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The distributional effect of the 2008 Pre-Budget Report

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IFS Briefing Note No. 80

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1. Introduction

The Pre-Budget Report given by the Chancellor on 24th November 2008 contained a number of changes to the tax and benefit system to come into effect at various points over the next three years.

This briefing note expands on the information provided at a briefing given by IFS researchers on the day after the Pre-Budget Report[1]. It gives details of the changes to taxes, benefits and tax credits directly affecting households, and the total distributional impact of measures announced in PBR 2008 together with pre-announced changes, by income and expenditure decile and household type, at three points in time – January 2009, April 2009 and April 2011.

It also discusses what PBR 2008 does to our impression of all tax and benefit changes under this Government. Finally, it discusses what PBR 08 did for child poverty in 2010/11 and the likely effects of the income tax changes for those earning more than £100,000 a year.

2. Measures to be implemented in January 2009

The Chancellor announced a number of tax and benefit changes to be introduced before the end of the current tax year. All of the following will be in place by January 2009:

- The main rate of VAT has been reduced from 17.5% to 15% between 1st December 2008 and 31st December 2009 at a cost of £3.8bn in the 2008/09 fiscal year.

- However, alcohol, tobacco and road fuel duties have been increased in order that the prices of these goods are not reduced as a result of the reduction in VAT. The increases in alcohol and

* This note was funded by the ESRC-funded Centre for the Microeconomic Analysis of Public Policy at IFS (grant number M535255111) Data from the Family Resources Survey were made available by the Department for Work and Pensions, and material from the Expenditure and Food Survey (EFS) was made available by the Office for National Statistics (ONS) through the UK Data Archive, and has been used by permission of the Controller of HMSO. None of these institutions bears any responsibility for the interpretation of the data in this Briefing Note.

[1] See http://www.ifs.org.uk/budgets/pbr2008/index.php

tobacco duty will raise £275m in the current fiscal year. The fuel duty increase represents the reinstatement of an increase planned for April 2008, delayed in Budget 2008 until 1st October and subsequently to Budget 2009. The delay in this increase from 1st October to 1st December has cost the Treasury £180m.

- The rate of child benefit for the first child will be increased to £20 a week from January 2009. Budget 2008 had previously announced that this would happen in April 2009, although it turned out that this represents only a 25p/week real increase. In addition, the normal indexation of the rate of child benefit for subsequent children has been brought forward from April to January. The cost of this measure will be £170m.

- A £60 one-off payment to all pensioners (and claimants of some other benefits such as long term Incapacity Benefit, Attendance Allowance and Carer's Allowance) will be made in January 2009. This will cost £900m.

Table 1 below shows the impact of these changes across the household income distribution. The temporary cut in VAT dominates these changes, and this benefits the lowest-income households most as a proportion of their income, but the highest-income households most in cash terms.

However, this may not be the best way of looking at the effects of a change in indirect taxes. In section 3, we also look at the effects of these changes when we rank households by expenditure, and when the impact of the tax changes is expressed as a proportion of household expenditure.

Table 1. Distributional effect of measures announced for January 2009

Income decile group	*Percentage change in net income*	*Average cash gain (£/week)*
Poorest	2.85%	£5.43
2nd	2.06%	£5.75
3rd	2.11%	£6.84
4th	1.81%	£6.60
5th	1.74%	£7.34
6th	1.73%	£8.28
7th	1.74%	£9.53
8th	1.55%	£10.34
9th	1.58%	£12.52
Richest	1.34%	£17.94
Overall	1.58%	£8.55

Note: Households ranked by net equivalised household income.
Source: Authors' calculations using 2006/07 FRS and 2005/06 EFS.

Similarly, the household types that gain the most in percentage terms from these changes are those that spend a lot relative to their current income, and the household types that spend the most in absolute terms gain the most in cash terms.

Table 2. Distributional effects of measures announced for January 2009

Household type	*Percentage change in net income*	*Average cash gain (£/week)*
Single, not working	1.48%	£2.78
Single, working	1.41%	£5.86
Lone parent, not working	1.90%	£5.35
Lone parent, working	2.17%	£8.47
Zero earner couple without children	1.95%	£8.09
Zero earner couple with children	1.74%	£6.37
Single earner couple without children	1.80%	£10.35
Single earner couple with children	1.86%	£12.05
Two earner couple without children	1.43%	£11.14
Two earner couple with children	1.75%	£14.03
Single Pensioner	1.68%	£4.43
Couple Pensioner	1.96%	£9.14
Multi family household without children	1.52%	£10.82
Multi family household with children	1.93%	£14.54
Overall	1.58%	£8.55

Source: Authors' calculations using 2006/07 FRS and 2005/06 EFS.

3. Measures to be introduced in April 2009

A number of tax and benefit changes had already been announced for April 2009 or were otherwise expected to happen in April 2009, namely:

- The income tax higher rate threshold will be increased by £800 and the National Insurance Upper Earnings Limit will be increased up to this level,

- The rate of Child Benefit for the first child was due to increase to £20/week, or a 25p/week real increase,

- The child element of the Child Tax Credit was due to increase by £50/year,

- Child Benefit will cease to be counted as income for the purposes of calculating Housing Benefit and Council Tax Benefit entitlement in October 2009,

- The amount of maintenance income disregarded for calculating Income Support entitlement will increase to £40/week, and maintenance income will cease to be counted as income at all in Housing Benefit and Council Tax Benefit,

- Alcohol duties will be increased by 2% in real terms, and
- Road fuel duties will be increased by 1.84p/litre in nominal terms.

In addition to these, the Government had announced two one-off measures for the 2008/9 tax and benefit system with no commitment to repeat them. This meant that:

- The £600 increase in the income tax personal allowance and £1,200 reduction in the basic rate limit announced in May 2008 was not due to continue into subsequent tax years,
- The one-off increase in Winter Fuel Payments for pensioners announced in Budget 2008 was not due to be repeated in subsequent fiscal years.

