HM TREASURY

Impact on households:

distributional analysis to accompany the Autumn Statement 2012

December 2012

HM TREASURY

Impact on households:

distributional analysis to accompany the Autumn Statement 2012

December 2012

© Crown copyright 2012

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit http://www.nationalarchives.gov.uk/doc/open-government-licence/ or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk.

Any queries regarding this publication should be sent to us at: public.enquiries@hm-treasury.gov.uk.

ISBN 978-1-909096-31-8
PU1393

Contents

1 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 that commitment by providing an interim update to charts B.1 to B.5 presented at Budget 2012 in light of decisions at Autumn Statement 2012. In addition to the measures announced at Autumn Statement, this interim update also reflects the latest Office for Budget Responsibility (OBR) economic assumptions. As at Autumn Statement 2011, this document is being published online.

1.2 Charts 1.A to 1.D present analysis of the cumulative impacts on households 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 in-year effect of the vast majority of tax changes, and around 70 per cent of tax credit and benefit changes in 2013-14.

1.3 As at Budget 2012 this analysis is presented for 2013-14. The analysis shows average impacts due to policy changes over time across the income and expenditure distributions by decile, taking account of varying household size through equivalisation.[1] It does not take into account the level of household assets, nor changes in the wider economy which have affected household incomes, except where these changes affect parameters of the tax and benefit system.

1.4 There is an acknowledged trade-off between how accurately analysis shows the impact of changes and how complete a picture it provides. A detailed explanation of the methodology underpinning the charts in this document can be found in paragraphs B.5 to B.11 and B.13 to B.14 of Annex B of Budget 2012.

1.5 The Government is reclaiming tax on money hidden in Switzerland through the UK-Switzerland tax agreement. For methodological reasons, the impact of this measure is not shown in the distributional analysis in this document. It is expected that the vast majority of the £5.3 billion revenue raised between now and 2017-18 will come from high income individuals.

1.6 Changes to government departmental spending are also important to households. Charts 1.F and 1.G present the combined impact on households of changes to departmental spending and tax, tax credit and benefit measures in 2014-15. Some stronger assumptions have been made to allow the inclusion of an expanded set of tax, tax credit and benefit changes to those in charts 1.A to 1.D, for example the further reduction in pensions tax relief.

1.7 Chart 1.H shows, by quintile, the overall level of departmental spending, tax, benefits and tax credits, before and after consolidation. It is included for the first time to provide context around the scale of changes presented in charts 1.F and 1.G.

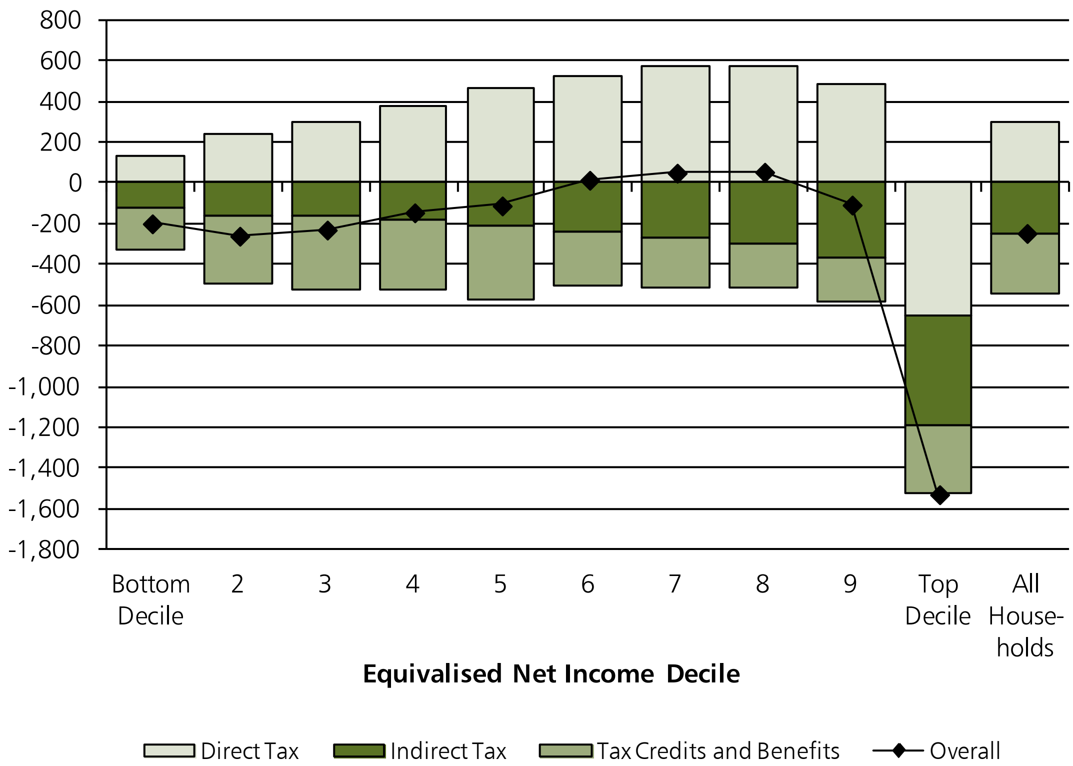
[1] As households with more individuals require higher levels of income and expenditure to achieve the same living standards, an internationally standard process of adjustment called equivalisation is used to ensure households are compared on a consistent basis.

