Appendix A: Forecasting the public finances

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This appendix looks at the techniques used to produce the Green Budget public finance forecasts. It starts by comparing the forecasts made for borrowing in 2010−11 in last year's Green Budget and in the Office for Budget Responsibility's (OBR's) November 2010 *Economic and Fiscal Outlook* (EFO) with the eventual out-turn. We then discuss the techniques used in making our forecasts, before providing more background information on the short- and medium-term public finance forecasts that are set out in Chapter 4.

A.1 The accuracy of our previous forecasts

The February 2011 Green Budget forecast was for a higher level of current receipts than was forecast by the OBR in the November 2010 EFO but for the same level of both current and investment spending. Therefore, 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 £6.0 billion lower than both we and the OBR had forecast, while – as shown in Table A.1 – receipts came in £1.7 billion higher than the OBR had forecast in its 2010 EFO and £1.2 billion lower than we forecast in the February 2011 Green Budget.

Table A.1. Comparisons of forecasts for government borrowing, 2010–11

£ billion	OBR forecast, November 2010	IFS Green Budget forecast, February 2011	OBR out-turn estimate, November 2011
Current receipts	549.7	552.6	551.4
Current expenditure[a]	655.9	655.9	649.9
Surplus on current budget	–106.2	–103.3	–98.4
Net investment	42.3	42.3	38.6
Total Managed Expenditure	698.2	698.2	688.5
Public sector net borrowing	148.5	145.6	137.1

[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: Out-turn figures from Office for Budget Responsibility, *Economic and Fiscal Outlook*, November 2011 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-november-2011/). Forecasts from Office for Budget Responsibility, *Economic and Fiscal Outlook*, November 2010 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-november-2010/) and R. Crawford, C. Emmerson and G. Tetlow, 'Green Budget public finance forecasts', in M. Brewer, C. Emmerson and H. Miller (eds), *The IFS Green Budget: February 2011* (http://www.ifs.org.uk/budgets/gb2011/11chap5.pdf).

Table A.2 shows the breakdown of the errors in the forecasts for tax receipts contained in the November 2010 EFO and the February 2011 Green Budget. The OBR underestimated National Accounts taxes by £2.2 billion, while the Green Budget (which had the benefit of access to two months' additional out-turn data) overestimated them by £0.8 billion. The forecasting errors in the Green Budget were smaller for most taxes than those made by the OBR – the exceptions being National Insurance contributions, VAT and corporation tax. The largest error made by the OBR was in its forecast for income tax receipts, which it estimated would be £2.2 billion lower than they ultimately were. The largest error in the Green Budget forecast was for revenues from National Insurance contributions, which we forecast would generate £2.3 billion more than they actually did. 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 £0.5 billion and £0.4 billion, respectively).

Table A.2. IFS Green Budget and OBR errors in forecasting government receipts, 2010–11

£ billion	**OBR forecast, November 2010**	**IFS Green Budget, February 2011**
Income tax (net of tax credits)	–2.2	–0.7
National Insurance contributions	+0.8	+2.3
Value added tax[a]	–1.0	–1.5
Corporation tax (net of tax credits)	+0.5	+0.9
Fuel duties	+0.4	+0.0
Stamp duties	+0.1	+0.1
Other taxes	–0.8	–0.3
National Accounts taxes	*–2.2*	*+0.8*
Non-tax receipts[b]	+0.5	+0.4
Total current receipts	**–1.7**	**+1.2**

[a] Includes VAT refunds

[b] Includes accruals adjustments on taxes, the tax credits adjustments, interest and dividends, gross operating surplus and rent; net of oil royalties and business rate payments by local authorities, the own resources contribution to the EU budget and public corporations' corporation tax payments.

Notes: Figures shown are the difference between the relevant forecast and the latest estimated out-turn for receipts in 2010–11; figures for tax receipts in this table are on a cash, rather than accruals, basis. Figures shown in this table exclude the temporary effects of financial interventions.

Source: As for Table A.1.

