Appendix A: Forecasting public finances

Carl Emmerson and Gemma Tetlow (IFS)

This appendix looks at the techniques used for the Green Budget public finance forecasts. It starts by comparing the forecasts made for borrowing in 2007–08 in last year's Green Budget and the October 2007 Pre-Budget Report (PBR) with the eventual out-turn. It then goes on to provide more background information to the short-term and medium-term public finance forecasts that are set out in Chapter 6.

A.1 The accuracy of our previous forecasts

The January 2008 Green Budget forecast was for a lower level of current receipts and the same level of current spending as those published by the Treasury in the October 2007 PBR. The out-turn for the public finances in 2007–08 was stronger than either the 2007 PBR or the 2008 Green Budget forecast as a result of lower-than-forecast current spending and was in spite of lower-than-forecast current receipts.

The October 2007 PBR forecast that the current budget deficit in 2007–08 would be £8.3 billion, while the 2008 Green Budget forecast that it would be £10.8 billion. The actual estimated outturn from the 2008 PBR was a deficit of just £6.7 billion. Larger than forecast investment spending meant that the outturn for net borrowing diverged slightly less from the earlier forecasts, with net borrowing in 2007–08 estimated in the November 2008 PBR to have been £36.6 billion, compared to the October 2007 PBR forecast of £38.0 billion and the January 2008 Green Budget forecast of £40.5 billion.

Table A.1. A comparison of last year's IFS Green Budget forecast and the Treasury's October 2007 Pre-Budget Report forecast with the estimated out-turn for 2007–08 from the November 2008 Pre-Budget Report

£ billion	**HM Treasury PBR forecast, October 2007**	**IFS Green Budget forecast, January 2008**	**Estimate, PBR, November 2008**
Current receipts	551.2	548.7	547.5
Current expenditure[a]	559.5	559.5	554.2
Net investment	29.7	29.7	29.9
Total managed expenditure	589.2	589.2	584.1
Public sector net borrowing	38.0	40.5	36.6
Surplus on current budget	–8.3	–10.8	–6.7

a. Includes depreciation.

Sources: Out-turn figures for 2007–08 from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm). Forecasts from HM Treasury, *Pre-Budget Report and Comprehensive Spending Review*, October 2007 (http://www.hm-treasury.gov.uk/pbr_csr07_index.htm), and table 5.2 of R. Chote, C. Emmerson and G. Tetlow, 'Green Budget public finance forecasts', in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (http://www.ifs.org.uk/projects/284).

Table A.2. IFS Green Budget and Treasury errors in forecasting tax receipts, 2007–08

£ billion	**Pre-Budget Report, October 2007**	**IFS Green Budget, January 2008**
Income tax (net of tax credits)	+2.1	+2.1
National Insurance contributions	–3.9	–4.9
Value added tax	+0.8	+0.8
Corporation tax (net of tax credits)	+0.0	–2.0
Fuel Duties	+0.0	+0.0
Stamp duties	+1.0	+0.5
Other taxes	+0.9	+1.9
Net taxes & National Insurance contributions	+0.9	–1.6
Non-tax receipts[a]	+2.8	+2.8
Total current receipts	+3.7	+1.2

a. 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 PC corporation tax payments.
Sources: As Table A.1.

Current receipts came in £3.7 billion weaker than forecast in the October 2007 PBR and £1.2 billion weaker than forecast in the January 2008 IFS Green Budget. Current spending (including depreciation) came in £5.3 billion lower than forecast by both the October 2007 PBR and the January 2008 IFS Green Budget. Public sector net investment was £0.2 billion higher than either of the previous forecasts suggested.

Table A.2 shows the breakdown of the errors in the forecasts for tax receipts contained in the October 2007 PBR and the January 2008 IFS Green Budget. Total current receipts were slightly overestimated by both the Treasury and the Green Budget. The largest errors within net taxes and social security contributions were in forecasting revenues from income tax and National Insurance contributions. Net income tax receipts were overestimated by both the October 2007 Pre-Budget Report and the January 2008 IFS Green Budget by £2.1 billion. However, in both cases this was more than offset by an underestimate, of £3.9 billion by the Treasury and £4.9 billion by the IFS Green Budget, in receipts from National Insurance contributions. The October 2007 PBR forecast for corporation tax receipts proved accurate, whereas the January 2008 IFS Green Budget forecast was £2.0 billion too pessimistic.