1.8 In all of this analysis it is important to recognise that it is not possible to know what the world would have looked like in the absence of measures introduced. The analysis in this document cannot show what the consequences for households would have been had the Government not taken action to control an unsustainable deficit. Nor does it take into account longer term implications for household incomes from Government measures to address the rate of economic growth.

Impact on household incomes

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

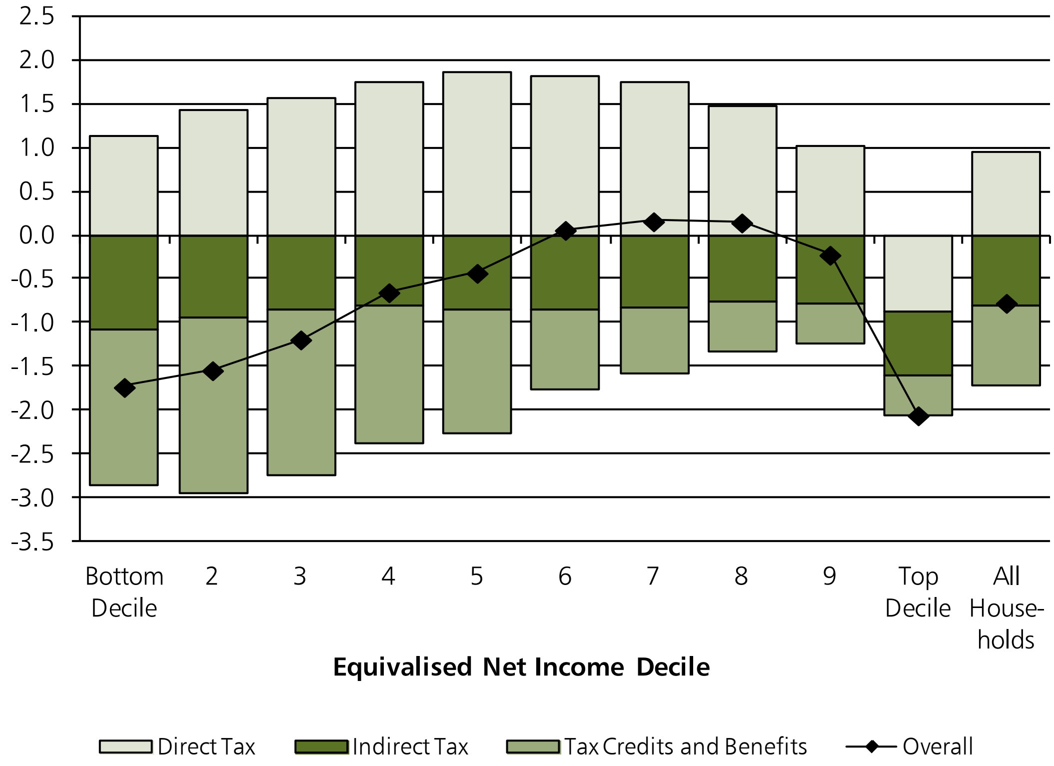
Chart 1.A: Cumulative impact of modelled tax, tax credit and benefit measures in cash terms (£ a year) by income distribution (2013-14)



Source: HM Treasury tax and benefit microsimulation model

1.10 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 net losses are in the top decile.

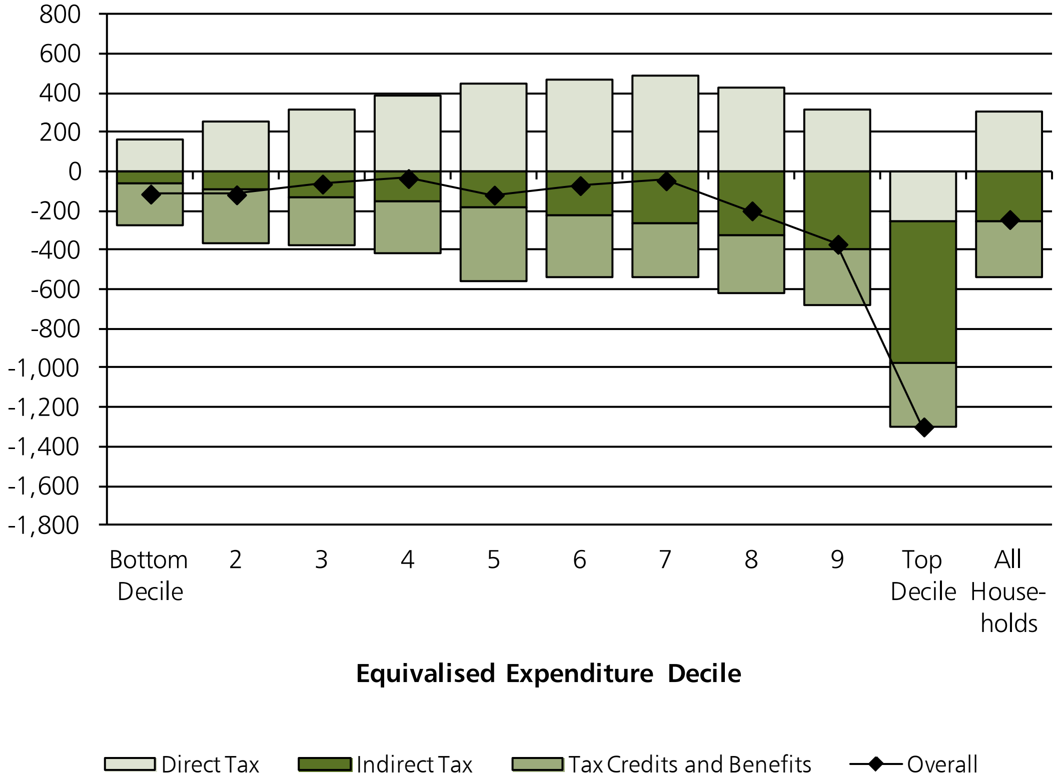
Chart 1.B: Cumulative impact of modelled tax, tax credit and benefit measures as a per cent of net income by income distribution (2013-14)