As a result of the higher-than-forecast receipts and lower-than-forecast spending, the current budget deficit was ultimately £7.8 billion smaller than the OBR had forecast. The lower-than-forecast spending more than offset the fact that revenues came in weaker than we had anticipated and so the current budget deficit was ultimately £4.9 billion smaller than we had forecast. Investment spending came in £3.7 billion below both the OBR's and our forecast, and so total borrowing for 2010−11 was £11.4 billion lower than the OBR forecast and £8.5 billion lower than we forecast.

A.2 Techniques used in our forecasts

For the current financial year, three different sources of information are examined before coming to a judgement for each element of government revenue. In addition to the latest OBR forecast from the November 2011 EFO, we use information on the revenues implied by a current receipts method and by the IFS modelled approach.[1] For future years, our judgement is based on the IFS model and the latest OBR forecasts.

Information from current receipts

The current receipts method uses information on receipts received 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:

$$\textit{2011–12 forecast} = \frac{\textit{Receipts received so far this year}}{\textit{Receipts received to the same point last year}} \times \textit{2010–11 receipts}$$

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. Both of these factors are likely to have significantly affected the timing of some tax payments in 2010–11 and 2011–12.

The IFS modelled receipts approach

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

$$\textit{2011–12 forecast} = (\textit{2010–11 receipts} \times \textit{Tax-base change} \times \textit{Elasticity}) + \textit{Tax changes}$$

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. Fuel duties are forecast using an elasticity calculated from previous IFS research.[2] Beer, spirits, wine and tobacco duties are forecast using the median elasticity found in a range of UK studies.[3] Elasticities for air passenger duty and insurance premium tax are estimated from the OBR's own projection for revenues from these taxes.[4]

This approach is not dissimilar from the broad approach taken by the OBR in its forecasts for revenues from individual taxes.[5] 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.

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[1] 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.

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

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

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

[5] 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).

A.3 Forecasts for 2011–12

The Green Budget baseline forecast is a judgement based on the OBR's latest forecast (from the November 2011 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 2011–12 is £0.4 billion lower than that made by the OBR in November 2011, as a result of more pessimistic forecasts for revenues from income tax, fuel duties, capital gains tax, stamp duties and air passenger duty, slightly offset by more optimistic forecasts for revenues from VAT and National Insurance contributions. We forecast that current spending will be £3.3 billion lower than forecast by the OBR, as a result of central government departments underspending by 1% on their current budget allocations. We forecast that net investment spending will come in as forecast by the OBR.

Receipts from major taxes

We forecast that **income tax** receipts in 2011–12 will be £150.2 billion, which is the average of the forecast from the IFS model (of £151.1 billion) and the figure implied by the current receipts model (£149.3 billion assuming that the OBR's forecast for capital gains tax receipts of £4.6 billion is correct). This is £0.5 billion below the OBR's forecast of £150.7 billion. Income tax receipts in January 2012, 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. First, the introduction of the 50p income tax rate in April 2011 might have boosted income tax receipts in the months prior to April 2011 (as, in particular, dividend payments might have been brought forward to avoid the additional tax – see Chapter 9) and consequently growth in income tax receipts in the first quarter of 2012 may appear subdued. Second, bonuses paid to employees in the financial sector will be especially difficult to forecast given the continued turmoil in financial markets.

We forecast that **NICs** will be £102.9 billion. This is between the IFS model forecast, of £102.4 billion, and the figure of £103.6 billion implied by the current receipts method.

For **VAT** receipts, we take the forecast from the IFS model of £112.7 billion, which is slightly above the OBR's forecast for total VAT receipts (£111.1 billion) but slightly below that forecast by the current receipts method once the timing effects of the increase in the standard rate of VAT have been taken into account (£113.1 billion).

We forecast that **corporation tax** receipts will be £43.2 billion, which is below the £46.0 billion forecast by the IFS model and the same as the £43.2 billion forecast by the OBR. Our figure is based on the current receipts method – which implies receipts of £42.3 billion this year – adjusted upwards to take into account the impact of the increase in the supplementary charge, which is expected to boost receipts from North Sea oil companies by more in the second half of 2011–12 than it did in the first half of 2011–12.

