



HM TREASURY

Impact on households:

**Distributional analysis to accompany the
Autumn Statement 2011**

November 2011



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Impact on households

Introduction

1.1 The Government has taken unprecedented steps to increase transparency and enable effective scrutiny of policy making by publishing detailed distributional analysis of the impact of its reforms on households. This document builds on this commitment by providing an interim update to Charts A.2 to A.6 presented at Budget 2011 in light of decisions at the Autumn Statement. In addition to the measures announced at the Autumn Statement, this interim update also reflects the latest OBR economic assumptions and updates to underpinning survey data. This document is being published online to allow time to include the ONS second estimate of Q3 GDP (released 24 November) in this analysis. A full update will be provided at Budget 2012, within the main Budget document.

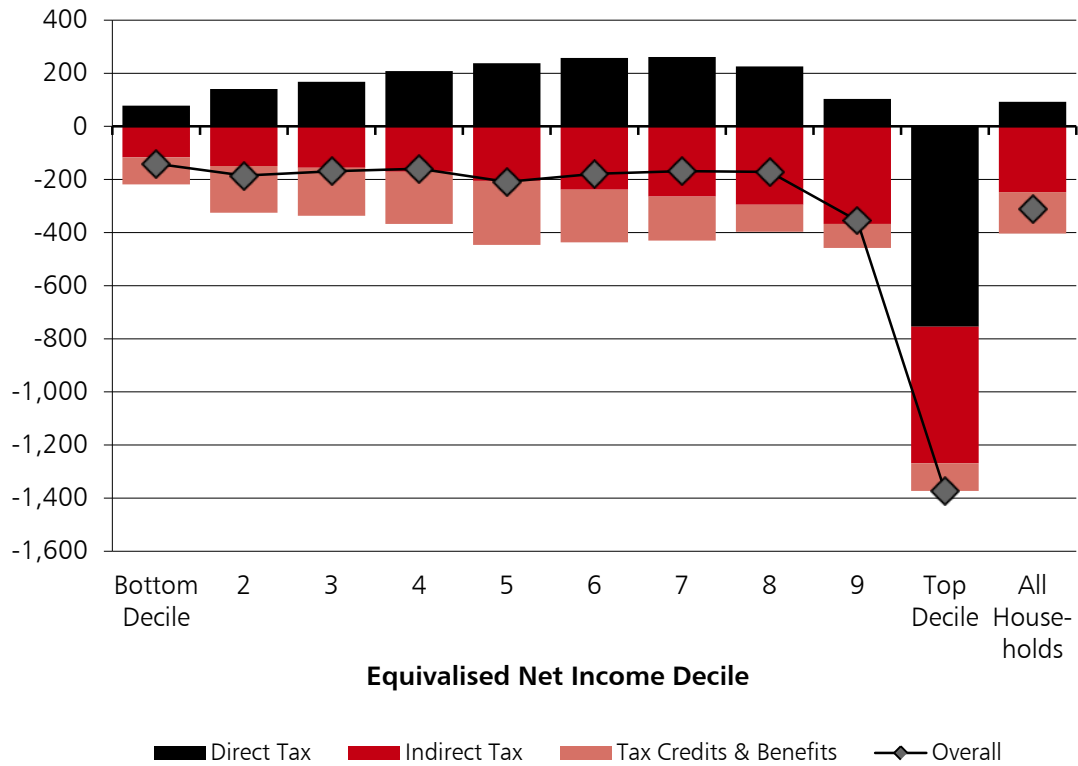
1.2 This update presents analysis of the cumulative impacts of tax, tax credit and benefit changes introduced by the Government, or changes that were announced earlier but that had not yet been implemented. This includes all changes that can be modelled robustly and accounts for the vast majority of tax, and around 70 per cent of tax credit and benefit changes coming into effect in 2012-13. Charts 1.A to 1.D show tax, tax credit and welfare measures that impact on households. A detailed explanation of the methodology underpinning the charts in this document can be found in paragraphs A.3 to A.9 and A.11 to A.14 of Annex A of Budget 2011. As at Budget 2011 this analysis is presented for 2012-13. As at Budget 2011, Chart 1.E presents the combined impact on households of changes to Government spending and tax, tax credit, and benefit measures in 2014-15.

