of national income in 2017–18 (compared with the OBR's forecast of 1.6% and our baseline forecast of 1.5%). The current budget (that is, borrowing excluding investment spending) is forecast to be in surplus by 0.4% of national income – this would be the first surplus on the current budget since 2001–02. Part of the faster growth in this scenario represents a more rapid recovery from recession and is therefore only a cyclical improvement. But part represents stronger growth in trend output. As a result, the cyclically-adjusted position is also stronger than under any of the IFS baseline forecast, the Oxford Economics central scenario or the OBR's own forecast: the cyclically-adjusted current budget is forecast to be in surplus by 2.5% of national income in 2017–18.

Under this scenario, the Chancellor would still be on course to miss his supplementary fiscal target, as net debt is forecast to rise between 2014–15 and 2015–16. However, he could reduce his planned fiscal consolidation by 1.6% of national income (or £25 billion in today's terms) and still meet his fiscal mandate with the same margin as forecast by the OBR in December 2012. Oxford Economics places a 15% chance on a scenario similar to this occurring.

Oxford Economics pessimistic case

Under the 'eurozone break-up' scenario, the health of the UK public finances through to 2017–18 is much worse. Another deep recession in 2014–15 and 2015–16, with a decline in employment and much lower growth in corporate profits than forecast under the other scenarios, is projected to lead to public sector net borrowing rising to 9.1% of national income in 2015–16. In this scenario, we assume that – although non-debt-interest, non-social-security spending will be cut in real terms at the same rate as currently implied by official government policy – higher social security spending and higher debt interest spending will lead to higher spending overall than in our baseline case. Public sector net debt is forecast to rise throughout the forecast horizon, including a sharp rise between 2014–15 and 2015–16 – implying that the Chancellor would be on course to breach his supplementary target by some considerable margin. Oxford Economics places a 15% chance on a scenario similar to this occurring.

Table A.8. Public finance forecasts under various scenarios

% of national income, unless otherwise stated	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18
IFS: baseline						
Real GDP growth (%)	0.1	1.5	2.1	2.4	2.7	2.8
Output gap (% of potential)	–3.2	–3.5	–3.3	–2.9	–2.4	–1.7
Current budget surplus	–6.0	–4.8	–3.9	–2.9	–1.4	–0.4
Cyclically-adjusted current budget surplus	–3.9	–2.4	–1.5	–0.7	0.4	1.0
Net borrowing	5.5	6.4	5.5	4.1	2.6	1.5
Net debt	75.0	77.3	79.8	80.6	79.9	77.9
IFS: Oxford Economics central						
Real GDP growth (%)	0.1	1.2	2.3	2.5	2.9	2.9
Output gap (% of potential)	–5.2	–5.5	–5.1	–4.6	–3.8	–3.2
Current budget surplus	–6.1	–5.1	–4.2	–3.1	–1.4	–0.2
Cyclically-adjusted current budget surplus	–2.9	–1.3	–0.6	0.2	1.4	2.1
Net borrowing	5.6	6.7	5.8	4.4	2.6	1.4
Net debt	75.6	78.7	81.6	82.7	81.9	79.7
IFS: Oxford Economics ‘corporate reawakening’						
Real GDP growth (%)	0.1	2.4	3.3	2.8	2.5	2.5
Output gap (% of potential)	–5.2	–4.9	–4.1	–3.5	–3.2	–2.9
Current budget surplus	–6.1	–4.7	–3.4	–2.1	–0.5	0.4
Cyclically-adjusted current budget surplus	–2.9	–1.2	–0.4	0.4	1.8	2.5
Net borrowing	5.6	6.4	5.0	3.4	1.7	0.7
Net debt	75.6	77.6	79.1	79.4	78.5	76.5
IFS: Oxford Economics ‘eurozone break-up’						
Real GDP growth (%)	0.1	1.1	–2.0	–1.4	1.0	3.3
Output gap (% of potential)	–5.2	–5.6	–6.8	–7.9	–8.0	–7.4
Current budget surplus	–6.1	–5.1	–6.4	–7.7	–7.2	–6.1
Cyclically-adjusted current budget surplus	–2.9	–1.3	–1.8	–2.4	–1.6	–0.8
Net borrowing	5.6	6.8	8.1	9.1	8.5	7.4
Net debt	75.6	78.9	87.7	97.5	104.7	107.7
OBR, December 2012						
Real GDP growth (%)	0.1	1.5	2.1	2.4	2.7	2.8
Output gap (% of potential)	–3.2	–3.5	–3.3	–2.9	–2.4	–1.7
Current budget surplus	–5.7	–4.6	–3.7	–2.9	–1.4	–0.4
Cyclically-adjusted current budget surplus	–3.6	–2.2	–1.4	–0.8	0.4	0.9
Net borrowing	5.2	6.1	5.2	4.2	2.7	1.6
Net debt	74.7	76.8	79.0	79.9	79.2	77.3

Sources: Authors’ calculations. Oxford Economics. OBR forecasts from the Office for Budget Responsibility, *Economic and Fiscal Outlook*, December 2012 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-december-2012/).