We forecast that revenues from **fuel duties** will be £26.2 billion, £0.8 billion lower than forecast by the OBR. This judgement is based on our forecasting model, which suggests that low growth in nominal earnings in 2011–12 (when coupled with a reduction in fuel duties and delays to the inflation indexation of fuel duties this year, announced in the March 2011 Budget) will lead to a greater decline in receipts from fuel duties this year relative to last year than forecast by the OBR.

Table A.3. Forecasts for government borrowing in 2011–12: OBR macro scenario

£ billion	**OBR, November 2011**	**Current receipts method**[a]	**IFS forecasting model**	**IFS forecast judgement**
Income tax (net of tax credits)	150.7	153.9[b]	151.1	150.2
National Insurance contributions (NICs)	102.4	103.6	102.4	102.9
Value added tax (VAT)[c]	111.1	113.1	112.7	112.7
Corporation tax (net of tax credits)	43.2	42.3	46.0	43.2
Petroleum revenue tax	1.8	n/a	1.6	1.8
Fuel duties	27.0	n/a	26.2	26.2
Business rates	24.5	n/a	24.5	24.5
Council tax	25.9	n/a	25.0	25.9
Capital gains tax	4.6	–	4.0	4.0
Inheritance tax	2.9	n/a	2.9	2.9
Stamp duties	9.0	n/a	8.5	8.5
Tobacco duties	9.6	n/a	9.7	9.7
Spirits duties	2.8	n/a	2.8	2.8
Wine duties	3.3	n/a	3.2	3.2
Beer and cider duties	3.8	n/a	3.9	3.9
Air passenger duty	2.6	n/a	2.3	2.3
Insurance premium tax	2.9	n/a	2.9	2.9
Customs duties	3.0	n/a	3.1	3.1
Betting and gaming taxes	1.6	n/a	1.5	1.5
Landfill tax	1.2	n/a	1.2	1.2
Climate change levy	0.7	n/a	0.8	0.8
Aggregates levy	0.3	n/a	0.3	0.3
Vehicle excise duties	5.8	n/a	5.8	5.8
Bank levy	2.1	n/a	1.8	2.1
Other taxes[d]	11.5	n/a	11.2	11.2
National Accounts taxes	**554.1**	**555.0**	**555.3**	**553.7**
Less Own resources contribution to EU budget	–5.3	n/a	–5.3	–5.3
Interest and dividends	3.1	n/a	3.1	3.1
Other receipts[e]	23.6	n/a	23.6	23.6
Current receipts	**575.5**	**576.4**	**576.7**	**575.1**
Current spending	**673.9**	**663.8**	**670.6**	**670.6**
Current balance	**–98.5**	**–87.4**	**–93.9**	**–95.6**
Net investment	28.6	29.4	28.6	28.6
Public sector net borrowing	**127.1**	**116.8**	**122.5**	**124.2**

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. Figures shown in this table exclude the temporary effects of financial interventions. 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 forecast for current spending by local government and public corporations is correct.
Source: Authors' calculations. Office for Budget Responsibility, *Economic and Fiscal Outlook*, November 2011 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-november-2011/). Office for National Statistics, *Public Finance Statistics December 2011* (http://www.ons.gov.uk/ons/rel/psa/public-sector-finances/december-2011/index.html).

Other government receipts

For **petroleum revenue tax**, we take the OBR's forecast of £1.8 billion, which is slightly above the £1.6 billion forecast by the IFS model. We also take the OBR's forecast for **council tax** revenues in 2011–12, which (at £25.9 billion) are slightly higher than the forecast from our model (£25.0 billion). We assume that the OBR's forecast for the revenue that will be raised from the **bank levy** in 2011–12 is correct. For all other tax receipts, we take the forecast from our model.

Government expenditure

We forecast that **current spending** in 2011–12 will be £3.3 billion lower than forecast by the OBR, at £670.6 billion. So far this year, central government spending has been growing less quickly than the OBR forecast for the year as a whole. The exception is debt interest spending, which has grown by 17.0% so far this year, compared with the OBR forecast of 11.3% for the year as a whole. However, since debt interest payments depend almost entirely on the stock of gilts already in issuance and (in the case of index-linked gilts) on inflation out-turns from previous months, all of which was known to the OBR at the time it produced its latest forecasts, we see no reason to doubt the OBR's forecast for this item of spending.