1.3 For this analysis households have been ordered by their income or expenditure and divided into 10 equally sized groups called deciles or five equally sized groups called quintiles. The first decile contains the tenth of households with the lowest income (or lowest spending), while the top decile contains the tenth of households with the highest income (or highest spending). As households with more individuals require higher levels of income and expenditure to achieve the same living standards, an internationally standard process of adjustment called equivalisation is used to ensure households are compared on a consistent basis.

Impacts on household incomes

1.4 Chart 1.A shows the impact of tax, tax credit and benefit changes in cash terms by income decile. This analysis shows that in absolute terms the top decile sees the largest reduction in income.

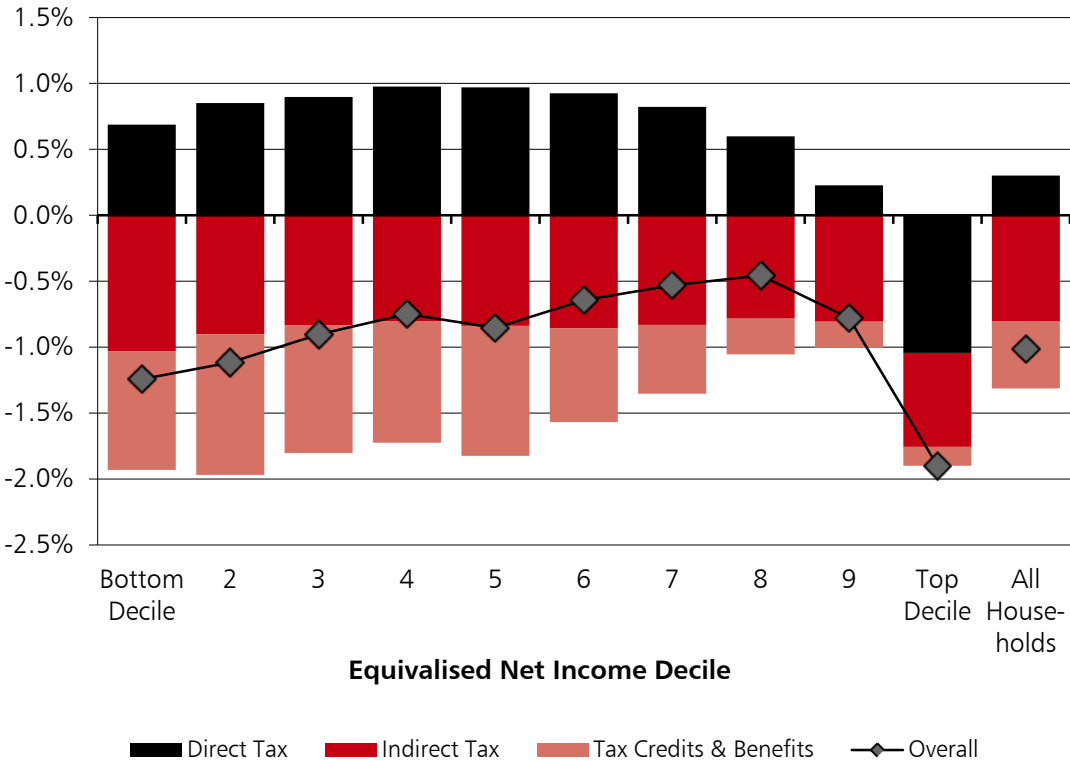
Chart 1.A: Impact of all tax, tax credit and benefit measures in cash terms (£ a year) by income distribution (2012-13)



Source: HM Treasury tax and benefit microsimulation model.