Outside of net taxes and social security contributions, there was also an apparently large absolute error in both forecasts for non-tax receipts: both the October 2007 Pre-Budget Report and the January 2008 Green Budget overestimated non-tax receipts by £2.8 billion.

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

Treasury forecast from the November 2008 PBR, we use information from the revenues implied by a current receipts method, and the IFS modelled approach.[1]

Information from current receipts

The current receipts method uses the 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:

$$\textit{2008–09 forecast} = \frac{\textit{Receipts received so far this year}}{\textit{Receipts received to the same point last year}} \times \textit{2007–08 receipts}$$

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

The IFS modelled receipts approach

This 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 is then added in order to reach a forecast. Hence, modelled receipts can be summarised by the following formula:

$$\textit{2008–09 forecast} = (\textit{2007–08 receipts} \times \textit{Tax-base change} \times \textit{Elasticity}) + \textit{Tax changes}$$

This technique 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 are largely estimated from TAXBEN, the IFS tax and benefit model. For fuel, an elasticity calculated from previous IFS research is used.[2] Elasticities for beer, spirit, wine and tobacco duties are taken from the median elasticity found in a range of UK studies.[3]

A.3 Forecasts for 2008–09

The Green Budget forecast is a judgement based on the Treasury's latest forecast contained in the November 2008 PBR, the current receipts method and the IFS modelled approach. Each of these is presented in Table A.3. Our forecast for total receipts in 2008–09 is £6.6 billion below that which the Treasury made in PBR 2008 as a result of anticipated shortfalls in income tax, VAT, capital gains tax and stamp duty receipts. There is, however, no divergence between our expectation of spending in 2008–09 and that published in the PBR.

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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*, 19, 83–100, 1998.

[2] L. Blow and I. Crawford, *The Distributional Effects of Taxes on Private Motoring*, IFS Commentary 65, 1997.

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

HM Revenue and Customs receipts

For **income tax** (net of tax credits), we forecast £147.1 billion. This is £4.1 billion below the Treasury forecast, and is the result of our following the forecast from the IFS model.

Our forecast for **National Insurance contributions** matches that of the Treasury (£97.7 billion). This is taken on the basis that the current receipts method suggests that receipts will be £96.9 billion, and if receipts over the last three months of this financial year grow at the same rate as seen over the previous three months (relative to the same months a year ago), receipts will come in at £97.7 billion.

We forecast **VAT** receipts of £81.5 billion, which is £1.1 billion below the Treasury's forecast. However, it is above the current receipts forecast – and looking at the monthly data from the last two months of 2008 rather than the last nine (which is what the current receipts method does) suggests that the out-turn could be even worse.

Our forecast for **corporation tax** (net of tax credits) is £45.0 billion. This is slightly (£0.1 billion) above the Treasury's forecast of £44.9 billion. Until we have data on receipts in January 2009 (due to be published in February 2009), the outlook for these receipts is particularly uncertain at the moment. Therefore we decided to put considerably more weight on the Treasury's forecast, which is more pessimistic than that implied by either the current receipts method or our forecasting model.

Our forecast for receipts from **stamp duties** of £7.6 billion is lower than the Treasury's forecast of £8.3 billion. For this, we take account of the Treasury PBR forecast that housing transactions in 2008–09 will be running at just below half their 2007–08 levels, the latest data from the Nationwide house price index, which suggest that prices fell 15.9% in 2008, and the roughly 30% fall in the FTSE-All Share index seen over the first nine months of this financial year. Combined, these suggest that stamp duty revenues will be £0.7 billion lower than forecast in the 2008 PBR.

For capital gains tax, we simply interpolate the Treasury's projected decline from £5.3 billion in 2007–08 to £2.4 billion in 2009–10 giving a projection of £3.9 billion in 2008–09. This is lower than the £4.9 billion forecast by the Treasury, but we note that a similar-sized fall in the stock market in 2001 led to a similar-sized decline in CGT revenues that the Treasury is forecasting over the two years, but that this decline crystallised sooner.

We forecast that **fuel duties** will yield £25.1 billion, which is the same as the Treasury's projection and similar to both the current receipts (£24.9 billion) and the IFS forecasting model (£25.4 billion).