Central government spending aside from that on net social benefits and debt interest payments (broadly, spending by government departments on the administration and provision of public services) has actually been lower over the first nine months of 2011–12 than it was in the first nine months of 2010–11. This is in contrast to the 1.4% growth forecast by the OBR for the year as a whole. The likely cause of this lower growth is the pressure on government departments not to exceed the budgets for 2011–12 that they were allocated in the 2010 Spending Review; in addition, departments may perhaps be looking ahead to the further cuts that many of them will have to deliver over the next three years. In light of these considerations, we assume that there will be a 1% (or £3.3 billion) underspend on current budget allocations across Whitehall departments in 2011–12.

We assume that the OBR's forecast for **public sector net investment** (PSNI) spending of £28.6 billion in 2011–12 is accurate. Over the period from April 2011 to December 2011, public sector net investment spending was 19% lower than it was over the same period in 2010, compared with a 25% fall forecast by the OBR in November 2011 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. Second, PSNI last year came in below the OBR's November 2010 forecast (as shown in Table A.1), despite the fact that by this 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 2010.

Government borrowing

Our forecast is for a **deficit on the current budget** of £95.6 billion for 2011–12. This is £2.9 billion more optimistic than the £98.5 billion deficit forecast by the OBR.

Since we forecast the same level of net investment in 2011–12 as the OBR does, our forecast for **public sector net borrowing** (£124.2 billion) is also £2.9 billion lower than the OBR forecast of £127.1 billion.

A.4 Medium-term forecasts

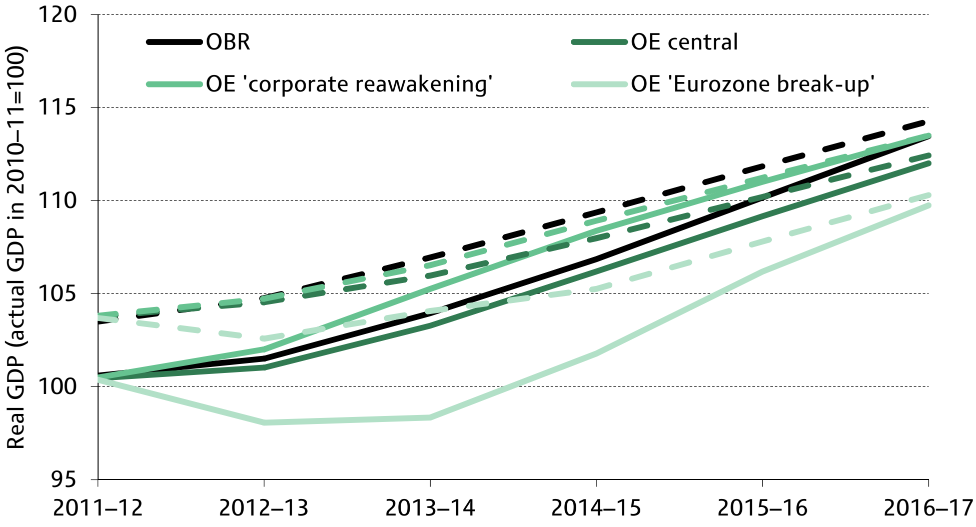
Any assessment of the fiscal stance should take into account the performance of the economy. Table A.4 presents the macroeconomic forecasts underlying the Green Budget forecasts for the public finances in each of the four scenarios used. Figure A.1 summarises the forecast paths for real growth in actual and potential gross domestic product (GDP) under each of the four sets of macroeconomic forecasts.

Table A.4. Alternative macroeconomic assumptions underlying medium-term public finances forecasts