1.5 Chart 1.B presents the impact of tax, tax credit and benefit changes relative to net income, and shows that on this basis the greatest losses remain in the top decile.

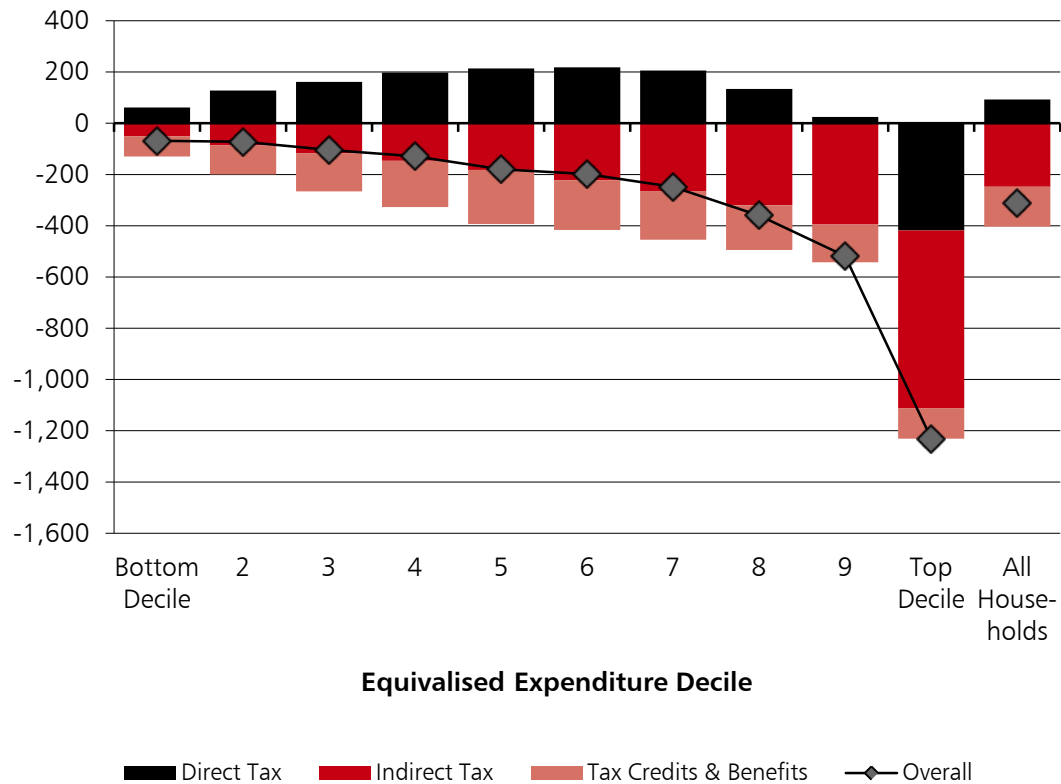
Chart 1.B: Impact of all tax, tax credit and benefit measures as a per cent of net income by income distribution (2012-13)



Source: HM Treasury tax and benefit microsimulation model.

1.6 Some households in lower income deciles may have temporarily low incomes but relatively high expenditure. For these households, expenditure-based analysis may be a better indicator of living standards.¹ Charts 1.C and 1.D provide estimates of the impacts of measures by expenditure deciles. This shows that the bottom expenditure decile experiences a cash reduction in income of around half that of the bottom income decile, and that cash reductions in income for the bottom expenditure decile are less than a tenth of that of the top expenditure decile.