Source: HM Treasury tax and benefit microsimulation model

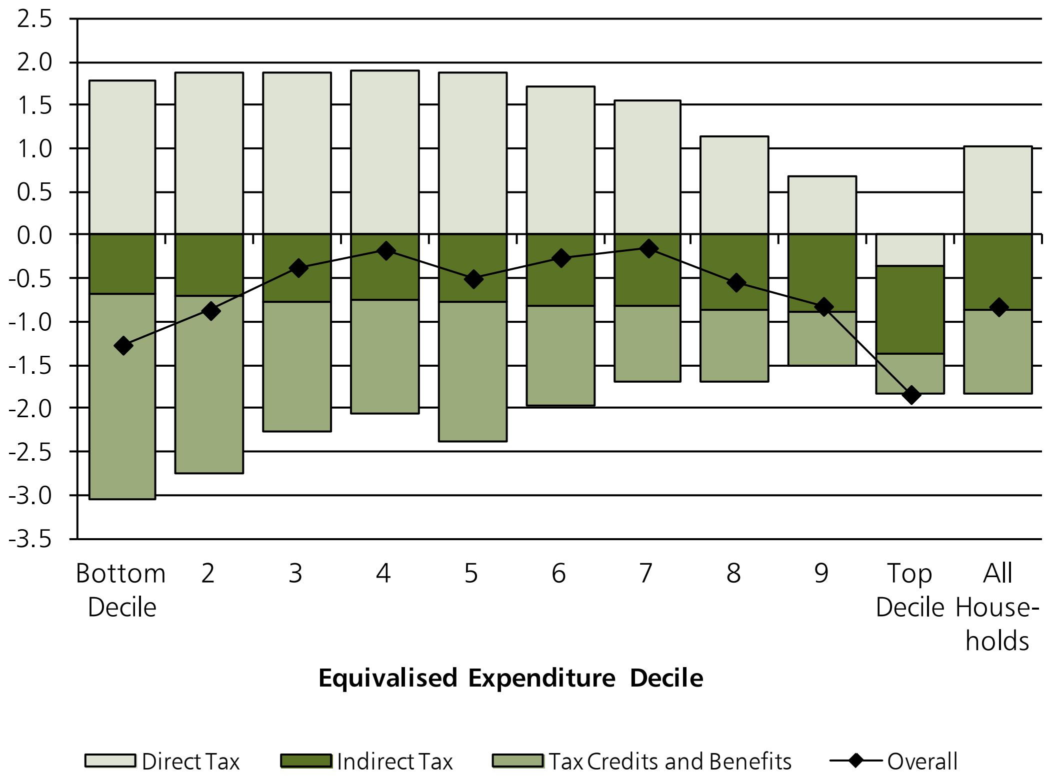
1.11 Some households in lower income deciles may have temporarily low incomes but relatively high expenditure. For these households, expenditure-based analysis may be a better indicator of living standards. Charts 1.C and 1.D provide estimates of the impacts of measures by expenditure deciles. This shows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

Chart 1.C: Cumulative impact of modelled tax, tax credit and benefit measures in cash terms (£ a year) by expenditure distribution (2013-14)



Source: HM Treasury tax and benefit microsimulation model

Chart 1.D: Cumulative impact of modelled tax, tax credit and benefit measures as a per cent of net expenditure by expenditure distribution (2013-14)