Further policy changes were announced in the Pre-Budget Report:

- The £600 increase in the income tax personal allowance and £1,200 reduction in the basic rate limit was made permanent and a further increase in the personal allowance of £130/year was announced for tax years 2009/10 and 2010/11. This will cost £3.56bn in 2009/10.
- The main rate of VAT will be 15% until January 2010 (rather than 17.5%) as described in section 2. This will cost £8.6bn in 2009/10.
- The increase in alcohol and tobacco duties described in section 2 will continue even after the main VAT rate has returned to 17.5%. This will raise £980m for the government in 2009/10.
- The child element of the Child Tax Credit will be increased by a further £25/year in April 2009 at a cost of £190m.
- The Pension Credit Guarantee Credit is normally increased in line with nominal earnings growth, but the latest data on growth in average earnings suggests that they were growing more slowly than prices. In order that low income pensioners do not receive a fall in their real incomes, the Chancellor announced that the Pension Credit Guarantee Credit would be increased in April 2009 in line with the September 2008 value of the RPI.

Table 3 shows the effect of these two sets of reforms on the income distribution.

Table 3. Distributional effect of measures announced for 2009/10, as a percentage of income

Income decile group	*Pre-announced measures*	*Measures announced in PBR*	*Total*
Poorest	-0.01%	3.24%	3.23%
2nd	0.17%	2.49%	2.66%
3rd	-0.23%	2.51%	2.28%
4th	-0.49%	2.40%	1.91%
5th	-0.68%	2.31%	1.64%
6th	-0.77%	2.32%	1.54%
7th	-0.81%	2.34%	1.53%
8th	-0.74%	2.13%	1.39%
9th	-0.64%	2.09%	1.46%
Richest	-0.29%	1.58%	1.29%
Overall	-0.49%	2.04%	1.55%

Note: Households ranked by net equivalised household income. Includes all measures mentioned in the text, some of which are only in place for part of the financial year.
Source: Authors' calculations using 2006/07 FRS and 2005/06 EFS.

The pre-announced measures are dominated by the withdrawal of the £600 increase in the income tax personal allowance announced in May 2008, which has the greatest effect on the incomes of households towards the top of the income distribution, as they tend to contain more workers. Poorer households are largely unaffected by this, but benefit from the various increases in means-tested benefits and tax credits.

The measures announced in PBR 2008 are dominated by the cut in the main rate of VAT. As mentioned previously, this has the appearance of a progressive reform: the gain for any given household is broadly determined by the amount that a household spends, but households in the Expenditure and Food Survey who report a low income tend to report a level of spending which is higher relative to their income than households reporting a high income (in other words, it is much more likely that reported spending exceeds reported income for low income households than high income households). One reason for this is that some low-income households only have temporarily low income, and can keep their expenditure during this period by running down savings, or borrowing. Another reason could be that income is harder to measure accurately than spending, particularly for groups such as the self-employed.

Arguably, given that households can smooth consumption over their lifetime, expenditure is a better proxy for lifetime resources than current income, and so Table 4 examines the distributional effect of the measures in PBR 2008 both as a percentage of expenditure (rather than income) and with households ranked by equivalised household expenditure (rather than income).[2]

Table 4. Distributional effect of measures announced for 2009/10, as a percentage of expenditure

Expenditure decile group	*Pre-announced measures*	*Measures announced in PBR*	*Total*
Lowest spending	0.21%	2.51%	2.71%
2nd	-0.31%	2.23%	1.92%
3rd	-0.41%	2.15%	1.74%
4th	-0.62%	2.14%	1.52%
5th	-0.57%	2.07%	1.50%
6th	-0.65%	2.05%	1.40%
7th	-0.61%	2.00%	1.40%
8th	-0.57%	1.98%	1.41%
9th	-0.47%	1.91%	1.44%
Highest spending	-0.27%	1.84%	1.57%
Overall	-0.45%	1.98%	1.53%

Note: Households ranked by equivalised household expenditure. Includes all measures mentioned in the text, some of which are only in place for part of the financial year.
Source: Authors' calculations using 2005/06 EFS.

A different picture emerges from this: higher-spending households receive a bigger gain as a proportion of their expenditure from the cut in VAT than lower-spending households. This is because goods that are zero- or reduced-rated for VAT, such as food, domestic fuel and children's clothes, make up a higher budget share for lower-spending households, whereas higher-spending households tend to have a higher proportion of their spending subject to the main VAT rate. This different way of presenting the analysis makes the reforms announced in PBR 2008 for 2009/10 appear much less progressive.

Tables 5 and 6 present gains and losses as a percentage of income and expenditure by household type.

[2] Of course, one can also express gains by income decile as a proportion of expenditure and gains by expenditure decile as a proportion of income – this analysis is performed in the Annex.

Table 5. Distributional effects of measures announced for 2009/10, as a percentage of income

Household type	*Pre-announced measures*	*Measures in the PBR*	*Overall*
Single, not working	-0.37%	1.74%	1.36%
Single, working	-0.67%	2.04%	1.37%
Lone parent, not working	1.20%	1.64%	2.84%
Lone parent, working	1.26%	2.48%	3.74%
Zero earner couple without children	-0.78%	2.52%	1.74%
Zero earner couple with children	0.97%	1.77%	2.74%
Single earner couple without children	-0.71%	2.30%	1.60%
Single earner couple with children	0.29%	2.09%	2.39%
Two earner couple without children	-0.71%	2.11%	1.40%
Two earner couple with children	-0.57%	2.19%	1.62%
Single Pensioner	-0.63%	1.82%	1.19%
Couple Pensioner	-0.50%	2.00%	1.49%
Multi family household without children	-0.80%	2.23%	1.43%
Multi family household with children	-0.45%	2.50%	2.05%
Overall	-0.49%	2.04%	1.55%

Note: Gains and losses expressed as a percentage of household net income.
Source: Authors' calculations using 2006/07 FRS and 2005/06 EFS.