Annual % change unless otherwise stated	**2011–12**	**2012–13**	**2013–14**	**2014–15**	**2015–16**	**2016–17**
Green Budget baseline: OBR						
Gross domestic product (GDP)	0.6	0.9	2.4	2.8	3.1	3.0
Real consumers' expenditure	–2.1	0.1	0.9	1.6	1.6	1.5
Employment	0.0	0.0	0.7	0.7	1.0	1.0
Real wages	–3.7	–1.0	0.6	1.3	0.9	0.6
GDP deflator	2.6	2.7	2.5	2.5	2.5	2.5
Output gap (% of potential GDP)	–2.8	–3.1	–2.8	–2.3	–1.5	–0.7
Oxford Economics, central						
Gross domestic product (GDP)	0.4	0.6	2.2	2.8	2.8	2.6
Real consumers' expenditure	–2.3	0.9	2.0	2.1	2.2	1.4
Employment	–0.2	–0.2	1.0	1.5	1.4	1.0
Real wages	–3.1	0.1	1.1	1.4	1.2	0.3
GDP deflator	2.2	1.8	2.0	2.2	2.3	2.5
Output gap (% of potential GDP)	–3.2	–3.4	–2.5	–1.7	–0.9	–0.4
Oxford Economics, 'corporate reawakening'						
Gross domestic product (GDP)	0.5	1.5	3.2	3.0	2.4	2.2
Real consumers' expenditure	–2.3	1.3	2.1	2.3	2.3	2.0
Employment	–0.2	0.5	1.8	1.7	1.1	0.8
Real wages	–3.1	0.3	1.1	1.1	1.3	1.4
GDP deflator	2.2	1.9	2.3	2.6	2.6	2.3
Output gap (% of potential GDP)	–3.2	–2.6	–1.2	–0.5	–0.2	0.0
Oxford Economics, 'Eurozone break-up'						
Gross domestic product (GDP)	0.4	–2.3	0.3	3.5	4.3	3.4
Real consumers' expenditure	–2.4	–3.4	–1.1	2.5	4.4	1.5
Employment	–0.2	–0.6	–0.5	1.7	2.4	1.7
Real wages	–3.1	–1.0	0.7	1.3	1.3	1.0
GDP deflator	2.2	1.5	1.6	2.2	2.6	2.6
Output gap (% of potential GDP)	–3.2	–4.4	–5.5	–3.3	–1.5	–0.5

Source: Oxford Economics. Office for Budget Responsibility, *Economic and Fiscal Outlook*, November 2011 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-november-2011/).

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*, November 2011 (http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-november-2011/).

The Green Budget baseline scenario uses published OBR forecasts for all macroeconomic assumptions. The OBR's assumption is that national income will grow by 0.6% in 2011–12. After that, it projects growth of 0.9% in 2012–13, rising to between 2.4% and 3.1% per year thereafter. This path leads to the estimated output gap being closed in 2017–18.

Under the Oxford Economics central forecast, the output gap in 2011–12 is projected to be slightly larger than the OBR forecast, at 3.2% of potential output rather than 2.8%. However, this does not translate into higher growth over the next few years, as the Oxford Economics central forecast is less optimistic than the OBR about the growth in potential output over the next few years. This is shown graphically in Figure A.1 – it is clear from this that the path for potential GDP under the Oxford Economics central forecast is flatter than that forecast by the OBR. The Oxford Economics central forecast does, however, have economy-wide inflation falling faster than the OBR forecast, which leads to stronger growth in both real wages and real consumer spending than the OBR forecast.

The Oxford Economics 'corporate reawakening' forecast is more optimistic about growth in GDP in 2012–13, 2013–14 and 2014–15 than both the Oxford Economics central forecast and the OBR's forecast. Over these years, faster growth leads to the output gap closing more quickly, with, in particular, higher levels of employment than in either the Oxford Economics central forecast or the OBR's forecast.

A far less comfortable outlook for the UK economy in 2012–13 and 2013–14 is presented under the Oxford Economics 'Eurozone break-up' scenario. In particular, GDP is forecast to fall by 2.3% in 2012–13, with a sharp fall in consumer spending of 3.4% and with both the level of employment and real wages continuing to fall. Thereafter, the economy is projected to bounce back strongly, with high growth in 2014–15, 2015–16 and 2016–17 leading to the output gap being almost closed by the end of the forecast period.