Source: HM Treasury tax and benefit microsimulation model

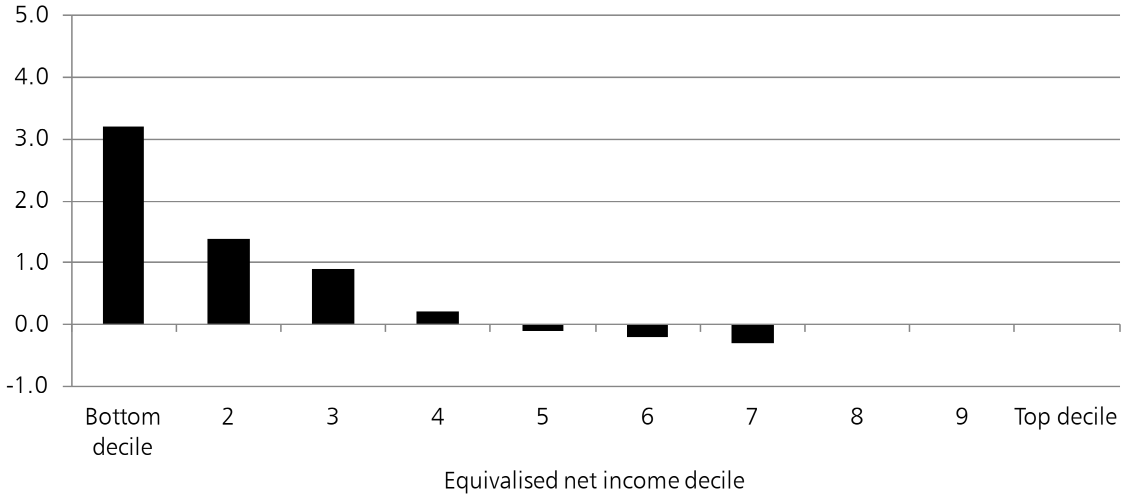
Universal Credit

1.12 From October 2013, Universal Credit will be introduced to simplify the means-tested benefit and tax credit system, improve work incentives and ensure that it always pays to be in work. Universal Credit will be available to claimants both in work and out of work, including elements for housing and to help people with disabilities and families with children.

1.13 There will be a gradual build-up of claimants over the transition period, with Universal Credit in place for all claimants by the end of 2017. However, chart 1.E presents analysis of the distributional impact of Universal Credit as if it were fully implemented in 2014-15, to enable a comparison of the Universal Credit system against the current tax and benefit system. Chart 1.E, unlike the other analysis in this annex, does not assume 100 per cent take-up of income-related benefits and tax credits. The modelled impact therefore assumes increased take-up because of the relative simplicity and design of Universal Credit.[2]

[2] See the data sources section in this document for further details of the modelling approach

Chart 1.E: Average impact of Universal Credit by income distribution (as if fully implemented in 2014-15), as a per cent of net income.



Source: DWP Policy Simulation Model (take-up adjusted and calibrated to published forecasts)

1.14 The chart shows that most of the Universal Credit gains accrue to low income households, with those with the lowest incomes benefiting the most on average, whilst relatively higher income households see, on average, no change or a reduction in net income.

Combined impact with government spending

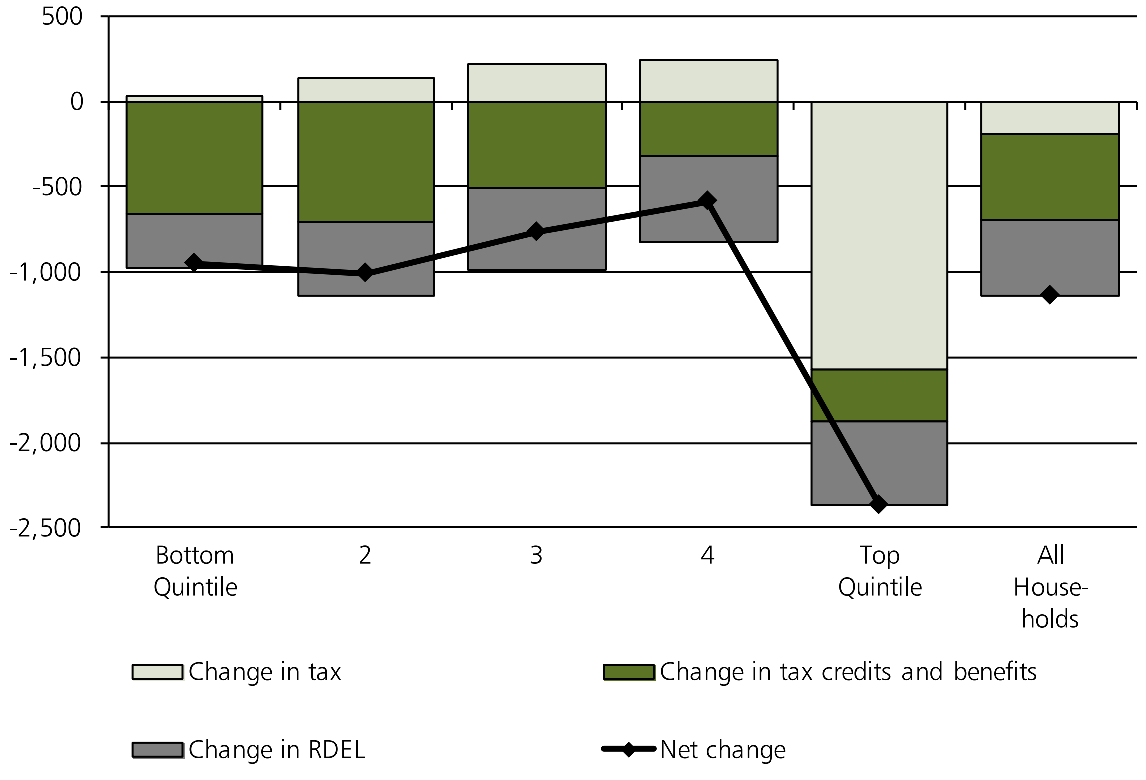
1.15 This section provides the combined impact of changes to government spending and tax, tax credit and benefit measures in 2014-15. Paragraphs B.26 to B.32 in Annex B of Budget 2012 and the data sources section at the end of this document provide background on the methodology used to produce this analysis. As at previous fiscal events, this analysis is presented in 2010-11 prices, as this is the baseline for the analysis of changes to Resource Departmental Expenditure Limit (RDEL) spending.