We see that low-income families with children are the primary beneficiaries from the pre-announced measures, in particular the increases in the child element of the Child Tax Credit and the change to the treatment of Child Benefit in Housing Benefit and Council Tax Benefit calculations. Higher-income households without children lose out as a result of the planned reversal of the increase in the personal income tax allowance, while pensioners lose out from the cut in Winter Fuel Payments. The measures announced in the PBR, dominated by the cut in the main VAT rate, benefit those household types with high expenditure relative to their income the most as a proportion of income (zero earner couples without children and working lone parents for example); however if we look at gains relative to household expenditure we see that those household types that spend the most in absolute terms, such as two earner couples without children, are the biggest winners.

Table 6. Distributional effects of measures announced for 2009/10, as a percentage of expenditure

Household type	*Pre-announced measures*	*Measures in the PBR*	*Overall*
Single, not working	-0.34%	1.57%	1.23%
Single, working	-0.69%	2.08%	1.40%
Lone parent, not working	1.15%	1.56%	2.72%
Lone parent, working	0.97%	1.90%	2.87%
Zero earner couple without children	-0.62%	2.00%	1.38%
Zero earner couple with children	0.95%	1.75%	2.70%
Single earner couple without children	-0.59%	1.93%	1.34%
Single earner couple with children	0.25%	1.80%	2.05%
Two earner couple without children	-0.73%	2.17%	1.44%
Two earner couple with children	-0.52%	1.98%	1.47%
Single Pensioner	-0.69%	1.98%	1.29%
Couple Pensioner	-0.45%	1.77%	1.33%
Multi family household without children	-0.77%	2.16%	1.38%
Multi family household with children	-0.37%	2.03%	1.66%
Overall	-0.45%	1.98%	1.53%

Note: Gains and losses expressed as a percentage of household expenditure.
Source: Authors' calculations using 2006/07 FRS and 2005/06 EFS.

4. Measures to be introduced by 2011/12

A few measures had already been announced (before PBR 2008) to come into effect in April 2010:[3]

- The child element of the Child Tax Credit was to be increased by £25/year in April 2010 (PBR 2008 announced that this is to be brought forward to April 2009, as mentioned in section 3).

- Alcohol duties are to be increased by 2% in real terms in April 2010 and April 2011.

- Road fuel duties are to be increased by 0.5p/litre in real terms in April 2010.

PBR 2008 announced the following changes to the personal tax and benefit system to take effect by April 2011:

- The basic rate limit in income tax will be frozen in nominal terms in April 2011.[4] HM Treasury estimate this will raise £180m in 2011/12.

[3] Note that several of the measures listed in Section 3 which had been pre-announced or expected to take effect in 2009/10 will also affect incomes in 2011/12.

- The income tax personal allowance will be withdrawn in two stages for those with annual incomes over £100,000 from the beginning of the 2010/11 tax year. This will create two short ranges of income where there will be an effective 60% tax rate. HM Treasury estimate this will raise £1.6bn in a full year.

- A new 45% rate of income tax will be introduced for those with annual incomes over £150,000 starting in the 2011/12 tax year. HM Treasury estimate this will raise £1.6bn in a full year.

- The Primary Threshold in National Insurance will be increased to the level of the income tax personal allowance in April 2011. HM Treasury estimate this will cost £1.6bn in 2011/12.

- All National Insurance rates will be increased by 0.5% in April 2011, raising £5.4bn in 2011/12, according to HM Treasury.

In addition, many of the changes listed in Section 3 (including the £6500 rise in the income tax personal allowance, but not the cut in VAT) will also affect incomes in 2011/12.

Table 7 below shows the distributional effect of these reforms by household income decile. We do not include the effects of the income tax changes affecting those with incomes over £100,000, because the household surveys used in our analysis do not attempt to record accurately the income of the very rich. However, it can be assumed that all of the 0.8m individuals affected by these changes will be in the richest tenth of households, so these figures underestimate the losses for the top decile. Section 7.2 discusses these tax changes in more detail.

[4] PBR 2008 did not announce what would happen to the UEL in the NI system; given the Government has recently taken steps to align the basic-rate threshold with the UEL, it would be reasonable to expect them to move together in 2011/12.

Table 7. Distributional effect of measures announced for 2011/12 (excluding impact of income tax changes affecting the richest 2% of adults)

Income decile group	*Pre-announced measures*	*Measures announced in PBR*	*Total*
Poorest	-0.01%	0.32%	0.31%
2nd	0.23%	0.44%	0.66%
3rd	-0.20%	0.50%	0.29%
4th	-0.50%	0.55%	0.05%
5th	-0.72%	0.51%	-0.21%
6th	-0.84%	0.43%	-0.42%
7th	-0.88%	0.34%	-0.54%
8th	-0.81%	0.17%	-0.64%
9th	-0.70%	-0.01%	-0.71%
Richest (excluding impact of income tax changes affecting the richest 2% of adults)	-0.34%	-0.51%	-0.85%
Overall (excluding impact of income tax changes affecting the richest 2% of adults)	-0.53%	0.12%	-0.41%

Note: Households ranked by net equivalised household income, gains and losses expressed as a percentage of net household income. Includes all measures mentioned in the text, some of which are in place for only part of the financial year.
Source: Authors' calculations using TAXBEN run on the 2006/07 FRS and 2005/06 EFS.

Again, the pre-announced measures are dominated by the anticipated withdrawal of the temporary £600 rise in the personal allowance, and this has the biggest effect (as a proportion of their income) on those households towards – but not at – the top of the income distribution. The reversal of this in PBR 2008 has the opposite effect, and the increase in the National Insurance Primary Threshold has a similar distributional impact. However, the other main change announced in PBR 2008 is an increase in all National Insurance contribution rates, which increases NICs as a proportion of income more for the rich than the poor.

Overall, measures *announced* in PBR 2008 make only the top tenth of households significantly worse off on average, but *all* measures due to be in place in 2011/12 make the top six decile groups worse off, on average, in 2011/12 than they would be if the 2008/9 tax and benefit system had been indexed in the usual way.