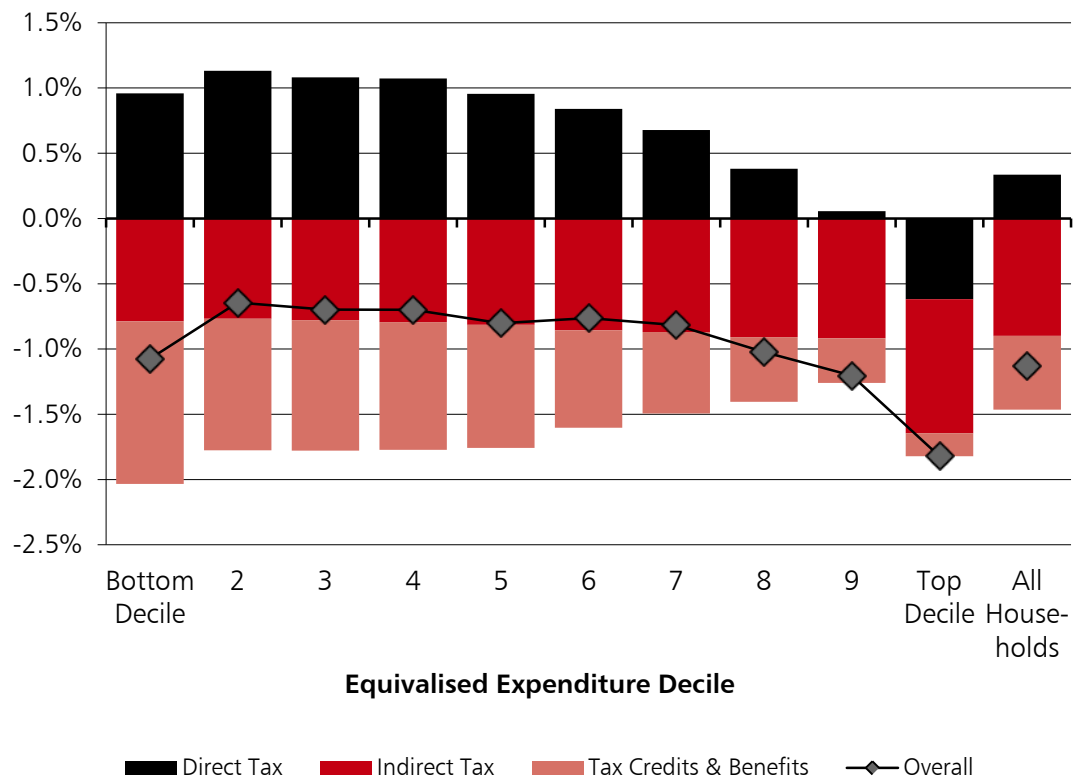
Chart 1.C: Impact of all tax, tax credit and benefit measures in cash terms (£ a year) by expenditure distribution (2012-13)



Source: HM Treasury tax and benefit microsimulation model.

¹ For example, see *Least well-off in society better identified by low spending than low income*, Institute for Fiscal Studies Press Release, March 2011, which states "Those with the lowest reported income are not those with the lowest spending or living in the most severe forms of deprivation."

Chart 1.D: Impact of all tax, tax credit and benefit measures as a per cent of net expenditure by expenditure distribution (2012-13)



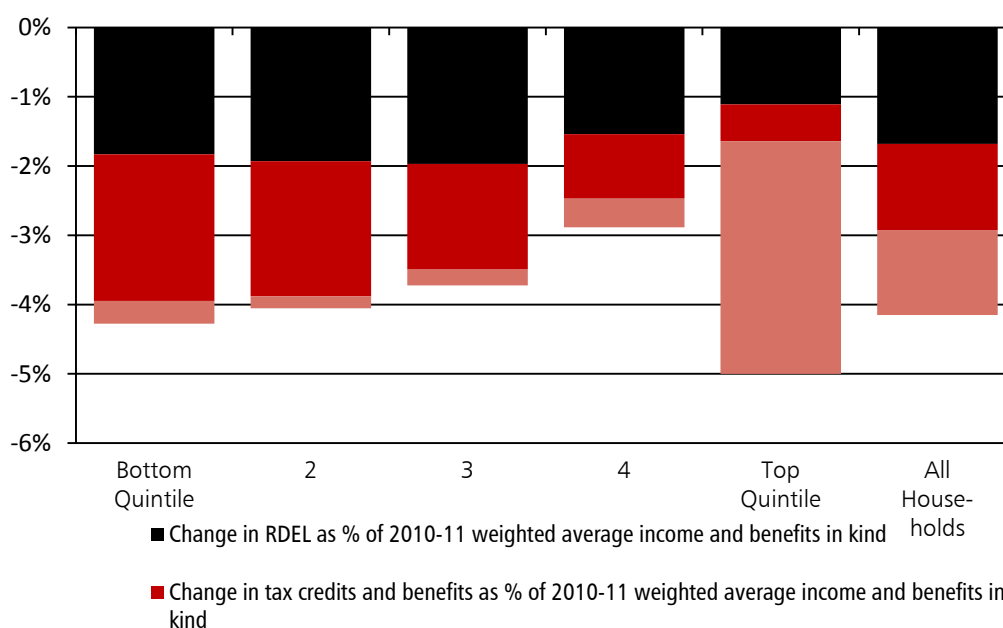
Source: HM Treasury tax and benefit microsimulation model.