1.16 The Autumn Statement 2012 pensions tax relief announcement consists of a further reduction in the lifetime and annual allowances for tax-free pension contributions (to £1.25 million and £40,000 respectively). These changes are included in the quintile analysis (charts 1.F, 1.G and 1.H).

1.17 Chart 1.F presents the impact of changes to government spending and tax, tax credit and benefit measures in cash terms. Chart 1.G presents this as a percentage of net equivalised household income, including benefits in kind from public services. Households in the top quintile continue to make the greatest contribution towards reducing the deficit, both in cash terms and as a percentage of their income and benefits in kind from public services.

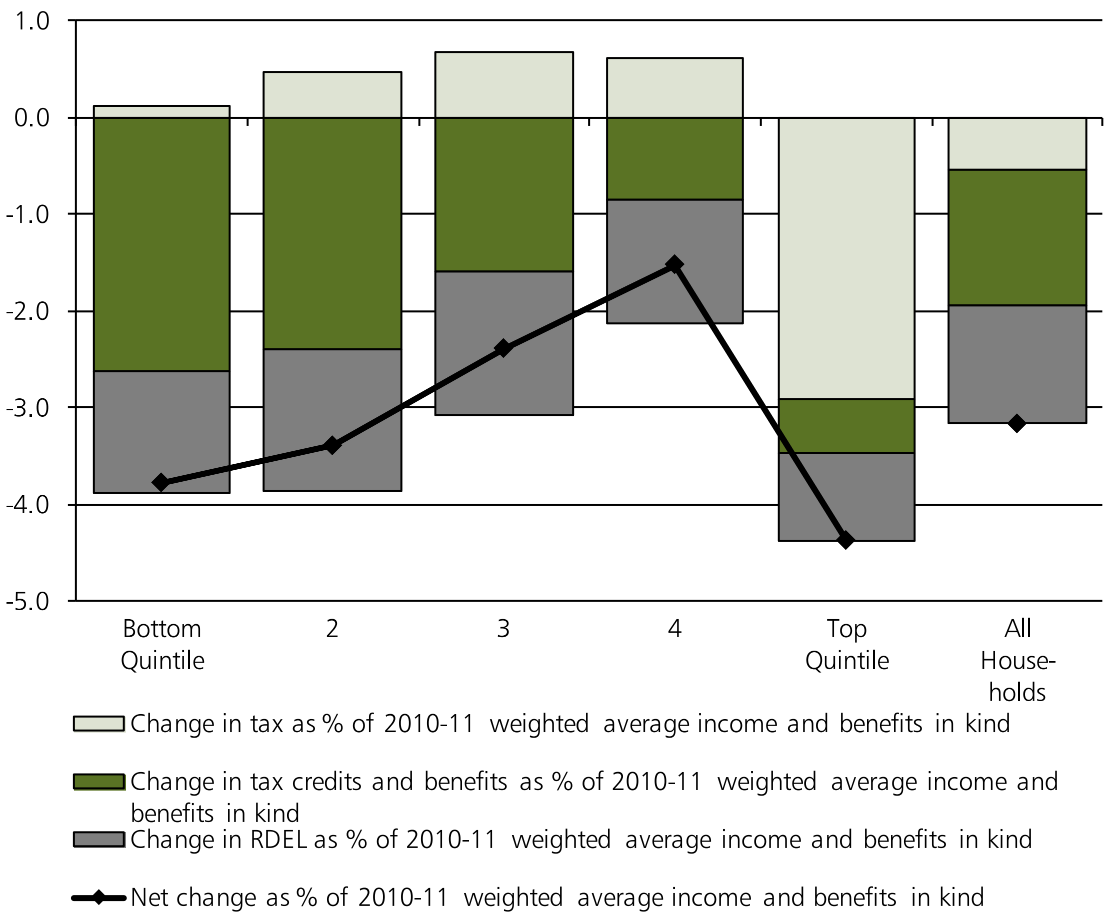
1.18 Charts 1.F, 1.G and 1.H do not include the impact of the reduction to resource departmental budgets of two per cent in 2014-15 announced at Autumn Statement 2012. HM Treasury intends to include this measure in the distributional analysis at Budget 2013 when data on implementation, to the level of detail required, should be available.

Chart 1.F: Overall impact of spending, tax, tax credit and benefit changes on households in 2014-15 (£ a year) in 2010-11 prices



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

Chart 1.G: 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)