Table 8 performs the same analysis by household type. On average, the only household types that will benefit in 2011/12 from the preannounced measures are low income families with children, who will benefit from the increase in the child element of the Child Tax Credit. Measures *announced* in PBR 2008 will also benefit pensioner households, on average, but these small gains are more than offset by the already-anticipated cut in the winter fuel allowance from its high level in 2008/9; measures *announced* in PBR 2008 benefit some other household types on average, but only very slightly and these gains disappear once we also account for the previously-anticipated disappearance of the £600 rise in the personal allowance.

Table 8. Distributional effects of measures announced for 2011/12 fiscal year (excluding impact of income tax changes affecting the richest 2% of adults)

Household type	*Pre-announced measures*	*Measures in the PBR*	*Overall*
Single, not working	-0.46%	-0.01%	-0.47%
Single, working	-0.74%	-0.04%	-0.79%
Lone parent, not working	1.45%	-0.13%	1.32%
Lone parent, working	1.37%	0.21%	1.58%
Zero earner couple without children	-0.88%	0.37%	-0.51%
Zero earner couple with children	1.18%	-0.03%	1.15%
Single earner couple without children	-0.79%	0.00%	-0.79%
Single earner couple with children	0.33%	-0.26%	0.07%
Two earner couple without children	-0.78%	0.03%	-0.76%
Two earner couple with children	-0.60%	0.01%	-0.59%
Single Pensioner	-0.68%	0.42%	-0.26%
Couple Pensioner	-0.58%	0.17%	-0.40%
Multi family household without children	-0.88%	0.31%	-0.57%
Multi family household with children	-0.47%	0.26%	-0.21%
Overall (excluding impact of income tax changes affecting the richest 2% of adults)	-0.53%	0.12%	-0.41%

Note: Gains and losses expressed as a percentage of net household income.
Source: Authors' calculations using 2006/07 FRS and 2005/06 EFS.

These two different ways of looking at the impact of tax and benefit reforms on household incomes over the next three years are very similar to the two different approaches taken immediately after PBR 2008 by the Government and the Conservative party. PBR 2008 says that

> "The measures above mean that people with incomes below £40,000 will not pay more income tax and NICs in April 2011 than in April 2008" (para 5.9).

This is true only if one compares the proposed 2011/12 tax and benefit system with the one in place in the month of April 2008, ie the 20080/9 tax and benefit system before the Government announced the £600 rise in the personal allowance (announced in May 2008, and implemented in PAYE systems in September 2008 but backdated to April 2008 as income tax is an annual system).

The statement is certainly not true if one compares the annual 2008/09 tax system – which includes the £600 rise in the personal allowance – with the proposed 2011/12 tax system. The only differences in income tax and National Insurance between 2008/09 and 2011/12 that affect those with incomes below £40,000 are the changes to National Insurance contributions, and the rise in the Primary Threshold combined with a rise in the employee rate of NICs together mean that those working-age adults earning less than around £20,500 will pay less NICs, and all those working-age adults earning more than around £20,500 will pay more NICs. If one compares the actual 2008/09 tax system with that proposed for 2011/12, only working-age individuals with annual earnings below around £20,500 will pay less income tax and NICs in 2011/12 than they would under an uprated 2008/09 tax system.

It seems more natural to compare prospective future tax systems with the one currently in place, rather than the one in place for a hypothetical month. On that basis, the key change for 2011/12 is the change in NI, which will lead those earning more than £20,500 a year to pay more in NICs and income tax compared with the present. [5]

4.1 Accounting for changes in employers' National Insurance contributions

So far in this section, we have not counted the increases in the employers National Insurance rate when considering the effects of measures in the PBR that directly effect households. Economically, there is no good reason to treat employees' and employers' National Insurance contributions differently: both act to increase the tax wedge – the gap between the costs of employing someone paid by employers and the amount received by employees – and, in the long run, earnings should adjust so that the effective incidence of both is the same.

The analysis so far has implicitly assumed that employees' NI contributions are incident on the employees themselves (rather than on consumers or company profits, for example, as would happen if employees reacted to rises in NI by securing higher wages), and so it seems appropriate to make a similar assumption for employers' NI, and this would effectively assume that the long-run response to the rise in employers NI would be for earnings will fall so that the total cost to the employer of employing an employee is unaffected by the rise in employer NI. If this happens in reality, then the actual changes in peoples' net incomes will be smaller (ie less positive or more negative) than

[5] However, note that the Government could have said that "measures announced in PBR 2008 will not increase income tax and NICs bills in 2011/12 for people with incomes below £40,000", and this would have been correct (the implicit comparison being with what people would have paid in 2011/12 had there been no announcements in PBR 2008). However, this hypothetical statement would have overlooked the fact that, in the absence of any measures in PBR 2008, around 18 million families would have paid more income tax and NI in 2011/12 than in 2008/09 because of the planned disappearance of the £600 rise in the income tax personal allowance.

suggested by Table 7, but the impact on particular households will depend on to what extent employers are able to lower earnings.

5. The impact of tax and benefit reforms since 1997 on household incomes

Chapter 14 of the IFS Green Budget 2008 contained an analysis of the impact of all the discretionary tax and benefit changes under Labour on household incomes. Analysis took explicit account of all taxes and benefit paid directly by households (i.e. we could work out the impact of reforms for individual households in our survey data) and assumed that other tax changes (such as corporation tax, business rates etc) fall proportional to income across all households. Figures were produced for changes through to Autumn 2007 (i.e. the 2007-08 tax system including the small changes coming into effect in Autumn of that year), and the 2008-09 system as expected in January 2008 (i.e. not including changes announced subsequently – Budget 2008, the increase in the personal allowance and other changes announced over the summer, and PBR 2008).

This section updates that analysis to take account of the announcements made since the IFS Green Budget was published in January 2008. However, when looking at the projected tax and benefit systems in 2009-10 and 2011-12, we have not had the time to adjust the figures fully to account for new tax changes that are not paid directly by households. However, the net effect of changes to such taxes announced since the time of the Green Budget is fairly small, so this does not represent a major problem.