Other government receipts

For all other receipts, we take the Treasury's forecasts for 2008–09.

Government expenditure

We forecast that **current spending** in 2008–09 will be £586.7 billion, which is the same as the Treasury's forecast. So far this year, central government spending is running in line with the forecast from PBR 2008.

We also assume that the Treasury's forecast for £36.5 billion of **public sector net investment** in 2008–09 is accurate.

Table A.3. Forecasts for government borrowing in 2008–09

£ billion	PBR Nov. 2008	Current receipts method	IFS forecasting model	IFS forecast judgement
Income tax (net of tax credits)	151.2	159.9[e]	147.1	147.1
National Insurance contributions	97.7	96.9	104.7	97.7
Value added tax (VAT)	82.6	80.7	83.0	81.5
Corporation tax (net of tax credits)	44.9	46.2	46.9	45.0
Petroleum revenue tax	2.6	3.8	1.7	2.6
Fuel duties	25.1	24.9	25.4	25.1
Capital gains tax	4.9	n/a	5.8	3.9
Inheritance tax	3.1	3.0	3.1	3.1
Stamp duties	8.3	8.7	7.6	7.6
Tobacco duties	8.2	8.1	8.7	8.2
Spirits duties	2.3	2.4	2.5	2.3
Wine duties	2.8	2.7	2.8	2.8
Beer and cider duties	3.4	3.4	4.0	3.4
Betting and gaming duties	1.5	1.5	1.6	1.5
Air passenger duty	1.9	1.9	2.1	1.9
Insurance premium tax	2.3	2.3	2.6	2.3
Landfill tax	0.9	1.0	1.1	0.9
Climate change levy	0.7	0.7	0.7	0.7
Aggregates levy	0.4	0.4	0.4	0.4
Customs duties and levies	2.6	2.7	2.6	2.6
Total HMRC	**447.1**	**451.1**	**454.3**	**440.5**
Vehicle excise duties	5.8	5.7	5.7	5.8
Business rates	23.5	23.5	23.3	23.5
Council tax[a]	24.6	24.6	24.6	24.6
Other taxes and royalties[b]	15.7	15.7	15.0	15.7
Net taxes and NI contributions[c]	**516.6**	**520.7**	**523.0**	**510.1**
Other adjustments[d]	28.8	28.8	28.8	28.8
Current receipts	**545.5**	**549.5**	**551.8**	**538.9**
Current spending	**586.7**	**586.7**	**586.7**	**586.7**
Current balance	**–41.2**	**–37.2**	**–34.9**	**–47.8**
Net investment	36.5	36.5	36.5	36.5
Public sector net borrowing	**77.7**	**73.7**	**71.4**	**84.3**

a. PBR figures are based on stylised assumptions rather than government forecasts.
b. Includes VAT refunds and money paid into the National Lottery Distribution Fund.
c. Includes VAT and the traditional 'own resources' contributions to the EU budget.
d. This line is a sum of accruals adjustments on taxes, tax credits adjustment, interest and dividends, and other receipts, less own resources contribution to EU budget and PC corporation tax payments.
e. Current receipts estimate of income tax revenues includes capital gains tax.
Sources: PBR forecasts from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); this table is similar to table B13 on page 203. Authors' calculations.

Government borrowing

As a result of forecasting lower current receipts and the same level of current spending, we forecast a **deficit on the current budget**, of £47.8 billion for 2008–09, that is £6.6 billion more pessimistic than the £41.2 billion deficit forecast by the Treasury.

Since we forecast the same level of net investment in 2008–09 as the Treasury does, our forecast for **public sector net borrowing** (£84.3 billion) is also £6.6 billion higher than the Treasury forecast of £77.7 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 economic scenarios used.

For the Green Budget baseline forecast, the Treasury's macroeconomic forecasts are used, where these are available. The main exception to this is that, as discussed in more detail in Chapter 6, we assume that corporation tax receipts over the medium term are weaker than the Treasury has forecast. The Green Budget baseline forecast assumes that national income will shrink by ¼% in 2008–09 and a further ½% in 2009–10. After that it projects growth of 2% in 2010–11 and 3% a year thereafter. This path leads to the estimated output gap not being closed until one year after the end of the forecast horizon, in 2014–15.