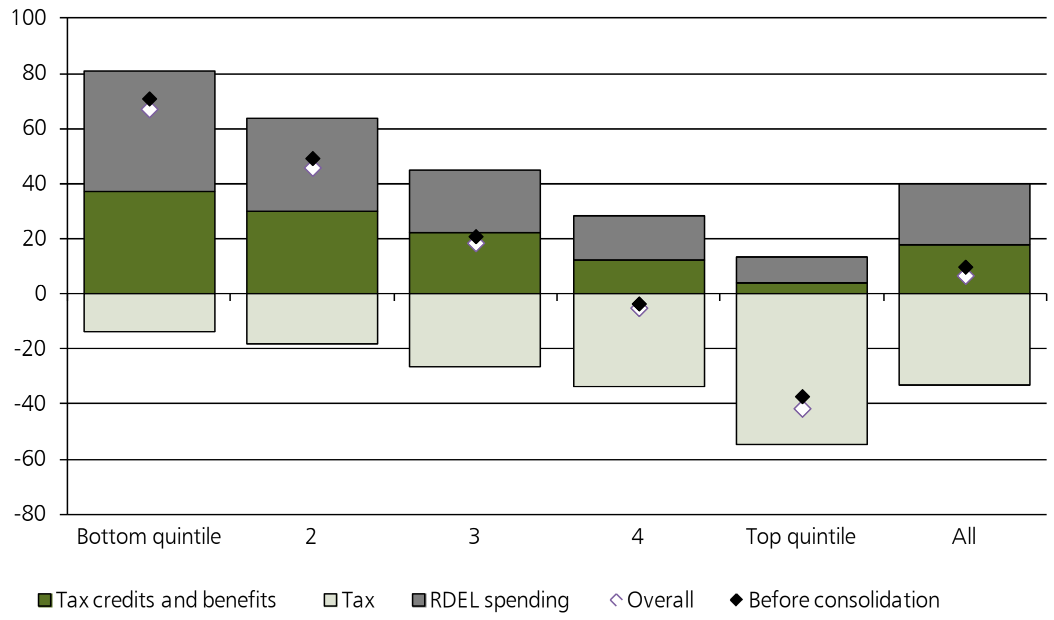
Source: HM Treasury estimates based on a range of models and data sources

1.19 Since Budget 2012, the analysis of public spending in charts 1.F, 1.G and 1.H has been updated to take account of both the OBR's latest economic assumptions and a comprehensive update of all the underlying data from departments, which reflects how the consolidation is being implemented, two years on from Spending Review 2010. The data sources and methodology section of this document provides detailed information on the updates made and the reasons underlying the change to the estimated distributional impact of resource spending.

1.20 Chart 1.H sets out for the first time some context around the scale of losses to households presented in charts 1.F and 1.G. It shows the level of receipt of benefits and public spending, after tax, before and after consolidation. For consistency with chart 1.G, these levels are presented as a proportion of net income and benefits in kind from public services.

1.21 The chart shows that on this basis, the lower three quintiles are net beneficiaries and the top two quintiles are net contributors (though individual households move between the quintiles over the course of time). There is a similar profile across the quintiles both before and after consolidation measures introduced by the Government.

Chart 1.H: Overall level of benefit and public spending receipt, after tax, on households in 2014-15 as a per cent of 2010-11 net income (including households' benefits in kind from public services) before and after consolidation



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

2 Data sources and methodology

Section	Details
	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. They are therefore outside the domain of official statistics.
Paragraph 1.2 to 1.3	Not all measures can be reliably modelled due to data and/or modelling constraints. The methodology for modelling the distributional impact of the tax and benefit system is set out in detail in the Budget 2012 data sources document available on the HM Treasury website http://www.hm-treasury.gov.uk/. The analysis is based on estimates derived using HM Treasury's tax and benefit microsimulation model using Living Costs and Food survey (LCF) data collected between April 2007 and March 2010. Averages are provided for estimated changes in direct taxes, indirect taxes, and benefit and tax credits, assuming complete take-up. Income and expenditure deciles are calculated on household equivalised net incomes, using the modified OECD scale. To calculate the average change as a per cent of net income/expenditure, the average total change in net income for each decile is divided by the average total net income/expenditure for that decile before measures were introduced. The methodology behind the equivalisation process is set out in detail in the Budget 2012 data sources document available on the HM Treasury website http://www.hm-treasury.gov.uk/. The following measures have been included in the analysis. In addition to those modelled at Budget 2012: • The cancellation of the January 2013 fuel duty increases; and moving the planned April fuel duty increases to September for the remainder of the Parliament; • One per cent grant for councils to freeze their council tax for 2013-14. The Government proposal to lower the Local Authority tax referendum threshold to two per cent is also included; • Increasing the personal allowance to £9,440 in 2013-14; • One per cent uprating of most working age benefits (including the main elements of Jobseeker's Allowance, Employment and Support Allowance, and Income Support) for three years from 2013-14. Other benefits, including the Additional State Pension and those specifically for disability and carers, will continue to be uprated in line with prices; • One per cent uprating in Child Benefit for two years from 2014-15; and • One per cent uprating of the income tax higher rate threshold for two years from 2014-15.