It is important to understand what these numbers represent – and, more importantly, what they do not. For instance, the “2009-10 system” column shows how different household incomes will be under the expected 2009-10 tax and benefit system from what they would be in that year if no reforms had been made to the tax system Labour inherited in 1997-98, except for uprating tax thresholds and benefit rates in line with the baseline assumptions underlying the governments public finance forecasts (typically requiring increases in line with a measure of inflation).[6] In other words, the tables show changes in net income due to tax and benefit reforms – *not* the actual changes in net incomes that have taken place since 1997. Because of growth in private incomes, the median household is about 20% better off in real terms overall than when Labour came to power with these gains highest for the “quite poor” and the “very rich”.[7]

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[6] In this analysis we assume no behavioural response to the tax reforms.

[7] See “Poverty and Inequality in the UK: 2008”, Mike Brewer, Alastair Muriel, David Phillips and Luke Sibieta, IFS Commentary 105, London: IFS.

Table 9 shows the average change in net incomes (in £-per-year and as a percentage of average income for the relevant group) due to the tax and benefit reforms taking place between 1997 and the expected 2009-10 and 2011-12 tax and benefit systems, by income decile group. Table 10 repeats this by household type.

Table 9. Impact of tax and benefit reforms from 1997-98 to (expected) 2009-10 and 2011-12 tax and benefit systems, by income decile group

Income decile group	*Impact of tax and benefit reforms on household net income*			
	2009-10 system (as expected in December 2008)		2011-12 system (as expected in December 2008)	
	% change	£ per year	% change	£ per year
Poorest	14.58%	1524.86	12.87%	1346.62
2	12.48%	1771.98	11.18%	1587.65
3	8.68%	1420.26	7.27%	1189.33
4	5.38%	989.80	3.85%	708.23
5	2.65%	582.38	1.02%	225.38
6	1.16%	295.99	-0.51%	-130.56
7	-0.16%	-45.04	-1.90%	-550.78
8	-1.82%	-643.39	-3.71%	-1312.46
9	-2.52%	-1073.25	-4.52%	-1926.27
Richest	-4.31%	-3276.88	-6.43%	-4890.54
Average	0.51%	148.78	-1.33%	-385.78

Notes: We assign to particular households the effect of changes to the benefit system, income tax, National Insurance, tax credits and council tax (using the Family Resources Survey 2005-06), along with VAT and most excise duties (using the Expenditure and Food Survey 2005-06) and stamp duty land tax for residential property (using the British Household Panel Survey 2006). Other tax changes are not modelled explicitly; the figures include a reduction in net income of 2.83% for all households, reflecting the magnitude of these unmodelled changes as of January 2008; additional unmodelled changes since then are ignored.
Gains and losses are expressed as a percentage of net income as it was under the 2007-08 tax and benefit system. The income decile groups used here are also based on the 2007-08 tax and benefit system, so that the first row is the impact on net income of the reforms since 1997 on those estimated to have the lowest incomes under the 2007-08 system rather than those estimated to have the lowest incomes under the 1997-98 tax and benefit system.
As in Section 4, the 2011-12 system here does not include the impact of the 45p top rate of tax or the tapering away of the personal allowance above £100,000, because the incomes of the very rich are not accurately recorded in the underlying survey data. Virtually all of the costs from these will fall on the top decile and amount to about £3.2 billion spread over approximately 2.5 million households. See Section 6.2 for more discussion of these reforms.
Sources: IFS tax and benefit model, TAXBEN, based on the 2005–06 and 2006-07 Family Resources Survey, the 2005-06 Expenditure and Food Survey and the 2006 British Household Panel Survey; author's calculations.

Table 10. Impact of tax and benefit reforms from 1997-98 to (expected) 2009-10 and 2011-12 tax and benefit systems, by household type

Household Type	*Impact of Tax Reforms on Net Income*			
	2009-10 System (as expected in December 2008)		2011-12 System (as expected in December 2008)	
	% change	£ Annual	% change	£ Annual
single, unemp	-1.55%	-161.66	-2.85%	-297.54
single, emp	-3.02%	-755.65	-5.12%	-1281.33
Lone Parent, unemp	18.28%	2643.54	17.23%	2491.63
Lone Parent, emp	11.72%	2423.04	10.00%	2066.06
No Earning Couple, No Kids	-0.75%	-173.14	-2.37%	-543.83
No Earning Couple, Kids	15.96%	3118.43	14.85%	2901.47
Single Earner Couple, No Kids	-3.22%	-1020.36	-5.32%	-1684.02
Single Earner Couple, Kids	2.68%	882.13	0.55%	180.02
Two Earner Couple, No Kids	-3.27%	-1345.42	-5.37%	-2208.53
Two Earner Couple, Kids	-1.42%	-591.07	-3.52%	-1466.54
Single Pensioner	9.30%	1290.21	8.28%	1148.35
Couple Pensioner	2.79%	685.59	1.43%	350.60
Multiple Benefit Units, No Kids	-0.78%	-296.28	-2.56%	-976.94
Multiple Benefit Units, Kids	2.48%	997.51	0.55%	220.12
Average	0.51%	148.78	-1.33%	-385.78

Notes and sources: As for Table 9.

The tables show that:

- Poorer households gain and richer households lose from the tax and benefit reforms since 1997, for both 2009 and 2011.
- Households with children and pensioners have benefited from tax and benefit reforms, on average; working-age people without children pay more tax, on average, than they would have done under the 1997 system.
- In 2009-10, average household income is somewhat higher than it would have been under the 1997-98 tax and benefit system (remembering that we ignore any behavioural response to the reforms)
- In 2011-12, after VAT has reverted to 17.5% and the increases in National Insurance have taken effect, average household income is again a little lower because of the tax and benefit reforms since 1997.

A number of newspapers have quoted an “average family” being £1,283 worse off than in 1997. This number corresponds to the analysis shown in Figure 14.6 of the IFS Green Budget 2008: it is the (rounded) average loss due to tax and benefit reforms up until the 2008-09 tax system (as expected in January 2008) among two-earner couples with children.