Appendix B: Headline tax and benefit rates and thresholds

	2012–13	2013–14[a]
Income tax		
Personal allowance:[b] under age 65	£8,105 p.a.	
aged 65–74	£10,500 p.a.	
aged 75 and over	£10,660 p.a.	
born after 5/4/48		£9,440 p.a.
born between 6/4/38 and 5/4/48		£10,500 p.a.
born before 6/4/38		£10,660 p.a.
Married couple's allowance, restricted to 10%: at least one spouse or civil partner born before 6/4/35	£7,705 p.a.	£7,915 p.a.
Basic rate	20%	20%
Higher rate	40%	40%
Additional rate	50%	45%
Tax rates on interest income	10%, 20%, 40%, 50%	10%, 20%, 40%, 45%
Tax rates on dividend income	10%, 32.5%, 42.5%[c]	10%, 32.5%, 37.5%[c]
Starting-rate limit	£2,710 p.a.	£2,790 p.a.
Basic-rate limit	£34,370 p.a.	£32,010 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)	£107 p.w.	£109 p.w.
Upper earnings limit (UEL)	£817 p.w.	£797 p.w.
Upper accrual point (UAP)	£770 p.w.	£770 p.w.
Primary earnings threshold (employee)	£146 p.w.	£149 p.w.
Secondary earnings threshold (employer)	£144 p.w.	£148 p.w.
Class 1 contracted-in rate: employee – below UEL	12%	12%
– above UEL	2%	2%
employer – below UEL	13.8%	13.8%
– 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	24%	23%
Capital gains tax		
Annual exemption limit: individuals	£10,600 p.a.	£10,900 p.a.
trusts	£5,300 p.a.	£5,450 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	£77,000 p.a.	£79,000 p.a.
Standard rate	20%	20%
Reduced rate	5%	5%

Continues

Continued

	2012–13	2013–14[a]
Excise duties		
Beer (pint at 3.9% abv)	43p	45p[d]
Wine (75cl bottle at 12% abv)	190p	200p[d]
Spirits (70cl bottle at 40% abv)	751p	789p[d]
20 cigarettes[e]: specific duty	335p	353p[d]
ad valorem (16.5% of retail price)	122p	126p[d]
Ultra-low-sulphur petrol (litre)	58p	58p/60p[d, f]
Ultra-low-sulphur diesel (litre)	58p	58p/60p[d, f]
Air passenger duty		
Band A (up to 2,000 miles): economy	£13	£13
club/first class	£26	£26
Band B (2,001–4,000 miles): economy	£65	£67
club/first class	£130	£134
Band C (4,001–6,000 miles): economy	£81	£83
club/first class	£162	£166
Band D (6,001 or more miles): economy	£92	£94
club/first class	£184	£188
Betting and gaming duty		
Gross profits tax	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		
Land and buildings:		
residential threshold	£125,000	£125,000
non-residential threshold	£150,000	£150,000
rate: up to threshold	0%	0%
threshold–£250,000	1%	1%
£250,000–£500,000	3%	3%
£500,000–£1,000,000	4%	4%
£1,000,000-£2,000,000	5%	5%
above £2,000,000	7%	7%
Stocks and shares: rate	0.5%	0.5%
Vehicle excise duty		
Graduated system (for new cars from 1 March 2001)	£0–£475 p.a.	£0–£490 p.a.[d]
Graduated system (first-year rate from April 2010)	£0–£1,030 p.a.	£0–£1,060 p.a.[d]
Standard rate (for cars registered before March 2001)	£220 p.a.	£225 p.a.[d]
Small-car rate (engines up to 1,549cc)	£135 p.a.	£140 p.a.[d]
Heavy goods vehicles (varies according to vehicle type and weight)	£165–£1,905 p.a.	£170–£1,965 p.a.[d]
Landfill tax		
Standard rate	£64 per tonne	£72 per tonne
Lower rate (inactive waste only)	£2.50 per tonne	£2.50 per tonne
Climate change levy		
Electricity	0.509p/kWh	0.524p/kWh
Natural gas	0.177p/kWh	0.182p/kWh
Coal	1.387p/kg	1.429p/kg
Liquefied petroleum gas	1.137p/kg	1.172p/kg
Business rates		
Rate applicable for low-value properties[g] in: England	45.0%	46.2%
Scotland	45.0%	46.2%
Wales	45.2%	46.4%
Council tax		
Average rate Band D council tax in England and Wales	£1,429 p.a.	Councils to set