Appendix B: Headline tax and benefit rates and thresholds

	2011–12	2012–13[a]
Income tax		
Personal allowance: under age 65	£7,475 p.a.	£8,105 p.a.
aged 65–74	£9,940 p.a.	£10,500 p.a.
aged 75 and over	£10,090 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	£7,295 p.a.	£7,705 p.a.
Basic rate	20%	20%
Higher rate	40%	40%
Additional rate	50%	50%
Tax rates on interest income	10%, 20%, 40%, 50%	10%, 20%, 40%, 50%
Tax rates on dividend income	10%,[b] 32.5%,[b] 42.5%[b]	10%,[b] 32.5%,[b] 42.5%[b]
Starting-rate limit	£2,560 p.a.	£2,710 p.a.
Basic-rate limit	£35,000 p.a.	£34,370 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)	£102 p.w.	£107 p.w.
Upper earnings limit (UEL)	£817 p.w.	£817 p.w.
Primary threshold (employee)	£139 p.w.	£146 p.w.
Secondary threshold (employer)	£136 p.w.	£144 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 UEL	10.4%	10.6%
(salary-related schemes) – above UEL	2%	2%
employer – below UEL	10.1%	10.4%
– above UEL	13.8%	13.8%
Corporation tax		
Rates: small profits rate	20%	20%
standard rate	26%	25%
Capital gains tax		
Annual exemption limit: individuals	£10,600 p.a.	£11,200 p.a.
trusts	£5,300 p.a.	£5,600 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	£73,000 p.a.	£77,000 p.a.
Standard rate	20%	20%
Reduced rate	5%	5%
Excise duties		
Beer (pint at 3.9% abv)	41p	42p[c]
Wine (75cl bottle at 12% abv)	181p	187p[c]
Spirits (70cl bottle at 40% abv)	715p	737p[c]
20 cigarettes: specific duty	310p	320p[c]
ad valorem (16.5% of retail price)	110p[d]	113p[e]
Ultra-low-sulphur petrol (litre)	58p	58p/61p[f]
Ultra-low-sulphur diesel (litre)	58p	58p/61p[f]

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Continued

		2011–12	2012–13[a]
Air passenger duty			
Band A (up to 2,000 miles):	economy	£12	£12[g]
	club/first class	£24	£25[g]
Band B (2,001–4,000 miles):	economy	£60	£60[g]
	club/first class	£120	£125[g]
Band C (4,001–6,000 miles):	economy	£75	£80[g]
	club/first class	£150	£155[g]
Band D (6,001 or more miles):	economy	£85	£90[g]
	club/first class	£170	£175[g]
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%[h]	1%
	£250,000–£500,000	3%	3%
	£500,000–£1,000,000	4%	4%
	above £1 million	5%	5%
Stocks and shares: rate		0.5%	0.5%
Vehicle excise duty			
Graduated system (for new cars from 1 March 2001)		£0–£460 p.a.	£0–£475 p.a.[c]
Graduated system (first-year rate from April 2010)		£0–£1,000 p.a.	£0–£1,015 p.a.[c]
Standard rate (for cars registered before March 2001)		£215 p.a.	£220 p.a.[c]
Small-car rate (engines up to 1,549cc)		£130 p.a.	£135 p.a.[c]
Heavy goods vehicles (varies according to vehicle type and weight)		£160–£1,850 p.a.	£165–£1,905 p.a.[c]
Landfill tax			
Standard rate		£56 per tonne	£64 per tonne
Lower rate (inactive waste only)		£2.50 per tonne	£2.50 per tonne
Climate change levy			
Electricity		0.485p/kWh	0.509p/kWh
Natural gas		0.169p/kWh	0.177p/kWh
Coal		1.321p/kg	1.387p/kg
Liquefied petroleum gas		1.083p/kg	1.137p/kg
Business rates			
Rate applicable for low-value properties[i] in:	England	42.6%	45.0%
	Scotland	42.6%	45.0%
	Wales	42.8%	45.2%
Council tax			
Average rate Band D council tax in England and Wales		£1,422.44 p.a.	Councils to set
Income Support / income-based Jobseeker's Allowance			
Single (aged 25 or over)		£67.50 p.w.	£71.00 p.w.
Couple (both aged 18 or over)		£105.95 p.w.	£111.45 p.w.
Basic State Pension			
Single		£102.15 p.w.	£107.45 p.w.
Couple		£163.35 p.w.	£171.85 p.w.
Winter Fuel Payment:	for those aged 60–79	£200	£200
	for those aged 80 or over	£300	£300