6. Other issues

This section discusses the (lack of) impact of measures in PBR 2008 on child poverty, and then discusses the reforms to income tax affecting the very rich in more detail.

6.1 Child poverty

There were no measures in PBR 08 explicitly targeted at reducing child poverty in 2010/11 (the year for which the Government has a quantified target for child poverty, measured in a variety of ways): the small rise in child benefit is for January – March 2009, and the small rise in child tax credit is for 2009/10. PBR 08 did contain measures that will affect household incomes in 2010/11 – notably the continuation of the £600 rise in the personal allowance and the further £130 increase – but this measure alone will have a negligible impact on child poverty.[8]

Budget 2009 and PBR 2009 will represent the last chance to set benefit and tax credit rates for 2010/11, and paragraph 5.13 of PBR 08 said that "the Government will take stock of progress…in the Budget".

Given that measures in PBR 08 will have only a negligible impact on child poverty in 2010/11, our assessment of what the Government needs to do to hit its child poverty target remains essentially unchanged from the position after Budget 2008, which we include below:

> "We have previously argued that the most binding of the government's three measures will be the pure relative poverty target, which is for child poverty in the UK in 2010–11 to be one half lower than its level in 1998–99, using a poverty line of 60% of median BHC income and the modified OECD equivalence scale. ….The number of children in poverty under this measure rose between 2005–06 and 2006–07 to reach 2.9 million. This means that child poverty has fallen by 600,000 to the nearest hundred thousand (or 17%) in the eight years since 1998–99 and needs to fall by a further 1.2 million in the remaining four years between now and 2010–11 to meet this element of the target…Thus, child poverty needs to fall by an average of 300,000 per annum for the next four years, having fallen by an average 70,000 a year for the past eight years.
>
> Following the Pre-Budget Report 2007 and Budget 2008 announcements … IFS researchers predict a fall in the numbers of children in poverty to 2.2 million (using incomes measured BHC) in 2010–11. However, this still means that the number of children in poverty in 2010–11 would exceed the government's target by 500,000. Furthermore, we estimate that additional spending of around £2.8 billion a year (on the per-child element of the child tax credit and a new supplement for children in large families) by 2010–11 would be needed for the government to have a 50:50 chance of meeting its target."
>
> P47 of "Poverty and Inequality in the UK: 2008", by Mike Brewer, Alastair Muriel, David Phillips and Luke Sibieta, IFS Commentary 105, London: IFS.

Researchers from IFS and ISER first forecast the level of child poverty in 2010/11 in a project which concluded in 2006; since then, IFS researchers have

[8] In fact, this measure will lift some working households with children out of poverty, but push some non-working households with children into poverty, as the reform will slightly increase the poverty line and non-working households will generally not benefit from the higher personal allowance.

updated that forecast in the light of new policy announcements but not in the light of new economic data. For this reason, IFS and ISER researchers, funded again by the Joseph Rowntree Foundation, are currently updating the forecast of child poverty in 2010/11. Amongst other things, this will take account of the unexpected rise in child poverty between 2004/5 and 2006/7, weak real growth in average earnings and median income in recent years, the slowdown in the rise in the lone parent employment rate, the recent volatility in inflation, and the likely impact of the current recession. An updated assessment is due to be published in advance of Budget 2009, and officials from HM Treasury and the Child Poverty Unit are being kept fully in touch with this work.

6.2 Income tax changes for the very rich

PBR 08 announced three tax changes affecting very rich individuals:

- From 2010/11, the value of the income tax personal allowance is being phased out in two stages for those with incomes over £100,000, so that those individuals with incomes over £146,475 will see no value from the personal allowance.

- From 2011/12, there will be a new higher rate of income tax of 45% (alongside a rise in the rate of tax on dividend income) for incomes over £150,000.

- There will be real-terms cuts in the amount of pension contributions that can be made free of income tax, and the total size of a private pension fund that can be free of income tax, in each year from 2011/12 to 2016/17.

HM Treasury estimate that the first of these measures will affect around 0.8 million adults, and the second 0.4 million adults, slightly less than 2% and 1% of all adults in the UK respectively. HM Treasury estimate that the full-year effect of the first 2 of these measures will be to raise £1.6 billion each; it estimates that the third measure will raise £0.4bn in 2011/12, but this amount will rise by 2016/7 (by an unspecified amount).

Phasing out the personal allowance

In 2010/11, the personal allowance is due to be £6,475[9], and its value to a taxpayer is (generally) equal to this amount multiplied by their marginal rate of income tax.

The phase-out of the personal allowance means that:

[9] Assuming that RPI inflation in September 2009 is zero or negative; HM Treasury forecast it to be -2.5%.

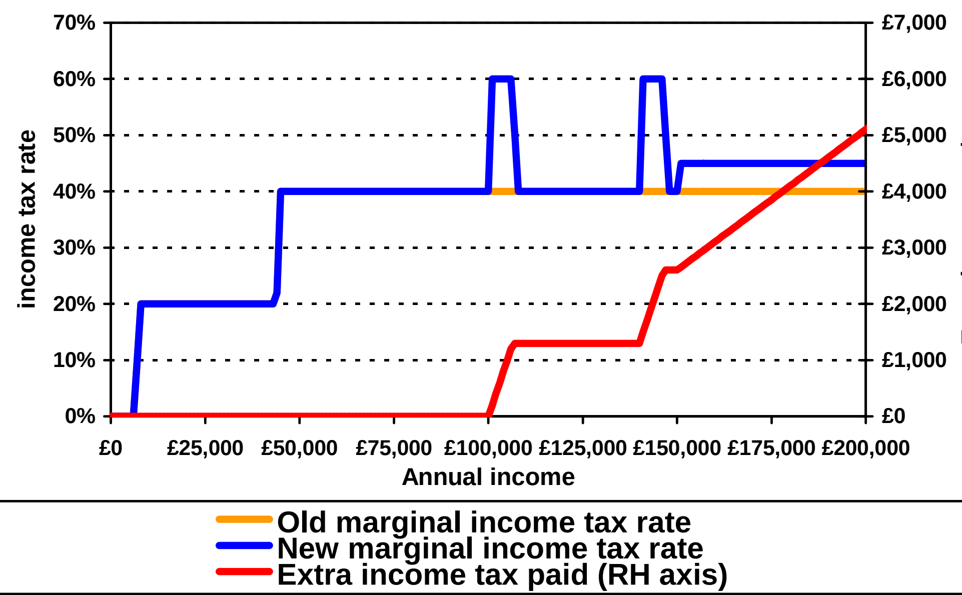
- For incomes between £100,000 and £106,475, the value of the personal allowance is being reduced from £2,590 to £1,295. Taxpayers in this range will face a marginal income tax rate of 60%: for every pound of extra income, they will pay 40p in income tax as normal, but they will also lose 50p of the personal allowance, which will then lead them to pay 20p (40% of 50p) more in income tax.