Continues

Continued

	2012–13	2013–14[a]
Income Support / income-based Jobseeker's Allowance		
Single (aged 25 or over)	£71.00 p.w.	£71.70 p.w.
Couple (both aged 18 or over)	£111.45 p.w.	£112.55 p.w.
Basic State Pension		
Single	£107.45 p.w.	£110.15 p.w.
Couple	£171.85 p.w.	£176.15 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	£142.70 p.w.	£145.40 p.w.
couple	£217.90 p.w.	£222.05 p.w.
Savings credit for those aged 65 or over:		
threshold – single	£111.80 p.w.	£115.30 p.w.
threshold – couple	£178.35 p.w.	£183.90 p.w.
maximum – single	£18.54 p.w.	£18.06 p.w.
maximum – couple	£23.73 p.w.	£22.89 p.w.
withdrawal rate	40%	40%
Child Benefit		
First child	£20.30 p.w.	£20.30 p.w.
Other children	£13.40 p.w.	£13.40 p.w.
Threshold[h]	£50,000 p.a.[i]	£50,000 p.a.
Withdrawal rate	1% per £100[i]	1% per £100
Child Tax Credit		
Family element	£545 p.a.	£545 p.a.
Child element	£2,690 p.a.	£2,720 p.a.
Disabled child element	£2,950 p.a.	£3,015 p.a.
Working Tax Credit		
Basic element	£1,920 p.a.	£1,920 p.a.
Couples and lone-parent element	£1,950 p.a.	£1,970 p.a.
30-hour element	£790 p.a.	£790 p.a.
Disabled worker element	£2,790 p.a.	£2,855 p.a.
Childcare element:		
maximum eligible cost for one child	£175.00 p.w.	£175.00 p.w.
maximum eligible cost for two or more children	£300.00 p.w.	£300.00 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	£15,860 p.a.	£15,910 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	£135.45 p.w., or 90% of earnings if lower	£136.78 p.w., or 90% of earnings if lower
Maternity Allowance	£135.45 p.w.	£136.78 p.w.

a. 2013–14 figures take pre-announced values where available and estimated results of standard indexation otherwise.

b. From 2013–14 the personal allowance depends on taxable income and date of birth, rather than taxable income and age. This is the result of the phasing out of the age-related allowances.

c. Offsetting tax credits available, which reduce marginal effective tax rates to 0%, 25% and 36.1% in 2012–13, and 0%, 25% and 30.6% in 2013–14.

d. Assumes RPI inflation of 3.1% in the third quarter of 2013 as per the Office for Budget Responsibility, *Economic and Fiscal Outlook*, December 2012.

e. Assumes the December 2012 pre-tax price of cigarettes.

f. Higher rate due to be in place from September 2013.

g. 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 0.8% in 2012–13 to 0.9% in 2013–14), and an additional 0.4% is payable on all properties in the City of London.
h. The High Income Child Benefit charge applies to all families containing at least one individual with a taxable income in excess of £50,000.
i. In place from January 2013.

Sources:
http://data.parliament.uk/DepositedPapers/Files/DEP2012-1830/ScheduleofproposedbenefitratesfromApril2013.pdf;
http://www.hmrc.gov.uk/rates/index.htm;
http://cdn.hm-treasury.gov.uk/as2012_tax_and_tax_credit_rates_and_thresholds_051212.pdf;
http://www.dft.gov.uk/dvla/~/media/pdf/leaflets/v149.ashx;
http://www.cipfastats.net/uploads/ctax1213_ebook252012561032.pdf;
http://www.voa.gov.uk/corporate/Publications/businessRatesAnIntro.html;
http://www.2010.voa.gov.uk/rli/static/HelpPages/English/faqs/faq146-what_are_the_current_multipliers.html;
http://www.scotland.gov.uk/Topics/Government/local-government/17999/11199.

For descriptions of the tax and benefit systems, see J. Browne and B. Roantree, 'A survey of the UK tax system', IFS Briefing Note 9, 2012 (http://www.ifs.org.uk/bns/bn09.pdf) and J. Browne and A. Hood, 'A survey of the UK benefit system', IFS Briefing Note 13, 2012 (http://www.ifs.org.uk/bns/bn13.pdf) respectively.