Under the first alternative Green Budget scenario (the Morgan Stanley central case), there is slightly weaker growth in national income in 2008–09, slightly stronger growth in 2009–10, and similar in 2010–11 and 2011–12. From 2012–13 onwards, the economy is forecast to grow less strongly, as it is estimated that the economy will have already returned to trend activity (and in fact would move slightly above trend from 2011–12 onwards).

The second alternative Green Budget scenario (the Morgan Stanley 'pessimistic case') assumes that the economy shrinks by ¾% in 2008–09 and then by 2½% in 2009–10. After that, the economy recovers only very slowly, and yet is forecast to be back above trend in 2012–13.

The final alternative Green Budget scenario (the Morgan Stanley 'optimistic case') assumes that the economy grows by 1¼% in 2009–10 and then is able to grow by 3% or more – i.e. faster than estimated growth in trend activity – throughout the period from 2010–11 through to 2013–14.

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

Annual % change unless otherwise state	**2008 –09**	**2009 –10**	**2010 –11**	**2011 –12**	**2012 –13**	**2013 –14**
Green Budget baseline (PBR assumptions)						
Gross domestic product (GDP)	–¼	–½	2	3	3	3
Real consumers' expenditure	¾	–¾	–1½	2¼	3	3
Employment	–½	–1¼	½	1	1	1
Real wages	–1¾	5¼	1¼	¾	1½	1¾
GDP deflator	3¼	1½	2¾	2¾	2¾	2¾
Output gap (% of potential GDP)	–0.3	–1.5	–1.9	–1.3	–0.7	–0.1
Alternative Green Budget scenario I (Morgan Stanley central case)						
Gross domestic product (GDP)	–½	–¼	2	3	2¼	2½
Real consumers' expenditure	½	¼	1	2½	2¾	2
Employment	–½	–1¼	½	1	¾	¾
Real wages	–1¾	5½	–1¼	1½	1½	1
GDP deflator	4	¾	2¾	2¼	2½	2½
Output gap (% of potential GDP)	0.0	–1.5	–1.0	0.2	0.6	0.6
Alternative Green Budget scenario II (Morgan Stanley 'pessimistic case')						
Gross domestic product (GDP)	–¾	–2½	1	2	1 ½	2
Real consumers' expenditure	0	–2½	–¼	1	1¾	1¼
Employment	–½	–2¾	½	½	½	¾
Real wages	–1¾	7	¼	0	–¼	½
GDP deflator	4	–½	1¼	1½	2¾	2½
Output gap (% of potential GDP)	1.0	–2.0	–1.4	–0.1	0.7	1.2
Alternative Green Budget scenario III (Morgan Stanley 'optimistic case')						
Gross domestic product (GDP)	–0	1¼	3	3¾	3	3½
Real consumers' expenditure	¾	¼	1¾	2¾	3	2¾
Employment	–0	1	1¾	2¼	1½	¾
Real wages	3	2¾	3½	3¾	3	3¼
GDP deflator	4	1	3	2½	2½	2½
Output gap (% of potential GDP)	–0.6	–1.4	–0.8	0.4	0.7	1.4

Sources: Authors' calculations; Morgan Stanley; Treasury forecasts from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