- For incomes between £106,475 to £140,000, the value of the personal allowance will be £1,295, the same as for a basic-rate taxpayer, and the marginal income tax rate will drop to 40%.

- For incomes between £140,000 and £146,475, the value of the personal allowance is being reduced from £1,295 to zero. Taxpayers in this range will also face a marginal income tax rate of 60%, as explained above.

- For incomes above £146,475, there will be no personal allowance.

The phase-outs of the personal allowance are therefore equivalent to creating 2 short income ranges where marginal income tax rate is 60% (as shown in the Figure below, taken from http://www.ifs.org.uk/budgets/pbr2008/taxben.ppt).



An increase in the marginal rate of income tax from 40% to 60% is a substantial change (although many more workers in low-income households will face marginal effective tax rates of 70% or more than will face a marginal income tax rate of 60%, or even 45%), and, in general, increases in marginal rates of tax will increase the distortions caused by the tax system. However, in this case, the extent to which the phase-out of the personal allowance will distort behaviour is limited by the very short ranges of income over which they apply; presumably, very rich individuals finding themselves with pre-tax incomes in the likely phase-out regions will make additional private pension contributions[10] or charitable donations to lower their taxable income to the point where a phase-out begins, and so the main impact of the distortion would seem to be additional income for accountants and tax planners.

Although economic logic can sometimes justify an income tax system where the very richest adults face a marginal income tax rate which is lower than those who are a little less rich, it is almost impossible to conceive of any justification for a marginal income tax schedule of the form 0-20-40-60-40-60-40-45%. Furthermore, there is a wider concern that the government has deliberately chosen a confusing way of presenting the reform. As the reform is equivalent to applying a 60% rate of income tax over two short ranges, it would have aided public understanding of the measures in PBR 2008 substantially if it had presented it in this way. In presenting the changes as a restriction of personal allowances, the Government disguised the very odd marginal tax rate schedule it was creating and apparently saw no need to defend it.

Will the 45% income tax rate raise any money?

In a paper written as part of the Mirrlees Review of the tax system, IFS researchers, together with Professor Emmanuel Saez of the University of California, Berkeley, used evidence from changes to top income tax rates in the UK in the 1970s and 1980s to estimate the extent to which very rich people in the UK respond to changes in marginal rates of tax (this study is hereafter referred to as BSS).[11] BSS took as a working definition of "very rich adults" the richest 1% of (or 450,000) adults, coincidentally corresponding closely to the group who would face a 45% income tax rate in 2011/12. BSS estimated two key concepts:

- The taxable income elasticity: this summarises the extent by which the taxable income of the richest 1% falls when the marginal rate of income tax affecting the richest 1% rises.[12]
- The shape of the taxable income distribution.
- These can then combined to provide an estimate of the revenue-maximising marginal rate of tax that should be applied to the richest 1%.[13]

[10] Such individuals would be facing a choice between paying the 60% rate of income tax on their earnings now, or a (likely) 40% rate on their pension income when they retire.

[11] Mike Brewer, Emmanuel Saez and Andrew Shephard (2008), "Means-testing and tax rates on earnings", http://www.ifs.org.uk/mirrleesreview/press_docs/rates.pdf

[12] Technically it estimates the response of taxable income to a change in the net-of-tax rate, defined as 1 – the marginal rate.

The central estimate in BSS was that the revenue-maximising marginal rate of tax that should be applied to the richest 1% is 56.6%. This marginal rate of tax should include employer NI and consumption taxes (it should include any tax which acts to form the tax wedge affecting the very rich). In the 2008/9 tax system, the marginal rates of tax that apply to the richest 1% are 55.3% on earned income, and 48.7% on unearned income, or an average of 52.0% (taking account of the share of income amongst the top 1% that is earned and unearned). In 2011/12, after the rise in NI contributions and the new higher-rate of income tax, the marginal rates of tax that apply to the richest 1% will be 59.8% on earned income, and 53.0% on unearned income, or 56.8% on average. There is therefore the possibility that the new combined marginal rate of tax applying to earned income for the richest 1% is above the revenue-maximising rate, and this suggests that the new higher rate will raise little money. It also suggests that the Government could have raised more money by increasing the income tax rate by less – say from 40% to 43% or 44%.

However, there are a considerable number of uncertainties around this calculation:

- BSS based their estimate of the taxable income elasticity on the response to cuts in top rates of tax during the 1970s and 1980s, and clearly the world is a different place from what it was 2 or 3 decades ago.

- BSS showed that the estimated taxable income elasticity was very uncertain, and this means that the revenue-maximising top rate of tax which should be applied to the richest 1% could be higher than 56.6% - in which case the new 45% rate of tax should raise money – or, equally likely, could be lower, in which case even the current marginal rate of tax applied to the richest 1% could be too high.