Continues *Continues*

Continued

	2011–12	2012–13[a]
Pension Credit		
Guarantee credit for those over female state pension age:		
single	£137.35 p.w.	£142.70 p.w.
couple	£209.70 p.w.	£217.90 p.w.
Savings credit for those aged 65 or over:		
threshold – single	£103.15 p.w.	£111.10 p.w.
threshold – couple	£164.55 p.w.	£177.20 p.w.
maximum – single	£20.52 p.w.	£20.52 p.w.
maximum – couple	£27.09 p.w.	£27.09 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.
Child Tax Credit		
Family element	£545 p.a.	£545 p.a.
Child element	£2,555 p.a.	£2,690 p.a.
Disabled child element	£2,800 p.a.	£2,950 p.a.
Working Tax Credit		
Basic element	£1,920 p.a.	£1,920 p.a.
Couples and lone-parent element	£1,950 p.a.	£1,950 p.a.
30-hour element	£790 p.a.	£790 p.a.
Disabled worker element	£2,650 p.a.	£2,790 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		
First threshold	£6,420 p.a.	£6,420 p.a.
First threshold if entitled to Child Tax Credit only	£15,860 p.a.	£15,860 p.a.
First withdrawal rate	41%	41%
Second threshold[j]	£40,000 p.a.	n/a
Second withdrawal rate[j]	6.67%	n/a
Maternity benefits		
Sure Start Maternity Grant	£500	£500
Statutory Maternity Pay: weeks 1–6	90% of earnings	90% of earnings
weeks 7–33	£128.73 p.w., or 90% of earnings if lower	£135.45 p.w., or 90% of earnings if lower
Maternity Allowance	£128.73 p.w.	£135.45 p.w.

a. 2012–13 figures take pre-announced values where available and estimated results of standard indexation otherwise.

b. Offsetting tax credit available, which reduces marginal effective tax rates to 0%, 25% and 36.1%.

c. Assumes RPI inflation of 3.1% in the third quarter of 2012 as per the Office for Budget Responsibility, *Economic and Fiscal Outlook*, November 2011.

d. Assumes the September 2011 pre-tax price of cigarettes.

e. Assumes the September 2012 pre-tax price of cigarettes, which is itself assumed to be 3.1% higher than the September 2011 price, in line with forecast RPI inflation in the year to September 2012 as per the Office for Budget Responsibility, *Economic and Fiscal Outlook*, November 2011.

f. Higher rate applies from 1 August 2012.

g. Assumes Band A rates rounded to nearest £1 and other rates rounded to nearest £5.

h. 0% for first-time buyers between 25 March 2010 and 24 March 2012.

i. Applies for 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 (in 2011–12). A supplement of 0.7% is payable on higher-value properties in England and Scotland in 2011–12 (expected to rise to 0.8% in 2012–13).

j. From April 2012, the family element of the Child Tax Credit will be subject to the same withdrawal as the other tax credit elements. In other words, the second threshold and second withdrawal rate will be abolished.

Sources: See next page.

Sources:
http://www.dwp.gov.uk/docs/benefitrates2012.pdf;
http://www.hmrc.gov.uk/budget2011/rates-allowances.pdf;
http://www.hm-treasury.gov.uk/as2011_documents.htm;
http://www.direct.gov.uk/en/Motoring/OwningAVehicle/HowToTaxYourVehicle/DG_10012524;
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http://www.communities.gov.uk/documents/localgovernment/pdf/2055422.pdf;
http://wales.gov.uk/topics/localgovernment/finandfunding/businessrates/?lang=en;
http://www.scotland.gov.uk/Topics/Government/local-government/17999/11199/brief-guide;
http://www.cipfa.org.uk/press/press_show.cfm?news_id=61310.

For descriptions of the tax and benefit systems, see S. Adam and J. Browne, 'A survey of the UK tax system', IFS Briefing Note 9, 2011 (http://www.ifs.org.uk/bns/bn09.pdf) and W. Jin, P. Levell and D. Phillips, 'A survey of the UK benefit system', IFS Briefing Note 13, 2010 (http://www.ifs.org.uk/bns/bn13.pdf) respectively.