Appendix B: Headline tax and benefit rates and thresholds

	2008–09 level	2009–10 level[a]
Income tax		
Personal allowance: under age 65	£6,035 p.a.	£6,475 p.a.
aged 65–74	£9,030 p.a.	£9,490 p.a.
aged 75 and over	£9,180 p.a.	£9,640 p.a.
Married couple's allowance, restricted to 10%:		
aged 65 or over on 6 April 2000	£6,535 p.a.	£6,865 p.a.
aged 75 or over	£6,625 p.a.	£6,965 p.a.
Basic rate	20%	20%
Higher rate	40%	40%
Tax rates on interest income	10%, 20%, 40%	10%, 20%, 40%
Tax rates on dividend income	10%, 32.5%[b]	10%, 32.5%[b]
Starting-rate limit	£2,320 p.a.	£2,440 p.a.
Basic-rate limit	£34,800 p.a.	£37,400 p.a.
National Insurance		
Lower earnings limit (LEL)	£90 p.w.	£95 p.w.
Upper earnings limit (UEL)	£770 p.w.	£844 p.w.
Earnings threshold (employee and employer)	£105 p.w.	£110 p.w.
Class 1 contracted-in rate: employee – below UEL	11%	11%
– above UEL	1%	1%
employer – below UEL	12.8%	12.8%
– above UEL	12.8%	12.8%
Class 1 contracted-out rate: employee – below UEL	9.4%	9.4%
(salary-related schemes) – above UEL	1%	1%
employer – below UEL	9.1%	9.1%
– above UEL	12.8%	12.8%
Corporation tax		
Rates: small companies' rate	21%	21%
standard rate	28%	28%
Capital gains tax		
Annual exemption limit: individuals	£9,600 p.a.	£10,100 p.a.
trusts	£4,800 p.a.	£5,050 p.a.
Rate	18%	18%
Inheritance tax		
Threshold	£312,000	£325,000
Rate for transfer at or near death	40%	40%
Value added tax		
Registration threshold	£67,000 p.a.	£68,000 p.a.
Standard rate	15%[c]	15%[c]
Reduced rate	5%	5%
Excise duties		
Beer (pint at 3.9% abv)	36p[d]	36p[d]
Wine (75cl bottle at 12% abv)	157p[d]	157p[d]
Spirits (70cl bottle at 40% abv)	622p[d]	620p[d]
20 cigarettes: specific duty	224p[d]	218p[d]
ad valorem (24% of retail price)	129p[d]	127p[d]
Ultra-low-sulphur petrol (litre)	52p[e]	54p
Ultra-low-sulphur diesel (litre)	52p[e]	54p

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	2008–09 level	2009–10 level[a]
Air passenger duty		
Destinations within the EU: economy	£10	£10[f]
club/first class	£20	£20[f]
Destinations outside the EU: economy	£40	£40[f]
club/first class	£80	£80[f]
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	5%	5%
Higher rate (for insurance sold accompanying certain goods and services)	17.5%	17.5%
Stamp duty		
Land and buildings:		
residential threshold	£175,000[g]	£175,000[g]
non-residential threshold	£150,000	£150,000
rate: up to threshold	0%	0%
threshold–£250,000	1%	1%
£250,000–£500,000	3%	3%
above £500,000	4%	4%
Stocks and shares: rate	0.5%	0.5%
Vehicle excise duty		
Graduated system (for new cars from 1 March 2001)	£0–£400 p.a.[h]	£0–£405 p.a.[h]
Standard rate	£185 p.a.	£190 p.a.
Small-car rate (engines up to 1,549cc)	£120 p.a.	£125 p.a.
Heavy goods vehicles (varies according to vehicle type and weight)	£165–£1,850 p.a.	£165–£1,850 p.a.
Landfill tax		
Standard rate	£32 per tonne	£40 per tonne
Lower rate (inactive waste only)	£2.50 per tonne	£2.50 per tonne
Climate change levy		
Electricity	0.456 p/kWh	0.470 p/kWh
Natural gas	0.159 p/kWh	0.164 p/kWh
Coal	1.242 p/kg	1.281 p/kg
Liquefied petroleum gas	1.018 p/kg	1.050 p/kg
Business rates		
Rate applicable for high-value properties[i] in: England	46.2%	48.1%
Scotland	46.2%	48.1%
Wales	46.6%	48.9%
Council tax		
Average rate band D council tax in England and Wales	£1,354 p.a.	Councils to set
Income support / income-based jobseeker's allowance		
Single (aged 25 or over)	£60.50 p.w.	£64.30 p.w.
Couple (both aged 18 or over)	£94.95 p.w.	£100.95 p.w.
Basic state pension		
Single	£90.70 p.w.	£95.25 p.w.
Couple	£145.05 p.w.	£152.30 p.w.
Winter fuel payment: for those aged 60–79	£250	£200
for those aged 80 or over	£400	£300