- The taxable income elasticity can change if the tax system changes, or if HMRC change the amount of effort they make in policing avoidance and evasion amongst the very rich. For example, the estimated taxable income elasticity would probably fall if contributions to a private pension were not free of income tax. The real-terms cut in the amount of money that can be put into a private pension pot each year and over a

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[13] BSS could not estimate by what means taxable income falls when the top rate of tax rises, but theory and common sense suggests that it might fall for any of a number of reasons. For example, in response to a rise in the top tax rate, very rich people might make less effort to earn money, they might defer remuneration if they thought the tax rise was temporary, they might make more use of tax planning and tax exemptions to reduce their taxable income (most simply by making higher contributions to a private pension), they might seek to alter their remuneration so more was in the form of capital gains, they might incorporate, or they might emigrate.

lifetime restricts one way in which people might reduce their taxable income in response to the new top rate of tax.

- It is possible that the difficulties currently affecting the financial sector may mean that opportunities for very rich people working in the financial sector to emigrate may be more limited now than at other times; this would act to lower the taxable income elasticity and therefore raise the revenue-maximising top rate of tax.

It is clear that HM Treasury have made some allowance for behavioural responses when estimating the revenue yield from the 45% tax rate (at £1.6bn in a full year), but it is not clear how great this allowance has been.[14]

There are also considerable uncertainties in forecasting the underlying pre-tax incomes of the very rich in 2011/12 given that the latest micro-data available on the incomes of the very rich dates from 2005/06, and given that recent analysis showed a close relationship between income growth amongst the very rich and the performance of the stock market, which has been extremely volatile in recent months.[15] These issues, combined with the uncertainty over how very rich adults will respond to higher marginal tax rates, must surely mean that the HM Treasury's estimated revenue yield of £1.6bn a year is subject to an extremely wide margin of error, and the possibility must exist that the measure could lose the Government income tax revenue. On the other hand, the post-recession fiscal tightening announced in PBR 2008 does not feature this tax change as its centrepiece: the changes to NI, the new-found efficiency savings, and the lower assumed growth for public spending that has been pencilled in are all much more significant than the revenue thought to be raised from this one measure.

[14] It would be very interesting to know what HM Treasury think about the estimated revenue that would be raised from the 45% tax rate in the absence of any behavioural response.

[15] See "Racing away? Income inequality and the evolution of high incomes", by Mike Brewer, Luke Sibieta and Liam Wren-Lewis, IFS Briefing Notes 76.

Annex

Section 3 examined the distributional impact of measures due to be in place in 2009/10 both as a proportion income by income decile and as a proportion of expenditure by expenditure decile. We can also look at the gains and losses as a proportion of income by expenditure decile. This might be appropriate if we believe that expenditure is the better indicator of lifetime resources (and therefore how 'rich' or 'poor' people are) but we wish to express gains and losses as a proportion of current income.

Table A1 does the analysis this way. It shows that gains from the VAT cut as a percentage of income look regressive if households are ranked by spending, whereas they looked progressive when households were ranked by income (in Table 3). This is because gains are a larger percentage of income for households with high spending relative to their incomes: these will tend to be high-spending households, but low-income households. Indeed, with households ranked by expenditure, gains from the VAT cut also look even more regressive as a percentage of income (Table A1) than they did as a percentage of spending (Table 4): some high-spending households have low incomes and some low-spending households have high incomes, so a cash gain which is a large percentage of spending for low-spending households might still be a small percentage of income, and vice versa for high-spending households.

Table A1. Distributional effect of measures announced for 2009/10, as a percentage of income

Expenditure decile group	*Pre-announced measures*	*Measures announced in PBR*	*Total*
Lowest spending	0.09%	1.10%	1.19%
2nd	-0.21%	1.48%	1.27%
3rd	-0.32%	1.67%	1.35%
4th	-0.53%	1.83%	1.30%
5th	-0.54%	1.94%	1.41%
6th	-0.66%	2.10%	1.44%
7th	-0.70%	2.33%	1.62%
8th	-0.66%	2.29%	1.63%
9th	-0.63%	2.54%	1.91%
Highest spending	-0.46%	3.17%	2.71%
Overall	-0.49%	2.04%	1.55%

Note: Households ranked by equivalised household expenditure. Includes all measures mentioned in the text, some of which are only in place for part of the financial year.
Source: Authors' calculations using 2005/06 EFS.

We can also look at the gains and losses as a proportion of expenditure by income decile: this is done in Table A2, which shows that higher-income households gain more than lower-income households as a percentage of their spending. The VAT cut represents a larger percentage of spending for households that are better off, whether that is measured by income (Table A2) or spending (Table 4): both high-income and high-spending households face the full rate of VAT on more of their spending than less well-off households, whose budgets are devoted more to food, children's clothes, domestic fuel, etc. With households ranked by income, the regressive impression given by looking at gains as a percentage of expenditure (Table A2) contrasts with the progressive impression from looking at gains as a percentage of income (Table 3): low-income households spend a lot (and therefore gain a lot) relative to their current income, but goods subject to VAT are still a lower fraction of their spending than for higher-income households.

Table A2. Distributional effect of measures announced for 2009/10, as a percentage of expenditure

Income decile group	*Pre-announced measures*	*Measures announced in PBR*	*Total*
Poorest	0.06%	1.67%	1.72%
2nd	0.00%	1.92%	1.92%
3rd	-0.16%	2.00%	1.84%
4th	-0.36%	2.04%	1.68%
5th	-0.56%	2.07%	1.51%
6th	-0.65%	2.06%	1.42%
7th	-0.66%	2.07%	1.41%
8th	-0.70%	2.06%	1.37%
9th	-0.62%	2.03%	1.40%
Richest	-0.38%	1.88%	1.50%
Overall	-0.45%	1.98%	1.53%

Note: Households ranked by net equivalised household income. Includes all measures mentioned in the text, some of which are only in place for part of the financial year.
Source: Authors' calculations using 2005/06 EFS.

This analysis shows that, depending on whether one believes that income or expenditure is the best measure of a household's resources and whether one prefers to look at gains and losses as a proportion of income or expenditure, a different pattern of gains and losses from indirect tax changes can emerge. But it is important to remember that the amount of cash benefit received from an indirect tax cut depends largely on the amount of expenditure made by a household, so looking at gains as a proportion of income by income decile presents an incomplete and arguably misleading picture of the distributional impact.