For a summary of the main tax measures introduced in each Budget and Pre-Budget Report 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

abv	alcohol by volume
ACE	Allowance for Corporate Equity
ASHE	Annual Survey of Hours and Earnings
BAR	Bilateral Aid Review
BBC	British Broadcasting Corporation
BCC	British Chambers of Commerce
BIS	Department for Business, Innovation and Skills
BoE	Bank of England
BSS	Brewer, Saez and Shephard, 2010 (chapter 2 of *Dimensions of Tax Design: The Mirrlees Review*
CAPSNB	Cyclically-adjusted public sector net borrowing
CB	Child Benefit
CBI	Confederation of British Industry
CCCTB	Common Consolidated Corporate Tax Base
CFC	controlled foreign company
CGT	capital gains tax
CIPFA	Chartered Institute of Public Finance and Accountancy
CPI	consumer price index
CSOP	Company Share Option Plan
CTC	Child Tax Credit
DAC	Development Assistance Committee
DB	defined benefit
DC	defined contribution
DCD	Development Cooperation Directorate
DCLG	Department for Communities and Local Government
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DEL	Departmental Expenditure Limit
DETI	Department of Enterprise, Trade and Investment (Northern Ireland)
DfID	Department for International Development
DSG	Dedicated Schools Grant
EATR	effective average tax rate
EC	European Commission
ECB	European Central Bank
EFO	Economic and Fiscal Outlook (OBR)
EFSF	European Financial Stability Facility
EMTR	effective marginal tax rate
EU	European Union
Euribor	Euro Interbank Offered Rate
FAO	Food and Agricultural Organisation
FCO	Foreign and Commonwealth Office
FDI	foreign direct investment
FRS	Family Resources Survey
GAAR	General Anti-Avoidance Rule

GDP	gross domestic product
GFATM	Global Fund to Fight Aids, Tuberculosis and Malaria
GG	general government
GNI	gross national income
GNP	gross national product
GTLP	Global Trade Liquidity Programme
GVA	gross value added
HMRC	Her Majesty's Revenue and Customs
HMT	Her Majesty's Treasury
ICAI	Independent Commission for Aid Impact
IFS	Institute for Fiscal Studies
ILO	International Labour Organisation
IMF	International Monetary Fund
ISM	Institute for Supply Management
IZA	Institute for the Study of Labor
LEL	lower earnings limit
LFS	Labour Force Survey
LIBOR	London Interbank Offered Rate
MAR	Multilateral Aid Review
MPC	Monetary Policy Committee
NAIRU	non-accelerating inflation rate of unemployment
NBER	National Bureau of Economic Research
NGO	non-governmental organisation
NHS	National Health Service
NI	National Insurance
	Northern Ireland
NICs	National Insurance contributions
NPA	normal pension age
NPL	non-performing loan
NVQ	National Vocational Qualification
OBR	Office for Budget Responsibility
ODA	Official Development Assistance
OE	Oxford Economics
OECD	Organisation for Economic Cooperation and Development
OIS	Overnight Indexed Swap
OLS	ordinary least squares
ONS	Office for National Statistics
OPTs	Occupied Palestinian Territories
PAYE	Pay-As-You-Earn
PBR	Pre-Budget Report
PLC	public limited company
PMI	Purchasing Managers' Index
PPA	Programme Partnership Agreement
ppt	percentage point
PRB	Pay Review Body
PSBR	public sector borrowing requirement

PSGI	public sector gross investment
PSNB	public sector net borrowing
PSNI	public sector net investment
QE	quantitative easing
R&D	research and development
RPI	retail price index
SDLT	stamp duty land tax
SDSR	Strategic Defence and Security Review
SID	Statistics on International Development
SMEs	small and medium-sized enterprises
SNP	Scottish National Party
SPA	state pension age
TAXBEN	IFS tax and benefit model
TfL	Transport for London
TFP	total factor productivity
TME	Total Managed Expenditure
UEL	upper earnings limit
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNIDO	United Nations Industrial Development Organisation
UNISDR	United Nations International Strategy for Disaster Reduction
US	United States
VAT	value added tax