Paragraph 1.5	The yield from the Switzerland Agreement is not included in our decile or quintile analysis. The yield comprises two elements: a backward-looking element that relates to untaxed income from the past, and a forward-looking element that relates to income in that particular tax year. It would be inappropriate to include the backward-looking element in the quintile chart, as our charts show the tax in the year of liability, rather than the yield in the year the revenue is raised and it is not possible to allocate the element for the past to specific years. The forward-looking element is directly attributable to a particular tax year; however, this element falls below the £300 million threshold at which we would incorporate a tax measure into the quintile analysis.
Paragraph 1.6	Public service spending distributional analysis: the methodology for modelling the distributional impact of public service spending is set out in the section on paragraphs 1.15 to 1.18 below. There is further detail in the Budget 2012 data sources document, available on the HM Treasury website http://www.hm-treasury.gov.uk/.
Charts 1.A to 1.D	Charts 1.A to 1.D present estimates derived using HM Treasury's tax and benefit microsimulation model using Living Costs and Food survey data collected between April 2007 and March 2010. Averages are provided for estimated changes in direct taxes, indirect taxes, benefits and tax credits assuming full take-up. Income and expenditure deciles are calculated on household equivalised net incomes/expenditures, using the modified OECD scale. To calculate the average change as a per cent of net income/expenditure the average total change in net income/expenditure for each decile is divided by the average total net income/expenditure for that decile before measures were introduced. Table 2.A below shows the decile boundaries for charts 1.A and 1.B. These boundaries are based on net income, so therefore include deductions due to tax, and additions from benefits. These boundaries are based on household, rather than individual, income. A household comprising two adults with a net combined income of £50,000 would find itself in the top 10 per cent of the income distribution. However, if this household also had a child, that household income would no longer fall in the top 10 per cent, and would instead find itself in the ninth decile in our distributional analysis. These figures are consistent with the baseline we have calculated in charts 1.A and 1.B. before any of the effects of the Government's policies since June Budget 2010 are accounted for.

Table 2.A: Percentile boundaries on net income distribution (£ a year, 2013-14) for illustrative household compositions

Lower boundaries of percentile in income distribution	One adult (£)	One adult and one child (£)	Two adults (£)	Two adults and one child (£)
Top one per cent	66,200	86,100	99,300	119,200
Top five per cent	40,700	52,900	61,000	73,300
Top decile	32,900	42,800	49,400	59,300
Ninth decile	25,700	33,500	38,600	46,300
Eighth decile	21,600	28,000	32,400	38,800
Seventh decile	18,700	24,300	28,000	33,600
Sixth decile	16,400	21,300	24,600	30,000
Fifth decile	14,500	18,900	21,800	26,200
Fourth decile	12,900	16,700	19,300	23,200

Third decile	11,400	14,800	17,000	20,400
Second decile	9,600	12,500	14,300	17,300

Source: HM Treasury tax and benefit microsimulation model

Section	Details
Chart 1.E	This analysis considers the impact of Universal Credit on the income distribution by comparing simulated incomes under Universal Credit with incomes under the current system of benefits and tax credits. The two simulations take into account all announced policies, including those within this Autumn Statement, that take place before and during the introduction of Universal Credit. The income decile modelling is carried out in DWP's Policy Simulation Model using 2010-11 Family Resources Survey data. The income deciles are derived within the simulation of the existing system of benefits and tax credits. The chart is produced by comparing the sum total of net household income in Universal Credit with the current system of benefits and tax credits, expressed as a proportion of total income pre-Universal Credit. The per cent change in income for each income decile shown in chart 1.E is rounded to the nearest 0.1 per cent. Given the methodological complexity of modelling the benefits system in future years, the impact of a fully rolled out 'steady state' Universal Credit has been modelled in the year 2014-15. As this is 'steady state' analysis, there is no transitional protection. It is assumed in the steady state modelling of Universal Credit that Personal Independence Payments will be fully introduced. The modelling also takes account of the full effect of the benefits uprating measures announced in this Autumn Statement. The equivalisation of incomes is consistent with the other distributional analysis presented within this document. The analysis does not consider dynamic effects, such as increased employment through better work incentives or through behavioural responses to the minimum income floor for the self employed. The chart includes the key entitlement changes and expected additional take-up to Universal Credit. Take-up is expected to increase due to the relative simplicity and integrated nature of Universal Credit. More specifically: • Those only partially taking up their entitlement to existing benefits and tax credits are assumed to take-up their full Universal Credit entitlement; • Some claimants who currently completely fail to take up their entitlement are assumed to take-up Universal Credit. The take-up assumptions made for this group of claimants vary by employment status; • Amongst the employed, it is assumed that 20 per cent of those currently not taking up any entitlement will take-up Universal Credit; and • Amongst the self-employed, it is assumed that 10 per cent of those currently not taking up any entitlement will take up Universal Credit.

Paragraphs 1.15 to 1.18	Public service spending distributional analysis was first undertaken at Spending Review 2010. This analysis captures the impact of Resource Departmental Expenditure Limits (RDEL) spending on households. Broadly, this is public spending by departments on service provision, as opposed to on transfer payments or on capital programmes. The analysis is based on information provided by departments from surveys of public service usage. It includes services which households consume directly, as these best correspond to the experience people have of government spending. As at Spending Review 2010, it includes only services which are differentially used by households, and not those where it is not possible to identify end-users because they benefit the population as a whole. For this reason it does not include central government administration costs. In addition, since it is not possible to assess the beneficiaries of capital projects within this analysis because they have geographically specific and multi-generational benefits, capital investment has also not been included. The analysis does not include expenditure by the Devolved Administrations because decisions on the allocation of the Devolved Block Budgets are matters for the Devolved Administrations. A fuller description of the methodology for modelling the distributional impact of public service spending was set out in detail in the Spending Review 2010 document, paragraphs B.8 – B.15, as well as the Spending Review 2010 data sources document, both available on the HM Treasury website. At this fiscal event, in addition to updating the public spending analysis with the latest OBR economic assumptions, HM Treasury commissioned a complete update to the underlying RDEL data. Departments provided their latest information on spending and distributional impacts, drawing on two more years of data since Spending Review 2010, and providing a more up-to-date picture of the impact of RDEL spending on households. Working closely with Departments, forecast figures for 2010-11 have been replaced with actual spending figures, and 2014-15 spending estimates have been updated to reflect the latest data on expected programme spending in 2014-15. Data on the distribution of impacts across income quintiles have also been updated where more information is available about how the policies are being implemented. In addition, corrections have been made to some modelling inconsistencies and we have included additional areas of spend where appropriate, to provide a more robust and complete picture of RDEL spending affecting households. The combined impact of the model update and latest OBR economic assumptions is that public spending reductions have less of an impact for households for every quintile, particularly for the first quintile, than they did at Budget 2012. This is due to a combination of the latest OBR economic assumptions, changes to the model's coverage to ensure the analysis is consistent with the above scope, and newer information which better reflects the Government's spending plans. The reduction in impact is driven by the following key changes. (These do not sum to 100 per cent due to rounding.)