For a summary of the main tax measures introduced in each Budget, Pre-Budget Report and Autumn Statement since 1979, see http://www.ifs.org.uk/ff/budget_measures.xls.

For estimates of the effects of various illustrative tax changes on government revenues, see table 1.6 of HM Revenue & Customs, *Tax Expenditures and Ready Reckoners* (http://www.hmrc.gov.uk/stats/tax_expenditures/menu.htm).

Appendix C: Abbreviations

AA	Attendance Allowance
AIM	Alternative Investment Market
AME	Annually Managed Expenditure
APF	Asset Purchase Facility
AS	Autumn Statement
B&B	Bradford and Bingley
BBC	British Broadcasting Corporation
BIS	Department for Business, Innovation and Skills
BRIC	Brazil, Russia, India and China
BRMA	Broad Rental Market Areas
CA	Carer's Allowance
CAPSNB	Cyclically-adjusted public sector net borrowing
CBI	Confederation of British Industry
CCCTB	Common Consolidated Corporate Tax Base
CCS	carbon capture and storage
CDEL	Capital Departmental Expenditure Limit
CFC	controlled foreign company
CGT	capital gains tax
CLG	communities and local government
CPI	consumer price index
CTB	Council Tax Benefit
DCLG	Department for Communities and Local Government
DECC	Department of Energy and Climate Change
DEL	Departmental Expenditure Limit
DfID	Department for International Development
DLA	Disability Living Allowance
DWP	Department for Work and Pensions
EC	European Commission
ECB	European Central Bank
EDP	excessive deficit procedures
EFO	Economic and Fiscal Outlook
ESA	Employment and Support Allowance
EU	European Union
FDI	foreign direct investment
FFS	fair fuel stabiliser
FLS	Funding for Lending Scheme
GAAR	General Anti-Abuse Rule
GB	Great Britain
GCSE	General Certificate of Secondary Education
GDP	gross domestic product
GFCF	gross fixed capital formation
GGE	general government employment
GVA	gross value added

HB	Housing Benefit
HMRC	Her Majesty's Revenue and Customs
HMSO	Her Majesty's Stationery Office
HMT	Her Majesty's Treasury
IB	Incapacity Benefit
IFS	Institute for Fiscal Studies
IHT	inheritance tax
ILO	International Labour Organisation
IMF	International Monetary Fund
IS	Income Support
ISA	Individual Savings Account
ISER	Institute for Social and Economic Research
ITEM	Independent Treasury Economic Model
JSA	Job Seekers Allowance
LEL	lower earnings limit
LFS	Labour Force Survey
LHA	Local Housing Allowance
MOD	Ministry of Defence
MP	Member of Parliament
MPC	Monetary Policy Committee
NAIRU	non-accelerating inflation rate of unemployment
NBER	National Bureau of Economic Research
NBS	National Bureau of Statistics
NHS	National Health Service
NICE	non-inflationary continuous expansion
NICs	National Insurance contributions
NIESR	National Institute of Economic and Social Research
NPV	net present value
NRAM	Northern Rock Asset Management
OBR	Office for Budget Responsibility
ODA	Official Development Assistance
OE	Oxford Economics
OECD	Organisation for Economic Cooperation and Development
OLS	ordinary least squares
ONS	Office for National Statistics
OUP	Oxford University Press
PAYE	Pay-As-You-Earn
PESA	Public Expenditure Statistical Analyses
PFI	Private Finance Initiative
PIP	Personal Independence Payment
PMI	Purchasing Managers' Index
PNFC	Private non-financial companies
PRT	Petroleum Revenue Tax
PSBR	public sector borrowing requirement
PSNB	public sector net borrowing
PSNI	public sector net investment

PSS	personal social services
QE	quantitative easing
RAC	Royal Automobile Club
RBS	Royal Bank of Scotland
RDEL	Resource Departmental Expenditure Limits
RFCT	ring fence corporation tax
RPI	retail price index
RRA	Rate of Return Allowance
SC	supplementary charge
SCS	Senior Civil Service
SDA	Severe Disablement Allowance
SDLT	stamp duty land tax
SERPS	State Earnings-Related Pension Scheme
SGP	Stability Growth Pact
SIC	Standard Industrial Classification
SMEs	small and medium-sized enterprises
SPA	state pension age
TAXBEN	IFS tax and benefit model
TFP	total factor productivity
TME	Total Managed Expenditure
TUC	Trades Union Congress
UAP	upper accrual point
UEL	upper earnings limit
UK	United Kingdom
UKCS	UK Continental Shelf
US	United States
VAT	value added tax
VED	vehicle excise duty