Combined impact of Government spending

1.7 This section provides the combined impact of changes to Government spending and tax, tax credit, and benefit measures in 2014-15 by income quintile as a percentage of net equivalised household income, including benefits in kind from public services. Paragraphs A.29 to A.39 in Annex A of Budget 2011 provide background on the methodology used to produce this analysis, and Annex A of this document provides details of updates that have been included.

1.8 Chart 1.E illustrates that the top quintile continues to make the greatest contribution towards reducing the deficit as a percentage of their income and benefits in kind from public services.

Chart 1.E: Overall impact of spending, tax, tax credit and benefit changes on households in 2014-15 as a per cent of 2010-11 net income (including households' benefits in kind from public services)



Source: HM Treasury estimates based on a range of models and data sources.

Child poverty measurement

1.9 The Government has developed improved ways to measure poverty and social mobility. The Child Poverty Strategy set out a suite of measures that the Government will use to track progress over the lifetime of this strategy.² These take a rounded approach to child poverty, including indicators relating to family circumstances (for example, the proportion of children living in workless households) and children's life chances (for example, the attainment of children from lower income backgrounds at school and their progression to higher education) as well as family resources.

1.10 One of the headline measures commonly used to track the rate of child poverty is a more narrow relative low income measure, defined as the proportion of children in households with an equivalised income below 60 per cent of the median. The focus on this measure has resulted in policies that use benefits and tax credits to change income at the margin. The measure can also lead to perverse effects where changes that could be expected to have a positive effect on

² A New Approach to Child Poverty: Tackling the Causes of Disadvantage and Transforming Families' Lives: Annex A: Child Poverty Strategy Indicators 2011-14.

the economy or households, such as increases in the personal allowance or pensioner incomes, result in higher relative poverty. The relative low income measure also does not capture the full impact of Government spending on these households.

1.11 Chapter 1 of the Autumn Statement sets out the policies that may have an impact on the relative low income child poverty measure. Demonstrating the Government's commitment to transparency and comprehensive analysis, this update sets out the estimated impact of the Government's tax and benefit changes on the number of children living in households with incomes less than 60 per cent of the median, when measured against previously announced policies. On this basis, analysis shows an estimated increase of around 100,000 in 2012-13, but this does not represent a forecast of the actual change in child poverty between 2011-12 and 2012-13. In fact, when CPI is substantially higher than average earnings growth, as is currently and exceptionally the case, uprating benefits by CPI will reduce this measure of child poverty year on year, all other things being equal.

1.12 The above estimate is based on the latest OBR economic assumptions, and data from the 2009-10 Family Resources Survey. This new data now enables reforms to Local Housing Allowance to also be included within this assessment for the first time. Due to the way relative child poverty is defined, estimates can be sensitive to the distribution of households with children around the poverty line. Small changes in incomes of these households can lead to significant changes in poverty estimates. As such there can be significant uncertainties associated with such estimates.

1.13 In future the Government will publish an assessment of progress on child poverty against the full range of indicators set out in the Child Poverty Strategy, giving a more comprehensive assessment.