1. 28 per cent of the reduction in the impact of RDEL spending changes on the average household is due to the latest OBR economic assumptions. Inflation to 2014-15 is expected to be lower than forecast at Budget 2012, increasing the real value of 2014-15 settlements in 2010-11 prices.
2. 26 per cent of the reduction in impact of spending changes on the average household is due to improvements in the modelling, to align the analysis with the approach set out above and to remove inconsistencies. In particular, two spending areas have been removed as part of our data update, changing the coverage of the analysis. The Warm Front programme was removed, as this is Capital DEL, not Resource DEL spending. The Supporting People Grant, which is no longer ringfenced Local Government spending has also been removed. Now that the ringfence has been removed, it is not possible to obtain a 2014-15 estimate for spending on the Supporting People Grant, and it is not robust to assume that the previous estimate of 2014-15 spend for this programme will fall on the same areas and households. The removal of the Warm Front programme and the Supporting People Grant account for 19 per cent of the change to the average household, and 45 per cent of the change to the lowest quintile.
3. 42 per cent of the reduction in impact of spending changes on the average household is due to the use of data which better reflects the Government's spending in 2010-11, its plans for 2014-15, and the beneficiaries of this spend. A portion of this stems from planned changes to spending for spending areas included in the model, such as JobCentre Plus. This reflects a mixture of factors, including departmental reprioritisation of spending towards areas included in the analysis. The remaining portion is due to using the latest data and forecasting on 2010-11 and 2014-15 spending, and updated estimates of which households benefit from this spend.
4. Five per cent of the reduction in impact of spending changes on the average household is due to the inclusion of additional spending lines, which provide a more comprehensive picture of RDEL spending. These are: the Troubled Families Programme, which was introduced following Spending Review 2010; additional funding for mentoring and business advice for the recipients of Start Up Loans introduced at this Autumn Statement; and the Access to Learning Fund and Healthy Start vouchers for which we now have data. The cost to DWP of implementing Universal Credit in JobCentres is also now included in their 2014-15 spend, consistent with inclusion of Universal Credit in the tax credit and benefit section of Charts 1.F, 1.G and 1.H.

Charts 1.F and 1.G	Tax, tax credit and benefit changes are derived using HM Treasury's tax and benefit microsimulation model. Specific additional tax measures modelled for charts 1.F and 1.G are: reducing pensions tax relief to a £40,000 annual allowance, and £1.25 million lifetime allowance. Specific additional RDEL lines have been modelled as follows: The Exchequer cost of the Troubled Families Programme is apportioned to quintiles according to the Department for Communities and Local Government's current best estimates of the income of recipients. The estimates are informed by the incomes of recipients of Social Housing which, in common with the programme, include a high proportion of households who are dependent on welfare benefits. RDEL spending on mentoring and business advice for the recipients of Start Up Loans has been apportioned to households using the income distribution for Apprenticeships as a proxy; this will be updated at Budget 2013. The Exchequer cost of the Access to Learning Fund is apportioned to quintiles according to Higher Education participation data on the household incomes of those receiving the full Higher Education Maintenance Grant. The Healthy Start Programme is apportioned to quintiles according to the criteria for eligibility for this programme.
Chart 1.H	Chart 1.H is constructed using the same modelling inputs and assumptions as charts 1.F and 1.G. It includes all taxes and transfer payments captured within HM Treasury's tax and benefit microsimulation model as well as the additional measures apportioned to charts 1.F and 1.G. The set of public spending benefits captured is consistent with that described above. By construction, the differences between the 'before' and 'after consolidation' data points equate to the percentage changes in chart 1.G. The income denominator for this analysis, as with chart 1.G, is household income after taxes and benefits, including public spending benefits in kind. This was chosen for consistency with chart 1.G. The overall level across all households is positive. This is in part because the chart only captures the tax taken from households, whereas transfer payments and public services are funded by all taxes.

HM Treasury contacts

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

If you require this information in another language, format or have general enquiries about HM Treasury and its work, contact:

Correspondence Team
HM Treasury
1 Horse Guards Road
London
SW1A 2HQ

Tel: 020 7270 5000

E-mail: public.enquiries@hm-treasury.gov.uk

ISBN 978-1-909096-31-8