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		2008–09 level	2009–10 level[a]
Pension credit			
Guarantee credit for those aged 60 or over:	single	£124.05 p.w.	£130.00 p.w.
	couple	£189.35 p.w.	£198.45 p.w.
Savings credit for those aged 65 or over:			
threshold – single		£91.20 p.w.	£96.00 p.w.
threshold – couple		£145.80 p.w.	£153.40 p.w.
maximum – single		£19.71 p.w.	£20.40 p.w.
maximum – couple		£26.13 p.w.	£27.03 p.w.
withdrawal rate		40%	40%
Child benefit			
First child		£20.00 p.w.[j]	£20.00 p.w.
Other children		£13.20 p.w.[j]	£13.20 p.w.
Child tax credit			
Family element (doubled for first year of a child's life)		£545 p.a.	£545 p.a.
Child element		£2,085 p.a.	£2,235 p.a.
Disabled child element		£2,540 p.a.	£2,670 p.a.
Working tax credit			
Basic element		£1,800 p.a.	£1,890 p.a.
Couples and lone-parent element		£1,770 p.a.	£1,860 p.a.
30-hour element		£735 p.a.	£775 p.a.
Disabled worker element		£2,405 p.a.	£2,530 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		80%	80%
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		£15,575 p.a.	£16,040 p.a.
First withdrawal rate		39%	39%
Second threshold		£50,000 p.a.	£50,000 p.a.
Second withdrawal rate		1 in 15	1 in 15
Maternity benefits			
Sure Start maternity grant		£500	£500
Statutory maternity pay:	weeks 1–6	90% earnings	90% earnings
	weeks 7–33	£117.18 p.w., or 90% earnings if lower	£123.06 p.w., or 90% earnings if lower
Maternity allowance		£117.18 p.w.	£123.06 p.w.

a. 2009–10 figures take pre-announced values where available and estimated results of standard indexation otherwise.

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

c. The 15% rate applies from 1 December 2008 until 31 December 2009. Before and after these dates, the standard rate of VAT was/will be 17.5%.

d. The 2008–09 figures apply from November/December 2008 rather than the beginning of the tax year. The 2009–10 figures assume indexation in line with negative (–2¼%) RPI inflation in the year to September 2009, plus the government's commitment to a 2% real increase in the case of alcohol duties.

e. Applies from 1 December 2008 rather than the beginning of the tax year. From April to November 2008, the duty was 50p per litre.

f. Air passenger duty due to be reformed from November 2009.

g. £175,000 threshold applies from 3 September 2008 to 2 September 2009. Before and after these dates, the threshold was/will be £125,000, or £150,000 in designated disadvantaged areas.

h. Highest rate applies only to cars registered on or after 23 March 2006. For cars registered before this date, the highest rates are £210 and £215 for 2008–09 and 2009–10 respectively

i. Applies where rateable values are at least £21,500 in Greater London, £15,000 in the rest of England, £29,000 in Scotland and £5,000 in Wales. Lower rates apply below these thresholds.

j. Applies from 1 January 2009. Prior to this, the rates payable since April 2008 were £18.80 and £12.55 per week.

Sources: See next page.

Sources: Various HM Treasury and HM Revenue and Customs Press Releases, March 2008 and December 2008; HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); HM Treasury, *Tax Ready Reckoner and Tax Reliefs*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_taxreadyreckoner_287.pdf); http://www.hmrc.gov.uk; http://www.dwp.gov.uk/mediacentre/pressreleases/2008/dec/NewBenefitRates.pdf; http://www.dvla.gov.uk/media/pdf/leaflets/v149.pdf; http://www.local.communities.gov.uk/finance/busrats/bri72008.pdf; http://www.scotland.gov.uk/Topics/Government/local-government/17999/11199; http://wales.gov.uk/publications/accessinfo/drnewhomepage/busnindustrydrs/2008/nondommultiplrates09-10/?lang=cy; http://www.cipfastats.net/uploads/MainTables282200824916.pdf; http://www.hmrc.gov.uk/budget2008/bn84.pdf; http://www.hmrc.gov.uk/pbr2008/pbrn27.pdf; http://www.hmrc.gov.uk/pbr2008/pbrn28.pdf; http://www.hmrc.gov.uk/pbr2008/pbrn19.pdf.

For descriptions of the tax and benefit systems, see appendix of S. Adam, J. Browne and C. Heady, *Taxation in the UK*, 2008 (http://www.ifs.org.uk/mirrleesreview/reports/uktax.pdf) and C. O'Dea, D. Phillips and A. Vink, *A Survey of the UK Benefit System*, IFS Briefing Note 13, 2007 (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 HM Treasury, *Tax Ready Reckoner and Tax Reliefs*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_taxreadyreckoner_287.pdf).