A

Data sources and methodology

Data in table, chart or graph	Details
	<p>All figures in this document are calculated as economic estimates, including the effects of assumptions and results from economic analyses that have a material impact, and are therefore outside the domain of official statistics.</p>
<p>Paragraph 1.2 "This includes all changes that can be modelled robustly and accounts for the vast majority of tax, and around 70 per cent of tax credit and benefit changes coming into effect in 2012-13"</p>	<p>Not all measures can be reliably modelled due to data and/or modelling constraints. In addition to those modelled at Budget 2011, the following have been included in this analysis:</p> <ul style="list-style-type: none"> • Freeze to Council Tax in 2011-12 and 2012-13 (this is included in the 'direct tax' grouping); • Fuel duty: delay January 2012 increase to August and cancel August 2012 increase; • Working Tax Credit: freeze; and • Child Tax Credit: remove over-indexation.
<p>Charts 1.A and 1.B</p>	<p>These are estimates derived using HM Treasury's tax and benefit microsimulation model using Living Cost and Food survey (LCF) data collected between April 2007 and March 2010. Averages are provided for estimated changes in direct taxes, indirect taxes, and benefits and tax credits. Income deciles are calculated on household equivalised net incomes, using the modified OECD scale.</p> <p>To calculate the average change as a per cent of net income the average total change in net income for each decile is divided by the average total net income for that decile before measures were introduced.</p>
<p>Charts 1.C and 1.D</p>	<p>These are estimates derived using HM Treasury's tax and benefit microsimulation model using LCF survey data collected between April 2007 and March 2010. Averages are provided for estimated changes in direct taxes, indirect taxes, and benefits and tax credits. Expenditure deciles are calculated on household equivalised expenditure, using the modified OECD scale.</p> <p>To calculate the average change as a per cent of expenditure the average total change in net income for each decile is divided by the total expenditure for that decile before measures were introduced.</p>

Paragraph 1.11

The child poverty impact is defined as the increase in the number of children living in households below 60 per cent of median income (before housing costs) as a result of modelled measures. Measures modelled for this include those as set out for Paragraph 1.2, with the following exceptions:

- The removal of the tax credit element for one and two year olds was included in these estimates but excluded from the charts due to limitations in the LCF survey dataset.
- Personal tax measures announced by the previous Government.
- The impact of reforms to Local Housing Allowance announced at June Budget 2010 is now included in child poverty estimates as it is robust to model with the Family Resource Survey (FRS) 2009-10 dataset. This is excluded from the charts due to limitations in the LCF survey dataset.

These are estimates derived using HM Treasury's tax and benefit microsimulation model based on 2009-10 FRS data.

Chart 1.E

Public service spending distributional analysis: the methodology for modelling the distributional impact of public service spending is set out in detail in the Spending Review 2010 document, paragraphs B.8 – B.15, as well as the relevant sections of the Spending Review 2010 data sources document, both freely available at: http://www.hm-treasury.gov.uk/spend_sr2010_documents.htm.

The distributional analysis was updated in the Budget 2011 in Annex A chart A.6, available at: http://www.hm-treasury.gov.uk/2011budget_documents.htm

The public spending analysis has been updated to take account of the latest inflation forecasts as well as latest data from departments on how spend will be allocated over the next four years. Tax, tax credit and benefits changes are derived using HM Treasury's tax and benefit microsimulation model.

Specific additional measures modelled for the Chart 1.E are:
Youth contract: this measure provides extra support to help unemployed young people get into education, employment or training.

Extension of early year childcare: this measure extends the Government's offer of 15 hours free early education and childcare a week for disadvantaged two year olds, to cover an additional 130,000 children by 2014/15.

The public sector pay restraint announced in this Autumn Statement has not been included in the analysis as savings have not yet been allocated to individual departments.

HM Treasury contacts

This document can be found in full on our website: <http://www.hm-treasury.gov.uk>

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